



**Bunker Hill  
Community College**

imagine the possibilities

Bunker Hill Community College

# 2017 – 2019 Catalog

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about this catalog,  
please visit [bhcc.edu/catalog](http://bhcc.edu/catalog)



Welcome to Bunker Hill Community College. Whether you're just getting started or returning for a new year, we hope that you have a successful academic year.

BHCC is the largest community college in Massachusetts, with two main campuses in Charlestown and Chelsea, and a number of additional satellites and instructional centers throughout Greater Boston communities, including our newest location in Chinatown. Nearly 1000 international students contribute to the great cultural wealth of the College—more than 75 languages are spoken by our students, and they come from more than 100 different countries.

In the pages of this catalog, you'll find everything you need to make the most of your time here at BHCC—from our more than 115 programs of study to the wide range of support services to help you achieve your goals. Visit the LifeMap Commons to talk with a success coach and map out your plan or get help with your academic or career goals. You can take a potential career for a test drive with our Learn and Earn internship program. For help with a class, the Tutoring and Academic Support Center, MathSpace, Writing Place and Language Lab all offer tutoring. If you are looking to get involved in the community or a student organization, the Office of Community Engagement or Student Activities Office can assist. Or if you're having trouble making ends meet, the Single Stop office can help connect you with organizations and resources to get you back on track to completing your degree.

At BHCC, we know that the college experience is different for everyone. It is our priority to make sure that you have everything you need to succeed during your time here, so that you are able to do great work— either as you continue your education to a four-year institution or start your career.

Best wishes for a great year.

A handwritten signature in black ink that reads "Pam Eddinger". The signature is fluid and cursive, with a long horizontal line extending from the end.

Pam Y. Eddinger, Ph.D.

President  
Bunker Hill Community College

## About the Bunker Hill Community College Catalog

This publication serves the purpose of providing information about Bunker Hill Community College to persons who may be interested in applying for admission; to parents, teachers, counselors, people who work and study at the College; and to the general public.

This publication is neither a contract nor an offer to make a contract. While every effort is made to ensure accuracy, the College reserves the right to make changes at any time with respect to course offerings, degree and program requirements, services provided, cost of attendance, or any other subject addressed in this publication. This publication provides information solely for the convenience of the reader, and the College disclaims any liability that may otherwise be incurred.

### College Catalog Statement

The College reserves the right to make changes at any time with respect to course offerings, degree and program requirements. For the most up-to-date Catalog information including changes to curricula, course descriptions, and tuition and fees, visit the BHCC website at [bhcc.edu](http://bhcc.edu). Information on the College website supersedes the published version of the printed 2017–2019 BHCC Catalog.



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# About the College

## Bunker Hill Community College Long Range Goals

### **Create Pathways and Partnerships to Promote Student Success**

BHCC will strengthen and coordinate public and private sector pathways and partnerships leading to college readiness, student internships, dual enrollment, mentoring, career opportunities, practica, civic engagement and learning communities.

### **Demonstrate Strength Through Diversity**

BHCC will demonstrate the value of diversity by modeling successful college initiatives; collaborating with public and private sectors to expand diversity interests; strengthening college hiring, promotion and retention practices; and closing achievement gaps among all student populations.

### **Develop and Cultivate College-Wide Sustainability Initiatives**

BHCC will raise institutional and individual awareness of and commitment to the responsible use of natural resources.

### **Expand Technology Throughout the College**

BHCC will provide software, hardware, infrastructure, social networking, internet, multimedia, repository and other extended technology resources required to maintain institutional excellence and increase student success.

### **Foster Wellness, Growth and Lifelong Learning**

BHCC will address the holistic needs of the college community by expanding student support interventions and strategies and by increasing faculty and staff professional development.

### **Identify and Close Workforce Gaps**

BHCC will design and align curricula to meet current and future high-demand employer needs.

### **Institute a Culture of Evidence and Accountability**

BHCC will collect, analyze and use data for assessment of academic programs, non-academic departments and college-wide decision making.

## Bunker Hill Community College Board of Trustees



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**Richard C.  
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*Student Trustee*

List current as of March 24, 2017

\* BHCC Alumnus

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*Non-Voting State University Student Advisor*

\*List current as of March 24, 2017

# System and Institutional Mission, Vision and Values Statements

Three separate but cohesive mission statements guide Bunker Hill Community College. The first is a comprehensive, system-wide mission statement for Public Higher Education in the Commonwealth of Massachusetts. The second is a mission statement of general characteristics common to all Massachusetts community colleges. The third mission statement contains the specialized and focused component that identifies Bunker Hill Community College's distinctive characteristics and priorities.

## Mission of the Massachusetts System of Public Higher Education

Massachusetts Public Higher Education is a system with a distinguished past, increasing and measurable accomplishments, and dedicated to being recognized as having one of the nation's most outstanding array of institutions. It comprises 15 community colleges, nine state colleges, and five campuses of the University of Massachusetts. The system exists to provide accessible, affordable, relevant, and rigorous programs that adapt to meet changing individual and societal needs for education and employment. The public system is committed to continuous improvement and accountability in all aspects of teaching and learning. The Board of Higher Education, together with each respective Board of Trustees, expects all students, faculty, and staff to be held to exacting standards in the performance of their roles and responsibilities.

## Mission of the Massachusetts Community Colleges

The fifteen Massachusetts Community Colleges offer open access to high quality, affordable academic programs, including associate degree and certificate programs. They are committed to excellence in teaching and learning and provide academic preparation for transfer to four-year institutions, career preparation for entry into high-demand occupational fields, developmental coursework, and lifelong learning opportunities.

Community colleges have a special responsibility for workforce development and through partnerships with business and industry, provide job training, retraining, certification, and skills improvement. In addition, they assume primary responsibility, in the public system, for offering developmental courses, programs, and other educational services for individuals who seek to develop the skills needed to pursue college-level study or enter the workforce.

Rooted in their communities, the colleges serve as community leaders, identifying opportunities and solutions to community problems and contributing to the region's intellectual, cultural, and economic development. They collaborate with elementary and secondary education and work to ensure a smooth transition from secondary to post-secondary education.

Through partnerships with baccalaureate institutions, they help to promote an efficient system of public higher education.

The community colleges offer an environment where the ideas and contributions of all students are respected. Academic and personal support services are provided to ensure that all students have an opportunity to achieve academic and career success. No eligible student shall be deprived of the opportunity for a community college education in Massachusetts because of an inability to pay tuition and fees.

## Mission of Bunker Hill Community College

Bunker Hill Community College serves as an educational and economic asset for the Commonwealth of Massachusetts by offering associate degrees and certificate programs that prepare students for further education and fulfilling careers. Our students reflect our diverse local and global community, and the College integrates the strengths of many cultures, age groups, lifestyles and learning styles into the life of the institution. The College provides inclusive and affordable access to higher education, supports the success of all students, and forges vibrant partnerships and pathways with educational institutions, community organizations, and local businesses and industries.

## Vision of Bunker Hill Community College

Bunker Hill Community College empowers and inspires students, faculty, and staff diverse in identities, experiences and ideas to make meaningful contributions to our local and global communities. The College embodies a spirit of inquiry, critical thought, inclusive excellence, and lifelong learning.

## Institutional Values

Bunker Hill Community College Trustees, Faculty, Staff and Students embody the highest academic and institutional integrity through their commitment to:

- Access and Success
- Excellence and Innovation
- Economic and Social Justice
- Inclusiveness and Equity
- Civic Engagement and Service
- Kindness and Respect
- Accountability and Transparency

*The Vision, Mission and Values statements were approved by Board of Trustees, Massachusetts Department of Higher Education and Massachusetts Secretary of Education, October 2014.*

## Institutional Learning Outcomes (ILOs)

BHCC is a learning institution, and we enact our mission, vision and values individually and collectively through a set of Institutional Learning Outcomes.

### **INQUIRE** with intention

- Reflect and think critically
- Explore and define compelling questions
- Locate and integrate information from diverse contexts
- Think creatively
- Synthesize findings

### **COMMUNICATE** with purpose

- Listen actively
- Express ideas and arguments with intention
- Consider audience, situation and intercultural context
- Engage diverse forms of media
- Facilitate inclusive dialogue

### **ACT** to integrate knowledge and practice

- Advance justice and equity
- Collaborate in diverse teams
- Facilitate reciprocal and sustainable partnerships
- Enact innovative solutions to significant problems
- Contribute to community and civic wellness

### **GROW** through continuous learning

- Identify and leverage individual and collective strengths
- Cultivate resilience and agency
- Develop intercultural competence and critical consciousness
- Form personal and global identities
- Empower oneself and others

## College Assessment

Implementation, assessment and continuous program improvement are an integral part of the College's Strategic Plan. Both formative and summative assessments are conducted at BHCC. Formative assessment in academics and student development occurs within the learning environment, and is framed by our Student Learning Outcomes and Student Development Outcomes. Faculty members anchor the assessment of Student Learning Outcomes within SLOAP (Student Learning Outcome Assessment Program); Student Development Outcomes, developed in 2014, and Institutional Learning Outcomes, developed in 2016, add new dimensions to the outcomes assessment work as the initiative progresses. Assessment activities do not affect a student's grade, academic standing, ability to transfer, or ability to graduate. The College considers student privacy of the utmost importance and takes all necessary steps to ensure the confidentiality of student records and student work reviewed through this process in accordance with FERPA regulation.

## Student Learning Outcomes Assessment Program (SLOAP)

The Student Learning Outcomes Assessment Program (SLOAP) enlists the SLOAP Taskforce, composed of faculty representatives from each academic department, to oversee ongoing assessment of student learning outcomes on the

course, program and institutional levels. Faculty use data from SLOAP projects to improve learning where assessment projects indicate improvement is needed. [bhcc.edu/SLOAP](http://bhcc.edu/SLOAP)

## Statement on Inclusion

The Bunker Hill Community College Board of Trustees endorsed and approved for adoption on June 9, 1997, the American Association of Community Colleges Statement on Inclusion as follows:

Bunker Hill Community College strongly endorses the continued use of admissions policies and employment practices that promote broad diversity in the community college system. The College will be free to pursue standards and policies that allow it to fulfill its diversity mission and vision. The students who are educated will help provide tomorrow's leaders, and their college experience will demonstrate the richness and substance of our diverse, multicultural, and global environment. The College environment will promote understanding and appreciation of others, while encouraging students to grow as individuals.

Bunker Hill Community College reaffirms its commitment to diversity. In accord with this philosophy, the College will evaluate its hiring, admissions, and financial aid policies to ensure diversity and equal access within the institution. The College will ensure that the results of these evaluations conform to the concept of open access — the cornerstone of the College's mission.

Bunker Hill Community College believes that diversity in education is crucial to a democratic society. Community colleges are, in effect, microcosms of our greater society.

As such, Bunker Hill Community College will encourage and enhance the fullest understanding of human rights and responsibilities and will teach the skills that allow its students to effectively participate in a democratic society. The College will be responsible for shaping an environment that mirrors the general culture and creates opportunities for all within the college community to interact with understanding, tolerance, and respect for others. In this way, diversity in education not only serves as a model for the world at large, but it also perpetuates social harmony for the future.

## BHCC Statement on Civility

Bunker Hill Community College believes that civility in the workplace and classroom is everyone's right and responsibility. This statement is consistent with the Student Handbook, all collective bargaining agreements, and the College's personnel policies. We understand "civility" to mean respectful language and behavior toward everyone at all times, regardless of the circumstances. These qualities are intrinsic to excellence in teaching and learning, and contribute to the maintenance of a productive workplace and an overall positive campus climate. Further, we affirm our commitment to behavior that is courteous and respectful in all interactions with members of the BHCC community as well as with members of the larger communities we serve.

## Accreditation Statements

Bunker Hill Community College is accredited by the New England Association of Schools and Colleges, Inc. (NEASC), through its Commission on Institutions of Higher Education.

Inquiries regarding accreditation status by the New England Association should be directed to the administrative staff of the institution. Individuals may also contact: Commission on Institutions of Higher Education, New England Association of Schools and Colleges, 3 Burlington Woods Road, Suite 100, Burlington, MA 01803; telephone: 781-425-7700; fax: 781-425-1001; email: [cihe@neasc.org](mailto:cihe@neasc.org); URL: [neasc.org](http://neasc.org).

**The Certified Nurse Assistant Program** is accredited by the Massachusetts Department of Public Health, Nurse Aide Registry, MDPH/Division of Health Care Quality, 10 West Street, 5th Floor, Boston, MA 02111-1212; telephone: 617-753-8144; fax: 617-753-8096; URL: [state.ma.us/dph](http://state.ma.us/dph).

The Diagnostic Medical Sonography Program accredited by the Commission on Accreditation of Allied Health Education Programs ([caahep.org](http://caahep.org)) upon the recommendation of The Joint Review Committee on Education in Diagnostic Medical Sonography. Commission on Accreditation of Allied Health Education Programs, 25400 U.S. Highway 19 North, Suite 158, Clearwater, FL 33763, Phone: 727-210-2350, Fax: 727-210-2354; URL: [caahep.org](http://caahep.org).

**The Medical Laboratory Technician** is accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS), 5600 North River Rd. Suite 720, Rosemont, IL 60018; telephone 773-714-8880. URL: [naacls.org](http://naacls.org).

**The Medical Radiography Program** is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182; telephone: 312-704-5300; fax: 312-704-5304; email: [mail@jrcert.org](mailto:mail@jrcert.org); URL: [jrcert.org](http://jrcert.org).

**The Associate Degree Registered Nursing Program** is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326; telephone: 404-975-5000; fax: 404-975-5020; email: [info@acenursing.org](mailto:info@acenursing.org); URL: [acenursing.org](http://acenursing.org), and approved by the Massachusetts Board of Registration in Nursing, 239 Causeway Street, Suite 500, 5th Floor, Boston, MA 02114; telephone: 617-973-0900; or 1-800-414-0168; fax: 617-973-0984 URL: [mass.gov/dph/boards/rn](http://mass.gov/dph/boards/rn).

**The Pharmacy Technician Certificate Program** is approved by the Massachusetts Board of Registration in Pharmacy. The Board of Registration in Pharmacy is located at 239 Causeway Street, Suite 500, 5th Floor, Boston, MA 02114; telephone: 800-414-0168; URL: [mass.gov/eohhs/gov/departments/dph/programs/hcq/dhpl/pharmacy/about/](http://mass.gov/eohhs/gov/departments/dph/programs/hcq/dhpl/pharmacy/about/).

**The Surgical Technology Program** is accredited by the Commission on Accreditation of Allied Health Education Programs 25400 U.S. Highway 19 North, Suite 158; Clearwater, FL 33763; Phone: 727-210-2350; Fax: 727-210-2354. Please contact [Mail@caahep.org](mailto:Mail@caahep.org) if you have any general questions about CAAHEP.



# Institutional Policy Statements

## Office of Diversity and Inclusion

 [bhcc.edu/diversityinclusion](http://bhcc.edu/diversityinclusion)

 Thomas L. Saltonstall, Director  
617-228-3311 | [tlsalton@bhcc.mass.edu](mailto:tlsalton@bhcc.mass.edu)

 Cheryl Cephas, Deputy Title IX Coordinator  
617-228-3331 | [ccephas@bhcc.mass.edu](mailto:ccephas@bhcc.mass.edu)

## Affirmative Action and Equal Opportunity Guidelines

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 ADA/ 504, or Cheryl Cephas, Deputy Title IX Coordinator.

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 Policy on Affirmative Action, Equal Opportunity & Diversity 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 the Office of Diversity and Inclusion.

## Sexual Harassment Guidelines

Sexual harassment of a student, an employee or any other person in the College is unlawful, unacceptable, impermissible and intolerable.

Sexual harassment is a form of sex discrimination. It occurs in a variety of situations which share a common element: the inappropriate introduction of sexual activities or comments into the work or learning environment. Often, sexual harassment

involves relationships of unequal power and contains elements of coercion, as when compliance with requests for sexual favors becomes a criterion for granting work, study or grading benefits. However, sexual harassment may also involve relationships among equals, as when repeated sexual advances or demeaning verbal behaviors have a harmful effect on a person's ability to study or work in the academic setting.

For general purposes, sexual harassment may be described as unwelcome advances, requests for sexual favors and other physical or verbal conduct of a sexual nature when: (1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or education; (2) submission to or rejection of such conduct by an individual is used as the basis for academic or employment decisions affecting that individual or (3) such conduct has the purpose or effect of substantially interfering with an individual's academic or professional performance or creating an intimidating, hostile or demeaning employment or educational environment.

A student, an employee, or any other person in the College who is found to have engaged in sexual harassment is subject to discipline up to and including termination of employment or expulsion from the College.

When a student, an employee or any other person in the College believes s/he has been the subject of sexual harassment, the complaint/grievance process is a mechanism for redress. 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. Reasonable efforts are made to maintain confidentiality during the grievance process. 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, for a copy of the Affirmative Action Complaint/Grievance Procedure, or to file a complaint/grievance, contact the Office of Diversity and Inclusion.

Sexual harassment is forbidden by both federal and state regulations. In keeping with these regulations, a concerted effort will be made to protect employees, students and others from sexual harassment as defined.

For the full text of the College's policy concerning sexual harassment, refer to the Bunker Hill Community College Policy on Affirmative Action, Equal Opportunity & Diversity.

## Guidelines Concerning Sexual Violence

Committing an act of sexual violence upon a student, an employee or any other person in the College constitutes a violation of state and federal laws, and a major violation of the College's Affirmative Action Policy. Sexual violence is absolutely intolerable and totally unacceptable.

Sexual violence is generally defined as any sexual activity where consent is not obtained or able to be freely given, and includes rape (vaginal, oral or anal penetration without consent), acquaintance rape (rape committed by someone who is known by the victim), or any unwanted sexual activity that is forced or coerced by one person on another. It is a criminal offense to have sex with someone who is incapable of giving consent due to being intoxicated, unconscious, mentally incompetent or under 16 years of age.

An employee or student who commits an act of sexual violence may be subject to criminal prosecution and will be subject to disciplinary action by the College, up to and including expulsion and/or termination of employment.

Victims of sexual violence are encouraged to contact the College's Department of Public Safety at 617-228-2222 or 228-2053, as soon as is practicable under the circumstances. If a victim is more comfortable reporting the alleged sexual violence to a College employee with whom s/he is better acquainted, such as a dean, administrator or faculty member, s/he may do so. Any employee to whom an incident of sexual violence is reported, however, is required to notify the College's Department of Public Safety and the Affirmative Action Officer and Title IX Coordinator forthwith.

If any student or employee believes that he or she has been the victim of sexual violence, the student or employee also has the right to file an Affirmative Action Discrimination Grievance with the College. For a copy of the Affirmative Action Grievance Procedure or assistance with filing a complaint, please contact Thomas L. Saltonstall, the College's Affirmative Action Officer and Title IX Coordinator, or Cheryl Cephas, Deputy Title IX Coordinator.

Reporting the incident to the College's Department of Public Safety, the Affirmative Action Officer and Title IX Coordinator, or another College employee does not commit the victim to filing charges. Federal and state laws, however, require the College to investigate such reports. The matter will be investigated both by BHCC Police and separately by the Affirmative Action Officer and Title IX Coordinator. Although every reasonable effort will be made to protect a victim's privacy, individuals with a need to know may be contacted and information may be shared as necessary to investigate and adjudicate the matter or as public safety requires. A report of the incident will be filed with local police in the event public safety is at risk even if the victim does not intend to report the incident to police or cooperate in an investigation.

The College prohibits retaliation against any person who presents a formal or informal complaint of sexual violence or who testifies or offers evidence connected with a complaint. Retaliation is a violation of the College's Affirmative Action and Diversity Policy whether or not the underlying claim of sexual violence is confirmed. For the full text of the College's policy concerning sexual violence, refer to Bunker Hill Community College's Policy on Affirmative Action, Equal Opportunity & Diversity.

## System-Wide Student Policies

### Bathroom and Locker Room Use

All students may use bathroom or locker room facilities on campus that are designated as gender-neutral or that are consistent with a student's sincerely held gender identity. Use of a bathroom or locker room by any student for an improper purpose will result in disciplinary action, up to and including expulsion.

### Changing Biographical Data

The following process is followed when any student seeks to change his or her biographical data as provided and maintained in College records.

**Legal Name.** A student's legal name shall be used on all College documents, systems and communications external to the College and/or where a legal name is required. Examples include, but are not limited to:

- Financial Aid records;
- Student Accounts records;
- Student Personally Identifiable Information;
- Student Directory information;
- Payroll records;
- Health records;
- Official transcripts;
- Federal immigration documents; and
- Interactions with government agencies.

In order for any student to change their legal name on College records, a student must present a certified copy of a court order or other legal document indicating a legal name change has been granted.

**Preferred First Name.** The College recognizes that some students may prefer to use a first name other than their legal name to identify themselves. As long as the use of a preferred first name is not for an improper purpose, the College acknowledges that a preferred first name can and should be used where possible in the course of College business and education. Students may use a preferred first name wherever a legal name is not required on internal documents, communications, systems, and web portals. Examples include, but are not limited to:

- Student identification cards;
- Email and calendar entries;
- Class rosters and advisor lists;
- Learning Management Systems; and
- Diplomas, awards, and recognitions.

To request a preferred first name, a student should complete the Preferred First Name Change Form available in the Registrar's Office or on the Registrar or Dean of Student's websites.

**Sex Designation.** In order for any student to change their sex designation in official College records, a student must provide a certified copy of a court order, or other legal identification, such as a Massachusetts driver's license, reflecting the change in sex.

### Hazing

The Massachusetts Legislature enacted a law in 1985 that prohibits hazing on all college campuses. Students may obtain copies of the law (MGLc269s17-19) from the Student Activities Office.

### Annual Security Report Notice of Availability

Bunker Hill Community College's Office of Public Safety is responsible for issuing crime alerts in compliance with the Clery Act. In the event a situation arises on or about the campus, an alert is issued to keep the campus community informed.

The Annual Security Report Notice of Availability report includes statistics for the previous three years concerning reported crimes that occurred on campus; in certain off-campus buildings or property owned or controlled by Bunker Hill Community College; and on public property within, or immediately adjacent to and accessible from, the campus. The report also contains information regarding campus security and personal safety, including topics such as: crime prevention, law enforcements practices and authority, crime reporting policies, and other matters of importance related to security on campus.

As required by law, Bunker Hill Community College's Office of Public Safety and Campus Police publishes and distributes this report annually by October 1. To obtain a copy, visit [bhcc.edu/PublicSafety/ASR](http://bhcc.edu/PublicSafety/ASR).







# Admissions

## Office of Enrollment Management and Admissions

 [bhcc.edu/admissions](http://bhcc.edu/admissions)

 617-228-3398  [admissions@bhcc.mass.edu](mailto:admissions@bhcc.mass.edu)

Bunker Hill Community College is committed to an open admission policy. This policy enables any person who has earned a high school diploma, HiSET (formerly the GED) or an associate degree or higher and who expresses a desire to pursue a college education to be admitted to BHCC. To enroll in a degree or certificate program, students must apply for admission and be accepted to the College. Students choosing this option are referred to as “degree-seeking students.” Students who do not choose this option are referred to as “non-degree-seeking students.”

To support an optimal environment for learning, Bunker Hill Community College admits students who demonstrate the academic skills needed to fulfill the requirements of their courses and programs, and the ability to adhere to the Student Code of Conduct. Students under the age of 18 may be required to sign a release form supplied by the College detailing the responsibilities of a minor taking courses at BHCC. All documents submitted to the College become the property of Bunker Hill Community College and will not be returned to students.

Prospective students may obtain information about applying to a degree program, specialized programs, information sessions and tours and general college information through the Department of Enrollment Management and Admissions, or via the College website at [bhcc.edu/admissions](http://bhcc.edu/admissions).

## Admissions and Enrollment Services — International Students

International students who wish to attend Bunker Hill Community College on a student F-1 visa must have completed their secondary education and must demonstrate proficiency in English if English is not their first language. If applying to Bunker Hill Community College from within the United States, applicants who are unable to provide a TOEFL score must take the College Placement Test at the BHCC Assessment Center. Bunker Hill Community College is authorized under Federal law to enroll non-immigrant alien students.

In addition to satisfying admission requirements, students must provide evidence of their financial ability to support their education and living expenses while in the United States. Financial aid is not available to International students. Lack of sufficient funds may result in an interruption in enrollment at the College that will jeopardize the student’s eligibility to remain in the United States on a student visa.

F-1 visa students must register and complete at least 12 credits (full-time) for fall and spring semesters, except in the semester of graduation where the student may be eligible to

enroll into fewer than 12 credits. F-1 visa students are eligible to enroll in only one online or distance education class per semester. International applicants may obtain more detailed information concerning the admission process by contacting the International Center at 617-228-2460 or via email at [international@bhcc.mass.edu](mailto:international@bhcc.mass.edu). Once admitted, International students receive orientation and other support services through the International Center. Visit [bhcc.edu/internationalcenter](http://bhcc.edu/internationalcenter) to learn more.

## Online Enrollment Services

The College offers students secure, easy online access to academic and financial records, and course availability information. Using a password, students access this information directly at [onlineservices.bhcc.edu](http://onlineservices.bhcc.edu). The College provides information online for students including semester grades, unofficial transcripts, placement test summaries, account summaries, financial aid status, course schedules and course availability.

**Obtaining a Password.** The College creates students’ initial passwords using either the last six digits of their Student ID number or their Social Security number. For more information about changing your password, please visit <https://spr.bhcc.edu>.

## Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) Checks

For a student to be eligible to participate in an academic, community or clinical program that involves potential unsupervised contact with children, the disabled, or the elderly, the student may be required to undergo a criminal background check, which could include a Criminal Offender Record Information (CORI) check and/or a Sex Offender Registry Information (SORI) check. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible to participate in such activities. The College is authorized by the Commonwealth’s Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. In addition, for clinical placement in some programs, a National County Background Check may be required in addition to the CORI check.

Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P. For more information regarding the College’s CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193. In accordance with federal law, the College is required to advise the campus community where information concerning registered sex offenders may be obtained. To access public information pertaining to registered sex offenders enrolled or employed at the College, please contact the Commonwealth of Massachusetts Sex Offender Registry Board, located at P.O. Box 4547, Salem, MA 01970-4647, 978-740-6400, or the BHCC Office of Public Safety and Campus Police.

## Deferred Action for Childhood Arrivals (DACA) Process

On June 15, 2012, the Secretary of Homeland Security announced that certain people who came to the United States as children and meet several key guidelines, may request consideration of deferred action for a period of two years, subject to renewal, and would then be eligible for work authorization. Deferred action is a discretionary determination to defer removal action of an individual as an act of prosecutorial discretion. Deferred action does not provide an individual with lawful status. The College requires proof of the C33 card as part of the application process to qualify for in-state tuition rates. For further information please go to U.S. Citizenship and Immigration Services at [uscis.gov/childhoodarrivals](http://uscis.gov/childhoodarrivals).

## Homeschooling Policy

Homeschooling Policy has been updated.  
Visit [bhcc.edu/homeschoolingpolicy](http://bhcc.edu/homeschoolingpolicy)  
for the latest policy.

## Immunization

Massachusetts General Laws, Chapter 76, Section 15C, require that all full-time students (enrolled in 12 or more credits) and all students (full- and part-time) enrolled in health career programs present evidence of immunity to measles, mumps, rubella, diphtheria, tetanus and three doses of hepatitis B vaccine. Students in the health career programs also must present evidence of immunity to varicella and Mantoux testing for tuberculosis. For measles, mumps, rubella and hepatitis B,

serologic proof of immunity is acceptable.

Students who fail to present the required information within 30 days of the date of registration are not allowed to register for subsequent semesters or receive final grades until the immunization form is received by Admissions and Enrollment Services. Immunization forms become part of the student's permanent file and cannot be copied, transferred or returned.

## Midyear Admission

Bunker Hill Community College admits students to most programs at midyear on a space-available basis. Students can begin courses in the spring semester; however, some courses listed in the College Catalog may not be available to midyear entrants. The College cannot assure the availability of specific courses.

Many programs contain courses that have prerequisites. Because prerequisites are not waived for students admitted at midyear, the number of semesters necessary to complete degree requirements may increase.



## Non-Degree Students

To enroll in classes as a non-degree student, students should refer to the appropriate course schedule online at [bhcc.edu](http://bhcc.edu) for registration information and dates. All students who wish to register for a math or English course or a course with a math, English or reading prerequisite, may be required to take the Computerized Placement Tests (CPTs) prior to registration, or

bring appropriate transcripts. All students who wish to register for an ESL course may be required to take the ESL placement test prior to registration. The tests determine the levels at which students begin their studies.

**Test of Essential Academic Skills (TEAS)**

The Test of Essential Academic Skills (TEAS) measures basic essential skills in the academic content area domains of reading, mathematics, science and English and language usage. The test is intended for use primarily as part of the admissions process for adult nursing programs. The objectives assessed on TEAS are those that nurse educators have determined are most appropriate and relevant to measure entry level academic readiness of health care program applicants.

**Valor Act Credit Evaluation Policy**

In accordance with the Valor Act, Bunker Hill Community College uses the American Council on Education (ACE) military program guidelines to the evaluation of educational experience in the Armed Services as the primary method for evaluating and awarding academic credit for military occupation, training, experience, and coursework.



**Student Central: Financial Aid, Student Payment and Academic Records**

**BHCC Student Central**

**BHCC Student Central**

[bhcc.edu/studentcentral](http://bhcc.edu/studentcentral)

[studentcentral@bhcc.mass.edu](mailto:studentcentral@bhcc.mass.edu)

BHCC Student Central offers centralized student services related to Financial Aid, Student Payment, Registration and Academic Records. In addition to a physical Student Central location in the Charlestown Campus second floor B-Lobby, students also have access to a Virtual Student Central, providing access to services from home or after business hours. For more information, please visit [bhcc.edu/studentcentral](http://bhcc.edu/studentcentral).

**Financial Aid and Scholarships**

**Financial Aid Office**

**Financial Aid Office**

[bhcc.edu/fa](http://bhcc.edu/fa)

617-228-2275

[finaid@bhcc.mass.edu](mailto:finaid@bhcc.mass.edu)

The Financial Aid Office at Bunker Hill Community College assists students and their families with meeting the costs of a college education. BHCC participates in a wide variety of federal, state and private financial aid programs.

Students must be aware that all institutions, including Bunker Hill Community College, are subject to changes in funding allocations from both the Commonwealth of Massachusetts and the United States Department of Education. For more detailed information, visit the financial aid section of the College’s website at [bhcc.edu/fa](http://bhcc.edu/fa).

Through the online services system, students can see and print their Financial Aid award letters, view their current and previous years’ Financial Aid records and check the status of their current Financial Aid application.

**Financial Aid General Eligibility Requirements**

To be eligible for financial aid, applicants must be United States citizens or eligible non-citizens, possess valid social security numbers, be enrolled in or accepted for enrollment in an eligible academic program and working toward a degree or certificate. Additionally, applicants must maintain satisfactory academic progress (see Satisfactory Academic Progress, listed under Academic Policies and Procedures), comply with Federal

Selective Service Law and not be in default on any educational loans or owe a refund on any federal grants or loans to any institution.

Students who have previously obtained a bachelor’s degree or equivalent at any U.S. or foreign institution are not eligible for financial aid grants, but may be eligible for loans. It is important to know that students may lose their financial aid eligibility if they have attempted 150 percent of the credits needed for a certificate or a degree. The College strongly advises students to consult with the Financial Aid Office if they are contemplating a change in enrollment status. For information go to the Financial Aid Office, or call 617-228-2275.

**Financial Aid Application Process: FAFSA**

Financial Aid applications must be completed for each new academic year. To apply for financial aid, students must complete the Free Application for Federal Student Aid (FAFSA) and supply all requested documentation in accordance with the priority deadlines. This form can be completed online at [fafsa.ed.gov](http://fafsa.ed.gov). When completing the application, please note that the BHCC Title IV code is 011210. Students should retain and keep in an accessible place a copy of their FAFSA as well as all other documents used to complete their FAFSA.

Applicants are notified in writing if additional documentation such as tax returns is needed. Returning students and applicants for admission should contact the Financial Aid Office if they have any questions about this process.

**Priority Deadlines for Financial Aid**

Priority 1, 2 and 3 deadlines are posted online at [bhcc.edu/fa](http://bhcc.edu/fa). These dates outline financial aid application deadlines to ensure that you are notified of your award in time for registration.

Summer financial aid funds are available on a first-come, first served basis. Summer financial aid applications are available at the Financial Aid Office, at the time of summer course registration.

**Financial Aid Policies**

**Satisfactory Academic Progress for Financial Aid**

To continue at Bunker Hill Community College and/ or receive financial aid, the federal government requires students to make satisfactory progress toward a degree or certificate. Students are considered to be achieving satisfactory academic progress if they complete 66 percent or more of the total number of credits attempted and meet the following minimum cumulative grade point average:

Cumulative Credits Attempted	Grade Point Average
Fewer than 12	no minimum
12-30	1.79
More than 30	2.00

**Unofficial Withdrawals**

Per federal regulations, students who stop attending all of their classes without formally withdrawing from the College will be identified and may lose a percentage of or their entire financial aid award for that semester. If a student fails all of his or her attempted credits for a semester, the federal regulations require that the College assume the student stopped attending the College. If the Financial Aid Office cannot obtain proof that the student completed at least 60 percent of the semester, the Financial Aid Office will then prorate and recalculate the student’s financial aid award, which may result in the student owing a balance to the College. For more details, see the Financial Aid Refund Policy.

**Withdrawal/Graduation**

Students who receive loan funds while enrolled at Bunker Hill Community College must complete an exit loan interview session before leaving the College. The Financial Aid Office notifies graduating students prior to their anticipated graduation date. This notice provides information regarding loan repayment. Students can make individual arrangements for a personal exit interview by contacting the Financial Aid Office.

**Appeals Process for Academic Progress**

Students have the right to request a one-time, unsatisfactory academic progress appeal if they fail to attain a satisfactory GPA and/or course completion rate and are denied financial aid consideration. If financial aid recipients experience extenuating circumstances that affect their schoolwork, they have the right to appeal the decision. Reasons to appeal may involve, for example, a documented illness of a student or of a spouse. Because it is difficult to define all the possible reasons that could lead to unsatisfactory academic progress, students should contact the Financial Aid Office, for instructions on how to submit a written appeal.

**Appeals Process for Financial Reasons**

A student’s family’s financial situation may change from that reported on the FAFSA application. At the request of the student, the Financial Aid Office, will review a change in the financial situation of the student to determine if adjustments should be made to the calculation of the student’s financial aid eligibility. Examples of typical appeals include a loss of employment, a reduction of income of a parent and/or spouse or uninsured medical expenses.



### Federal Financial Aid Refund Policy

The calculation of the return of Title IV Funds is determined by the date that the student withdraws. Title IV aid and all other aid is earned during the time a student is attending Bunker Hill Community College. The percentage of aid earned, up to a maximum of 60 percent, is determined by dividing the number of days a student was enrolled by the number of days in the semester. If the student withdraws from all courses after 60 percent of the semester is completed, Title IV aid is viewed as 100 percent earned. Return of Title IV funds is no longer required beyond that point. If a student withdraws before 60 percent of the semester is completed, however, the student may owe a portion of his or her financial aid, if the Financial Aid Office determines that the student has received an amount larger than the earned amount.

The term "Title IV Funds" includes the following programs:

- Federal Pell Grant.
- Federal Supplemental Educational Opportunity Grant (SEOG).
- Subsidized Federal Stafford Loan.
- Unsubsidized Federal Stafford Loan.
- Federal PLUS Parent Loan.
- Federal Perkins Loan.

In accordance with federal regulations, financial aid funds are returned and allocated in the following order:

1. Unsubsidized Stafford Loan.
2. Subsidized Stafford Loan.
3. FFEL PLUS.
4. Federal Pell Grant.
5. Federal SEOG Program.
6. Other Title IV programs.
7. Other state, private, and institutional aid.
8. The student.

Bunker Hill Community College will return any funds necessary to Title IV based upon the calculation. Based upon the return of Title IV Funds calculation, students are responsible to repay to the Title IV or state programs any funds that were disbursed directly to them and for which the student was determined to be ineligible. The procedures and policies listed above supersede those published previously and are subject to change. Please contact the Financial Aid Office, Room B213 if you have any questions about the policy.

## Scholarships and Awards

Students applying for scholarships must be:

- Matriculated and enrolled full time (12 credits or more) at BHCC at the time of application, unless otherwise noted in the scholarship eligibility criteria;
- Attending BHCC during the semester they are receiving the scholarship;
- Have no In-Progress (IP) grades at the time of the scholarship application deadline; and,
- Have earned the minimum number of credits and/or cumulative GPA as specified for each scholarship.

When scholarship eligibility criteria require a minimum number of credits or grade point average earned, only college level courses (numbered 100 and above) taken at Bunker Hill Community College and applicable toward a degree or certificate program will be considered.

All students are welcome to apply regardless of status. For a full list of scholarships, deadlines and application forms, please visit the scholarship website at [bhcc.edu/scholarships](http://bhcc.edu/scholarships).

## Grants

Grants are sponsored by the federal and/or state government and need not be paid back. For a complete list of the grant programs in which BHCC participates, visit [bhcc.edu/fincialaid/typesoffinancialaid/grants/](http://bhcc.edu/fincialaid/typesoffinancialaid/grants/).

## Work-Study Program

Bunker Hill Community College participates in the Federal College Work-Study Program. Eligible students may receive funds from this program as a result of the financial aid application process. Federal program regulations require that a percentage of these funds be earmarked to community service-related work. Check with the Financial Aid Office for a listing of available Work-Study positions.

# Cost of Attendance

## Student Payment Office

[bhcc.edu/studentpayment](http://bhcc.edu/studentpayment)

617-228-2150 [bursar@bhcc.mass.edu](mailto:bursar@bhcc.mass.edu)

## Tuition & Fees

The Board of Higher Education sets tuition and the College sets fees. Both are subject to change. For current tuition and fees, visit [bhcc.edu/costofattendance](http://bhcc.edu/costofattendance)

**Health Insurance.** Massachusetts state law requires that all students taking nine or more credits in the fall semester or nine or more credits in the spring semester have medical insurance. There are no exceptions. For current rates, visit [bhcc.edu/costofattendance](http://bhcc.edu/costofattendance).

Other fees associated with attendance may include: Special Cost Course Fee; Liability Insurance Fee; Parking Permit Fee; Photo ID Replacement Fee; Returned Check Fee; Transcript Fee (paper request); Transcript Fee (electronic request); Refund Check Replacement Fee. These rates can be found at [bhcc.edu/costofattendance](http://bhcc.edu/costofattendance).

## MA Residency Tuition

Students registering for classes at Bunker Hill Community College who are eligible for in-state tuition must complete the Massachusetts Community College In-state Tuition Eligibility Form. An eligible person is defined by law as a U.S. Citizen, lawful immigrant, permanent resident, or holder of another legal immigration status who has satisfied the duration residency requirement of six months prior to the start of the semester of enrollment, but not more than one year prior to that date and can demonstrate his/her intent to remain in Massachusetts.

The college reserves the right to make any additional inquiries regarding the applicant's status and to require submission of any additional documentation it deems necessary. Questions concerning residency requirements should be directed to the Academic Records.

## Tuition Waivers

Several kinds of tuition waivers are available to Bunker Hill Community College students. These waivers include, but are not limited to, National Guard, veterans, senior citizens, Native Americans, state employees and wards of the state. To receive a tuition discount, students must present the waiver at the time of registration.

The Commonwealth of Massachusetts does not fund all courses; therefore, the use of certain waivers for those unfunded courses or parts of course charges noted on your registration statement/bill with the suffix NS, or with the codes such as GCFE, TECF, TUIL, HCCR will be restricted. Students eligible for waivers should obtain clarification from Enrollment Management and Admissions before making course selections.

## Outstanding Financial Obligations

Bunker Hill Community College is responsible for making "diligent efforts" to collect amounts due to the state. Diligent efforts shall include written billings, dunning notices and subsequent assignments to a collection agency. The student is responsible for all collection costs and any fees incurred in the collection of debt and for informing the College of any dispute regarding the debt. The College advises students that their debts may be discharged through the intercept of any Commonwealth and Federal payments that are due to them or scheduled to be paid to them including tax refund. Please be advised that your student account debt constitutes an "educational benefit overpayment or loan" as defined pursuant to 11 U.S.C section 523(a)(8), and therefore is not dischargeable in bankruptcy.

## Payments

Students are able to register for classes before the semester's payment due date. At the time of registration, students receive a registration statement bill and a class schedule that indicates the amount charged and information about payment and insurance waiver deadlines. BHCC will send all follow-up communications and statements to the address on file. Students are required to make payments on time; failure to receive these notices does not excuse late payments. After the payment due date has passed, students must pay for courses at the time of registration.

The College accepts payments online or in person at the Student Payment Office by personal check; from a savings account; or with VISA, MasterCard, Discover or American Express. International students also have the benefit of making payments in the currency of their choice through the International Payment/Western Union link at [selfservice.bhcc.edu/Student/Finance](http://selfservice.bhcc.edu/Student/Finance).

The College processes checks through TeleCheck Electronic Check Acceptance services and requires a valid driver's license or U.S. identification. Other requirements are available in the Student Payment Office. When you provide a check you are authorizing us to convert the check to an electronic payment item and submit it for payment as an ACH debit entry to your account.

The College offers a tuition payment plan to students and families who have needs that cannot be met with federal or state financial aid. You can learn more about the payment plan options and how to sign up at [bhcc.edu/autopay](http://bhcc.edu/autopay). For specific information about the payment plan, contact Official Payments at 1-866-964-4020 or [bhcc.edu/autopay](http://bhcc.edu/autopay).

Students can access their financial account summaries online at [onlineservices.bhcc.edu](http://onlineservices.bhcc.edu). The account shows both current semester payments received and balances due.

## Refund Policy

Students dropping or withdrawing from classes must complete the appropriate form available at Enrollment Management and Admissions. Failure to officially withdraw results in a grade of F or NA in the course and an obligation to pay in full. The schedule of refunds for tuition and general college fees applies only when proper withdrawal or class drop procedures, as established by the Academic Records Office, are followed. Application fees are non-refundable. Lack of attendance or course abandonment does not constitute a drop or withdrawal. For specific refund deadlines please refer to the course schedule for the semester or session.

## Health Insurance Refund Policy

Except for medical withdrawal due to covered injury or sickness, students withdrawing from the College during the first 31 days of the period for which coverage is purchased shall not be covered under the policy and a full refund of the premium will be made. Students withdrawing after 31 days will remain covered under the policy for which the premium was paid and no refund will be allowed. Students who do not withdraw completely, but who drop below nine credit hours within the first 31 days, may apply to the Student Payment Office for a refund of health insurance premiums. Registering for mini-sessions, web courses, and Center for Self-Directed Learning courses later in the fall or spring semester may restore the student's obligation to carry health insurance.



## Student Comprehensive Health Insurance Plan

Chapter 23 of the Massachusetts Acts of 1988 requires that all students registered for nine or more credit hours must participate in a comprehensive health insurance plan unless they certify that they are participating in a health insurance plan with comparable coverage. If a student has comparable coverage and wishes to waive participation in the Massachusetts Community Colleges insurance plan, the student must submit waiver information via the Internet by the due date that appears on the registration statement or at the time of registration. For more information, visit [bhcc.edu/healthinsurance](http://bhcc.edu/healthinsurance). All questions regarding the Student Health Insurance Program (SHIP) should be directed to [MAhealthconnector@state.ma.us](mailto:MAhealthconnector@state.ma.us) or call 1-877-623-6765. Students already on MassHealth should call 855-273-5903.

## Academic Records

### Academic Records

[bhcc.edu/admissions/academicrecords](http://bhcc.edu/admissions/academicrecords)

617-228-2403 [records@bhcc.mass.edu](mailto:records@bhcc.mass.edu)

The Academic Records Office maintains student academic records, ensures that student rights are protected under the Family Education Rights and Privacy Act (FERPA), and provides many services including registration, schedule adjustment, withdrawals, processing grades, transcript requests, program changes, graduation, and verification requests.

### Catalog Year

The term "catalog year" refers to the academic year in which students are admitted to the College. Students must fulfill the program requirements listed in the College Catalog in effect for their catalog year. When students are readmitted to the College after an absence of five or more years, they must fulfill the catalog year/program requirements in effect at the beginning of the semester of re-admission. Students changing their program must fulfill the catalog year program requirements in effect at the beginning of the semester following the date of the change.

### Degree and Certificate-seeking Students

All students admitted to degree or certificate programs may be required to take Computerized Placement Tests (CPTs) in English, reading and mathematics, or may be required to take the ESL placement tests if English is their second language. The tests determine the levels at which students will begin their study. Based upon test results, the College may require developmental or ESL courses, or limit a student's enrollment in an effort to enhance that student's ability to succeed. Applicants to health careers and technical programs must comply with specific program entrance requirements and application deadlines.

## Final Examination Schedule

Final examinations take place during the last week of the semester. Final examination makeup time is scheduled during final exam week. Students who are scheduled for two final examinations at the same time or who have more than two exams scheduled in one day may request to reschedule the exam. Students who miss final examinations must notify the appropriate Academic Dean of their program area immediately, stating the reason. The individual faculty member makes the decision regarding makeup of final exams.

## Withdrawal from a Course

Students may withdraw from a course only during the semester in which they are registered for the course and only by the deadline specified for each semester.

The College does not process course withdrawals after the withdrawal deadline date specified for each semester. The College issues no refunds for students who withdraw from a course.

To withdraw from a course, students must complete and submit a withdrawal form, which is available at Academic Records. After a student officially withdraws from a course, their transcript will show a grade of W. The College designates course withdrawals as “uncompleted courses,” which may adversely affect academic standing and financial aid eligibility. Failure to attend or ceasing to attend a class or classes does not constitute official withdrawal and results in grades of F or NA for the course or courses. Failure to withdraw formally may affect students’ academic standing and eligibility to receive financial aid (see Satisfactory Academic Progress).

## Withdrawal from the Semester or the College

Students may withdraw from the semester or the College only during the semester in which they are registered. Withdrawals are in effect only for the current semester in which the student is enrolled. Students who withdraw from the semester or the College are not entitled to a refund. To withdraw from the semester or College, students must complete and submit a withdrawal form available at Academic Records. Students who withdraw from the semester or the College receive W grades on their transcript for all courses for the semester withdrawn.

Failure to attend or ceasing to attend a class or classes does not constitute official withdrawal from the College and results in grades of F or NA for the course or courses. Failure to withdraw formally may affect students’ academic standing and eligibility to receive financial aid (see Satisfactory Academic Progress). Students desiring to be readmitted to the College must submit a new application if they have not registered for courses within the last five years of the date of withdrawal.

# Campuses and Instructional Centers

## Charlestown Campus

Built in 1973, Bunker Hill Community College’s Charlestown Campus is situated on approximately 42 acres in the historic Charlestown neighborhood of Boston. The campus is conveniently located at the MBTA Community College stop. As BHCC’s main campus, the Charlestown location features state-of-the-art classrooms, labs and other facilities for all of the College’s programs, including domestic and international business, hospitality and culinary arts, early childhood development, electronics, and computer applications.

The Charlestown Campus features the 48,000 square-foot LEED Gold Certified Health and Wellness Center constructed in 2009 under version 2.2 of the United States Green Building Council’s green building program. The Center includes the College’s Fitness Center, Gymnasium and locker rooms, which are open to all students, faculty and staff.

The Charlestown Campus also includes the College Bookstore, Food Services, and The Mary L. Fifield Art Gallery.



## Bookstore

### BHCC Bookstore

 [bhcc.bncollege.com](http://bhcc.bncollege.com)

 617-241-5161

 [bksbunkerhill@bncollege.com](mailto:bksbunkerhill@bncollege.com)

The college bookstore is operated by Barnes and Noble College Booksellers as a service to the students, faculty, and staff. The bookstore is located on the fourth floor, E-Building, and operates all year round. The bookstore offers a large selection of textbooks in a wide variety of formats: Rental, Digital, Used, and New to save students money and give them choice. In addition to the bookstore’s multiple textbook options, it has everything from school supplies and reference materials to backpacks, college apparel, and snacks to go. Students can order textbooks and college apparel online at [bhcc.bncollege.com](http://bhcc.bncollege.com) to have them shipped or for easy in-store pick up.

## Food Services

### Thomas A. Kershaw Dining Room

[bhcc.edu/hospitality/culinaryartsmenu](http://bhcc.edu/hospitality/culinaryartsmenu)  
617-228-2336

The Thomas A. Kershaw Culinary Arts Dining room features lunch and dinner options served in a full-service dining room or to-go from the BHCC Culinary Arts program students. In addition, the campus includes a cafeteria and a café operated by Unidine.

## The Mary L. Fifield Art Gallery

### Mary L. Fifield Art Gallery

[bhcc.edu/artgallery](http://bhcc.edu/artgallery)  
[artgallery@bhcc.mass.edu](mailto:artgallery@bhcc.mass.edu)

The Bunker Hill Community College Art Gallery provides the College and the local community opportunities to view high caliber art exhibitions, exposure to diverse ideas and artistic media and access to forums with emerging and established Boston-based artists. Through its scheduled programming, the Gallery offers an innovative backdrop to teaching and learning.

## Chelsea Campus

In January, 2017, BHCC moved to a new Chelsea Campus, located at 70 Everett Avenue. Providing higher education and job training opportunities to residents of Chelsea, Revere, Everett, East Boston, Winthrop and other surrounding communities, the campus is actively involved in the community through partnerships with community based organizations, social service organizations, Chambers of Commerce, the City of Chelsea and the Chelsea Public Schools.

All allied health certificate programs, including medical assistant, patient care technician, central processing, surgical technology, pharmacy technician, paramedic studies and emergency medical technician (EMT) are based in Chelsea. The Chelsea Campus offers laboratory science in biology, anatomy and physiology, environmental science and nutrition, and a full array of foundation and elective courses, including mini session courses, which can be completed in just eight weeks.

Several MBTA bus lines as well as the MBTA commuter rail stop within a few blocks of the campus, making it easily accessible by public transportation. The College also provides free shuttle service between the Charlestown and Chelsea Campuses. Approximately 30 designated student parking spaces are also available.

Chelsea is also home to the College's Adult Basic Education (ABE) program which offers GED Spanish and Basic English for Speakers of Other Language (ESOL) classes. The program is funded by the Massachusetts Department of Elementary and Secondary Education.

Visit [bhcc.edu/chelsea](http://bhcc.edu/chelsea) for more information and directions to the campus.

## Student Services

The Chelsea Campus Student Services Office is the hub where students may register for courses, complete course placement assessments (Accuplacer), access advising and obtain their student ID. The advising staff also offer student achievement workshops in career exploration, goal setting, time management, learning styles, note-taking strategies, study skills, test-taking skills and financial aid.

## Student Access and Success Center (SASC)

The Center offers tutoring primarily in mathematics, English, biology and more. The Center also offers open lab time and facilitated study groups for laboratory based science classes. Assistive technology, including the Kurzweil Reading System that assists students who are visually-impaired or who have reading and related learning disabilities, is available at the Center. Visit [bhcc.edu/chelsea/SASC](http://bhcc.edu/chelsea/SASC) for hours.

## Laboratories

The Health Skills Laboratory, and the Surgical Technology and Central Processing Laboratory offer simulated settings in which students enrolled in Allied Health and Surgical Technology programs learn and practice specific required skills. A new, state-of-the-art Paramedic Studies Laboratory with an ambulance simulator offers a simulated setting in which students enrolled in the EMT and Paramedic Studies programs practice specific required skills. Three science laboratories provide equipment and materials for students enrolled in lab courses delivered at the Chelsea Campus, including biology, environmental science and nutrition.

## Technology

The Chelsea Campus offers wireless internet on the third and fourth floors. The Chelsea Campus computer facilities include two computer classrooms, several smart classrooms, and a computer lab. Chelsea Campus technology supports students enrolled in computer-intensive courses and provides supplemental resources to students enrolled in other courses.



## Satellites and Instructional Centers

Bunker Hill Community College offers courses at satellite and instructional center locations in many Greater Boston communities. The curricula available at these locations may include foundation courses that fulfill general education requirements for degrees and certificates as well as courses in response to community interest, such as offerings in business, accounting and computer technology.

### East Boston Satellite

The East Boston Satellite is located at 250 Sumner Street, East Boston. This satellite offers introductory and allied health courses in the evening during the fall and spring semesters. Placement testing, advising and registration for these courses is available at both the Charlestown and Chelsea Campuses. [bhcc.edu/eastboston](http://bhcc.edu/eastboston)



### Malden Satellite



The Malden satellite is located at Malden High School, 77 Salem Street, Malden. Established in the fall of 2009, the Malden satellite offers introductory and college level courses in the day and evening during the fall and spring semesters. Placement testing,

advising and registration for these courses are conducted on the BHCC Charlestown Campus. Refer to the current course schedule for a list of courses. Malden High School is accessible from the Orange Line, Malden Center transit station. For more information please visit the website at [bhcc.edu/satellites](http://bhcc.edu/satellites).

### South End Satellite

Bunker Hill Community College maintains a satellite campus in the South End of Boston that operates in partnership with IBA - Inquilinos Boricuas en Acción.

The South End satellite is located at 630 Tremont Street and is a nationally replicable model of a local community college (BHCC) working hand-in-hand with a community based organization (IBA) to establish a college campus directly in the heart of an affordable-housing community (Villa Victoria). The South End satellite provides Boston residents with the opportunity to complete the HiSET (formerly the GED), take ESL and Basic English courses and to enroll in college-level classes. Free child care services and job readiness preparation are also available at this site. Prior to the beginning of each semester and throughout the year, the Satellite offers a range of student services including academic support, success coaching, financial aid assistance,



academic advising, and admissions and enrollment assistance. For more information visit [bhcc.edu/satellites](http://bhcc.edu/satellites).

### Pao Arts Center in Chinatown

BHCC partners with Boston Chinatown Neighborhood Center (BCNC) on the Pao Arts Center, an arts and culture space for the community to convene to preserve and celebrate the cultural and creative assets of Boston's Chinatown. The center, housed within the distinctive One Greenway building, is Chinatown's first community-based arts center and Boston's newly dedicated Asian American and Asian immigrant cultural space. A range of BHCC classes are offered at the Pao Arts Center, including theater, visual and media arts and business. [bhcc.edu/pao](http://bhcc.edu/pao)

### Everett High School

BHCC students can enroll in courses in allied health or criminal justice at Everett High School. While a number of seats in at the Everett location are reserved for Everett High School students as part of the College's Dual Enrollment/Early College program, additional seats are open to all BHCC students.

### Boston Chinatown Neighborhood Center in North Quincy

Students can also enroll in a limited number of classes at the Boston Chinatown Neighborhood Center's Quincy site in North Quincy.

View course offerings and directions for instructional centers at [bhcc.edu/instructionalcenters](http://bhcc.edu/instructionalcenters).

## Parking and Security

### Office of Public Safety and Campus Police

[bhcc.edu/publicsafety](http://bhcc.edu/publicsafety)

Charlestown: 617-228-2053 Chelsea: 617-228-3359

Emergencies: 617-228-2222

**Parking.** Parking on the Charlestown Campus is restricted to permit holders. Student parking is available in the large Parking Lots numbered 1 and 2. The perimeter roadway and Lots 3, 4, 5 and 6 are reserved for faculty and staff parking only. Charlestown Campus Lot 4, adjacent to B-Building, provides designated one-hour visitor parking spaces as well as spaces for persons with disabilities. There are approximately 30 student parking spaces on the Chelsea Campus, marked by white signs. Vehicles found in spaces not designated for the College run the risk of being towed from the property.

**Security.** The Office of Public Safety and Campus Police is dedicated to protecting students, faculty, staff, visitors and property of Bunker Hill Community College. Campus Police officers are armed, sworn-in Special State Police of the Commonwealth of Massachusetts. As such, the department conducts itself as any other Municipal Police Department and has full arresting powers on College grounds (state laws Chapter 22C, section 63). An additional contracted security staff ensures the security of the building 24 hours a day. [bhcc.edu/publicsafety](http://bhcc.edu/publicsafety)

# Academic Policies and Information

## Absence Due to Religious Beliefs

1985 Regular Session

STUDENTS ABSENCE DUE TO RELIGIOUS BELIEFS

Chapter 375

AN ACT EXCUSING THE ABSENCE OF STUDENTS FOR THEIR RELIGIOUS BELIEFS.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

Chapter 151C of the General Laws is hereby amended by inserting after section 2A the following section:

Section 2B. Any student in an educational or vocational training institution, other than a religious or denominational educational or vocational training institution, who is unable, because of his religious beliefs, to attend classes or to participate in any examination, study, or work requirement on a particular day shall be excused from any such examination or study or work requirement, and shall be provided with an opportunity to make up such examination, study, or work requirement which he may have missed because of such absence on any particular day; provided, however, that such makeup examination or work shall not create an unreasonable burden upon such school. No fees of any kind shall be charged by the institution for making available to the said student such opportunity. No adverse or prejudicial effects shall result to any student because of his availing himself of the provisions of this section.

A copy of this section shall be published by each institution of higher education in the catalog of such institution containing the list of available courses.

Approved October 8, 1985.

## Attendance

Because poor attendance generally results in poor grades, students must attend all regularly-scheduled classes and laboratory sessions. Students having attendance difficulties should discuss this matter with their course instructors and advisors.

Students who know they will be absent for three or more consecutive class sessions because of a family emergency or personal illness should report the extended absence to the Office of the Dean of Students. The Associate Vice President will notify the course instructors of the absence. Upon returning to class, students are responsible for discussing completion of all course requirements with their course instructors. If the course instructor and student find it impossible to complete all assigned work, the student may need to withdraw from the course.

Students who do not attend classes during the first four weeks of the semester will be withdrawn from the course and may receive an NA (non-attendance) grade. The grade appears on the transcript and is counted toward credits attempted but is not computed in the grade point average. The NA grade designation is not used during the summer semester.

## Auditing a Course

Students who want to audit a course must obtain permission from the Registrar or designee. Audit students must pay full tuition and fees. The audit request must be made at the time of registration, and once approved may not be changed to a graded course. An audit course may not be transferred or used toward graduation requirements.

## Change of Grades

Students should direct all questions regarding grades to the course instructor. The instructor will change final grades only if a clerical error exists. Students must submit a written request to the instructor for re-evaluation if they feel that an error exists. The final decision regarding grades rests with the instructor. Students may initiate grade appeals no later than 30 calendar days following the last day of the instructional period for which the grade was granted. Please refer to the Bunker Hill Community College Student Handbook at [bhcc.edu/handbook](http://bhcc.edu/handbook) for more information.

## Clinical Experience Responsibilities

Students enrolled in programs that require clinical experience must adhere to all stated objectives and course competencies including those required for the clinical experience. Students are responsible for their own transportation to and from the clinical sites. Students are accountable for their behavior and demeanor during all clinical experiences and must conduct themselves in a manner that is in keeping with the College Code of Conduct, all professional conduct and regulations outlined by the regulating body, all conduct and behavioral expectations set forth by the clinical site, and additional specific requirements as are outlined in the program-specific student handbook.

Due to the competitive nature of placing students in clinical sites, students may have to travel long distances. It is important to note that some of the clinical sites are located in suburban or rural areas and are not accessible by public transportation. Therefore, students should consider this increase in time and cost in planning their transportation and finances for programs requiring clinical experiences.

The College reserves the right to suspend and/or remove students from the clinical experience whose behavior is considered inappropriate. Removal may adversely affect prospects for completing the requirements of these programs. Students so removed may appeal in writing to the Office of Nurse Education and Medical Imaging. Students participating in clinical experiences should refer to the Criminal Offender Record Information (CORI) and the Sex Offender Registry Information (SORI) requirements listed in the the Admissions section of this catalog.

## Code of Behavior

Bunker Hill Community College expects students to behave in a manner appropriate to a college environment. College policy prohibits specific behaviors on campus property as described here and in the Student Handbook. These actions include disruptive behavior; violence or the written threat of violence; the possession or use of controlled substances or alcohol on college property; possession or use of weapons, ammunition or fireworks on college property; gambling on college property; unauthorized mass action; hazing; removal or mutilation of library books; plagiarism; cheating; sexual, racial or ideological harassment and damage to college property.

If it is proven that a student in any course in which he or she is enrolled has knowingly cheated or plagiarized, this may result in a failing grade for an exam or assignment, withdrawal from the course or a failing grade in the course. The student would also be subject to disciplinary proceedings as outlined in the Student Handbook for violation of the Student Code of Conduct.

Complaints regarding students' inappropriate behavior should be referred to the Dean of Students Office. If necessary, the appropriate Dean will convene a disciplinary hearing committee. The members of the hearing committee make a recommendation to the Vice President of Academic Affairs and Student Services regarding the disposition of the case. The Vice President of Academic Affairs and Student Services' decision is final and binding.

Complaints by students against other members of the college community may be resolved through the Student Grievance Procedure. Refer to the Bunker Hill Community College Student Handbook at [bhcc.edu/handbook](http://bhcc.edu/handbook) for more information.

## Course Load

Students who carry 12 or more credit hours in a fall or spring semester or 6 credit hours in a summer or mini session are considered full-time students. Students must enroll in a minimum of 15 credit hours per semester of college level course work in order to complete an associate degree program in two years. Students who wish to carry more than 18 credits during a fall or spring semester or 9 credits during a summer or mini session must obtain written permission from the Dean of their program of study or designee.

## Course Prerequisites

Some courses require that students meet certain conditions prior to registering. These conditions are known as prerequisites. Prerequisites include completion of lower-level courses with a passing grade, completion of computerized placement tests (CPTs) or formal admission to a specific program of study. To count a course from another college or university as a prerequisite at BHCC, students must bring evidence of completion of that course at the time of registration.



## Dean's and Merit Lists

Students with a grade point average of at least 3.00 are named to the Dean's List, provided that no grade lower than C was earned in any course that semester. Grades lower than C include D, F, NA, W, WA, and IP. For Dean's List computation, P is not considered a letter grade. Only courses numbered 100 or higher are considered in determining eligibility for the Dean's List.

Students who are enrolled in at least 6 but less than 12 credits in a given semester, but otherwise have met the same performance level as those on the Dean's List, are named to the Merit List. The Merit List has the same performance requirements as the Dean's List. Students must have a GPA of at least 3.00 and no grade lower than a C, and only courses numbered 100 or above are considered.

## Dropping or Adding a Course

Students may adjust their schedules either during the registration period or during the schedule adjustment period. After the schedule adjustment period, students may add only those courses offered through the Center for Self-Directed Learning. Refer to the College's academic calendar for published deadlines at [bhcc.edu/academic-calendar](http://bhcc.edu/academic-calendar).

### Credit Hour Policy

In accordance with the United States Department of Education, Bunker Hill Community College follows the Carnegie Unit for credit. Students are expected to spend a minimum of 45 hours of work for each credit. The most common breakdown for one credit is one hour of class instruction and two hours of homework for 15 weeks each semester. A three credit course demands nine hours each week.

### Fresh Start Policy

Under the Fresh Start Policy, students may enroll without having to carry a very poor GPA record or low completion rate from years back that could prevent them from ever earning a GPA or completion rate sufficient to lead to graduation or completion of a program. The following conditions apply to the Fresh Start Policy:

1. The student must be a former Bunker Hill Community College student who has credits from BHCC.
2. The credits held by the student must be at least 5 years old. No credits shall have been earned or attempted at BHCC within the past five years.
3. All these credits will be treated as the College treats credits transferred from other colleges. Credit will be granted for a course where a grade of C or better was earned. The courses from the earlier registration that received a grade of C or better will be counted as free electives or as courses fulfilling requirements depending upon the program requirements of the student who is re-entering, just as transfer credits from other colleges are counted. Only credits subsequently taken at BHCC are counted in the GPA. Likewise, only the completion rate subsequent to the return will be used to determine progress.
4. This process can be used only once. If the student drops out again and then returns, the student cannot start again with a new GPA or a new completion rate.
5. This process does not affect the need to repeat courses in certain programs where the earlier completion may be considered out of date (this is frequently the case in science, computer technology, or health programs such as nursing).
6. In all cases where these policies are at variance with federal financial aid policies, the federal policies will determine eligibility for such aid.



Updated September 2018

## Satisfactory Academic Progress Policy

In order to continue at Bunker Hill Community College and/or receive financial aid, students must make satisfactory academic progress toward a degree or certificate. The College considers students to be achieving satisfactory academic progress if they complete 66 percent or more of the total number of credits attempted and meet the following minimum cumulative grade point average(GPA):

CREDITS ATTEMPTED	CUMULATIVE GRADE POINT AVERAGE
Fewer than 12 . . . . .	no minimum
12-30 . . . . .	1.79
More than 30 . . . . .	2.00

### Academic Warning

The College places students on Academic Warning if they do not meet the criteria for satisfactory academic progress.

### Academic Probation

The College places students on Academic Probation if they do not meet the criteria for satisfactory academic progress during their Academic Warning Semester AND their cumulative completion rate and/or cumulative GPA do not meet the criteria for satisfactory academic progress.

### Academic Improvement

The College places students on Academic Improvement if they meet EITHER the criteria for satisfactory academic progress during their Academic Warning semester OR their cumulative completion rate and/or cumulative GPA meet(s) the criteria for satisfactory academic progress.

### Academic Suspension

The College places students on Academic Suspension if one or more of the following circumstances occur during any probationary semester:

- Student’s semester grade point average is below 1.79 and the student’s cumulative GPA is below 1.79. (Student has attempted between 12 and 30 credits to date at BHCC) or;
- Student’s semester grade point average is below 2.00 and the student’s cumulative GPA is below 2.00. (Student has attempted more than 30 credits to date at BHCC) or;
- Student has successfully completed less than 66% of the total number of credits attempted in an Academic Probation semester and student has successfully completed less than 66% of the total cumulative number of credits attempted. (Please note that grades of F, IP, N, NA, W and WA count as credits attempted).

Students on Academic Suspension are prohibited from attending the college for a minimum of one semester unless the suspension status is successfully appealed. Following a

minimum leave of one semester, students may appeal their academic suspension by meeting with the Associate Dean of Academic Affairs or designee.

### Appeals Process for Probation and Suspension

Students placed on academic probation or suspension from the College for unsatisfactory academic progress have the right to appeal. Students who successfully appeal their academic suspension will be placed on academic probation when they return to BHCC. Students should contact the Associate Dean of Academic Affairs for more information. Academic reinstatement does not automatically re-establish eligibility for Financial Aid. students should follow the Financial Aid appeals process separately from the academic appeals process. See the Financial Aid section of this catalog for information on the appeals process.

## Educational Records

### The Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their educational records. Students are informed of their rights under this act through the College Catalog and the Student Handbook. They are:

- **The right to inspect and review** the student’s educational records within 45 days of the day the College receives a request for access. Students should submit to the Registrar, dean, head of the academic department or other appropriate official, written requests that identify the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
- **The right to challenge records** and request the amendment of the student’s educational record that the student believes is inaccurate or misleading. Students may ask the College to amend a record by writing to the College official responsible for the record, clearly identifying the part of the record they want changed and specifying why it is inaccurate or misleading. If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

INFORMATION



- **The right to consent to record disclosure** of personally identifiable information contained in the student's educational records, except to the extent that FERPA authorizes disclosure without consent. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the College in an administrative, supervisory, academic, research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted (such as an attorney, auditor or collection agency); a person serving on the Board of Trustees or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her task. A school official has a legitimate educational interest if the official needs to review an educational record in order to fulfill his or her professional responsibility.
- **The right of complaint**, to file a complaint with the U.S. Department of Education concerning alleged failures by Bunker Hill Community College to comply with the requirements of FERPA.

The name and address of the office that administers FERPA is:

**Family Policy Compliance Office  
U.S. Department of Education  
600 Independence Avenue, SW  
Washington, DC 20202-4605**

### Directory Information

Bunker Hill Community College has designated the following items as directory information: student name, academic program, semesters of attendance, current enrollment status, Dean's and Merit Lists, degrees or certificates awarded and dates of graduation.

The College may release directory information to a third party requesting such student information without first obtaining the student's consent.

A student has the right to refuse to permit the College to release directory information. To facilitate this, a student must request that a privacy code be placed on his/her directory information by completing the Request for Non-Disclosure of Directory Information form and submitting to Academic Records. If a privacy code is placed on a student's record, no directory information will be released in College publications or to third parties, excluding cases in which the Solomon Amendment or lawful subpoenas require the College to release such information by law.

Notwithstanding the College's definition of directory information, the Department of Defense, pursuant to the Omnibus Consolidated Appropriations Act of 1997, identifies the following additional student information as directory information for Department of Defense purposes: student's address, age and level of education. This information is available and accessible from student records. Non-consensual release of directory information may be submitted to the Department of Defense in accordance with the Solomon Amendment.

# Grading and Notation System

(effective Jan., 1990)

Grades and Notations	Definitions of Grades and Notations	Quality points Per Credit Hour
A	Equivalent to a numerical grade of 94 - 100	4.00
A-	Equivalent to a numerical grade of 90 - 93	3.70
B+	Equivalent to a numerical grade of 87 - 89	3.30
B	Equivalent to a numerical grade of 83 - 86	3.00
B-	Equivalent to a numerical grade of 80 - 82	2.70
C+	Equivalent to a numerical grade of 77 - 79	2.30
C	Equivalent to a numerical grade of 70 - 76	2.00
D	Equivalent to a numerical grade of 60 - 69	1.00
F	Equivalent to a numerical grade of 0 - 59	none
P	Indicates satisfactory completion of coursework where no letter grade is given, or award of credits for a course by special examination. It is equivalent to a grade of C or higher and carries no quality points. Credit hours will be given equivalent to the number of credit hours normally assigned to the course	none
IP	Required work in the course is in progress. The method and time for completion of work must be agreed upon in writing by student and instructor; no credit is earned until the course is completed. IPs not completed by the end of the following semester are automatically changed to a grade of F unless an IP extension is agreed upon in writing by student and instructor and submitted to the Academic Records Office	none
AU	Audit; no credit earned	none
NA	Students who register for a specific course and who have not attended class meetings during the first four weeks of the semester will be withdrawn from the course and receive the grade designation NA (non-attendance) which will appear on the transcript and be counted toward credits attempted but not computed in the grade point average. The NA grade designation is not used during the summer semester	none
W	Official withdrawal from a course; no credit earned	none
WA	Administrative withdrawal from a course; no credit earned	none

The total quality points for a course is computed by multiplying the grade quality point by the number of credits for the course; for example, an A in College Writing (3 credits) produces 12.0 quality points.

## Midterm Warning Grades

Faculty may issue midterm warning grades during week 7 - 8 of the semester to students who may be in jeopardy of not successfully completing their course. Grades of D or F may be issued to students whose course work is below requirements to earn a grade of C or better in the course. A grade of FX is issued to students who may be in jeopardy of failing the course due to attendance concerns. Midterm warning grades are found in the Grades section under the Academic Profile menu of WebAdvisor on the Portal. Students should speak with their professor immediately to develop a plan to get back on track. A variety of support services are also available to students; please stop by the LifeMap Commons for a referral.

## Computation of GPA

The Cumulative Grade Point Average (CGPA) is computed by dividing the total number of quality points by the total number of credit hours attempted at Bunker Hill Community College. Grades of AU, IP, P, NA, W and WA are not calculated in the semester, cumulative or graduation grade point average. All grades are used in determining satisfactory academic progress, suspension and probation.

## Program Changes

Students wishing to change from one program of study to another should consult with their advisors. Students then must complete a change of program form, available at Enrollment Services. A program change may increase the time needed for students to complete program requirements for graduation. Students who receive financial aid should consult with the Financial Aid Office regarding the fiscal implications of program changes. Students changing their program must fulfill the catalog year program requirements in effect at the beginning of the semester following the date of the change.

## Repeating a Course

Students may repeat courses in which they earn a grade of D, F, W, WA, or NA. Students can petition Academic Records to repeat a course when they have obtained a C grade or better but should recognize that they do so at a substantial risk. The process may be used no more than three times for courses with a letter grade of C or better. Repeating a course when the earlier attempt is a C or better is allowed only if the higher course grade is a course prerequisite or program requirement to continue in or enter a specific academic program. The grade in the final attempt automatically becomes the official grade for purposes of calculating grade point average and for determining eligibility for graduation. The grades for each attempt, however, are recorded and always remain on the student's transcript. Repeating a course may not be allowed in specific programs with outside accreditation. Example for determining a Cumulative Grade Point Average:

Course	Credits Attempted	Grade	Quality Points	Quality Points earned
ENG112	3	A- =	(3.70)	11.10
MAT196	3	C+ =	(2.30)	6.90
BIO102	4	B =	(3.00)	12.00
SPN201	3	F =	(0.00)	0.00
TOTAL	13			30.00

Cumulative Grade Point Average (CGPA):  $30 \div 13 = 2.31$

Graduation Grade Point Average is calculated in the same manner but excludes developmental course work (i.e. courses numbered below 100).

## Student Right-to-Know Graduation Rate

Graduation rates data are available online for all colleges that are required to report this information. This information is reported by colleges and published by the United States Government and available at [ope.ed.gov/security](http://ope.ed.gov/security).

# Graduation and Alumni Engagement

## Graduation Information

### Application

During their final semester, students who expect to graduate must apply for graduation. To graduate, students must:

- Complete a minimum of 60 credit hours (exclusive of developmental courses) with a minimum cumulative grade point average of 2.00.
- Attain a minimum of 15 credits of the total number of credit hours through courses enrolled in and successfully completed at Bunker Hill Community College.
- Complete all program requirements.
- Meet all requirements of the College, including payment of any outstanding financial obligations and submission of state-mandated immunization requirements.

### Second and Subsequent Degrees

Students may apply to earn additional associate degrees. To qualify, students must complete the required courses for each degree, as well as a minimum of 15 credit hours beyond the first and any subsequent degrees.



### Certificates

To qualify for a BHCC certificate, students must complete all course requirements for the certificate with a minimum of 25 percent of the required credit hours successfully completed at the College with a cumulative minimum GPA of 2.00 (exclusive of developmental courses).

### Graduation with Honors

**Highest Honors:** Students who have completed degree requirements with a Cumulative Grade Point Average of 3.90 - 4.00, less developmental credits.

**High Honors:** Students who have completed degree requirements with a Cumulative Grade Point Average of 3.50 - 3.89, less developmental credits.

**Honors:** Students who have completed degree requirements with a Cumulative Grade Point Average of 3.30 - 3.49, less developmental credits.

The College gives honors awards for the highest grade point average, less developmental credits, in each program.

## Alumni Association and Foundation

### The Bunker Hill Community College Alumni Association

#### Alumni Office

617-228-2395

bhccalumni@bhcc.mass.edu

Established in 1988, the Bunker Hill Community College Alumni Association contributes to the continued growth of the College by sharing the educational, professional and personal experiences of alumni with the College community.

The Alumni Association provides opportunities for alumni to connect with their alma mater, one another and BHCC students through sponsored programs, networking opportunities and events. Membership in the BHCC Alumni Association is open to all degree graduates, certificate graduates and friends of the College.

Recognized as the College's best ambassadors and as an integral part of the college community, members of the Alumni Association actively participate in and support key programs that enhance the College's mission. Through the Association, interested alumni may stay actively involved with the College in a variety of ways, serving as alumni mentors for students, working on event committees or serving on the Alumni Association Board of Directors.



## The Bunker Hill Community College Foundation, Inc.

### Foundation Office

 Marilyn K. Kuhar  
Executive Director of Development and of the Foundation  
617-228-3290  
mkkuhar@bhcc.mass.edu

The Bunker Hill Community College Foundation, Inc., is a non-profit 501(c)(3) organization established to obtain resources to support the College, thereby enabling students with diverse educational, ethnic and cultural backgrounds to benefit from a high-quality, affordable, post-secondary education. The mission is realized by building constituencies and obtaining financial resources from groups and individuals including alumni, business, civic and community leaders.

The Foundation Board of Directors is committed to advancing the mission of the College and works to secure private contributions, planned gifts and other donations from individuals, foundations and corporations through personal solicitations, grant applications and fundraising events.

The Foundation provides funding for student scholarships and the Student Emergency Assistance Fund, support for the Textbook Assistance Program (T.A.P.), cultural programs, the Art Gallery and many other activities that advance the goals and mission of the College. In addition, the Foundation is building an endowment to ensure academic excellence and accessibility for future generations of students.

## LifeMap: Academic Planning, Career Planning and Transfer

### LifeMap

 [bhcc.edu/lifemap](http://bhcc.edu/lifemap)

 617-228-2230

Bunker Hill Community College is committed to supporting students in achieving their educational, career and life goals. LifeMap re-imagines the student experience by enabling students to develop an individualized pathway to meet these goals. In partnership with faculty and staff, students use LifeMap tools to create educational, financial, transfer or career plans, connect with support services, participate in social networking and reflect on their learning. By centralizing resources and enlisting faculty and staff in their use in and beyond the classroom, LifeMap enables students to make informed decisions and become more self-sufficient while they create a personalized plan for realizing their goals.

In addition to the LifeMap related activities students will be exposed to in the classroom, the LifeMap Commons serves as a central location on campus to support students throughout their journey with Academic and Career Advising, Internship Programming, the Learn & Earn Program, Job Search Resources, Career Events, Transfer Services and referrals to other college support services. Learn more at [bhcc.edu/lifemap](http://bhcc.edu/lifemap).

## Academic and Career Advising

### Advising Center

 [bhcc.edu/studentlife/advising](http://bhcc.edu/studentlife/advising)

 617-228-2230

Embracing the diversity of its college community, Bunker Hill Community College recognizes the individual needs of its students. Our academic and career advisors are dedicated to providing continuous advising services to strengthen, nurture, empower, and assist students to make sound and responsible decisions through their educational career at the College.

Academic and career advising and resources are available for all Bunker Hill Community College students in a variety of formats that include individualized advising, group advising, workshops, online advising as well as online resources and assessments. Information about academic and career advising sessions and opportunities are posted on the events calendar on the BHCC website and are emailed to students throughout the year; students should check their BHCC email daily.

Advisors assist students with choosing or changing a major, building an academic schedule, developing an educational plan for degree completion, utilizing online resources, understanding campus policies and procedures and referring students to additional support services or resources. For more information please visit the LifeMap Commons or [bhcc.edu/studentlife/advising](http://bhcc.edu/studentlife/advising).

### BHCCselfservice

All registered students (accepted as well as guests) have an Online Services account known as MyBHCC, accessed via the BHCC homepage. This account allows students to print a current course schedule or unofficial transcript, view placement test results and grades, search for course availability, access financial aid and student payment information, register for or drop courses (during the posted registration and add/drop periods), pay for courses, create a payment plan and waive health insurance. The Program Evaluation and Student Planning features allow students to monitor their progress toward program requirement completion and make informed decisions about course selection. In addition, the Student Planning feature allows students to create a plan for completing program requirements and even register from that plan. Students requiring assistance can also visit the LifeMap Commons.

### CareerConnect

CareerConnect is BHCC's exclusive online career portal where students and alumni can search and apply for jobs, internships and volunteer opportunities, as well as manage the full spectrum of their career search needs. Students and alumni can use CareerConnect to register for career events and workshops, explore career videos, access our library of workshop materials and sample resumes, easily create resumes, upload cover letters and portfolio documents, practice interviews, search and apply for positions, and sign-up for job or event alerts. Visit [bhcc.edu/careerconnect](http://bhcc.edu/careerconnect) to complete your profile or for more information visit the LifeMap Commons.



## Career Advancement and Internships

### Career Services Office

[bhcc.edu/careerservices](http://bhcc.edu/careerservices)

617-228-2245 [careercenter@bhcc.mass.edu](mailto:careercenter@bhcc.mass.edu)

### Academic Program Internships

Academic internships combine relevant on-the-job experience with classroom learning in a 3-credit course as part of your program of study. Academic internship courses are offered for several majors; visit [bhcc.edu/internships/academicinternships/](http://bhcc.edu/internships/academicinternships/) for a full list of programs. Academic internships may also be an option as an elective course in many degree programs. Planning is required one semester ahead of time and requires sign-off from the Faculty Coordinator or Internship Coordinator.

### Career Internships

Students interested in gaining practical experience to test-drive an occupation or become more marketable in their field of study can explore non-credit internship opportunities. Students can build upon skills learned in the classroom, work on challenging assignments, and receive mentoring from a qualified professional. Students can also expand their knowledge of career options, begin to establish their own professional connections, and have relevant experience at the top of their resume. Explore current internship postings at [bhcc.edu/careerconnect](http://bhcc.edu/careerconnect).

### STEM Research Internships

Science, Technology, Engineering, and Math students who have or will be completing their 1st year of coursework in their major, may be eligible to apply for a competitive, paid research internship. A majority of research internships are offered in the summer, fulltime. BHCC has relationships with a number of National Science Foundation (NSF) and National Institute of Health (NIH) funded programs, or Community College programs at area institutions such as MIT, Harvard, Tufts, Boston University, UMass, and Dana Farber. Student planning and preparation for these programs begins early in the Fall semester with application deadlines starting as soon as Nov 1. These opportunities are offered in collaboration with STEM Faculty and the STEM Club.

For additional information, visit [bhcc.edu/internships](http://bhcc.edu/internships) or stop by the LifeMap Commons to meet with the Internship Coordinator.

## Learn and Earn

### Learn and Earn

[bhcc.edu/learnandearn](http://bhcc.edu/learnandearn)

617-228-2006 [learnandearn@bhcc.mass.edu](mailto:learnandearn@bhcc.mass.edu)

Bunker Hill Community College's Learn and Earn program offers competitive, paid internships at some of the top companies in Massachusetts, including Bank of America, Beth Israel Deaconess Medical Center, BJ's Wholesale Club, the Boston Foundation, Dovetail Healthcare, Eaton Vance, Dell EMC, Fidelity Investments, Liberty Mutual, Plymouth Rock Assurance, Putnam Investments, Raytheon, Staples, State Street, Suffolk Construction, Tufts Technology Services, UBS, and Vertex Pharmaceuticals. Students work 16-30 hours per week at \$15/hour, take a 3-credit internship course, and receive mentoring and support for career goals.

Students should note that the recruitment, application, and interviewing cycle takes place a full semester in advance of the internship start date. For eligibility requirements and more information, please visit [bhcc.edu/learnandearn](http://bhcc.edu/learnandearn) or stop by the LifeMap Commons to meet with the Learn and Earn Coordinator.



## Job Search and Career Events

Workshops or individual sessions designed to assist students in all aspects of finding and keeping employment are offered, including resume writing, interviewing skills, marketing yourself, networking, LinkedIn, how to use online and social networking sites for job searches, mock interviews, and our InterviewStream video recording platform. Enrolled students and alumni have around-the-clock web access to BHCC's CareerConnect ([bhcc.edu/careerconnect](http://bhcc.edu/careerconnect)) where they can search and apply for jobs and internships targeted for BHCC students. Hot jobs are also posted weekly in D-hallway and on LifeMap bulletin boards.

A series of industry-focused Career Fairs are open to students and alumni during the fall and spring where students can engage directly with professionals in their field as well as find internship, part-time, seasonal, or full-time employment.

The office also hosts various career panels, networking and professional readiness events, company information sessions or employer pop-up recruiting on campus. For more information and to access resources visit [bhcc.edu/careerservices/](http://bhcc.edu/careerservices/) or the LifeMap Commons.

## Transfer Services

### Transfer Services

[bhcc.edu/transfer](http://bhcc.edu/transfer)

617-228-2403 [transferaffairs@bhcc.mass.edu](mailto:transferaffairs@bhcc.mass.edu)

### Transfer In

Students who have attended another college may apply for transfer credit and advanced standing at Bunker Hill Community College. Official transcripts from all previous colleges should be sent directly to the Academic Records Office at the time the student applies to BHCC. Once the student is accepted and becomes a matriculated (or degree-seeking) student, college transcripts will be evaluated.

Credit may be awarded if:

- A grade of C or better is earned from a regionally accredited college or university. A grade of P may be accepted only if it can be demonstrated that the P grade is equivalent to a grade of C or higher.
- The courses are comparable to those offered at BHCC.
- Specific departmental requirements may apply to course eligibility for your program: Anatomy and Physiology I, II and Microbiology for selective health programs may not be more than five years old,
- Some programs require a C+ or higher. Detailed information can be found in the Degree and Certificate Program section of the catalog.

Credits earned at colleges which follow a quarter system will be converted to semester-hour equivalents resulting in an adjustment in the number of credits transferred. The College will accept a maximum of 45 transfer credits toward the BHCC associate degree and 75 percent of the total number of credits required for certificate programs.

**Transfer Appeal Process:** Transfer students who would like the college to reconsider its decision regarding the awarding of transfer credit may request a meeting with a Transfer Counselor by emailing [transferaffairs@bhcc.mass.edu](mailto:transferaffairs@bhcc.mass.edu). The purpose of this meeting is to give the student an opportunity to present evidence such as course descriptions and syllabi to demonstrate that the course(s) in question are either the equivalent or comparable and meet the criteria listed above. As part of this review, relevant Faculty, Department Chair and or the Academic Dean will be consulted to review course documentation as needed. If the matter is not resolved through this process, the student can appeal in writing to the appropriate Associate Provost of Academic Affairs requesting that the Associate Provost review the materials and findings. The decision of the Associate Provost is final.

## Transfer Out

Transfer Services offers services to students interested in transferring from Bunker Hill Community College to four-year institutions. Through information sessions, college visits, transfer fairs, workshops, and various resources, students will understand the procedures to facilitate the transfer process. The College encourages students to plan early and research future colleges and universities to properly assess their requirements, minimums, and expectations, which will help students make the best curriculum choices at BHCC. Visit [bhcc.edu/transfer/](http://bhcc.edu/transfer/) for upcoming information sessions and additional information or visit the LifeMap Commons.

## MassTransfer

MassTransfer is collaboration between the Commonwealth's community colleges, state universities and the University of Massachusetts. System-wide resources and policies allow for students to transfer seamlessly, stay on track and minimize the time it takes to earn a bachelor's degree.

**General Education Foundation.** MassTransfer provides any student in the Massachusetts public higher education system who completes the General Education Foundation with the benefit of satisfying the general education/distribution/core requirements at any other public higher education institution (with the receiving institution able to add no more than six additional credits or two courses). Visit [bhcc.edu/programsofstudy/generaleducationrequirements/](http://bhcc.edu/programsofstudy/generaleducationrequirements/) for Bunker Hill Community College's General Education requirements.

**A2B (Associate degree to Bachelor's degree).** Beginning your college career at a community college is a smart choice. MassTransfer seeks to reward community college students who complete associate degrees at Massachusetts community colleges before they enroll in linked bachelor's programs at Massachusetts state universities or University of Massachusetts campuses. Not only does MassTransfer guarantee full transfer of a minimum of 60 credits but, depending on their final GPA and/or prerequisite coursework, students who complete A2B Degrees (Associate to Bachelor's) may also receive guaranteed admission and tuition discounts. Visit [mass.edu/masstransfer/a2b/home.asp](http://mass.edu/masstransfer/a2b/home.asp)

**Commonwealth Commitment.** A2B Degree students who attend full-time and earn a 3.00 GPA or higher also have the opportunity to participate in the Commonwealth Commitment. The Commonwealth Commitment (available in "A2B Mapped" majors only) further rewards students with a freeze on tuition & fees for all four years, and 10% end-of-semester rebates. For more information including a complete list of pathway programs and qualifications for eligibility please visit [bhcc.edu/commonwealthcommitment/](http://bhcc.edu/commonwealthcommitment/) or speak with a Transfer Counselor in the LifeMap Commons.

## Transfer and Articulation Information for Baccalaureate Programs

Bunker Hill Community College is dedicated to creating partnerships with four-year colleges and universities. Articulation agreements outline the transfer pathway between academic programs at BHCC and other institutions. Articulation agreements are designed to help students make a smooth transition when transferring from BHCC to another institution by ensuring that they understand if and how coursework taken at BHCC will transfer into other programs.

Transfer Services offers a variety of services to students interested in transferring from BHCC to four-year institutions. Students are encouraged to plan early and research and meet with transfer admissions representatives from the four-year institutions to properly assess each college or universities' requirements, minimums, and expectations, which will help make the best curriculum choices at BHCC.

For a list of current articulation agreements please visit [bhcc.edu/admissions/articulationagreements](http://bhcc.edu/admissions/articulationagreements).

## Placement Testing and Assessment

### Assessment Center

 [bhcc.edu/assessment](http://bhcc.edu/assessment)

 Charlestown Campus: 617-228-2468

 Chelsea Campus: 617-228-2101

The College Placement Test, or CPT, is a computerized assessment of basic math, reading and writing skills and must be taken prior to registering for classes. Some students may qualify for an exemption from testing. For more information, please visit [bhcc.edu/assessment](http://bhcc.edu/assessment).

The best way to perform well on CPT is to prepare in advance. A list of test-preparation resources, including practices tests, is available at [bhcc.edu/assessment/cpt](http://bhcc.edu/assessment/cpt).

Students whose first language is not English and who have not earned a high school diploma or HiSET (formerly the GED) in the United States may be required to take the English placement test (ESL Test/ LOEP). Information on the ESL placement test, including exemptions and practice questions can be found at [bhcc.edu/englishasasecondlanguage](http://bhcc.edu/englishasasecondlanguage).

Appointments can be made online; please call 617-228-2468 (Charlestown Campus) or 617-228-2101 (Chelsea Campus) for details.

# Educational Opportunities

## Distance Education

### BHCCOnline

 [bhcc.edu/bhcconline](http://bhcc.edu/bhcconline)

 617-228-2466  [onlinehelp@bhcc.mass.edu](mailto:onlinehelp@bhcc.mass.edu)

Bunker Hill Community College offers several alternatives to classroom instruction that allow students to complete all or part of their course work online. These alternative modes of instruction include full asynchronous online courses, as well as hybrid courses that are part online and part in class. For information about orientations and general information about contact the BHCCOnline office.

## The Commonwealth Honors Program at BHCC

### Honors Program Office

 [bhcc.edu/honors](http://bhcc.edu/honors)

 [chp@bhcc.mass.edu](mailto:chp@bhcc.mass.edu)

The Commonwealth Honors Program at Bunker Hill Community College is a statewide program overseen by the Honors College at the University of Massachusetts at Amherst. Bunker Hill is one of many of the Commonwealth's colleges and universities that is a member of this program.

Within the Commonwealth Honors Program, students will find and create opportunities to excel academically in a rich and challenging environment and to become a member of a diverse and inclusive community of scholars, building on the strengths of the college community's diversity. For admission requirements and benefits, including transfer opportunities and scholarships, visit [bhcc.edu/honors](http://bhcc.edu/honors).

## BHCC Learning Communities

### Learning Communities

 [bhcc.edu/learning-communities](http://bhcc.edu/learning-communities)

 617-228-2421

BHCC Learning Communities provide students with the opportunity to explore contemporary issues in a challenging and supportive environment. Learning Communities foster stronger relationships among students, faculty and staff and offer culturally relevant and active learning experiences.

First-time to-college students pursuing associate degrees and enrolled in nine or more credits are required to take a Learning Community Seminar or a Learning Community Cluster within their first year.

The Learning Community Seminar is a three-credit college level course designed to help incoming students identify academic goals and pathways. Seminars engage students in early career

exploration and feature integrated support services, including peer mentors and success coach advisors.

Learning Community Clusters enable students to take two or more courses together organized around a common academic theme. Clusters prepare students to work together in collaborative environments and provide opportunities for students to accelerate progression through developmental English and math.

For more information about BHCC Learning Communities, contact the Director at 617-228-2421 or visit [bhcc.edu/learning-communities](http://bhcc.edu/learning-communities).

## Alternative Learning

Bunker Hill Community College provides a variety of alternative learning options for students who are self-directed learners. These options address individual learning styles or provide flexible options for those constrained by time and/or distance. Online, weekend, individualized courses through the Center for Self-Directed Learning, and independent studies through the Contract Learning Program provide these types of non-traditional learning opportunities.

## Boston Welcome Back Center for Internationally Educated Nurses

### Welcome Back Center

 [bhcc.edu/welcomeback](http://bhcc.edu/welcomeback)

 617-228-ICAN (4226)  [welcomeback@bhcc.mass.edu](mailto:welcomeback@bhcc.mass.edu)

The Boston Welcome Back Center assists unemployed and underemployed nurses who earned their credentials outside the United States to obtain state licensure and re-enter the nursing workforce. The Center incorporates educational case management services, educational guidance and counseling and group activities to address the educational and vocational needs of internationally-educated nurses who want to work in Massachusetts.

The Welcome Back Center's main office is located at Bunker Hill Community College's Charlestown Campus with a branch offices located at Roxbury Community College. The Welcome Back Center addresses several pressing and systemic needs in healthcare delivery in the Greater Boston region: Creating new pipelines into the nursing field to relieve regional workforce shortages.

- Enhancing the racial, ethnic and linguistic diversity of the area's nursing workforce.
- Building cultural competencies in the nursing workforce and college environment.

The Welcome Back Center offers a range of specially-designed, customized and accelerated educational interventions that address participants' English proficiency needs and nursing/educational skill gaps in order to expedite re-entry into the nursing profession.

## Center for Self-Directed Learning (CSDL)

### Center for Self-Directed Learning

[bhcc.edu/csdl](http://bhcc.edu/csdl)  
617-228- 2225 [csdl@bhcc.mass.edu](mailto:csdl@bhcc.mass.edu)

Students may enroll in college credit courses available through the Center for Self-Directed Learning (CSDL). Students have the flexibility to make their own schedules, and complete assignments and tests according to their unique learning needs. The CSDL provides multi-media resources for individualized, independent instruction under the supervision of professional learning specialists and professional tutors.

Students are always active participants in the learning process, solving problems, answering questions and developing skills. In order to ensure that effective learning takes place, student progress is evaluated on a continuous basis. Courses can extend over the entire semester, or be completed in a few weeks, depending on the student's needs.

Course facilitators and tutors are available to guide and assist students at all times during scheduled hours of operation. During the fall and spring semesters, the CSDL is open seven days a week, with evening hours Monday through Thursday. During the summer semester, the CSDL is open Monday through Thursday including evenings. For schedule information, see the posted schedule or ask a staff member for help. Refer to the current course schedule booklet or the College website at [bhcc.edu](http://bhcc.edu) for a detailed listing of course offerings.

## Independent Learning Contracts

A Learning Contract is an opportunity for students to complete coursework under the individual supervision of a faculty member under specific circumstances including the need for a learning experience to extend beyond the academic program curricular offerings. Learning contracts are generally approved when in the professional opinion of the Dean and Department Chair the student needs this contract in order to complete their degree in the present semester through no fault of their own and there is no other way to meet the requirement.

## Prior Learning Assessment (PLA)

### Prior Learning Assessment Office

[bhcc.edu/priorlearningassessment](http://bhcc.edu/priorlearningassessment)  
617-228- 2350 [pla@bhcc.mass.edu](mailto:pla@bhcc.mass.edu)

The Prior Learning Assessment program (PLA) provides a process for evaluation and, when appropriate, awards academic credits for learning acquired outside the traditional college environment. In order to receive PLA credits, students must provide evidence that their prior learning is equivalent to college-level learning and it must correspond to the courses offered at BHCC. The PLA Coordinator assists students in preparing portfolios and documenting credits. Specialists in

each topic review completed portfolios. Students may apply a maximum of 45 PLA credits toward an associate degree at BHCC. PLA can be awarded by departmental examination, college-level examination or military evaluation. For more information, visit [bhcc.edu/priorlearningassessment](http://bhcc.edu/priorlearningassessment).

## Office of Community Engagement

### Office of Community Engagement

[bhcc.edu/communityengagement](http://bhcc.edu/communityengagement)  
617- 228-3485 [engagement@bhcc.mass.edu](mailto:engagement@bhcc.mass.edu)

Bunker Hill Community College's Office of Community Engagement provides multiple pathways for students to engage as active and responsible members of their communities. BHCC students work with community-based organizations as assigned through their courses, contemplate civic and ethical issues with each other on campus, or simply volunteer in their local communities. The College partners with a range of Greater Boston community-based organizations, including after-school programs, community centers, environmental advocacy groups, food pantries, and refugee and immigration centers. The College's Office of Community Engagement supports faculty integration of community engagement projects into the curriculum, coordinates co-curricular volunteer programs, and provides a pathway for local community-based organizations to partner with the College.

## Partnerships with Secondary Schools

### Dual Enrollment Programs

#### Dual Enrollment Office

[bhcc.edu/dualenrollment](http://bhcc.edu/dualenrollment)  
617-228-3319 617-228-3216  
[dualenroll@bhcc.mass.edu](mailto:dualenroll@bhcc.mass.edu)

High school students from Greater Boston area schools can earn high school and college credits simultaneously while gaining familiarity with the college experience through BHCC's dual enrollment programs. Students may enroll individually, or through partnerships with area schools or districts. The program includes dual enrollment and early college programs offered in partnership with area school districts such as Boston, Cambridge, Chelsea, Everett, Malden, Medford and Revere.

## High School Articulation Agreements and Curricular Alignment

BHCC shares articulation agreements with many local high schools, awarding college credit for certain advanced courses taught at high schools. BHCC faculty in Mathematics and English are working with their colleagues in several area high schools to align high school and college curriculum, ensuring students arrive at college ready to take college-level courses.

## Massachusetts Distributive Education Clubs of America (DECA)

Massachusetts DECA is a co-curricular career technical high school student organization that operates in over 60 comprehensive and technical high schools in Massachusetts. DECA has been operating on a continuous basis at BHCC since September 1993. [madeca.org](http://madeca.org)

## Students Taking Action for Nursing Diversity (STAND)

STAND provides high school students who have expressed an interest in the nursing field with an opportunity to pursue a nursing degree at Bunker Hill Community College. [bhcc.edu/STAND](http://bhcc.edu/STAND)

## Summer Transition Program

BHCC offers free eight-week Bridge Courses and three-week accelerated academic review Boot Camps to enable entering students with assessed need for developmental English or math coursework to receive intensive instruction and review, in order to progress through developmental levels prior to fall entry. [bhcc.edu/summertransition](http://bhcc.edu/summertransition)

## Student Success Program (TRiO)

### Student Success Program (TRiO)

[bhcc.edu/studentsuccessprogram](http://bhcc.edu/studentsuccessprogram)  
 617-228-2303   [trio.successprogram@bhcc.mass.edu](mailto:trio.successprogram@bhcc.mass.edu)

Students must apply and be selected to participate in the Student Success Program. The program's goal is to assist students in their efforts to be successful in their studies, graduate, and transfer to a four-year college or university by providing comprehensive academic and student support services and transfer assistance. Program participants are known for having an average GPA of 3.0 or higher, successful program completion rates, and strong leadership skills. TRiO Student Support Services Grant is funded by the United States Department of Education.

## Workforce Development and Adult Basic Education

### Department of Workforce Development

[bhcc.edu/workforce](http://bhcc.edu/workforce)  
 617-228-2021   [mngan@bhcc.mass.edu](mailto:mngan@bhcc.mass.edu)

Housed within the Division of Professional Studies and Workforce Development, the Department of Workforce Development leverages the College's expertise and resources to provide non-traditional educational pathways that lead to both personal growth and professional advancement.

Through its corporate, communications, technology, and employability training, exam preparation and entrepreneurship programs, the department contributes to the region's intellectual, cultural, and economic development. It identifies and closes workforce gaps, empowers personal advancement, promotes academic success, and fosters wellness, growth and lifelong learning. Learn more at [bhcc.edu/workforce](http://bhcc.edu/workforce).

### Programs and Services

1. **Corporate Training** provides high quality, industry demand-driven programming to emerging, transitional, and incumbent workers in a corporate setting.
2. **Community Education** empowers personal advancement offering market-driven courses designed to achieve students' personal and professional goals.
3. **The Community Center for Entrepreneurship** is the region's premier resource for urban business development. Our partner network sponsors and fosters business growth both for the student or individual seeking to launch a new business, as well as the small business owner seeking to grow their business to a new level.

### Adult Basic Education and Transitions to College Programs

#### Adult Basic Education

[bhcc.edu/abe](http://bhcc.edu/abe)  
 617-228-2108   [tborge@bhcc.mass.edu](mailto:tborge@bhcc.mass.edu)

The Adult Basic Education, Health Careers Pathways, and Transitions to College programs are Massachusetts Department of Elementary and Secondary Education (MADESE) grant-funded programs that offer classes at no cost for adults to develop English language proficiency, content skills to acquire a high school credential, and to be successful in college credit classes.

## Academic Resources

### College Connection

#### College Connection

 [bhcc.edu/collegeconnection](http://bhcc.edu/collegeconnection)  
 617-228-2165  [scurranc@bhcc.mass.edu](mailto:scurranc@bhcc.mass.edu)

The College Connection is an academic and intrusive advising support service available to students enrolled in sections of RDG-090, RDG-095 and ENG-090. Some classes have a dedicated Literacy Coach who visits the class on a regular basis and provides individualized tutoring outside of class time, follows up with absent students, connects students to appropriate college resources, and provides advising services. The goal of the program is to improve the retention, pass rates, and reading levels of students enrolled in developmental reading and writing classes, as well as to prepare students to meet college expectations.

### Language Lab

#### Language Lab

 [bhcc.edu/languagelab](http://bhcc.edu/languagelab)  
 617-228-3440  [langlabs@bhcc.mass.edu](mailto:langlabs@bhcc.mass.edu)

The Language Lab provides students a high-tech learning environment along with a knowledgeable tutoring staff to guide them with any aspect of language learning, from speaking, listening and pronunciation to reading, writing, grammar and punctuation. The Lab has several language learning software programs, support staff members and 37 workstations.

### Library & Learning Commons

#### Library & Learning Commons

 [bhcc.edu/library](http://bhcc.edu/library)  
 617-228-2213  
 [BHCCLibrary@bhcc.mass.edu](mailto:BHCCLibrary@bhcc.mass.edu)

The BHCC Library & Learning Commons delivers services that include information literacy instruction, quality resources, and an academic learning environment. The library, located on the Charlestown Campus on the third floor of the E-Building, serves all BHCC locations.

For detailed information about the library's resources for students and faculty, hours, ID cards and more, visit <http://www.bhcc.edu/library>.

### MathSpace

#### MathSpace

 [bhcc.edu/mathspace](http://bhcc.edu/mathspace)  
 617-228-3286  617-228-2283  
 [mathlab@bhcc.edu](mailto:mathlab@bhcc.edu)

The MathSpace is a mathematics resource center that is available to all students enrolled in developmental mathematics courses at BHCC. The primary goal of the MathSpace is to assist students to become independent learners and in achieving academic success in mathematics. For more information and hours, visit [bhcc.edu/mathspace](http://bhcc.edu/mathspace).

### Tutoring and Academic Support Center (TASC)

#### The TASC

 [bhcc.edu/tasc](http://bhcc.edu/tasc)  
 617-228-3467  [tasc@bhcc.mass.edu](mailto:tasc@bhcc.mass.edu)

The Tutoring and Academic Support Center (TASC) supports and enhances student learning and academic success by offering a variety of traditional and non-traditional services to all BHCC students. The TASC offers tutorial assistance, small group workshops, and academic support to students enrolled in credit-bearing courses. Students are offered a wide range of services to support their work in basic academic skills as well as on course-specific work in their programs. Students may register for weekly, individual, and group appointments.

### The Writing Place

#### The Writing Place

 [bhcc.edu/writingplace](http://bhcc.edu/writingplace)  
 617-936-1948

The Writing Place is a tutoring service sponsored by the English Department. Students come to the Writing Place to work with peer tutors on specific writing tasks, including brainstorming ideas for college writing assignments, organizing rough drafts, revising, editing, and doing library research.

# Student Programs and Services

## Athletics and Wellness

### Athletics Department

[bhcc.edu/athletics](http://bhcc.edu/athletics)

617-228-3443 [jrossi@bhcc.mass.edu](mailto:jrossi@bhcc.mass.edu)

Bunker Hill Community College's Athletic Department has developed a program of varsity, intramural and Health and Wellness program offerings to support all students at the College. BHCC supports student athletes by providing professional coaches and staff, state-of-the-art facilities, safe equipment and opportunities for student athletes to compete in varsity-level programs with other intercollegiate athletic institutions. The Athletic Department sponsors varsity level sports programs in Men's and Women's Basketball, Soccer, Men's Baseball and Women's Volleyball. Collegiate League Memberships include NJCAA (National Junior College Athletic Association) Division III and the MCCAC (Massachusetts Community College Athletic Conference) Division III. Intramural activities and other health and wellness programs are offered on a regular basis.



## Disability Support Services

### Disability Support Services

[bhcc.edu/disabilitysupportservices](http://bhcc.edu/disabilitysupportservices)

617-228-2327 (TTY 617-242-2365)

[disabilitysupport@bhcc.mass.edu](mailto:disabilitysupport@bhcc.mass.edu)

Disability Support Services provides resources and support services for individuals with documented disabilities. These services promote student success and self-advocacy, while maintaining student confidentiality and consideration in accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973. The DSS staff provides services in the following areas: Classroom accommodations, Testing accommodations, Academic Advising, Educational Coaching, Literacy support, Developmental Math Support, and Referrals to area resources to obtain testing/documentation of disability.

Students are responsible for initiating the request for accommodations. All accommodations are received through the DSS office. Students must provide current and appropriate documentation, relevant to the accommodations being requested. For information and/or to register for services please contact Disability Services.

## Health Services

### Health Services

[bhcc.edu/healthservices](http://bhcc.edu/healthservices)

617-228-2274

The Health Services Office promotes wellness through health awareness and education. The Health Services Coordinators provide assistance to the college community through emergency first aid, referrals for individual health concerns, and review of immunization clearances for the College's health related programs.

## International Center

### International Center

[bhcc.edu/internationalcenter](http://bhcc.edu/internationalcenter)

617-228-2460 [international@bhcc.mass.edu](mailto:international@bhcc.mass.edu)

The International Center provides programs, services and activities designed to advance the internationalization of the College community. Staff at the Center provide comprehensive programs and individual assistance to international students from more than 100 countries each year. The Center, with assistance from the Student Government Association, provides opportunities for students, faculty and staff to participate in international study and travel experiences in a variety of locations including Argentina, Belize, Costa Rica, the Czech Republic, France, Italy, Spain and China. The Center hosts many international visitors and the Center staff members develop customized training programs for educators and students from around the world. With federal funding, the Center provides support to faculty to develop new international courses and to update their curriculum to include global perspective so that

graduates are prepared to practice their professions within a global and multicultural environment.

International students who wish to attend Bunker Hill Community College apply through the International Center, where they can obtain the necessary documentation to apply for student visas to study in the United States. International Student Advisors in the International Center assist students to maintain legal immigration status, obtain student visas, apply for a change of their tourist visas to student visas, transfer to other colleges, obtain work permission, obtain practical training and arrange travel or temporary absence certification from the United States. The International Student Advisors also serve as counselors to discuss academic concerns and/or personal issues such as adjustment to life in the United States. Orientation, social and cultural programs sponsored by the Center help international students learn more about U.S. culture and the educational system.

### Single Stop

#### Single Stop

 [bhcc.edu/singlestop](http://bhcc.edu/singlestop)

 617-228-3330

Single Stop is an initiative at Bunker Hill Community College, connecting students to state and federal financial resources and local community services. The aim is to help students surmount economic barriers, continue with their education, and move towards economic mobility with the ultimate goal toward ending cycles of poverty. For a list of services and partners, visit the Single Stop office.

### Student Activities, Clubs and Organizations

#### Student Activities Office

 [bhcc.edu/activities](http://bhcc.edu/activities)

 617-228-2260  [studentactivities@bhcc.mass.edu](mailto:studentactivities@bhcc.mass.edu)

Bunker Hill Community College offers a variety of co-curricular activities that provide students with opportunities to develop leadership skills and to engage in social interaction. Students can serve as leaders of a wide array of clubs and organizations, and work with College staff to administer the programs. The activities are designed to promote intellectual development and cultural awareness and understanding.

The Student Government Association (SGA) is an elected body of Bunker Hill Community College student representatives. Members work in collaboration with the College administration to enhance the quality of student life on campus. The SGA develops a proposed annual budget, derived from student fees, with the Director of Student Leadership and Engagement, which is reviewed by the Dean of Students and approved by the College President. The SGA is also responsible for formally approving student clubs and organizations. Learn more about the SGA at [bhcc.edu/studentlife/studentgovernmentassociation](http://bhcc.edu/studentlife/studentgovernmentassociation).

Clubs and organizations provide the opportunity for students to meet other students, have fun, learn, and develop organizational skills. Visit [bhcc.edu/clubs](http://bhcc.edu/clubs) for a full list of all clubs and organizations.

### Student Handbook

The Student Handbook includes information about College policies, student disciplinary procedures, student rights and responsibilities and student services. The student grievance procedure for complaints regarding College policies, practices, or personnel is detailed in the Student Handbook. Copies are available online through the BHCC website. Direct all inquiries related to College regulations, student conduct and the student grievance procedure to the Office of Dean of Students. View the Student Handbook at [bhcc.edu/handbook](http://bhcc.edu/handbook).

### Study Abroad

The International Center assists BHCC students in integrating study abroad experiences in one of 17 countries into their academic programs. Scholarship opportunities are available to qualified students. For more information, visit the International Center or visit [bhcc.edu/studyabroad](http://bhcc.edu/studyabroad).

### The Mary L. Fifield Endowed Student Emergency Assistance Fund

Bunker Hill Community College has established the Mary L. Fifield Endowed Student Emergency Assistance Fund. The purpose of the fund is to provide monetary relief to students for emergencies that occur during the semester and that may cause a student to drop out. Applications will be accepted after the end of the schedule adjustment period for the fall and spring semesters. The fund does not support tuition, fees and books.

### Veterans Center

#### Veterans Center

 [bhcc.edu/veterans](http://bhcc.edu/veterans)

 617-228-3213  [veteranscenter@bhcc.mass.edu](mailto:veteranscenter@bhcc.mass.edu)

The Veterans Center is dedicated to serving student-veterans, active duty military, Guard/Reservists and their eligible dependents within the college community. The office provides specialized support in academic advising, military and VA educational benefits assistance, VA Educational Benefit Certification, referrals to College resources and other agencies, verification of pursuit of training, assistance with credit for prior learning, admissions assistance and support and advocacy for the veteran and military affiliated population.

Students who wish to apply for educational benefits must contact the Veterans Center and the VA Certifying Official. Student's receiving educational benefits are required to attend classes and maintain satisfactory academic progress in order to continue receiving education benefits. Furthermore, students must notify the Veterans Center of any changes made to their enrollment status.

## Directions to BHCC Locations

For directions to Bunker Hill Community College's two campuses, three satellites and instructional centers by car and public transportation, please refer to the following information and links below.

### Charlestown Campus

250 New Rutherford Avenue  
Boston, Massachusetts 02129-2995  
Telephone: 617-228-2000  
TTY: 617-242-2365  
[bhcc.edu/charlestowndirections](http://bhcc.edu/charlestowndirections)

### H-Building – Charlestown Campus

570 New Rutherford Avenue  
Boston, Massachusetts 02129-2994  
Telephone: 617-228-2000  
TTY: 617-242-2365  
[bhcc.edu/hbuilding](http://bhcc.edu/hbuilding)

### Chelsea Campus

70 Everett Avenue  
Chelsea, Massachusetts 02150-2917  
Telephone: 617-228-2101  
TTY: 617-884-3293  
[bhcc.edu/chelseadirections](http://bhcc.edu/chelseadirections)

### East Boston Satellite

250 Sumner Street and 20 Maverick Square  
East Boston, Massachusetts 02128  
Telephone: 617-568-6492  
TTY: 617-242-2365  
[bhcc.edu/eastboston](http://bhcc.edu/eastboston)

### Malden Satellite

Malden High School  
77 Salem Street  
Malden, Massachusetts 02148  
Telephone: 617-228-3319  
TTY: 617-242-2365  
[bhcc.edu/maldendirections](http://bhcc.edu/maldendirections)

### South End Satellite

Inquilinos Boricuas en Accion (IBA) Villa Victoria  
405 Shawmut Avenue  
Boston, Massachusetts 02118  
Telephone: 617-927-1707  
TTY: 617-242-2365  
[bhcc.edu/southenddirections](http://bhcc.edu/southenddirections)

### Pao Arts Center in Chinatown

99 Albany Street  
Boston, Massachusetts 02111  
[bhcc.edu/pao](http://bhcc.edu/pao)

### Everett High School

100 Elm Street  
Everett, Massachusetts 02149  
[bhcc.edu/instructionalcenters](http://bhcc.edu/instructionalcenters)

### Boston Chinatown Neighborhood Center Quincy

275 Hancock Street, 2nd Floor  
Quincy, Massachusetts 02171  
[bhcc.edu/instructionalcenters](http://bhcc.edu/instructionalcenters)

For a map of the Charlestown Campus, visit [bhcc.edu/campusmap](http://bhcc.edu/campusmap).



## **Degree and Certificate Programs General Education Requirements**

## Degree and Certificate Programs

Bunker Hill Community Colleges offers more than 100 associate degree and certificate programs.

**The Associate Degree** is an undergraduate academic credential which includes coursework from three areas: general education requirements, career and/or liberal arts electives, and program requirements. BHCC offers two types of associate degrees:

**The Associate in Arts (A.A.)** degree is designed to prepare students to transfer to baccalaureate colleges and universities.

**The Associate in Science (A.S.)** degree is designed to prepare students to enter the workforce. In addition, many associate in science degree programs transfer to baccalaureate colleges and universities.

Associate degree programs are generally equivalent to the first four semesters of a bachelor's degree. To facilitate transfer to a baccalaureate college or university, work with an academic advisor to plan your BHCC curriculum.

**Certificate Programs** are designed to provide students with knowledge and skills to enhance their careers. Many certificate programs are "stackable," allowing students to apply courses completed in the certificate program to an associate's degree.

### First Year Learning Community Requirement

Completion of a Learning Community Seminar or Cluster within the first year is a graduation requirement for Associate in Arts and Associate in Science degree students who are enrolled in nine or more credits in their first semester of matriculation. For more information about Learning Community options, speak with an advisor or contact the Office of Learning Communities.

## General Education Program

Bunker Hill Community College is committed to the belief that all graduates should possess the skills and breadth of knowledge necessary to live full and productive lives. The General Education portion of associate degree programs assists students in acquiring knowledge and skills that enhance their major areas of concentration. Students who receive A.A. or A.S. degrees must take a total of 22 credits of General Education.

Those credits must include:

1. ENG111 and ENG112 (six credits) to fulfill General Education requirement 1 -and-
2. 16 additional credits to fulfill General Education Requirements 2, 3, 4, 5 and 6.

## General Education Outcomes

- Students are able to interpret, analyze, synthesize, and evaluate information from multiple source in a logical and coherent manner.
  - Students are able to approach writing as a process and to write coherent, well developed, effectively proofread essays, research papers, arguments, and critical analyses while using sources responsibly.
  - Students are able to explain the sociological and psychological concepts and theories that describe the nature of human societies and can relate these concepts and theories to their own life situations. **[Area 2]**
  - Students are able to apply their understanding of diverse world perspectives and past historical event in order to critically evaluate potential resolutions to conflicts in our multicultural world. **[Area 3]**
  - Students are able to apply computational methods, generate problem-solving strategies, and construct mathematical models necessary in a technologically sophisticated society. **[Area 4]**
  - Students are able to use scientific methods of inquiry to investigate the ideas, laws, and theories used to explain the physical universe, its life forms and its natural phenomena. **[Area 5]**
  - Students are able to explore the dimensions of the human intellect and imagination and develop an informed appreciation of the diverse modes of creative expression. **[Area 6]**
- See the General Education Requirement Menu on the following page.

# General Education Requirements Menu

## REQUIREMENT 1: COLLEGE WRITING

This requirement area emphasizes the two core competencies: critical thinking and writing. Upon completing this requirement, a student will approach writing as a process, from planning and drafting through revising and editing. A student will write coherent, well-developed essays, research papers, argumentative essays and critical analysis, while summarizing and using sources responsibly. Students will use computers to write and revise their work and to conduct research.

### Area 1:

ENG111 College Writing I                      ENG112 College Writing II

## REQUIREMENT 2: INDIVIDUAL AND SOCIETY

This requirement area involves an examination of one of the fundamental issues we all face in our development and in our lives: the interrelationship of the individual and the community.

The interaction of the individual with the family, the school or college, the workplace, the voluntary associations we form, and/or the state are studied. Emphasis is placed on how individuals shape and are shaped by institutions, belief systems, and conduct.

### Area 2:

GOV101 Gov. and Politics in US      PSY131 Psychology of  
GOV103 State and Local Politics      Popular Culture  
PSY101 Principles of Psychology      SOC101 Principles of Sociology  
PSY107 Group Dynamics                  SOC109 Cultural Anthropology

## REQUIREMENT 3: WORLD VIEW

This requirement area involves a study of social, cultural, economic, ethical and political issues from a historical and global perspective. The modern global system is examined in the context of the significant forces, places and events which have, over time, determined the course and development of modern civilization. Students will learn to understand and appreciate diverse perspectives in order to critically evaluate potential resolutions to conflicts in our multi-cultural world.

### Area 3:

ECO201 Macroeconomics                  HIS112 World Civilization from  
ECO202 Macroeconomics                  1500  
GEO101 World Regional                      HIS151 US History: Colonization  
Geography    through Civil War  
HIS101 Western Civilization                  HIS152 US History:  
to the Renaissance                              Reconstruction  
HIS102 Western Civilization                  to the Present  
from the Renaissance                          VMA111 Introduction to  
HIS111 World Civilization to                  Mass Media  
1500    REL111 World Religions

## REQUIREMENT 4: QUANTITATIVE THOUGHT

In this requirement area, students will apply computational methods, generate problem-solving strategies, and construct mathematical models necessary in a technologically sophisticated society. The student will also organize, analyze, and interpret data, evaluate quantitative evidence and arguments, and draw valid conclusions from information presented.

### Area 4:

MAT171 Finite Math                              MAT194 College Algebra for  
MAT172 Contemporary Math I              STEM\* (This course is required  
MAT173 Contemporary Math II              only for specific majors in the  
MAT181 Statistics I                              STEM and Business fields.)

## REQUIREMENT 5: SCIENCE AND TECHNOLOGY

In this requirement area, students will use scientific methods of inquiry to investigate the ideas, laws, and theories used to explain the physical universe, its life forms and its natural phenomena. Students will study the interrelationships between science and technology and how advances in science and technology have impacted the global community, the environment, and the quality of life.

### Area 5:

AST102 Astronomy/Lab                          Resource Conservation  
BIO105 Introduction to                          ENV111 Survey of  
Biology/Lab    Renewable Energy  
BIO108 Human Biology/Lab                  ENV113 Introduction to  
BIO115 Nutrition Science/Lab                  Oceanography/Lab  
BIO195 General Biology I/Lab                  ENV115 Earth Science/Lab  
ENV105 Environmental                          ENV120 Tropical Field Studies  
Science I/Lab    GIS124 Introduction to  
ENV110 Sustainability and                          Geographic Information  
Systems/Lab

## REQUIREMENT 6: HUMANITIES

In this requirement area, the student will explore the dimensions of the human intellect and imagination and develop an informed appreciation of the diverse modes of creative expression. Students will learn how people have come to understand and express artistic, esthetic, moral, spiritual and philosophical dimensions of the human condition.

### Area 6:

ENG231 Introduction to Fiction                  THE107 Acting I  
Writing    PHL101 Introduction to  
ENG232 Introduction to Poetry                  Philosophy  
Writing    VMA104 Drawing I  
FLM101 Film as Art                                  VMA112 Art History I  
FLM102 American Cinema                          VMA113 Art History II  
HON200 Honors Seminar                          VMA122 Painting for General  
INT110 American Culture                          Education  
LIT    VMA123 Watercolor I  
All Literature Courses                          VMA124 Printmaking I  
MUS101 Music Fundamentals                          VMA161 Intro to Digital  
MUS130 Music Appreciation                          Photography  
MUS141 Rock and Roll History                          All 102 Level Language Courses  
MUS144 World Music  
MUS147 Music in the United  
States

## ASSOCIATE DEGREE AND CERTIFICATE PROGRAMS - LISTED ALPHABETICALLY

The table of contents below lists the academic programs offered by BHCC in alphabetical order. A comprehensive overview of academic programs is included on the pages that follow, organized by department. Refer to the page numbers listed below for the program of interest.

	OPTION/PROGRAM	DEGREE/ PROGRAM	PAGE	
<b>A</b>	Accounting Information	CT	76	
	Accounting Option	AS	77	
	Administrative Support Specialist	CT	88	
	Android Mobile App	CT	89	
<b>B</b>	Baking and Pastry Arts Option	AS	142	
	Biology Transfer Option	AS	174	
	Biomedical Engineering Option	AS	179	
	Biotechnology Option	AS	176	
	Business Transfer Option	AA	78	
<b>C</b>	Cardiac Sonography Option*	AS	62	
	Central Processing*	CT	190	
	Chemical Science Concentration	AA	178	
	Cisco Systems CCNA ( <i>Fast Track</i> )	CT	90	
	Communication Concentration	AA	47	
	Computed Tomography*	CT	64	
	Computer Forensics ( <i>Fast Track</i> )	CT	92	
	Computer Forensics	CT	91	
	Computer Information Systems Concentration	AA	93	
	Computer Science Concentration	AA	94	
	Computer Science Transfer Option	AS	95	
	Computer Support Specialist	CT	97	
	Computer Support Specialist Option	AS	98	
	Criminal Justice Career Option	AS	154	
	Criminal Justice Transfer Option	AS	155	
	Culinary Arts	CT	144	
	Culinary Arts Option	AS	145	
	<b>D</b>	Data Management ( <i>Fast Track</i> )	CT	99
		Database Programming and Administration Option	AS	100
Database Support Specialist		CT	101	
Digital and Computer Forensics and Investigations Option		AS	102	
<b>E</b>		Early Childhood Development Certificate Program	CT	133
	Early Childhood Development Program	AS	134	
	Early Childhood Development with Child Development Associate Credential	CT	136	
	Education Concentration	AA	137	
	Electric Power Utility Program*	AS	104	
	Electrical Engineering Transfer Option	AS	180	
	Energy and Sustainability Management	CT	181	
	Engineering Transfer Option	AS	183	
	English Concentration	AA	48	
	Entrepreneurship	CT	79	
	Entrepreneurship Option	AS	80	
Environmental Science Option	AS	184		
Excel Applications Support Specialist	CT	106		
<b>F</b>	Finance Option	AS	82	
	Fine Arts Concentration	AA	162	
	Fine Arts Option	AS	163	
	Fire Protection and Safety	CT	156	
	Fire Protection and Safety Program	AS	157	
<b>G</b>	Foreign Language Concentration	AA	49	
	Gaming/Computer Artist Track Simulation Option	AS	127	
	Gaming/Computer Programming Track Simulation Option	AS	128	
	Gaming/Computer Simulation in Entrepreneurship	CT	129	
	Gas Utility Technology Program	AS	107	
<b>H</b>	General Sonography Option*	AS	65	
	Health Information Networking	CT	110	
	Health Information Technology	CT	111	
	History and Government Concentration	AA	59	
	Hotel and Restaurant Management	CT	146	
	Hotel/Restaurant Management Option	AS	147	
	Human Services Program	AS	139	
	<b>I</b>	Imaging Informatics*	CT	67
		Information Technology Security ( <i>Fast Track</i> )	CT	112
		Information Technology Security	CT	113
Information Technology Security Option		AS	114	
Information Technology Transfer Option		AS	116	
<b>L</b>	Law Enforcement	CT	158	
	Liberal Arts Concentration	AA	50	
<b>M</b>	Magnetic Resonance (MR)*	CT	68	
	Mammography*	CT	69	
	Management of Assisted Living and Institutional Facilities Option	AS	149	
	Management Option	AS	83	
	Mathematics Concentration	AA	54	
	Medical Assistant*	CT	165	
	Medical Information Management Assistant	CT	120	
	Medical Information Management Option	AS	118	
	Medical Interpreting*	CT	166	
	Medical Laboratory Technician Program*	AS	187	
Medical Radiography Full-time Option*	AS	70		
Medical Radiography Part-time Evening Option*	AS	71		
<b>N</b>	Meeting and Event Planning	CT	151	
	Meeting and Event Planning Option	AS	152	
	Microsoft Applications Support Specialist	CT	121	
	Music Concentration	AA	51	
	Mobile App Starter: Apple Devices	CT	122	
<b>O</b>	Network Technology and Administration	CT	123	
	Network Technology and Administration Option	AS	124	
<b>P</b>	Object Oriented Computer Programming and Design	CT	125	
	Paralegal*	CT	159	
<b>R</b>	Paralegal Studies Program	AS	160	
	Paramedic Studies	CT	170	
	Paramedic Studies Program	AS	172	
	Pastry Arts	CT	153	
	Patient Care Technician*	CT	167	
	PC Hardware Support Specialist	CT	126	
	Pharmacy Technician*	CT	189	
	Physics Concentration	AA	186	
	Professional Human Services Work	CT	141	
	Psychology Concentration	AA	55	
	Registered Nursing Program: Day/Evening/Alternative Options*	AS	72	
	<b>S</b>	Sociology Concentration	AA	57
		Sport Management	CT	84
Sport Management Option		AS	85	
Surgical Technology*		CT	191	
<b>T</b>		Taxation*	CT	86
	Taxation Option	AS	87	
	Theatre Concentration	AA	53	
<b>V</b>	Visual Design Option	AS	164	
	<b>W</b>	Web Development	CT	130
Web Development in Entrepreneurship		CT	131	
Web Development Option	AS	132		

\*Selective program with specific prerequisites and start terms. For updated information, please visit the College's website at bhcc.edu.

\*\*Students enrolling in any A.A. degree program can earn World Studies Emphasis Certification simultaneously. BHCC is fully accredited by the New England Association of Schools and Colleges.

AA – Denotes Associate in Arts • AS – Denotes Associate in Science • CT – Denotes Certificate Program

**ASSOCIATE IN ART**

- BUSINESS CONCENTRATION**
- CHEMICAL SCIENCE CONCENTRATION**
- COMMUNICATION CONCENTRATION**
- COMPUTER INFORMATION SYSTEMS CONCENTRATION**
- COMPUTER SCIENCE CONCENTRATION**
- EDUCATION CONCENTRATION**
- ENGLISH CONCENTRATION**
- FINE ARTS CONCENTRATION**
- FOREIGN LANGUAGE CONCENTRATION**
- LIBERAL ARTS CONCENTRATION**
- HISTORY AND GOVERNMENT CONCENTRATION**
- MATHEMATICS CONCENTRATION**
- MUSIC CONCENTRATION**
- PHYSICS CONCENTRATION**
- PSYCHOLOGY CONCENTRATION**
- SOCIOLOGY CONCENTRATION**
- THEATRE CONCENTRATION**

**ASSOCIATE IN SCIENCE**

- BIOLOGICAL SCIENCES PROGRAM:**
  - Biology Transfer Option
  - Biotechnology Option
  - Environmental Science Option
- BUSINESS ADMINISTRATION PROGRAM:**
  - Accounting Option
  - Entrepreneurship Option
  - Finance Option
  - Management Option
  - Sport Management Option
  - Taxation Option
- COMPUTER INFORMATION TECHNOLOGY PROGRAM:**
  - Computer Science Transfer Option
  - Computer Support Specialist Option
  - Database Programming and Administration Option
  - Digital and Computer Forensics and Investigations Option
  - Information Technology Transfer Option
  - Information Technology Security Option
  - Network Technology and Administration Option
- COMPUTER MEDIA TECHNOLOGY PROGRAM:**
  - Gaming/Computer Artist Track Simulation Option
  - Gaming/Computer Programming Track Simulation Option
  - Web Development Option
- CRIMINAL JUSTICE PROGRAM**
  - Criminal Justice Transfer Option

- Criminal Justice Career Option
- CULINARY ARTS PROGRAM:**
  - Baking and Pastry Arts Option
  - Culinary Arts Option
- EARLY CHILDHOOD DEVELOPMENT PROGRAM**
- ELECTRICAL POWER UTILITY PROGRAM\***
- EMERGENCY MEDICAL STUDIES:**
  - Paramedic Studies Program
- ENGINEERING PROGRAM:**
  - Biomedical Engineering Option
  - Engineering Transfer Option
- FIRE PROTECTION AND SAFETY PROGRAM**
- GAS UTILITY TECHNOLOGY PROGRAM**
- HOTEL AND RESTAURANT MANAGEMENT PROGRAM:**
  - Hotel/Restaurant Management Option
  - Management of Assisted Living and Institutional Facilities Option
  - Meeting and Event Planning Option
- HUMAN SERVICES PROGRAM**
- MEDICAL IMAGING PROGRAM:\***
  - Cardiac Sonography Option\*
  - General Sonography Option\*
  - Medical Radiography Full-time Option\*
  - Medical Radiography Part-time Evening Option\*
- MEDICAL LABORATORY TECHNICIAN PROGRAM\***
- OFFICE AND INFORMATION MANAGEMENT PROGRAM:**
  - Medical Information Management Option
- PARALEGAL STUDIES PROGRAM**
- REGISTERED NURSING PROGRAM:**
  - Day/Evening/Alternative Options\*
- VISUAL AND MEDIA ARTS PROGRAM:**
  - Fine Arts Option
  - Visual Design Option

**CERTIFICATE PROGRAMS**

- ALLIED HEALTH:\***
  - Medical Assistant\*
  - Medical Interpreting\*
  - Patient Care Technician\*
- BUSINESS ADMINISTRATION:**
  - Accounting Information
  - Entrepreneurship
  - Sport Management
  - Taxation\*
- COMPUTER INFORMATION TECHNOLOGY:**
  - Android Mobile App
  - Cisco Systems CCNA (Fast Track)
  - Computer Forensics (Fast Track)
  - Computer Forensics
  - Computer Support Specialist
  - Data Management (Fast Track)
  - Excel Applications Support Specialist
  - Health Information Networking
  - Health Information Technology

- Information Technology Security (Fast Track)
- Information Technology Security
- Microsoft Applications Support Specialist
- Mobile App Starter Certificate: Apple Devices
- Network Technology and Administration
- Object Oriented Computer Programming and Design
- PC Hardware Support Specialist
- COMPUTER MEDIA TECHNOLOGY:**
  - Gaming/Computer Simulation in Entrepreneurship
  - Web Development
  - Web Development in Entrepreneurship
- CULINARY ARTS:**
  - Culinary Arts
  - Pastry Arts
- EARLY CHILDHOOD DEVELOPMENT:**
  - Early Childhood Development with Child Development Associate Credential
  - Early Childhood Development Certificate Program
- EMERGENCY MEDICAL STUDIES**
  - Paramedic Studies
- HOTEL AND RESTAURANT:**
  - Hotel and Restaurant Management
  - Meeting and Event Planning
- HUMAN SERVICES:**
  - Professional Human Services Work
- LEGAL STUDIES AND PUBLIC SAFETY:**
  - Fire Protection and Safety
  - Law Enforcement
- MEDICAL IMAGING:\***
  - Computed Tomography\*
  - Imaging Informatics\*
  - Magnetic Resonance (MR)\*
  - Mammography\*
- OFFICE AND INFORMATION MANAGEMENT:**
  - Administrative Support Specialist
  - Medical Information Management Assistant
- PARALEGAL\***
- PHARMACY TECHNICIAN\***
- SCIENCE AND ENGINEERING:**
  - Energy and Sustainability Management
- SURGICAL TECHNOLOGY:**
  - Central Processing\*
  - Surgical Technology\*

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## ASSOCIATE DEGREE AND CERTIFICATE PROGRAMS - LISTED BY DEPARTMENT

<b>Humanities and Learning Communities</b>		Computer Forensics ( <i>Fast Track</i> )	CT	92	Hotel and Restaurant Management	CT	146	
<b>English</b>		Computer Information Systems Concentration	AA	93	Hotel/Restaurant Management Option	AS	147	
Communication Concentration	AA	47	Computer Science Concentration	AA	94	Management of Assisted Living and Institutional Facilities Option	AS	149
English Concentration	AA	48	Computer Science Transfer Option	AS	95	Meeting and Event Planning	CT	151
<b>Foreign Language</b>		Computer Support Specialist	CT	97	Meetings and Event Planning Option	AS	152	
Foreign Language Concentration	AA	49	Computer Support Specialist Option	AS	98	Pastry Arts	CT	153
<b>Liberal Arts</b>		Data Management ( <i>Fast Track</i> )	CT	99	<b>Criminal Justice &amp; Public Safety</b>			
Liberal Arts	AA	50	Database Programming and Administration Option	AS	100	Criminal Justice Career Option	AS	154
<b>Performing Arts</b>		Database Support Specialist	CT	101	Criminal Justice Transfer Option	AS	155	
Music Concentration	AA	51	Digital and Computer Forensics and Investigations Option	AS	102	Fire Protection and Safety	CT	156
Theatre Concentration	AA	53	Electric Power Utility Program*	AS	104	Fire Protection and Safety Program	AS	157
<b>Mathematics, Behavioral and Social Sciences</b>		Excel Applications Support Specialist	CT	106	Law Enforcement	CT	158	
<b>Mathematics</b>		Gas Utility Technology Degree Option	AS	107	<b>Paralegal &amp; Legal Studies</b>			
Mathematics Concentration	AA	54	Health Information Networking	CT	110	Paralegal*	CT	159
<b>Behavioral Science</b>		Health Information Technology	CT	111	Paralegal Studies	AS	160	
Psychology Concentration	AA	55	Information Technology Security ( <i>Fast Track</i> )	CT	112	<b>Visual and Media Arts</b>		
Sociology Concentration	AA	57	Information Technology Security	CT	113	Fine Arts Concentration	AA	162
<b>History and Social Sciences</b>		Information Technology Security Option	AS	114	Fine Arts Option	AS	163	
History and Government Concentration	AA	59	Information Technology Transfer Option	AS	116	Visual Design Option	AS	164
<b>Nurse Education and Medical Imaging</b>		Information Technology Management	AS	118	<b>Science, Engineering and Health Programs</b>			
<b>Medical Imaging</b>		Medical Information Management Assistant	CT	120	<b>Allied Health</b>			
Cardiac Sonography Option*	AS	62	Microsoft Applications Support Specialist	CT	121	Medical Assistant*	CT	165
Computed Tomography*	CT	64	Mobile App Starter: Apple Devices	CT	122	Medical Interpreting*	CT	166
General Sonography Option*	AS	65	Network Technology and Administration	CT	123	Patient Care Technician*	CT	167
Imaging Informatics*	CT	67	Network Technology and Administration Option	AS	124	<b>Emergency Studies</b>		
Magnetic Resonance (MR)*	CT	68	Object Oriented Computer Programming and Design	CT	125	Paramedic Certificate	CT	170
Mammography*	CT	69	PC Hardware Support Specialist	CT	126	Paramedic Studies Program	AS	172
Medical Radiography Full-time Option*	AS	70	<b>Computer Media Technology</b>		<b>Biology and Chemistry Department</b>			
Medical Radiography Part-time Evening Option*	AS	71	Gaming/Computer Artists Track Simulation Option	AS	127	Biology Transfer Option	AS	174
<b>Nurse Education</b>		Gaming/Computer Programming Teack Simulation Option	AS	128	Biotechnology Option	AS	176	
Registered Nursing Program: Day/Evening/Alternative Options*	AS	72	Gaming/Computer Simulation in Entrepreneurship	CT	129	Chemical Science Concentration	AA	178
<b>Professional Studies</b>		Web Development	CT	130	<b>Engineering &amp; Physical Sciences Department</b>			
<b>Business Administration</b>		Web Development in Entrepreneurship	CT	131	Biomedical Engineering Option	AS	179	
Accounting Information	CT	76	Web Development Option	AS	132	Electrical Engineering Transfer Option	AS	180
Accounting Option	AS	77	<b>Early Childhood &amp; Human Services</b>		Energy and Sustainability Management	CT	181	
Business Transfer Option	CT	78	Early Childhood Development	CT	133	Engineering Transfer Option	AS	183
Entrepreneurship	CT	79	Early Childhood Development	AS	134	Environmental Science Option	AS	184
Entrepreneurship Option	AS	80	Early Childhood Development with Child Development Associate Credential	CT	136	Physics Concentration	AA	186
Finance Option	AS	82	Education Concentration	AA	137	<b>Medical Laboratory Technician</b>		
Management Option	AS	83	Human Services Program	AS	138	Medical Laboratory Technician Program*	AS	187
Sport Management	CT	84	Professional Human Services Work	CT	141	<b>Pharmacy Technology</b>		
Sport Management Option	AS	85	<b>Hospitality</b>		Pharmacy Technician*	CT	189	
Taxation*	CT	86	Baking and Pastry Arts Option	AS	142	<b>Surgical Technology</b>		
Taxation Option	AS	87	Culinary Arts	CT	144	Central Processing*	CT	190
<b>Computer Information Technology</b>		Culinary Arts Option	AS	145	Surgical Technology*	CT	191	
Administrative Support Specialist	CT	88	*Selective program with specific prerequisites and start terms. For updated information, please visit the College's website at bhcc.edu.					
Android Mobile App	CT	89						
Cisco Systems CCNA ( <i>Fast Track</i> )	CT	90	**Students enrolling in any A.A. degree program can earn World Studies Emphasis Certification simultaneously. BHCC is fully accredited by the New England Association of Schools and Colleges.					
Computer Forensics	CT	91						

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## Elective Courses

**ELECTIVES** provide students with flexibility in their programs of study. The electives categories help students make choices beyond the required courses for their respective programs.

**LIBERAL ARTS ELECTIVES** include not only those categorized as Liberal Arts Electives but also the Science/Lab Science, Social Science and Behavioral Science Electives.

**CAREER ELECTIVES** are courses in the student's major field or related field approved by the department chair or program coordinator.

### LIBERAL ARTS ELECTIVES

ELECTIVE	DEPARTMENT
VMA Art	Communication
VMA Photography	Communication
FLM Film	English
HUM Humanities	English
LIT Literature	English
ENG English	English
FRE French	Foreign Language and Humanities
GER German	Foreign Language and Humanities
ITL Italian	Foreign Language and Humanities
MUS Music	Foreign Language and Humanities
POR Portuguese	Foreign Language and Humanities
SPN Spanish	Foreign Language and Humanities
THE Theatre	Foreign Language and Humanities
HIS History	History/Government
PHL Philosophy	History/Government
HON Honors	Interdisciplinary
MAT Mathematics	Mathematics and Physics
INT Interdisciplinary Studies	Interdisciplinary

### LAB SCIENCE ELECTIVES

ELECTIVE	DEPARTMENT
PHY Physics	Mathematics and Physics
AST Astronomy	Science
BIO Biology*	Science
CHM Chemistry	Science
GIS Geographic Information Systems	Science
EMS Energy and Sustainability Management	Science
ENV Environmental Science	Science

\* BIO111 does not qualify as a Lab Science Elective

### SOCIAL SCIENCE ELECTIVES

ELECTIVE	DEPARTMENT
ECO Economics	Business
GOV Gov't/Politics	History/Government
HIS History	History/Government
PHL Philosophy	History/Government
GEO Geography	History/Government

### BEHAVIORAL SCIENCE ELECTIVES

ELECTIVE	DEPARTMENT
PSY Psychology	Behavioral Science
SOC Sociology	Behavioral Science

Associate in Arts

English Department

## Communication Concentration

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Journalism I	ENG241		3	ENG095 or placement
Mathematics Elective			3	MAT097 or placement
Lab Science Elective			4	
Behavioral Science Elective			3	
Social Science Elective			3	
Learning community or Elective	see note*		3	
Elective			3	
Literature Elective			3	pre/co-req ENG111
Literature Elective			3	pre/co-req ENG111
<b>CONCENTRATION ELECTIVES (CHOOSE 4)</b>				
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Film as Art	FLM101		3	
Oral Communication	ENG171		3	
Introduction to Adobe Suite	VMA125		3	ENG095 and MAT093 or placement
Introduction to Mass Media	VMA111		3	ENG095 and MAT093 or placement
Journalism II	ENG242	Spring	3	ENG095 or placement
<b>TOTAL CREDITS</b>			<b>62</b>	

Note: The Department recommends a two-semester foreign language sequence. \*Note: New degree-seeking students enrolled in 9 credits or more must take a Learning Community Seminar or a Learning Community Cluster within their first year.

### CONCENTRATION OVERVIEW

The English Department offers programs which qualify graduates to transfer to four-year institutions that prepare them for careers in teaching, journalism, public relations, and media communications. Students must complete a bachelor's degree and teaching certificate to pursue a teaching career. A bachelor's degree in English is a minimum requirement for entry-level work in careers such as publishing, advertising, public relations, and journalism. The communications concentration prepares students to transfer to four-year colleges or universities in journalism or media

communications. Graduates of this concentration may qualify to transfer using benefits of MassTransfer to a four-year state college or University of Massachusetts campus. For current information on eligible programs, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer).

### CAREER OUTLOOK

Graduates of this concentration qualify to transfer to four-year colleges or universities that prepare students for professional careers in journalism, public relations, and media communications. A bachelor's degree is the minimum requirement for entry into these fields. Graduate work may be necessary, as well.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Communicate effectively in a variety of formats and situations.
- Write for a variety of purposes, adapting to varying audiences.
- Write pieces for specific markets, such as news stories and traditional academic papers.
- Use a computer to compose and edit papers and conduct Internet research.
- Demonstrate proficiency in critical thinking.
- Understand the dynamics of communication in a global context.

*Students enrolling in this degree program can earn World Studies Emphasis certification simultaneously.*

Associate in Arts

English Department

## English Concentration

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	Area 6 satisfied by program			
<b>CONCENTRATION COURSES</b>				
Writing Tutor Seminar I	ENG115		3	Instructor permission
Literature Course			3	pre/co-req ENG111
Literature Course			3	pre/co-req ENG111
Literature Course			3	pre/co-req ENG111
Literature Course			3	pre/co-req ENG111
English Elective			3	
Foreign Language Elective			3	
Foreign Language Elective			3	
Behavioral Science Elective			3	
Social Science Elective			3	
Mathematics Elective			3	MAT097 or placement
Lab Science Elective			4	
Learning community or Elective	see note*		3	
Elective			3	
<b>TOTAL CREDITS</b>			<b>62</b>	

\*Note: New degree-seeking students enrolled in 9 credits or more must take a Learning Community Seminar or a Learning Community Cluster within their first year.

### CONCENTRATION OVERVIEW

The English Department offers programs which qualify graduates to transfer to four-year institutions that prepare them for careers in teaching, journalism, public relations, and media communications. Students must complete a bachelor's degree and teaching certificate to pursue a teaching career. A bachelor's degree in English is a minimum requirement for entry level work in careers such as publishing, advertising, public relations, and journalism. The English concentration prepares students to transfer to four-year colleges or universities. Students who select this concentration may be particularly interested in pursuing a career in teaching or

journalism. This concentration, however, would be of value in any career in which good communication skills are fundamental to success. Graduates of this concentration may qualify to transfer using benefits of MassTransfer to a four-year state college or University of Massachusetts campus. For current information on eligible programs, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer).

### CAREER OUTLOOK

Graduates of this concentration qualify to transfer to four-year institutions that prepare students for careers in teaching, journalism, public relations, and media communications. Students must complete a bachelor's degree and teaching certificate to pursue a teaching career. A bachelor's

degree in English is a minimum requirement for entry level work in careers such as publishing, advertising, public relations, and journalism. In order to advance in some fields, graduate work may be required.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate competence as a writer. Write for a variety of purposes, adapting to various audiences.
- Demonstrate proficiency in critical thinking.
- Demonstrate a basic understanding of a language other than English.
- Demonstrate strong interpersonal communication skills.

*Students enrolling in this degree program can earn World Studies Emphasis certification simultaneously.*

Associate in Arts

Foreign Language Department

## Foreign Language Concentration

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	Area 3 satisfied by program			
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	Area 6 satisfied by program			
<b>CONCENTRATION COURSES</b>				
First Foreign Language	select 200 level course		3	see note*
First Foreign Language	sequential 200 level course		3	see note*
Second Foreign Language	select 100 level course		3	
Second Foreign Language	sequential 100 level course		3	
Western Civilization to the Renaissance	HIS101		3	ESL098 or RDG095 and ENG095 or placement
Western Civilization from the Renaissance	HIS102		3	ESL098 or RDG095 and ENG095 or placement
Masterpieces of World Literature I	LIT211		3	pre/co-req ENG111
Masterpieces of World Literature II	LIT212		3	pre/co-req ENG111
Lab Science Elective			4	
Behavioral Science Elective			3	
Mathematics Elective			3	MAT097 or placement
Learning community or Elective	see note*		3	
Elective			3	
Elective			3	
Elective			3	
<b>TOTAL CREDITS</b>			<b>62</b>	

Note: Students must enter with elementary level proficiency. Note: New degree-seeking students enrolled in 9 credits or more must take a Learning Community Seminar or a Learning Community Cluster within their first year.

\*Note: Students are encouraged not to take elementary foreign language courses in their native language.

To enter this program, students should have completed study of at least one foreign language at an elementary level (First Foreign Language in grid).

### CONCENTRATION OVERVIEW

The mission of the Foreign Language Department at Bunker Hill Community College is to expose students to a language and culture in order to enable them to become knowledgeable and active members of a global society. Students learn to use modern foreign languages for meaningful communication in both spoken and written form. Students completing classes in the Foreign Language Program will gradually achieve course-appropriate outcomes in the

four basic language skills of speaking, listening comprehension, reading and writing of the target language. Through foreign language study, students develop sensitivity to other cultural and linguistic heritages, and are prepared to participate in a society characterized by linguistic and cultural diversity. The Foreign Language concentration prepares students to transfer to four-year colleges or universities with a major in a foreign language. Graduates of this concentration may qualify to transfer using benefits of MassTransfer to a four-year state college or University of Massachusetts campus.

For current information on eligible programs, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer).

### CAREER OUTLOOK

Graduates of this concentration often qualify for careers that require bilingual skills.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate the basic skills for understanding and speaking a foreign language.
- Read and comprehend simple selections in a foreign language.
- Express their thoughts and ideas in writing in an uncomplicated manner in a foreign language.

*Students enrolling in this degree program can earn World Studies Emphasis certification simultaneously.*

Associate in Arts

General Concentration Department

## Liberal Arts

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Behavioral Science Elective		Semester III	3	
Social Science Elective		Semester III	3	
Lab Science Elective		Semester III	4	
Humanities Elective		Semester II	3	
Literature Elective		Semester III	3	pre/co-req ENG111
Learning community or Elective	see note*	Semester I	3	
Elective		Semester III	3	
Elective		Semester II	3	
Elective		Semester III	3	
Elective		Semester IV	3	
Elective		Semester IV	3	
Elective		Semester IV	3	
Elective		Semester IV	3	
<b>TOTAL CREDITS</b>			<b>62</b>	

\*Note: New degree-seeking students enrolled in 9 credits or more must take a Learning Community Seminar or a Learning Community Cluster within their first year.

Students should consult their intended transfer institution to determine appropriate electives for this program. A two-semester language sequence is recommended for two of the electives.

### CONCENTRATION OVERVIEW

This concentration prepares students who have not yet chosen a major field of study to transfer to four-year colleges or universities. The college encourages students to take electives in disciplines in which they may major at a four-year institution. Graduates of this concentration may qualify to transfer using benefits of MassTransfer to a four-year state college or University of Massachusetts campus. For current information on eligible programs, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer).

### CAREER OUTLOOK

Graduates of this concentration qualify for a variety of careers depending upon the chosen major. A bachelor's degree is the usual minimum requirement for entry into most fields. Graduate work may be necessary, as well.

- Describe the interaction of history, culture, literature, economics, and science as studied within a broad liberal arts curriculum.
- Demonstrate skills as critical thinkers, readers, and writers.
- Demonstrate competence in basic computer use.

Students enrolling in this degree program can earn World Studies Emphasis certification simultaneously.

Associate in Arts

Performing Arts Department

## Music Concentration

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 or placement and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	MAT097 or placement
Humanities	Area 6 satisfied by program			
<b>CONCENTRATION COURSES</b>				
Music Fundamentals	MUS101* see note		3	ESL088 and ESL099 or RDG090 and ENG090 or placement
Introduction to the Music Business	MUS180 satisfies learning communities requirement		3	
Piano I	MUS151**see note		2	
Music Theory and Aural Skills I	MUS105		4	MUS101 or Chair approval
Music Theory and Aural Skills II	MUS106		4	MUS105 or Chair approval
Music History I	MUS133		3	MUS101 or instructor permission
Music History II	MUS134		3	MUS133 or Chair approval
Introduction to Music Technology	MUS171		3	
Performance Ensemble Elective	MUS113, MUS116, MUS120*** see note		4	Instructor permission
Applied Music Elective	MUS195 or MUS295 **** see note		4	Chair approval
Music Elective	*****see note		3	
Lab Science Elective			4	
Behavioral or Social Science Elective			3	
<b>TOTAL CREDITS</b>			<b>62</b>	

\*Note: A Music Elective may replace MUS101 if a student passes a Challenge Exam. See the Performing Arts Department Chair for more information.

\*\*Note: Students with basic keyboarding skills may replace Piano I with Piano II. Students with advanced keyboarding skills may satisfy this requirement with 2 or more credits of music electives. See the Performing Arts Department Chair for more information.

\*\*\*Note: Students are required to take four credits of performance ensemble electives and may repeat these electives. Students may be required to audition for performance ensembles. See the Performing Arts Department Chair for more information.

\*\*\*\*Note: Students are required to take four credits of applied music electives and may repeat these electives. Students must consult with the Performing Arts Department Chair to register.

\*\*\*\*\*Note: MUS130 (Music Appreciation) may not be used to fulfill the music elective requirement in this program.

Continued on following page

Associate in Arts

Performing Arts Department

## Music Concentration

*Continued from previous page*

### PROGRAM OVERVIEW

The Music concentration provides the practical and academic foundation for continued education or a career in music. Through group and individual instruction, students develop instrumental or vocal performance skills suitable for a variety of styles of music and professional roles. Additionally, students gain knowledge of the theory, history, and business of music. This concentration prepares students for transfer to four-year programs in music, as well for entry-level positions in the music industry. For information on specific transfer agreements with four-year music programs in the area, see the Department Chair. Graduates of this concentration may qualify to transfer using benefits of MassTransfer to a four-year state college or University of Massachusetts campus. For current information on eligible programs, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer).

### CAREER OUTLOOK

The Music concentration provides the core skills that lead to a variety of careers related to music, including performance, music education, music production, composition, and music management. Graduates of this program qualify for entry-level positions in various sectors of the music industry. Additionally, graduates are well-prepared to transfer to bachelor's programs in a variety of specializations within music.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate foundational music skills suitable for a variety of situations including music notation and terminology, aural skills and sight-reading skills.
- Interpret core elements of a musical work.
- Demonstrate technical skills in various creative activities.
- Discuss the cultural context of music from a variety of styles and eras.
- Exhibit creativity and artistic sensitivity in their musical activity.
- Demonstrate facility in essential professional skills beyond those related to music.

Associate in Arts

Performing Arts Department

## Theatre Concentration

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	Area 6 satisfied by program			
<b>CONCENTRATION COURSES</b>				
Acting I	THE107		3	
Play Production Workshop	THE109		3	
Oral Communication	ENG171		3	
Social Science Elective			3	
Mathematics Elective			3	MAT097 or placement
Humanities Elective			3	
Humanities Elective			3	
Theatre Elective			3	
Theatre Elective			3	
Lab Science Elective			4	
Literature Elective			3	pre/co-req ENG111
Literature Elective			3	pre/co-req ENG111
Learning community or Elective	see note*		3	
Elective			3	
<b>TOTAL CREDITS</b>			<b>62</b>	

\*Note: New degree-seeking students enrolled in 9 credits or more must take a Learning Community Seminar or a Learning Community Cluster within their first year.

### CONCENTRATION OVERVIEW

This concentration prepares students to transfer to four-year colleges or universities to seek bachelor's degrees in theatre arts, theatre education (elementary or secondary), early childhood education, literature/drama, public speaking, or communication. Students should complete requirements for the associate's degree before transferring to a four-year institution for the bachelor's degree.

Graduates of this concentration may qualify to transfer using benefits of MassTransfer to a four-year state college or University of Massachusetts campus. For current information on eligible programs, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer).

### CAREER OUTLOOK

Graduates of this concentration with a strong theatre background qualify for careers in all aspects of print and broadcast journalism; radio/TV production; dance and expressive movement; art and art therapies, as they are related to counseling and psychology; elementary and secondary teaching; communication; and literature.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate familiarity with the components necessary to produce a play.
- Know and understand theatre history and literature.
- Demonstrate practical experience in producing a play from planning to performing.

*Students enrolling in this degree program can earn World Studies Emphasis certification simultaneously.*

Associate in Arts

Mathematics Department

## Mathematics Concentration

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	Area 4 satisfied by program			
Science and Technology	Area 5 satisfied by program			
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Calculus I	MAT281		4	MAT197
Calculus II	MAT282		4	MAT281
Calculus III	MAT283		4	MAT282
Ordinary Differential Equations	MAT285		4	MAT282
Linear Algebra	MAT291		4	MAT281
College Physics I/Lab	PHY251		4	MAT281; see note*
College Physics II/Lab	PHY252		4	PHY251 and pre/co-req MAT282; see note*
Computer Elective			3	
Behavioral Science Elective			3	
Literature Elective			3	pre/co-req ENG111
Literature Elective			3	pre/co-req ENG111
Social Science Elective			3	
Learning community or Elective	see note**		3	
<b>TOTAL CREDITS</b>			<b>61</b>	

\*Note: All science, engineering, and math courses that are pre or co-requisites of other science and engineering courses require a grade of C+ or better.

\*\*Note: New degree-seeking students enrolled in 9 credits or more must take a Learning Community Seminar or a Learning Community Cluster within their first year.

### CONCENTRATION OVERVIEW

This concentration prepares students to transfer to four-year colleges or universities to seek bachelors' degrees in mathematics. After transferring, students study to become more proficient in areas such as abstract algebra, complex variables, vector calculus, number theory and partial differential equations. Graduates of this concentration may qualify to transfer using benefits of MassTransfer to a four-year state college or University of Massachusetts campus. For current information on eligible programs, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer).

### CAREER OUTLOOK

Graduates of this concentration should transfer to a four-year college or university, as most entry-level employment opportunities in industry require a minimum of a bachelor's degree. Professional positions in education and research fields usually require a minimum of a master's degree.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Analyze and solve quantitative problems.
- Reason logically from hypothesis to conclusion.
- Understand and appreciate an analytical approach to problem solving.

*Students enrolling in this degree program can earn World Studies Emphasis certification simultaneously.*

Associate in Arts

Behavioral Sciences Department

## Psychology Concentration

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	Area 2 satisfied by program			
World View	From Area 3-see note*		3	
Quantitative Thought	MAT181 satisfies area 4		3	MAT097 or MAT098 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Principles of Psychology	PSY101		3	ESL098 or RDG095 or placement
Principles of Sociology	SOC101		3	ESL098 or RDG095 or placement
Child Psychology or Adolescent & Adult Development	PSY209 or PSY224 see note**		3	PSY101*****
Intro to Behavioral Research	PSY235		3	PSY101*****
Lab Science Elective			4	
Social Psychology	PSY219		3	PSY101*****
Literature Elective			3	Pre-co/req ENG111
Humanities Elective			3	
Humanities Elective			3	
Humanities Elective			3	
PSY Elective: Choose any 200-level PSY Course			6	PSY101*****
Learning community or Elective	see note***		3	
Liberal Arts Elective	see note****		3	
<b>TOTAL CREDITS</b>			<b>62-63</b>	

Select the career elective from PSY, HSV, or ECE courses. The Department encourages students to take a computer course for one of the three electives. See an advisor for world studies concentration option.

\*Note: A Social Science elective is highly recommended in order to comply with MassTransfer guidelines.

\*\*Note: Human Growth and Development (PSY213) does not satisfy the A.A. Psychology concentration requirements. It is offered only to non-Psychology majors.

\*\*\*Note: New degree-seeking students enrolled in 9 credits or more must take a Learning Community Seminar or a Learning Community Cluster within their first year.

\*\*\*\*Note: Sequence courses in a foreign language starting at 102 levels are highly recommended as most four-year colleges require intermediate proficiency in a foreign language.

\*\*\*\*\*Note: PSY101 must be completed with a C or better.

Continued on following page

Associate in Arts

Behavioral Sciences Department

## Psychology Concentration

*Continued from previous page*

### CONCENTRATION OVERVIEW

The Department of Behavioral Sciences aspires to develop and foster a passion for lifelong learning and academic excellence. The department integrates students' diverse backgrounds into the teaching and learning experience, creating a civically engaged community of learners who are able to think critically of current issues in our complex world. Graduates of the program will carry with them a strong sense of collegiality and responsibility that will help them succeed in their long-term academic, professional and personal goals.

The vision of our department is carried out through our mission of:

- teaching foundational behavioral science courses that support the general education mission of the college and engage our students in the broad domains and applications of Psychology, Sociology and Cultural Anthropology;
- offering concentration courses that help our students develop a firm understanding of the various fields within a specific behavioral science discipline;
- engaging our students in research that allows them to apply critical thinking skills using scientific approaches;
- supporting our majors as they prepare to transfer to four-year institutions and/or successfully navigate the professional world through the application of the principles, concepts and theories that they have learned from the program;
- supporting our students to apply what they have learned towards becoming civically engaged and lifelong learners.

### CAREER OUTLOOK

Graduates of this concentration should plan to transfer to a four-year college or university because entry-level positions in the general field of psychology require a bachelor's degree. Career positions generally require a master's degree.

### UPON COMPLETION OF THIS CONCENTRATION, GRADUATES WILL BE ABLE TO DEMONSTRATE:

- a basic knowledge and understanding of the different principles and concepts of Psychology (foundational knowledge)
- the ability to apply learned concepts to the intrapersonal and interpersonal experiences embedded within diverse cultural contexts
- the ability to evaluate, compare and contrast, critique various theoretical perspectives and complex/debatable and current issues as they relate to the various domains of Psychology
- the ability to use learned knowledge to actively engage in and produce scientific research.

*Students enrolling in this degree program can earn World Studies Emphasis certification simultaneously.*

Associate in Arts

Behavioral Sciences Department

## Sociology Concentration

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111**see note		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	Area 2 satisfied by program			
World View	From Area 3*see note		3	
Quantitative Thought	Area 4 satisfied by program			
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Principles of Psychology	PSY101		3	ESL098 or RDG095 or placement
Principles of Sociology	SOC101**see note		3	ESL098 or RDG095 or placement
Statistics I	MAT181		3	MAT097 or MAT098 or placement
Cultural Anthropology	SOC109		3	ESL098 or RDG095 or placement
Mathematics Elective			3	MAT097 or placement
Lab Science Elective			4	
Social Problems	SOC203		3	SOC101
Literature Elective			3	pre/co-req ENG111
Literature Elective			3	pre/co-req ENG111
The Sociology of Race and Ethnicity	SOC227		3	SOC101 or PSY101 or SOC109
Oral Communication	ENG171		3	
The Family	SOC211		3	PSY101 or SOC101
Learning community or Elective	see note***		3	
Elective	see note****		3	
Elective	see note****		3	
<b>TOTAL CREDITS</b>			<b>62</b>	

\*Note: A Social Science elective is highly recommended in order to comply with Mass Transfer guidelines.

\*\*Note: SOC101 and ENG111 must be completed with a C or better.

\*\*\*Note: New degree-seeking students enrolled in 9 credits or more must take a Learning Community Seminar or a Learning Community Cluster within their first year.

\*\*\*\*Note: Behavioral Science or Foreign Language elective is recommended. For students who choose to take a Foreign Language elective, sequence courses starting at 102 levels are highly recommended (e.g., SPN102,SPN201) as most four-year colleges require intermediate proficiency in a foreign language.

Continued on following page

Associate in Arts

Behavioral Sciences Department

## Sociology Concentration

*Continued from previous page*

### CONCENTRATION OVERVIEW

The Department of Behavioral Sciences aspires to develop and foster a passion for lifelong learning and academic excellence. The department integrates students' diverse backgrounds into the teaching and learning experience, creating a civically engaged community of learners who are able to think critically of current issues in our complex world. Graduates of the program will carry with them a strong sense of collegiality and responsibility that will help them succeed in their long-term academic, professional and personal goals.

The vision of our department is carried out through our mission of:

- teaching foundational behavioral science courses that support the general education mission of the college and engage our students in the broad domains and applications of Psychology, Sociology and Cultural Anthropology;
- offering concentration courses that help our students develop a firm understanding of the various fields within a specific behavioral science discipline;
- engaging our students in research that allows them to apply critical thinking skills using scientific approaches;
- supporting our majors as they prepare to transfer to four-year institutions and/or successfully navigate the professional world through the application of the principles, concepts and theories that they have learned from the program;
- supporting our students to apply what they learn towards becoming civically engaged and lifelong learners.

### CAREER OUTLOOK

Graduates of this concentration qualify for entry-level positions in the general field of Sociology. Students will be able to choose which career track they intend to pursue by taking classes that are relevant to their interest. Graduates may wish to transfer to a four-year college or university, or will be able to work in the community with an associate's degree.

### UPON COMPLETION OF THIS CONCENTRATION, GRADUATES WILL BE ABLE TO DEMONSTRATE:

- a basic knowledge and understanding of the different principles and concepts of Sociology (foundational knowledge)
- the ability to apply learned concepts to intrapersonal experiences, social institutions, and social issues embedded within diverse cultural contexts
- the ability to evaluate, compare and contrast, critique various theoretical perspectives and complex/debatable and current issues as they relate to the various domains of Sociology
- the ability to use learned knowledge to actively engage in and produce scientific research

Through these learning outcomes, students will be empowered individuals who will effectively navigate their academic, professional and personal goals.

*Students enrolling in this degree program can earn World Studies Emphasis certification simultaneously.*

Associate in Arts

History and Social Sciences Department

## History and Government Concentration

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	Area 2 satisfied by program			
World View	Area 3 satisfied by program			
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Western Civilization to the Renaissance or World Civilization to 1500	HIS101 or HIS111		3	ESL098 or RDG095 and ENG095 or placement
Western Civilization from the Renaissance or World Civilization from 1500	HIS102 or HIS112	Choose sequential course	3	ESL098 or RDG095 and ENG 095 or placement
State/Local Politics	GOV103		3	ESL098 or RDG095 and ENG095 or placement
Government/Politics in US	GOV101		3	ESL098 or RDG095 and ENG095 or placement
US History: Colonization through the Civil War	HIS151		3	ESL098 or RDG095 and ENG095 or placement
US History: Reconstruction to the Present	HIS152		3	ESL098 or RDG095 and ENG095 or placement
Foreign Language Elective			3	
Foreign Language Elective			3	
Literature in America I or Masterpieces of World Lit I	LIT203 or LIT211		3	pre/co-req ENG111
Literature in America II or Masterpieces of World Lit II	LIT204 or LIT212	Choose sequential course	3	pre/co-req ENG111
Behavioral Science Elective			3	
Mathematics Elective			3	MAT097 or placement
Lab Science Elective			4	
Learning community or Elective	see note*		3	
Elective	see note**		3	
<b>TOTAL CREDITS</b>			<b>62</b>	

\*Note: New degree-seeking students enrolled in 9 credits or more must take a Learning Community Seminar or a Learning Community Cluster within their first year.

\*\*Note: ECO201 and GOV111 strongly recommended; ECO202, GEO101, and PHL111 recommended.

### CONCENTRATION OVERVIEW

This concentration prepares students to transfer to four-year colleges or universities and provides a foundation for advanced studies for students who major in history or political science. Graduates of this concentration may qualify to transfer using benefits of MassTransfer to a four-year state college or University of Massachusetts campus. For current information on eligible programs, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer).

### CAREER OUTLOOK

Graduates of this concentration may qualify to transfer to four-year colleges or universities as juniors. The concentration is excellent preparation for careers in law, teaching, government, museums, or similar public service fields. A bachelor's degree is the minimum requirement for entry into many of these fields.

Graduate work may be necessary, as well.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Understand how societies change over time and the implications for today.
- Understand the social, political and economic developments of specific societies at specific moments in history.
- Use the critical thinking and writing skills developed in the classroom in a variety of academic and employment situations.

*Students enrolling in this degree program can earn World Studies Emphasis certification simultaneously.*

## Associate in Science Degree: Medical Imaging Program

The Medical Imaging Program prepares students in four different Associate in Science Degree options:

- The full-time Cardiac Sonography Option – 24 months in duration. See page 62.**
- The full-time General Sonography Option – 24 months in duration. See page 65.**
- The full-time Medical Radiography Option – 21 months in duration. See page 70.**
- The part-time Medical Radiography Option – 35 months in duration. See page 71.**

### Program accreditations are as follows:

The Medical Radiography Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182, Phone: (312) 704-5300; Fax: (312) 704-5304, Email: mail@jrcert.org; URL: www.jrcert.org.

The program prepares students for entry-level positions in the respective fields. Graduates are eligible to apply to take the American Registry of Radiologic Technologists Exam (Medical Radiography) or the American Registry of Diagnostic Medical Sonography Exam (Sonography Options). Medical Radiography graduates are also eligible to apply to take the Massachusetts State Licensing Examination. The program begins in the fall semester, and didactic and clinical education are carefully correlated to provide reinforcement in the clinical setting of skills learned in the classroom. Students in the program must earn a numerical course grade of 80 percent or better in all imaging courses, and a minimum grade of C in all general education courses. Failure to meet clinical objectives or failure to meet the academic standard in any course will result in withdrawal from the program. Students may apply for readmission to the program one time, on a space-available basis. Prior to reapplication, students must successfully repeat failed course(s).

Readmission is considered on a case-by-case basis. All medical imaging students must undergo a physical examination, complete the necessary immunization forms, including the three (3) dose Hepatitis B immunization series, have CPR certification, carry malpractice and health insurance, and undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. The application process for the Medical Imaging Program is highly competitive and selective. Potential applicants are ranked based on prerequisite grades, Test of Essential Academic Skills V (TEAS V) results in Reading, Math and English/Language, as well as grades earned in any program required non-core courses. Applicants must achieve a CPT reading level of 10th grade or higher, or a LOEP score of 98 or higher for ESL applicants, to proceed to take the TEAS V Test. The highest ranked students for each A.S. Program will be invited to complete the TEAS V test. Qualified applicants will be able to take the TEAS test free-of-charge at BHCC a maximum of three (3) times. Job shadows will be recommended to those applicants upon invitation. Standby lists will be generated annually for each A.S. Degree option. Standby students not obtaining a seat in that year will be required to reapply for future admission to any Medical Imaging Program.

### PREREQUISITES FOR ALL MEDICAL IMAGING OPTIONS:

- Attend one MANDATORY information session within one year of application. (Refer to BHCC website for dates).
- Possess a high school diploma or GED certificate.
- Achieve a reading level of 10th grade or higher on the College Placement Test (CPT) or a numerical score of 98 or above on the LOEP reading test for ESL students
- Complete the following courses with a grade of C or better:
  - One semester of College Algebra (MAT194, MAT520) or equivalent;
  - One semester of college level Anatomy/Physiology I/Lab (must be completed within five years of application unless currently working in related healthcare position).
  - One semester of College Writing I (ENG111) or equivalent with a grade of C or better.

*Continued on following page*

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**AFTER ALL PREREQUISITES ARE COMPLETED:**

- Prospective students must apply through Admissions and Enrollment Services during the enrollment period. Approximate application dates for the Fall program are September – December for admission to the program for the next academic year. Check with Admissions and Enrollment Services for exact timelines.
- Top-scoring applicants in each option will be invited to complete the Test of Essential Academic Skills V (TEAS V). Job shadows will be recommended to accepted students and those on the stand-by list.
- Applicants must score at least 47.6% in reading, 46.7% in math and 47.6% in English/Language on the TEAS V to be considered for the Medical Imaging Programs.
- The Medical Imaging Admissions Committee will evaluate each candidate’s record after completion of the TEAS V test. Admission to the Program will be based on overall ranking of applicants as described previously.
- Stand-by lists will be developed for each option annually. Stand-by students not offered a seat will need to reapply the next year for future consideration.
- Applicants not selected for admission to the Medical Imaging Program must meet with a member of the advising staff for guidance before reapplication.

**Tuition and Fees for Medical Imaging Students\*\*\*:**

<b>Massachusetts Residents</b> . . . . .	<b>\$11,100.00 for 2 years</b>
<b>Non-Massachusetts Residents</b> . . . . .	<b>\$25,300.00 for 2 years</b>
<b>Uniforms</b> . . . . .	<b>\$200.00</b>
<b>Malpractice/Liability Insurance</b> . . . . .	<b>\$15.00 annually</b>
<b>Books/Software</b> . . . . .	<b>\$900.00 annually</b>
<b>Medical Imaging Pin</b> . . . . .	<b>\$10.00</b>
<b>Certification Exam Fees</b> . . . . .	<b>\$200.00 Radiography \$250.00 - \$500.00 Sonography</b>

\*\*\* Costs are estimated and subject to change. Please refer to Admissions and Enrollment Services for exact cost.

Note: A college physics course, with a grade of C or better, is required for accepted General Sonography or Cardiac Sonography Students. For accepted Sonography students, MIG111, Imaging Technology I (web-based), will be offered in the summer prior to the start of the program.

Associate in Science  
 Medical Imaging Department

## Cardiac Sonography Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>PREREQUISITE COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
Anatomy/Physiology I/Lab	BIO203		4	BIO105 or BIO108 or BIO195
College Algebra	MAT193, MAT194 or any 3 credit college algebra course		3-4	MAT097, MAT099 or placement
<b>PROGRAM CURRICULUM</b>				
Imaging Technology I or General Physics/Lab	MIG111-see note* or PHY201-see note*	Summer	3 or 4	MAT197 or placement
Patient Care in Medical Imaging	MIG109	Fall	4	Co-req MIG101
Intro to Ultrasound	MIG101	Fall	2	Acceptance into Cardiac Sonography Program.
Ultrasound Physics and Instrumentation	MIG105	Fall	3	Acceptance into Cardiac Sonography Program.
Anatomy/Physiology II/Lab	BIO204	Fall	4	BIO203
Echo I	MIG112	Spring	3	MIG101
Interpretation I	MIG115	Spring	4	MIG109
Vascular Ultrasound	MIG205	Summer I	3	Co-req MIG119 and co-reg MIG205
Echo II	MIG119	Summer I	3	MIG112
College Writing II	ENG112	Summer I	3	ENG111
Principles of Sociology	SOC101	Summer II	3	ESL098 or RDG095 or placement
Interpretation II	MIG203	Summer II	3	MIG115
Related Pharmacology	MIG121	Summer II	2	MIG115
Echo III	MIG201	Fall	4	MIG119
Ultrasound Physics and Instrumentation for the Cardiac Sonographer	MIG207	Fall	2	MIG105 and MIG119
Cardiac Sonography Clinical I	MIG211	Fall	3	MIG119; co-req MIG201
Cardiac Sonography Clinical II	MIG213	Spring	4	MIG211; co-req MIG215
Echo IV/Interpretation	MIG215	Spring	4	MIG203
Advanced Interpretation Seminar	MIG216	Spring	2	MIG211 and MIG203 and MIG215
Applications/Concepts	CIT110	Spring	3	ESL098 or RDG095 or placement
Cardiac Sonography Clinical III	MIG217	Summer	4	MIG213
<b>TOTAL CREDITS</b>			<b>66-67</b>	

\*Note: Imaging Technology I (MIG111 web-based) or General Physics I/Lab (PHY201) must be completed, with a grade of C or better, in the summer prior to the start of the program.

Continued on following page

Associate in Science

Medical Imaging Department

## Cardiac Sonography Option

*Continued from previous page*

### OPTION OVERVIEW

This option prepares students in the imaging of the human heart with sound waves. Students are prepared to use the equipment that produces sound waves, obtains an image, and provides the physician with diagnostic information for treatment.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Cardiac Sonography Option, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this option qualify for employment in hospitals, HMOs, clinics, doctors' offices, mobile units, community health agencies, equipment/film companies, and/or as application specialist sales representatives.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate general knowledge and technical skills required to perform cardiac echo examinations as an entry-level cardiac sonographer.
- Demonstrate sufficient knowledge of cardiac sonography to pursue registry status through The American Registry of Diagnostic Medical Sonographers.
- Understand the importance of lifelong continuing education in the field of Cardiac Sonography.

Certificate

Medical Imaging Department

## Computed Tomography Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Computed Tomography I	CTC111	Fall	3	Acceptance into CT Program
Computed Tomography II	CTC211	Spring	3	CTC111; co-req CTC299
Computed Tomography Internship	CTC299	Spring	3	Chair approval; pre/co-req CTC211
<b>TOTAL CREDITS</b>			<b>9</b>	

This Computed Tomography Certificate Program is designed for experienced medical imaging professionals seeking to enter the field of computed tomography. The didactic and clinical content is structured to meet the content requirements of the American Registry of Radiologic Technologists (ARRT) Post-primary Registry Exam in CT, and will help professionals prepare for the examination. Didactic courses are delivered online in an interactive format to accommodate the working adult student. Students are responsible for finding a host hospital in which to complete the 100 hour clinical internship in which relevant skills will be reinforced.

Students must earn a numerical grade of 80 or higher in all courses. Failure to meet internship objectives or failure to obtain a numerical course grade of 80 or better constitutes failure in that course. Students may apply for readmission to the program one time. All CT students are required to undergo a physical examination; complete the necessary immunization forms, including three (3) Hepatitis B series; have malpractice and health insurance, and undergo a Criminal Offender Record Information (CORI) check and Sex Offender Registry Information (SORI) check.

### ADMISSION REQUIREMENTS:

Student must apply to the program through Admissions and Enrollment Services and:

- Present a completed application with fee.
- Submit a copy of the current ARRT or NMTCB card.
- Submit a letter of interest.
- Submit a letter of recommendation from a supervisor, including guarantee of a clinical site for the clinical internship.

Admission is selective. Completed applications will be reviewed by the Medical Imaging Department in April and July for a September start.

### PROGRAM OVERVIEW

This certificate helps to prepare students for the American Registry of Radiologic Technologists' (ARRT) post-primary registry examination in CT, as well as for entry-level CT positions. It is intended for ARRT or Nuclear Medicine Technologist Certification Board (NMTCB) registered imaging professionals.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Computed Tomography Certificate Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P. For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

It is expected that the number of positions in this modality will continue to grow in the near future. Opportunities exist in hospitals, outpatient clinics and free-standing medical imaging facilities.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate competence in the essential aspects of computed tomography at the entry-level.
- Understand the importance of life-long continuing education in the field of computed tomography.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Medical Imaging Department

## General Sonography Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>PREREQUISITE COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
Anatomy/Physiology I/Lab	BIO203		4	BIO105 or BIO108 or BIO195
College Algebra	MAT193, MAT194 or any 3 credit college algebra		3-4	MAT097, MAT099 or placement
<b>PROGRAM CURRICULUM</b>				
Imaging Technology I or General Physics/Lab	MIG111-see note* or PHY201-see note*		3 or 4	Prerequisite for MIG111: MAT097 or placement; prerequisite for PHY201: MAT197 or placement
Patient Care in Medical Imaging	MIG109	Fall	4	co-req MIG101
Introduction to Ultrasound	MIG101	Fall	2	acceptance to General Sonography Program
Ultrasound Physics and Instrumentation	MIG105	Fall	3	
Cross Sectional Anatomy	SON113	Fall	4	co-req BIO204
Anatomy/Physiology II/Lab	BIO204	Fall	4	BIO203
Abdominal Ultrasound	SON115	Spring	3	SON113 and co-req SON121
Applications/Concepts	CIT110	Spring	3	ESL098 and RDG095 or placement
Ultrasound Scanning Protocols and Pathology	SON117	Spring	4	SON113 and co-req SON121
Subspecialty Sonography and Neurosonography	SON119	Spring	3	SON113 and co-req SON121
General Sonography Clinical I	SON121	Spring	3	SON113 and co-reqs SON115 and SON117
Vascular Ultrasound	MIG205	Summer I	3	co-req SON123
General Sonography Clinical II	SON123	Summer	3	SON121 and co-req MIG205
College Writing II	ENG112	Fall	3	ENG111
Ultrasound Physics and Instrumentation for the General Sonographer	SON213	Fall	2	MIG105 and co-req SON223
Advanced General Sonography Seminar I	SON215	Fall	2	SON115 and co-req SON223
Obstetrical/Gynecological	SON219	Fall	3	SON123 and co-req SON223
General Sonography Clinical III	SON223	Fall	3	SON123 and co-req SON219, SON213, SON215
Principles of Sociology	SOC101	Spring	3	ESL098 or RDG095 or placement
Advanced General Sonography Seminar II	SON217	Spring	2	SON215 and co-req SON225
Obstetrical/Gynecological Sonography II	SON221	Spring	3	SON219 and co-req SON225
General Sonography Clinical IV	SON225	Spring	3	SON223 and co-reqs SON217 and SON221
General Sonography Clinical V	SON227	Summer	3	SON225
<b>TOTAL CREDITS</b>			<b>69-70</b>	

\*Note: Imaging Technology I (MIG111 web-based) or General Physics I/Lab (PHY201) must be completed, with a grade of C or better, in the summer prior to the start of the program.

Continued on following page

Associate in Science

Medical Imaging Department

## General Sonography Option

*Continued from previous page*

### OPTION OVERVIEW

This program prepares students to pursue careers and registry status in diagnostic medical sonography through comprehensive instruction and clinical experience. The program covers ultrasound physics, abdominal sonography, obstetrical and gynecological sonography, sonographic subspecialties, and cross-sectional anatomy.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the General Sonography Option, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this option qualify for employment in hospitals, HMOs, clinics, doctors' offices, mobile units, community health agencies, equipment/film companies, and/or as application specialist sales representatives.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Recognize and identify the sonographic appearance of normal anatomic structures and Doppler flow patterns.
- Utilize ultrasound equipment to obtain an image and provide physicians with diagnostic information for treatment.
- Understand the role of ultrasound in patient management and discuss the biologic effects of ultrasound.
- Apply to take the national registry exam (ARDMS).

Certificate

Medical Imaging Department

## Imaging Informatics Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Introduction to Diagnostic Imaging and PACS	MIG161	Fall	3	Acceptance into program
Imaging Informatics I	MIG131	Fall	4	Co-req MIG161
Imaging Informatics II	MIG133	Spring	4	MIG131*
Advanced PACS Seminar	MIG251	Spring or Summer	3	MIG131 and MIG161
PACS Administration Internship or PACS Business Internship	MIG299 or MIG299B	Spring or Summer	3	Acceptance into program
<b>TOTAL CREDITS</b>			<b>17</b>	

CIT110 Applications/Concepts or CIT113 IT Problem Solving is recommended for non-IT professions

\*Note: Grade of "C" or higher required in MIG131 to enroll in MIG133

Imaging Informatics, or Picture Archival and Communication Systems, is designed for experienced computer science or medical imaging professionals seeking to enter the field of Imaging Informatics Administration. This program provides relevant knowledge of both IT and Medical Imaging concepts in a web-based format for the working adult. This is a full-time, two semester program. Many of the courses are offered each semester, and through the summer for flexibility, and the program may be extended to a third semester if necessary. Students are responsible for finding a host hospital in which to complete the 100 hour internship in which relevant skills will be reinforced. Students must earn a numerical grade of 80 or higher in all courses. Failure to meet internship objectives or failure to obtain a numerical course grade of 80 or better constitutes failure in that course. Students may apply for readmission to the program one time.

All Imaging Informatics students are required to undergo a physical examination; complete the necessary immunization forms, including three (3) Hepatitis B immunization series; have malpractice and health insurance and undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check.

### ADMISSION REQUIREMENTS:

Students may apply to the program through Admissions and Enrollment Services and:

1. Have a degree in a computer science field, extensive experience as determined by the Chair of the CIT Department, or be a graduate of an accredited Medical Imaging Program and be credentialed with a recognized national agency.
2. Submit an application with high school and college transcripts.
3. Submit a letter of interest with professional resume and references.
4. Attend an on-site or phone interview.

Admission is selective. Completed applications will be reviewed by the Medical Imaging and CIT Department Chairs in April and July for a September start.

### CAREER OUTLOOK

Hospitals across the country are in the process of migrating their medical imaging department to a filmless state due to digital technology. Imaging Informatics technology is growing laterally. Every hospital will need at least one Imaging Informatics administrator, and many will need more than one.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Imaging Informatics Certificate Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Manage medical image databases, and interact with other information system databases used in healthcare facilities.
- Evaluate and implement practical operational strategies that will make the workflow more efficient.
- Function as an entry-level Imaging Informatics Administrator.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Medical Imaging Department

## Magnetic Resonance (MR) Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
MR Concepts I	MRC111	Fall	3	acceptance into MR Program
MR Concepts II	MRC211	Spring	3	MRC111; co-req MRC299
MR Clinical Internship	MRC299	Spring	3	Chair approval; pre/co-req MRC211
<b>TOTAL CREDITS</b>			<b>9</b>	

This Magnetic Resonance (MR) Certificate Program is designed for experienced medical imaging professionals seeking to enter the field of MR imaging. The didactic and clinical content is structured to meet the content requirements of the American Registry of Radiologic Technologists (ARRT) Post-primary Examination in MR, and will help professionals prepare for the examination. Didactic courses are delivered online in an interactive format to accommodate the working adult student. Students are responsible for finding a host hospital in which to complete the 100 hour clinical internship in which relevant skills will be reinforced. Students must earn a numerical grade of 80 or higher in all courses. Failure to meet internship objectives or failure to obtain a numerical course grade of 80 or better constitutes failure in that course. Students may apply for readmission to the program one time.

All MR students are required to undergo a physical examination; complete the necessary immunization forms, including three (3) Hepatitis B series; have malpractice and health insurance, and undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check.

### ADMISSION REQUIREMENTS:

Student must apply to the program through Admissions and Enrollment Services and:

- Present a completed application with fee.
- Submit a copy of the current ARRT card.
- Submit a letter of interest.
- Submit a letter of recommendation from a supervisor, including guarantee of a clinical site for the clinical internship.

Admission is selective. Completed applications will be reviewed by the Medical Imaging Department in April and July for a September start.

### PROGRAM OVERVIEW

This certificate helps to prepare students for the American Registry of Radiologic Technologists' (ARRT) Post-primary Registry Examination in Magnetic Resonance, as well as for entry-level MR positions. It is intended for ARRT registered imaging professionals.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Magnetic Resonance Certificate Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

It is expected that the number of positions in this modality will continue to grow in the near future. Opportunities exist in hospitals, outpatient clinics and free-standing medical imaging facilities.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate competence in the essential aspects of MR imaging at the entry-level.
- Understand the importance of life-long continuing education in the field of MR imaging.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Medical Imaging Department

## Mammography Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Mammography I	MAC111	Fall	3	Acceptance into Mammography Program
Mammography Principles II	MAC211	Spring	3	MAC111; co-req MAC299
Mammography Clinical Internship	MAC299	Spring	3	Chair approval; pre/co-req MAC211
<b>TOTAL CREDITS</b>			<b>9</b>	

This Mammography Certificate Program is designed for experienced medical imaging professionals seeking to enter the field of mammography. The didactic and clinical content is structured to meet the content requirements of the American Registry of Radiologic Technologists (ARRT) Post-primary Examination in Mammography, and will help professionals prepare for the examination. Didactic courses are delivered online in an interactive format to accommodate the working adult student. Students are responsible for finding a host hospital in which to complete the 100 hour clinical internship in which relevant skills will be reinforced. Students must earn a numerical grade of 80 or higher in all courses. Failure to meet internship objectives or failure to obtain a numerical course grade of 80 or better constitutes failure in that course. Students may apply for readmission to the program one time. All mammography students are required to undergo a physical examination; complete the necessary immunization forms, including three (3) Hepatitis B series; have malpractice and health insurance, and undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check.

### ADMISSION REQUIREMENTS:

Student must apply to the program through Admissions and Enrollment Services and:

- Present a completed application with fee.
- Submit a copy of the current ARRT card.
- Submit a letter of interest.
- Submit a letter of recommendation from a supervisor, including guarantee of a clinical site for the clinical internship.

Admission is selective. Completed applications will be reviewed by the Medical Imaging Department in April and July for a September start.

### PROGRAM OVERVIEW

This certificate helps to prepare students for the American Registry of Radiologic Technologists' (ARRT) Post-primary Registry Examination in Mammography, as well as for entry-level Mammography positions. It is intended for ARRT registered imaging professionals.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Mammography Certificate Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

It is expected that the number of positions in this modality will continue to grow in the near future. Opportunities exist in hospitals, outpatient clinics and free-standing medical imaging facilities.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate competence in the essential aspects of Mammographic imaging at the entry-level.
- Understand the importance of life-long continuing education in the field of Mammographic imaging.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Medical Imaging Department

## Medical Radiography Full-time Option

PROGRAMS OF STUDY

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>PREREQUISITE COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
Anatomy/Physiology I/Lab	BIO203		4	BIO105 or BIO108 or BIO195
College Algebra	MAT193, MAT194 or any 3 credit college algebra course		3-4	MAT097, MAT099 or placement
<b>PROGRAM CURRICULUM</b>				
Patient Care in Medical Imaging	MIG109	Fall	4	co-req MIG107
Intro to Medical Radiography	MIG107	Fall	2	acceptance to Medical Radiography Program
Positioning I	MIG122	Fall	3	co-req MIG124F
F.T. Medical Radiography Clinical I	MIG124F	Fall	2	
Anatomy/Physiology II/Lab	BIO204	Spring	4	BIO203
Radiologic Imaging I	MIG120	Spring	3	MIG107
Imaging Technology I	MIG111	Spring	3	MAT097 or placement
Positioning II	MIG126	Spring	3	MIG122; co-req MIG128F
F.T. Medical Radiography Clinical II	MIG128F	Spring	2	MIG124F
F.T. Medical Radiography Clinical III	MIG222F	Summer	3	MIG128F
Principles of Sociology	SOC101	Summer II	3	ESL098 or RDG095 or placement
Positioning III	MIG220	Fall	2	MIG126
F.T. Medical Radiography Clinical IV	MIG228F	Fall	3	MIG222F
Imaging Technology II	MIG224	Fall	3	MIG111
Radiologic Imaging II	MIG226	Fall	3	MIG120
Pharmacology of Radiology	MIG227	Fall	1	MIG109 and BIO204
College Writing II	ENG112	Fall	3	ENG111
Radiation Protection	MIG230	Spring	3	MIG226
F.T. Medical Radiography Clinical V	MIG236F	Spring	3	MIG228F
CT/Cross Sectional Anatomy	MIG234 web-based	Spring	2	BIO204
Applications/Concepts	CIT110	Spring	3	ESL098 or RDG095 or placement
Advanced Medical Radiography Seminar	MIG238	Spring	2	MIG224 and MIG226
<b>TOTAL CREDITS</b>			<b>60</b>	

### OPTION OVERVIEW

This option prepares students to perform entry level diagnostic examinations on patients utilizing analog and digital technology to produce diagnostic images in a diverse healthcare environment. The field of radiography includes general radiography, computed tomography (CT), magnetic resonance imaging (MRI), mammography, and cardiovascular and interventional technology.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in Medical Radiography, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These

checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this option qualify for employment in hospitals, HMOs, clinics, doctors' offices, mobile units, community health agencies, industrial x-ray, and equipment/film companies. Successful graduates will qualify to take the American Registry of Radiologic Technologists Registry Examination and the State of Massachusetts Licensing Examination for entry-level Radiologic Technologists.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate clinical competence.
- Apply critical thinking skills.
- Demonstrate communication skills.
- Model professionalism.

Associate in Science

Medical Imaging Department

## Medical Radiography Part-time Evening Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>PREREQUISITE COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
Anatomy/Physiology I/Lab	BIO203		4	BIO105 or BIO108 or BIO195
College Algebra	MAT 193, MAT-194 or any 3 credit college algebra course		3-4	MAT097, MAT099 or placement
<b>PROGRAM CURRICULUM</b>				
Patient Care in Medical Imaging	MIG109	Fall	4	co-req MIG107
Intro to Medical Radiography	MIG107	Fall	2	acceptance to Medical Radiography Program
Imaging Technology I	MIG111	Spring	3	MAT097 or placement
Radiologic Imaging I	MIG120	Spring	3	MIG107
College Writing II	ENG112	Spring	3	ENG111
Imaging Technology II	MIG224	Summer	3	MIG111
Principles of Sociology	SOC101	Summer	3	ESL098 or RDG095 or placement
Applications/Concepts	CIT110	Summer	3	ESL098 or RDG095 or placement
Radiologic Imaging II	MIG226	Fall	3	MIG120
Radiation Protection	MIG230	Fall	3	co-req MIG226
Positioning I	MIG122	Spring	3	co-req MIG124P
Anatomy/Physiology II/Lab	BIO204	Spring	4	BIO203
P.T. Medical Radiography Clinical I	MIG124P	Spring	1	
Positioning II	MIG126	Summer	3	MIG122; co-req MIG128P
Pharmacology of Radiology	MIG227	Summer	1	MIG109 and BIO204
P.T. Medical Radiography Clinical II	MIG128P	Summer	1	MIG124P
Positioning III	MIG220	Fall	2	MIG126
P.T. Medical Radiography Clinical III	MIG222P	Fall	1	MIG128P
CT/Cross Sectional Anatomy	MIG234 web-based	Fall	2	BIO204
P.T. Medical Radiography Clinical IV	MIG228P	Spring (day)	5	MIG222P
Advanced Medical Radiography Seminar	MIG238	Spring	2	MIG224 and MIG226
P.T. Medical Radiography Clinical V	MIG236P	Summer (day)	5	MIG228P
<b>TOTAL CREDITS</b>			<b>60</b>	

### OPTION OVERVIEW

This option prepares students to perform entry level diagnostic examinations on patients utilizing analog and digital technology to produce diagnostic images in a diverse healthcare environment. The field of radiography includes general radiography, computed tomography (CT), magnetic resonance imaging (MRI), mammography, and cardiovascular and interventional technology.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in Medical Radiography program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These

checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P. For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this option qualify for employment in hospitals, HMOs, clinics, doctors' offices, mobile units, community health agencies, industrial x-ray, and equipment/film companies. Successful graduates will qualify to take the American Registry of Radiologic Technologists Registry Examination and the State of Massachusetts Licensing Examination for entry-level Radiologic Technologists.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate clinical competence.
- Apply critical thinking skills.
- Demonstrate communication skills.
- Model professionalism.

## Associate in Science Degree: Registered Nursing Program

The Associate in Science Degree in Registered Nursing is a two-year program designed to prepare students for entry-level nursing positions. The program is accredited by the National League for Nursing (NLN) and the American Nurses Association (ANA). Students must complete all requirements for the degree, including a minimum GPA of 2.0 and successful completion of the NCLEX-RN exam. The program includes classroom instruction, laboratory work, and clinical experiences in various healthcare settings. Graduates are eligible to apply for licensure as Registered Nurses (RNs) in the state of Colorado.

Students must complete all requirements for the degree, including a minimum GPA of 2.0 and successful completion of the NCLEX-RN exam. The program includes classroom instruction, laboratory work, and clinical experiences in various healthcare settings. Graduates are eligible to apply for licensure as Registered Nurses (RNs) in the state of Colorado.

Students must complete all requirements for the degree, including a minimum GPA of 2.0 and successful completion of the NCLEX-RN exam. The program includes classroom instruction, laboratory work, and clinical experiences in various healthcare settings. Graduates are eligible to apply for licensure as Registered Nurses (RNs) in the state of Colorado.

Students must complete all requirements for the degree, including a minimum GPA of 2.0 and successful completion of the NCLEX-RN exam. The program includes classroom instruction, laboratory work, and clinical experiences in various healthcare settings. Graduates are eligible to apply for licensure as Registered Nurses (RNs) in the state of Colorado.

**Content Updated:**  
 please visit [bhcc.edu/nursing](http://bhcc.edu/nursing) for current information.

Students must complete all requirements for the degree, including a minimum GPA of 2.0 and successful completion of the NCLEX-RN exam. The program includes classroom instruction, laboratory work, and clinical experiences in various healthcare settings. Graduates are eligible to apply for licensure as Registered Nurses (RNs) in the state of Colorado.

The overall intent of this program is to prepare students for entry-level nursing positions. Students must complete all requirements for the degree, including a minimum GPA of 2.0 and successful completion of the NCLEX-RN exam.

### Prerequisites for the Nursing Program:

- 1. Complete all prerequisites for the nursing program.
- 2. Complete all prerequisites for the nursing program.
- 3. Complete all prerequisites for the nursing program.
- 4. Complete all prerequisites for the nursing program.
- 5. Complete all prerequisites for the nursing program.
- 6. Complete all prerequisites for the nursing program.
- 7. Complete all prerequisites for the nursing program.
- 8. Complete all prerequisites for the nursing program.
- 9. Complete all prerequisites for the nursing program.
- 10. Complete all prerequisites for the nursing program.

Continued on following page

## Associate in Science Degree: Registered Nursing Program

Continued from previous page

### After all prerequisites are completed:

- Prospective students must apply through Admissions and Enrollment Services during enrollment periods. Approximate dates are Fall Program: September-December; Spring Program: May - August. Check with the office for exact dates.
- After applying, qualified applicants will be invited to take the Nursing admissions test: Test of Essential Academic Skills (TEAS II).
- Applicants must score at least 80% percent in reading, 80% percent in math and 80% percent in science on the test to be considered for the nursing program.
- Admission to the Nursing Program will be based on a waiting system that includes student performance on the TEAS as well as performance in other courses in the nursing curriculum.
- Applicants are accepted into the Nursing Program after evaluation of the applicant's record by the Basic Education Admissions Committee. Applicants who are not selected for admission to the Nursing Program must meet with a member of the waiting staff before resubmitting their application.

**Content Updated:  
please visit [bhcc.edu/nursing](http://bhcc.edu/nursing) for current information.**

Tuition .....	\$500.00
Registration/Activity Insurance (RPI-RII) .....	\$75.00 yearly
Books/ATI Materials .....	\$1,000.00
Nursing Fee .....	\$60.00
Common Application/Exam Fee .....	\$40.00

NOTE: Tuition and activity insurance change

Associate in Science

Nurse Education Department

## Registered Nursing Program: Day/Evening/Alternative Options

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>PREREQUISITE COURSES</b>				
College Writing I	ENG111		3	ENG095 or placement and ESL098 or RDG095 or placement
Anatomy/Physiology/Lab I	BIO203		4	BIO105 or BIO108 or BIO195
Drug Calculation	NUR100		1	MAT097 or placement
<b>PROGRAM CURRICULUM</b>				
College Writing II	ENG112		3	ENG111
Individual and Society	SOC101 satisfies Area 2		3	ESL098 or RDG095 or placement
World View	Area 3 satisfied by program			
Quantitative Thought	Area 4		3	MAT097 or placement
Science and Technology	Area 5 satisfied by program			
Humanities	Area 6 satisfied by program			
Anatomy/Physiology/Lab II	BIO204	Semester I	4	BIO203
Principles of Psychology	PSY101-see note*		3	ESL098 or RDG095 or placement
Physical Assessment/Basic Skills	NUR101	Semester I	2	BIO203 and ENG111 and NUR100
Nursing I	NUR111	Semester I	7	BIO203 and ENG111 and NUR100
Human Growth/Development	PSY213-see note*		3	PSY101
Nursing II	NUR112	Semester II	10	BIO204 and NUR101 and NUR111 and PSY101
Microbiology/Lab	BIO205	Semester II	4	BIO203 or BIO195
Nursing III	NUR211	Semester III	9	BIO205 and NUR112 and PSY213
Nursing IV	NUR212	Semester IV	9	NUR211
Nursing Seminar	NUR213	Semester IV	1	NUR211
<b>TOTAL CREDITS</b>			<b>69</b>	

\*Note: PSY101 and PSY213 must be completed prior to NUR211.

Continued on following page

Associate in Science

Nurse Education Department

## Registered Nursing Program: Day/Evening/Alternative Options

*Continued from previous page*

### OPTION OVERVIEW

This program includes 39 credits of nursing theory and clinical practice in health care facilities. NUR111, Nursing I, requires clinical practice six (6) hours per week. NUR112, NUR211 and NUR212, Nursing II, III and IV, each require clinical practice twelve (12) hours per week. Students must earn a grade of 78 or higher in all NUR courses with the exception of NUR100, in which students must earn a grade of 80 or higher. Students who fail to meet either the clinical objective or the grade requirement of an NUR course fail that course. To ensure currency, credits for BIO203, 204 and 205 earned more than five years prior to enrollment in the nursing clinical sequence are not accepted. Note that there are many requirements that must be met for acceptance to the nursing programs. These requirements are spelled out in detail in the Associate in Science Degree: Nursing Program description preceding this grid.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Nursing program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178 B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P. For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this option qualify for employment in hospitals, long-term care facilities, HMOs, clinics, doctors' offices, and other community health agencies.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Apply the nursing process and critical thinking in the delivery of holistic nursing care in a variety of settings.
- Apply scientific knowledge and technology in the delivery of holistic nursing care.
- Integrate the roles of the associate degree nurse into nursing practice.
- Communicate effectively with individuals, families, and groups within the health care system.
- Integrate cultural competence in the delivery of nursing care to a transcultural, diverse population throughout the lifespan.
- Integrate principles of teaching/learning in the delivery of holistic nursing care.
- Integrate the legal, ethical, and professional standards in the delivery of care.
- Demonstrate accountability as a manager of care utilizing delegation and leadership skills.

Certificate

Business Administration Department

## Accounting Information Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Principles of Accounting II	ACC102		3	ACC101
Accounting Information Systems	ACC105		3	ACC101; ENG095 and ESL098 or RDG095 or placement
Intermediate Accounting I	ACC201		3	ACC102
Applications/Concepts or Introduction to MS Office	CIT110 or CIT133		3	ESL098 or RDG095 or placement
Decision Support Using MS Excel	CIT234		3	CIT110 or CIT113 or CIT120
Statistics I	MAT181		3	MAT097 or MAT098 or placement
<b>CONCENTRATION ELECTIVES (CHOOSE 2)</b>				
Intermediate Accounting II	ACC202		3	ACC201
Cost Accounting	ACC207		3	ACC102
Personal Income Tax	ACC203		3	ACC102
Financial Management	FIN210		3	ACC102
Database Design with MS Access	CIT128		3	CIT110 or CIT113 or CIT120 or Chair approval
<b>TOTAL CREDITS</b>			<b>27</b>	

Due to the prerequisite requirements, it is not possible to complete this certificate program in one year. The program is intended to be followed on a part-time basis over two years.

### PROGRAM OVERVIEW

This program prepares students for entry-level training positions in firms where accounting departments may be specialized or all-inclusive (examples: accounts payable, accounts receivable, or inventory control). In addition, the program certifies those who are currently performing bookkeeper functions at their present employment. The certification enhances students' opportunities for growth. The program prepares graduates with skills directly transferable to the workplace through a combination of technical accounting training and financial accounting. The certificate program prepares students who feel that a degree program is not an appropriate choice.

### CAREER OUTLOOK

This program qualifies graduates for entry-level accounting, billing, or advanced bookkeeping positions. Students may also transfer many of these courses into the following degrees: Associate in Science Degree: Business Administration Accounting option or Business Administration Management option.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Describe and demonstrate an understanding of cash vs. accrual accounting.
- Compare and contrast different concepts of depreciation of property, plant and equipment assets.
- Explain in detail the nature of receivables, payables and inventory.
- Analyze and evaluate revenues, expenses cash flows, and behavior of cost.
- Assess and analyze integrated accounting systems, setup, and applications.
- Use spreadsheet models addressing a range of practical and business applications.
- Record transactions and input data from initial investment in the business cycle, ending entries that are necessary to ready the books for period-ending financial statements.
- Prepare and evaluate financial statements and process and maintain computerized records, accounts, and information.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Business Administration Department

## Accounting Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	MAN112 satisfies Area 2		3	ESL098 and ESL099 or RDG090 and ENG090 or placement
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Introduction to Business	BUS101 satisfies learning communities requirement		3	ESL098 and ESL099 or ENG090 and RDG095 or placement
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Business Law I	BUS201		3	ENG095 and ESL098 or RDG095 or placement
Principles of Accounting II	ACC102		3	ACC101
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Principles of Marketing or Principles of Management	MAN105 or MAN111		3	ESL098 and ESL099 or RDG095 and ENG090 or placement
Accounting Information Systems	ACC105		3	ACC101 and ENG095 and ESL098 or RDG095 or placement
Intermediate Accounting I	ACC201		3	ACC102
Personal Income Tax	ACC203		3	ACC102
Cost Accounting I	ACC207		3	ACC102
Intermediate Accounting II	ACC202		3	ACC201
Volunteer Income Tax Assistance	ACC205	Spring	3	ACC203
Managerial Accounting I or Business Internship or Learn and Earn Business Internship	ACC216 or MAN299 or INT299B		3	Prerequisite for ACC216: ACC207; prerequisite for MAN299 and INT299B: Chair approval
<b>TOTAL CREDITS</b>			<b>61</b>	

### OPTION OVERVIEW

This option trains students in use of the accounting software used in industry by introducing computerized applications early in the sequence of courses. Students interface with the public through the Volunteer Income Tax Assistance (VITA) component of this option as they help interested members of the community prepare their tax returns.

### CAREER OUTLOOK

This option qualifies graduates to enter the accounting profession in entry-level positions.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Understand all variables that are relevant to preparing individual tax returns at both the state and federal levels.
- Prepare a set of financial statements for a service, merchandising, or manufacturing business that is structured as either a proprietorship, partnership, or corporation.
- Analyze a set of financial statements to determine the strengths or weaknesses of the business.
- Understand the importance of cash flow within a business and account for its use and source in evaluating the effectiveness of managerial decisions.

Associate in Arts

Business Administration Department

## Business Transfer Option

PROGRAMS OF STUDY

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	PSY101 or MAN112 satisfies Area 2		3	Prerequisites for PSY101: ESL098 or RDG095 or placement; prerequisites for MAN112: ESL098 and ESL099 or RDG095 and ENG090 or placement
World View	ECO201 satisfies Area 3		3	MAT097 and ESL098 or RDG095 or placement
Quantitative Thought	MAT194 satisfies Area 4		4	MAT099 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Introduction to Business	BUS101 satisfies learning communities requirement		3	ESL098 and ESL099 or RDG095 and ENG090 or placement
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Principles of Management	MAN111		3	BUS101; ESL098 and ESL099 or ENG090 and RDG095 or placement
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Principles of Marketing	MAN105		3	ESL098 and ESL099 or RDG095 and ENG090 or placement
Principles of Accounting II	ACC102		3	ACC101
Microeconomics	ECO202		3	MAT097 and ESL098 or RDG095 or placement
Calculus for Management Science	MAT231		4	MAT194
Behavioral Science Elective			3	
Lab Science Elective			4	
Literature Elective			3	pre/co-req ENG111
Literature Elective			3	pre/co-req ENG111
Statistics I	MAT181		3	MAT097 or MAT098 or placement
<b>TOTAL CREDITS</b>			<b>64</b>	

The Business Administration Department at Bunker Hill Community College is a collegial, student-centered learning community dedicated to providing an innovative, creative, and relevant education in business disciplines to a diverse student population. We strive to maximize student success by placing graduates in a competitive position when seeking employment in a business environment or upon transfer to a four-year academic institution, ultimately empowering them to compete responsibly and successfully in a global business environment.

### CONCENTRATION OVERVIEW

This concentration prepares students to transfer to four-year colleges or universities and major in business administration. A bachelor's degree enhances the competitive

status of students for entry into business-related fields, and prepares students for advanced degrees. The college has transfer articulation agreements with many four-year academic institutions in the area. Graduates of this concentration may qualify to transfer using benefits of MassTransfer to a four-year state college or University of Massachusetts campus. For current information on eligible programs, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer). The department also encourages students to consult with their advisors concerning transfer requirements.

### CAREER OUTLOOK

Students' potential careers vary depending upon the chosen major and include accounting, mid-level management, banking, finance, and insurance. Students must

complete a bachelor's degree as a minimum requirement for entry into these fields. Students may need to pursue graduate work, as well.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Describe the interaction of history, culture, literature, economics, and science as studied within a broad liberal arts curriculum.
- Demonstrate competence in reading and writing/literacy skills and in the organization of critical thinking and problem solving behaviors.
- Examine management theory and practice and explain basic business methodology and application.

Certificate

Business Administration Department

## Entrepreneurship Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Principles of Management	MAN111		3	ESL098 and ESL099 or ENG090 and RDG095 or placement
Principles of Marketing	MAN105		3	ESL098 and ESL099 or RDG095 and ENG090 or placement
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Accounting Information Systems	ACC105		3	ACC101; ENG095 and ESL098 or RDG095 or placement
Introduction to Entrepreneurship	MAN107		3	ENG095 and ESL098 or RDG095 or placement
Entrepreneurship and Innovation	MAN204	Spring	3	MAN107 or Instructor permission
Small Business Management	MAN207		3	ACC102 or ACC105 and MAN111 and MAN105 or Chair approval
Organizational Behavior or Business Law I	MAN112 or BUS201		3	Prerequisites for MAN112: RDG095 and ENG090 or ESL098 and ESL099 or placement. Prerequisites for BUS201: ENG095 and RDG095 or ESL098 or placement.
<b>TOTAL CREDITS</b>	<b>27</b>			

### PROGRAM OVERVIEW

This program prepares students to understand the business issues, technical skills and other knowledge underlying success in entrepreneurial endeavors. All of the courses are part of the Entrepreneurship Option of the A.S. in Business Administration Degree and thus could be used to fulfill requirements of that program. The certificate could also be completed to supplement knowledge of those majoring in other disciplines such as information technology, hospitality, or culinary arts who may wish to start their own business

### CAREER OUTLOOK

This certificate prepares graduates to start and manage a small business, and to move into management and supervisory positions.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Analyze viability of opportunities from various points of view.
- Understand the leadership skills and personal characteristics needed for success in starting and managing a small business.
- Develop and implement a business plan.
- Prepare a set of financial statements for a service, merchandising or manufacturing business that is structured as a sole proprietorship, partnership or a corporation.
- Analyze a set of financial statements to determine strengths or weaknesses of the business.
- Understand the basic principles of business law, contracts and agency, intellectual property and product liability.
- Demonstrate proficiency in computer applications as required to operate and manage a small business.
- Examine management theory and practice, and explain basic business methodology and management issues.
- Be able to identify and analyze the marketing strategies of an organization that can be used to advance its mission.
- Understand the techniques useful in achieving the full potential from limited resources and improving productivity and effectiveness.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Business Administration Department

## Entrepreneurship Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	MAN112 satisfies Area 2		3	ESL098 and ESL099 or RDG095 and ENG090 or placement
World View	ECO201 or ECO202 satisfies Area 3		3	MAT097 and ESL098 or RDG095 or placement
Quantitative Thought	MAT173 or MAT181 or MAT231 satisfies Area 4		3 or 4	Prerequisite for MAT173: MAT097 or placement; prerequisite for MAT181: MAT097 or MAT098 or placement; prerequisite for MAT231: MAT194 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Introduction to Business	BUS101 satisfies Learning Communities requirement. See note*		3	ENG090 and RDG095 or ESL098 and ESL099 or placement.
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Decision Support using MS Excel	CIT234		3	CIT110 or CIT113 or CIT120 or Chair approval
Principles of Management	MAN111		3	ESL098 and ESL099 or ENG090 and RDG095 or placement
Principles of Marketing	MAN105		3	ESL098 and ESL099 or RDG095 and ENG090 or placement
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Principles of Accounting II or Accounting Information Systems	ACC102 or ACC105		3	ACC101
Business Law I	BUS201		3	ENG095 and ESL098 or RDG095 or placement
Introduction to Entrepreneurship	MAN107		3	ENG095 and ESL098 or RDG095 or placement
Entrepreneurship and Innovation	MAN204	Spring	3	MAN107 or Instructor permission
Small Business Management	MAN207		3	ACC102 or ACC105 and MAN111 and MAN105 or Chair approval
Professional Communication	BUS207		3	ENG111
Business Internship or Learn and Earn Business Internship or Management Seminar	MAN299 or INT299B or MAN201		3	Chair approval
<b>TOTAL CREDITS</b>			<b>61-62</b>	

\*Note: Students who have already taken an LCS course should consult Department Chair or Division Dean.

Continued on following page

Associate in Science

Business Administration Department

## Entrepreneurship Option

*Continued from previous page*

### OPTION OVERVIEW

This option allows individuals to learn entrepreneurial skills and build on their own capabilities while earning a college degree. Students will be able to transfer credit for courses to four-year colleges with entrepreneurial programs. Students learn business skills that could be combined with their specialized skills to create opportunities for self-employment or for career advancement and career mobility.

### CAREER OUTLOOK

This option prepares graduates to start and manage a small business, and to move into management and supervisory positions.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Analyze viability of opportunities from various points of view.
- Understand the leadership skills and personal characteristics needed for success in starting and managing a small business.
- Develop and implement a business plan.
- Prepare a set of financial statements for a service, merchandising or manufacturing business that is structured as a sole proprietorship, partnership or a corporation.
- Analyze a set of financial statements to determine strengths or weaknesses of the business.
- Understand the basic principles of business law, contracts and agency, intellectual property and product liability.
- Demonstrate proficiency in computer applications as required to operate and manage a small business.
- Examine management theory and practice, and explain basic business methodology and management issues.
- Be able to identify and analyze the marketing strategies of an organization that can be used to advance its mission.
- Understand the techniques useful in achieving the full potential from limited resources and improving productivity and effectiveness.

Associate in Science

Business Administration Department

## Finance Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	MAN112 satisfies Area 2		3	ESL098 and ESL099 or RDG095 and ENG090 or placement
World View	ECO201 satisfies Area 3		3	MAT097 and ESL098 or RDG095 or placement
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Introduction to Business	BUS101 satisfies learning communities requirement		3	ESL098 and ESL099 or RDG095 and ENG090 or placement
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Principles of Management	MAN111		3	BUS101; ESL098 and ESL099 or ENG090 and RDG095 or placement
Introduction to Corporate Finance or Business Internship	FIN106 or MAN299		3	Prerequisite for MAN299: Chair approval
Principles of Accounting II	ACC102		3	ACC101
Professional Communication	BUS207		3	ENG111
Investments	FIN111		3	ACC102
Personal Finance	FIN112		3	
Microeconomics	ECO202		3	MAT097 or MAT098 and ESL098 or RDG095 or placement
Financial Management	FIN210		3	ACC102
Money and Banking	FIN211		3	ECO201 and ECO202
Mutual Funds Industry	FIN213		3	ACC102 and FIN111
<b>TOTAL CREDITS</b>			<b>61</b>	

### OPTION OVERVIEW

This option prepares students with general workforce skills and specialized educational training for entry-level positions in financial services, investment banking, financial planning, budgeting, and/or administration.

### CAREER OUTLOOK

This option qualifies graduates for a variety of positions in banking, insurance, finance, brokerage, and mutual fund operations.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Understand the process of preparing a budget and recognize the value it provides the end-user.
- Analyze the many choices available to the investor and recognize the importance of diversifying investment options.
- Evaluate sets of financial statements using financial ratios and draw accurate conclusions as to the strengths or weaknesses of the concern.
- Understand the mutual fund industry in order to design a comprehensive portfolio for a wide range of investors.

Associate in Science

Business Administration Department

## Management Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	MAN112 satisfies Area 2		3	ESL098 and ESL099 or RDG095 and ENG090 or placement
World View	ECO201 satisfies Area 3		3	MAT097 and ESL098 or RDG095 or placement
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Introduction to Business	BUS101 satisfies learning communities requirement		3	ESL098 and ESL099 or RDG095 and ENG090 or placement
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Principles of Marketing	MAN105		3	ESL098 and ESL099 or RDG095 and ENG090 or placement
Business Law I	BUS201		3	ENG095 and ESL098 or RDG095 or placement
Principles of Management	MAN111		3	BUS101; ESL098 and ESL099 or ENG090 and RDG095 or placement
Principles of Accounting II	ACC102		3	ACC101
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Financial Management	FIN210		3	ACC102
Management Seminar or Business Internship	MAN201 or MAN299		3	Prerequisites for MAN201: MAN105 and MAN111; prerequisite for MAN299: Chair approval
Professional Communication	BUS207		3	ENG111
Computer Elective			3	
Career Elective	see note*		3	
Career Elective	see note*		3	
<b>TOTAL CREDITS</b>			<b>61</b>	

\*Note: Select the career elective from ACC, BUS, FIN or MAN courses.

This program prepares students for employment and for transfer to four-year colleges and universities. The College has transfer articulation agreements with many of the four-year colleges and universities in the area. The College encourages students to meet with their advisors for additional information. This program makes a concentrated effort to demonstrate how the subject matter relates to the cultures of our diversified student population. The program places emphasis on student participation and creates an interactive forum in which to learn. The Management Seminar in this program is a Capstone course and should be taken in the student's final semester.

### OPTION OVERVIEW

This option prepares students with a solid foundation of managerial principles and concepts that are standard practice in business. The upper-level management courses focus on the case study approach, allowing students to analyze and solve realistic management problems. The college has transfer articulation agreements with many of the four-year colleges and universities in the area, allowing students to transfer in this option. Students should speak with the Department chair for specific transfer information.

### CAREER OUTLOOK

This option qualifies graduates to enter the workforce as productive entry-level managers.

#### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Apply the concepts needed to direct, plan, organize, and control the operations of a business.
- Demonstrate the necessary leadership skills to mobilize and motivate employees to accomplish business goals.
- Employ effective decision-making techniques in the workplace.
- Utilize human relations techniques when working with individuals or groups to help meet business objectives and resolve conflicts.

Certificate

Business Administration Department

## Sport Management Certificate Program

PROGRAMS OF STUDY

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Introduction to Business	BUS101		3	ESL098 or RDG095 and ESL099 or ENG090 or placement
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Professional Communication	BUS207		3	ENG111
Principles of Sport Management	SPM101		3	pre/co-req BUS101
Sport Facility and Event Management	SPM211		3	SPM101
Sport Law and Ethics	SPM213		3	SPM101
Sport Marketing and Promotion	SPM215		3	SPM101
<b>OPTION ELECTIVES (CHOOSE 1)</b>				
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Personal Finance	FIN112		3	
<b>TOTAL CREDITS</b>			<b>24</b>	

### CERTIFICATE OVERVIEW

This certificate will introduce students to the principles and concepts of sport management operations. It will provide a foundation for students interested in this field. The discipline specific courses will provide students with an introduction to areas that are critical for success in the sport management industry. Students will gain specific competencies in management, marketing, communications and operations as they relate to the sport and leisure industry. Students will have the foundation to continue their education whether it is to complete their A.S. degree or seek entry-level positions in the field.

### CAREER OUTLOOK

This option prepares students to seek employment in many entry-level positions in the areas of health and fitness, sport and leisure, park and recreation and the professional sport industry including opportunities in the management of professional, college, secondary school and community sports.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Apply the foundational concepts of managerial, marketing and leadership skills to a sport management enterprise/environment.
- Understand the basic principles of sport management and apply research and theory to solve sport and event management issues.
- Integrate principles of management to organize people and resources to succeed in the sport management industry.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Business Administration Department

## Sport Management Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	PSY101 satisfies Area 2		3	ESL098 or RDG095 or placement
World View	ECO201 satisfies Area 3		3	MAT097 and ESL098 or RDG095 or placement
Quantitative Thought	MAT181 satisfies Area 4		3	MAT097 or MAT098 or placement
Science and Technology	BIO108 satisfies Area 5		3	ENG095 and MAT093 and ESL098 or RDG095 or placement
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Introduction to Business	BUS101 satisfies learning communities requirement		3	ESL098 or RDG095 and ESL099 or ENG090 or placement
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Principles of Sport Management	SPM101		3	pre/co-req BUS101
Sport Management and Event Management	SPM211		3	SPM101
Sport Law and Ethics	SPM213		3	SPM101
Business Law I	BUS201		3	ENG095 and ESL098 or RDG095 or placement
Principles of Accounting II	ACC102		3	ACC101
Professional Communication	BUS207		3	ENG111
Introduction to Entrepreneurship	MAN107		3	ESL098 or RDG095 and ESL099 or ENG090 or placement
Sport Marketing and Promotion	SPM215		3	SPM101
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Psychology of Sport	SPM201		3	PSY101
Seminar in Sport Management or Sport Management Internship	SPM217 or SPM299		3	Prerequisite for SPM217: SPM101. Prerequisite for SPM299: Chair approval.
<b>TOTAL CREDITS</b>			<b>61</b>	

### OPTION OVERVIEW

This option introduces students to the principles and concepts of sport management operations. The program provides students with a comprehensive foundation in business management along with specialized courses in the areas that are critical for success in the sport management industry. Students will gain a comprehensive business foundation combined with specific competencies in management, marketing, communications and operations as they relate to the sport and leisure industry. Students will have the foundation to continue their education at a four-year institution or seek entry-level positions in the field.

### CAREER OUTLOOK

This option prepares students to seek employment in many entry-level positions in the areas of health and fitness, sport and leisure, park and recreation and the professional sport industry including opportunities in the management of professional, college, secondary school and community sports.

### UPON COMPLETION OF THIS PROGRAM, GRADUATES WILL BE ABLE TO:

- Integrate principles of management to organize people and resources to succeed in the sport management industry.
- Apply the concepts needed to plan, lead, organize, control and staff the operations of a sport management enterprise.
- Understand the basic principles of sport management as they relate to legal issues, managing and marketing a sports organization, communications and administration.

Certificate

Business Administration Department

## Taxation Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Applications/Concepts or Decision Support using MS Excel	CIT110 or CIT234		3	Prerequisite for CIT110: ESL098 or RDG095 or placement; prerequisite for CIT234: CIT110 or CIT113 or CIT120 or equivalent experience or Chair approval
Accounting Forensics	ACC107		3	ACC102
Accounting Information Systems	ACC105		3	ACC101 and ENG095 and ESL098 or RDG095 or placement
Personal Income Tax	ACC203		3	ACC102
Business Income Tax	ACC204		3	ACC102
Mass Tax Law I	ACC217		3	
Internship at DOR/Mass Tax Law II	ACC299		3	ACC217 and Permission of Dean or Chair approval
Intermediate Accounting I or Intermediate Accounting II or Professional Communication or Volunteer Income Tax Assistance*	ACC201 or ACC202 or BUS207 or ACC205		3	Prerequisite for ACC201: ACC102; prerequisite for ACC202: ACC201; prerequisite for BUS207: ENG111; prerequisite for ACC205: ACC203
<b>TOTAL CREDITS</b>			<b>24</b>	

\*Note: ACC205 is only offered during the spring semester.

### PROGRAM REQUIREMENTS

To be considered for the Department of Revenue (DOR) internship, applicants must complete all of the Certificate of Associate in Tax course requirements with an overall GPA of 3.2 and a 3.0 in accounting courses; have the legal right to work in the United States, and be able to pass a CORI background check. Additionally, students must be available to work during daytime hours Monday – Friday, as this internship does not offer any evening or weekend internships. All interns work during the day shift and must not be employed in any other position that could result in a potential conflict of interest. There is no promise or guarantee of employment at the DOR at the conclusion of the internship.

### OPTION OVERVIEW

The Taxation Certificate Program prepares students with an intensive, practical application of skills and decision making demanded by the taxation and auditing profession. Students will develop technical, communications, critical thinking, quantitative, and human relation skills needed to be competitive in this field.

This option provides students with the skills needed for entry level positions found in the taxation and auditing field. Students will participate in a hands-on internship experience at the Massachusetts Department of Revenue, affording them a first-hand look at the inner workings of the taxation and auditing profession.

The program is intended for students with an associate or bachelor's degree.

### CAREER OUTLOOK

This option qualifies graduates to seek employment with businesses conducting taxation and auditing operations that correspond to the required career electives.

### UPON COMPLETION OF THIS PROGRAM, GRADUATES WILL BE ABLE TO:

- Build an understanding of steps required to perform both internal and independent audits;
- Understand the workings and concepts of tax law as it pertains to the business transactions of varied business entities;
- Identify the conditions that lead to the detection of fraud;
- Demonstrate competencies regarding the auditor's objectives and procedures in selected areas of the audit, emphasizing the business cycles;
- Recognize and apply the general rules of accounting related to taxation and auditing;
- Demonstrate a mastery of design of audit programs for financial statement audits;
- Demonstrate conceptual and analytical skills acquired through course work and relate to thoughtful analysis of financial and non-financial data;
- Understand the legal and ethical challenges faced by auditors and remedies for these situations.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Business Administration Department

## Taxation Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	MAN112 satisfies Area 2		3	ESL098 and ESL099 or RDG095 and ENG090 or placement
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Principles of Accounting II	ACC102		3	ACC101
Business Law I	BUS201		3	ENG095 and ESL098 or RDG095 or placement
Decision Support using MS Excel	CIT234		3	CIT110 or CIT113 or CIT120 or equivalent experience or Chair approval
Accounting Information Systems	ACC105		3	ACC101 and ENG095 and ESL098 or RDG095 or placement
Accounting Forensics	ACC107		3	ACC102
Intermediate Accounting I	ACC201		3	ACC102
Intermediate Accounting II	ACC202		3	ACC201
Personal Income Tax	ACC203		3	ACC102
Business Income Tax	ACC204		3	ACC102
Volunteer Income Tax Assistance or Accounting Elective (200+)	ACC205	Spring	3	ACC203
Mass Tax Law I	ACC217		3	
Internship at DOR/Mass Tax Law II	ACC299		3	ACC217
Professional Communication	BUS207		3	ENG111
<b>TOTAL CREDITS</b>			<b>67</b>	

### PROGRAM REQUIREMENTS

To be considered for the Department of Revenue (DOR) internship, applicants must complete all of the Certificate of Associate in Tax course requirements with an overall GPA of 3.2 and a 3.0 in accounting courses; have the legal right to work in the United States, and be able to pass a CORI background check. Additionally, students must be available to work during daytime hours Monday – Friday, as this internship does not offer any evening or weekend internships. All interns work during the day shift and must not be employed in any other position that could result in a potential conflict of interest. There is no promise or guarantee of employment at the DOR at the conclusion of the internship.

### CAREER OUTLOOK

This option qualifies graduates to seek employment with businesses conducting taxation and auditing operations that correspond to the required career electives.

### OPTION OVERVIEW

The Associate in Science Degree: Business Administration Program, Taxation Option prepares students with an intensive, practical application of skills and decision making demanded by the taxation and auditing profession/. Students will develop technical, communications, critical thinking, quantitative, and human relation skills needed to be competitive in this field.

This option provides students with the skills needed for entry-level positions found in the taxation and auditing field and will also position them to transfer to a four-year degree program. Students will participate in a hands-on internship experience at the Massachusetts Department of Revenue, affording them a first-hand look at the inner workings of the taxation and auditing profession.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Build an understanding of steps required to perform both internal and independent audits;
- Understand the workings and concepts of tax law as it pertains to the business transactions of varied business entities;
- Understand the legal and ethical challenges faced by auditors and the resolution approaches for these situations;
- Demonstrate competencies regarding the auditor's objectives and procedures in selected areas of the audit, emphasizing the business cycles;
- Recognize and apply the general rules of accounting related to taxation and auditing;
- Demonstrate a mastery of design of audit programs for financial statement audits;
- Demonstrate conceptual and analytical skills acquired through course work and relate to thoughtful analysis of financial and non-financial data.

Certificate

Computer Information Technology Department

## Administrative Support Specialist

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
MS Word I	OIM103 - see *note		3	
Administrative Business Communication I	OIM132 - see *note		3	ENG095 or placement and OIM103
Applications/Concepts or Introduction to Microsoft Office	CIT110 - see *note or CIT133		3	Prerequisite for CIT110: RDG095 or ESL098 or placement
Records and Information Management	OIM106		3	pre/co-req CIT110 or CIT133
Principles of Internet & Information Security	CIT118		3	CIT110 or CIT113 or CIT120 or Chair approval
Decision Support Using MS Excel	CIT234		3	CIT110 or CIT113 or CIT120 or Chair approval
Database Design with MS Access or Collaboration, Communication and Integration in MS Office Applications	CIT128 or CIT250		3	Prerequisite for CIT128: CIT110 or CIT113 or CIT120 or Chair approval; prerequisite for CIT250: CIT110 or CIT113 or Chair approval
<b>TOTAL CREDITS</b>			<b>21</b>	

\*Note: Exemption exams are available for OIM103, OIM132 and CIT110. OIM103 requires 40 words per minute as well as knowledge of MS Word and document format. OIM132 includes English grammar/punctuation, letter writing and MS Outlook application. Contact the Prior Learning Assessment program coordinator (D221I) for detailed information.

### PROGRAM OVERVIEW

Using the most current computer applications, this program prepares students to acquire the competencies needed to work in an office environment.

### CAREER OUTLOOK

Graduates of this program may qualify for entry-level positions such as receptionists, data-entry clerks, word processing specialists, office assistants, or customer service representatives in a wide range of small and large organizations. More experienced graduates may obtain positions as executive assistants or office managers. Students qualify to take the MS Office certification exam at the end of the program.

### UPON COMPLETION OF THIS PROGRAM, GRADUATES WILL BE ABLE TO:

- Demonstrate proficiency in computer and software applications.
- Use the complete range of Microsoft Office application in an efficient manner.
- Demonstrate the ability to use various communication mediums

*Exemption exams are available for OIM103 and OIM132. MS Office certification is available after CIT233.*

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Computer Information Technology Department

## Android Mobile App Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
IT Career Exploration	CIT102		1	
Applications/Concepts or Information Technology Problem Solving or Introduction to Computer Science and Objective Oriented Programming	CIT110 or CIT113 or CIT120		3 - 4	ESL099 or RDG095 or placement; ENG090 and RDG090 or placement; ENG095 and ESL099 or RDG095 and pre/co-req MAT194 or placement
Mobile App Development	CIT129		3	ENG090 and RDG090 or placement
Introduction to Creating Mobile Apps	CIT131		3	ENG090 and RDG090 or placement
Interactive Design I or Design for Mobile Devices	VMA275 or CIT135		3	VMA129, ENG090 and RDG090 or placement
Programming for Android I	CIT229		3	CIT129 or CIT113 or CIT120 or Chair Approval
<b>TOTAL CREDITS</b>			<b>16-17</b>	

### OVERVIEW

This program prepares students to be able to have an entry-level position as a mobile app developer in an Android environment.

### CAREER OUTLOOK

This Certificate Program is designed to align with the needs specified by industry partners. This option will have stackable credentials ideal for the working professional who is not seeking a degree, but looking to enhance their existing information technology skills.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Tackle large problems by systematically breaking them down into smaller, more manageable problems.
- Use their knowledge, skills, and resources to effectively adapt to change.
- Utilize a foundation in programming practices and principles.
- Utilize skills and competencies required to program basic Android applications in Java.
- Utilize skills and competencies required to design basic mobile applications on several device platforms.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Computer Information Technology Department

## Cisco Systems CCNA (Fast-Track) Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Applications/Concepts or Info Technology Fundamentals or PC Hardware and Software	CIT110 or CIT112 or CIT182		3	ESLO98 or RDG095 or placement
Cisco Networking I	CIT162		3	RDG095 or ESL098 or placement
Cisco Networking II	CIT167		3	CIT162
Cisco Networking III	CIT267		3	CIT167
Cisco Networking IV	CIT274		3	CIT267
PC Keyboarding Techniques	OIM100		1	
<b>TOTAL CREDITS</b>			<b>16</b>	

### PROGRAM OVERVIEW

This is a "Fast-Track" CCNA Certificate Program designed for those students interested in pursuing a career as Cisco Systems Networking Specialists. All course work is offered through the internationally recognized Cisco Systems Networking Academy.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Qualified to apply for positions as entry-level network technicians.
- Prepared to take the Cisco CCNA Certification Examination(s).

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Computer Information Technology Department

## Computer Forensics Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Principles of Internet and Information Security	CIT118		3	CIT110 or CIT113 or CIT120 or Chair approval
Introduction to Computer Forensics	CIT121		3	CIT110 or CIT113 or CIT120 or Chair approval
Information Security and Assurance	CIT219		3	CIT268
Advanced Computer Forensics	CIT221		3	CIT121 and CIT268
Criminal Law	CRJ103		3	ENG095 and ESL098 or RDG095 or placement
Evidence and Court Procedures	CRJ202		3	CRJ101 and CRJ103 and CRJ208 and ENG111 or Chair approval
Criminal Justice Elective			3	
Computer Elective			3	
Computer or Criminal Justice Elective			3	
<b>TOTAL CREDITS</b>			<b>27</b>	

Demonstrated knowledge of IT skills through work experience or course work, is required for entrance to this program. Permission of Department Chair or program coordinator is required for non-coursework experience.

### PROGRAM OVERVIEW

Computer Forensics is the name for a field of study and practice that incorporates many areas of expertise including but not limited to hard drive and mobile device analysis, and computer crime investigation.

This certificate provides to the Information Technology and Criminal Justice professionals the opportunity to obtain basic knowledge, training and skills in Computer Forensics.

### CAREER OUTLOOK

This Certificate Program is designed to align with the law enforcement, public safety, private industry and homeland security needs to ensure consistent, current and flexible training in the emerging technology field of Computer and Digital Forensics.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Image and analyze the evidence found on a hard drive including file system analysis.
- Analyze digital evidence including evidence found in the seizure of cell phones, PDA's and other mobile devices.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Computer Information Technology Department

## Computer Forensics (Fast-Track) Certificate Program

PROGRAMS OF STUDY

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Introduction to Computer Forensics	CIT121		3	CIT110 or CIT113 or CIT120 or Chair approval
PC Hardware and Software	CIT182		3	RDG095 or ESL098 or placement
Windows Operating Systems	CIT268		3	CIT110 or CIT113 or CIT120 or Chair approval
Advanced Computer Forensics	CIT221		3	CIT121 and CIT268
Cyber Crime in Today's Society	CRJ245		3	ENG111 and CRJ101 and CRJ103 or Chair approval
Keyboarding Techniques	OIM100		1	
<b>TOTAL CREDITS</b>			<b>16</b>	

### PROGRAM OVERVIEW

Computer Forensics is the name for a field of study and practice that incorporates many areas of expertise including but not limited to hard drive and mobile device analysis, and computer crime investigation.

This certificate provides to the Information Technology and Criminal Justice professionals, the opportunity to obtain basic knowledge, training and skills in Computer Forensics.

### CAREER OUTLOOK

This Certificate Program is designed to align with the law enforcement, public safety, private industry and homeland security needs to ensure consistent, current and flexible training in the emerging technology field of Computer and Digital Forensics.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Image and analyze the evidence found on a hard drive including file system analysis.
- Analyze digital evidence including evidence found in the seizure of cell phones, PDA's and other mobile devices.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Arts

Computer Information Technology Department

## Computer Information Systems Concentration

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	ECO202 satisfies Area 3		3	MAT097 or MAT098 and ESL098 or RDG095 or placement
Quantitative Thought	From Area 4			
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Applications/Concepts	CIT110 (Full-time students take CIT113*)		3	ESL098 or RDG095 or placement
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Intermediate Visual Basic	CIT218		3	CIT216 or Instructor permission or Chair approval
Visual Basic	CIT216		3	CIT110 or CIT113 or CIT120 or Chair approval
Principles of Accounting II	ACC102		3	ACC101
Macroeconomics	ECO201		3	MAT097 and RDG095 or ESL098 or placement
Behavioral Science Elective			3	
Lab Science Elective			4	
Literature Elective			3	pre/co-req ENG111
Literature Elective			3	pre/co-req ENG111
Computer Elective	see note**		3	
Computer Elective	see note**		3	
Mathematics Elective			3-4	MAT097 or placement
Mathematics Elective			3-4	MAT097 or placement
<b>TOTAL CREDITS</b>			<b>64-66</b>	

\* CIT113 fulfills learning communities requirement.

\*\*Note: Recommended computer electives: CIT118, 120, 128, 162, 242, 268, 272, 284.

### CONCENTRATION OVERVIEW

The Computer Information Technology (CIT) Department mission is two-fold. CIT prepares its students for good paying, entry level careers as database professionals through the Associate in Science (A.S.) and Certificate Database Programming and Administration Programs. CIT also prepares students to transfer to four-year college Information Technology (IT) Programs through two Associate in Arts (A.A.) Programs: A.A. Computer Information

Systems Transfer and A.A. Computer Science Transfer. The Department's goals are in concert with the College's goals. Using input from its Industry Advisory Committee and internship course, the department is continually updating and fine tuning its programs of study. Graduates of this concentration may qualify to transfer using benefits of MassTransfer to a four-year state college or University of Massachusetts campus. For current information on eligible programs, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer).

### CAREER OUTLOOK

Graduates of this concentration can transfer to bachelor's programs at four-year colleges.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Analyze the system needs of an organization.
- Make feasible recommendations for computer solutions that meet those needs.

*Students enrolling in this degree program can earn World Studies Emphasis certification simultaneously.*

Associate in Arts

Computer Information Technology Department

## Computer Science Concentration

PROGRAMS OF STUDY

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	MAT197 satisfies Area 4 - see note**		4	MAT194 or placement
Science and Technology	PHY251 satisfies Area 5		4	MAT281
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Intro to Computer Science and Object Oriented Programming	CIT120 satisfies learning communities requirement - see note*		4	ENG095 and MAT099 and RDG095 and ESL098 or placement; pre/co-req MAT194
Introduction to Java	CIT239		4	ENG095 and MAT194 or placement and CIT120
Advanced Java	CIT285		3	CIT239 and MAT197
Data Structures	CIT242		3	CIT239 and MAT197
Linear Algebra or C++ Programming	MAT291 or CIT237		4	Prerequisite for MAT291: MAT281; prerequisites for CIT237: MAT194 and CIT120 and ENG095 or placement
Calculus I	MAT281		4	MAT197
Calculus II	MAT282		4	MAT281
College Physics II/Lab	PHY252		4	PHY251; pre/co-req MAT282
Behavioral Science Elective			3	
Social Science Elective			3	
Literature Elective			3	pre/co-re ENG111
Literature Elective			3	pre/co-re ENG111
<b>TOTAL CREDITS</b>			<b>65</b>	

For waiver of computer course prerequisite(s) see the Computer Science Advisor.

\*Note: The Department recommends that a college-level math course be taken before CIT120.

\*\*Note: For students placing above MAT197, Choose from one of the following program electives: CIT243, CIT287, MAT283 or MAT285.

### CONCENTRATION OVERVIEW

The Computer Information Technology (CIT) Department mission is two-fold. CIT prepares its students for good paying, entry level careers as database professionals through the Associate in Science (A.S.) and Certificate Database Programming and Administration Programs. CIT also prepares students to transfer to four-year college Information Technology (IT) Programs through the Computer Information Systems Transfer Program and the A.S. Computer

Science Transfer Option. The Department's goals are in concert with the College's goals. Using input from its Industry Advisory Committee and internship course, the department is continually updating and fine tuning its programs of study. Graduates of this concentration may qualify to transfer using benefits of MassTransfer to a four-year state college or University of Massachusetts campus. For current information on eligible programs, visit [www.mass.edu/mastransfer](http://www.mass.edu/mastransfer).

### CAREER OUTLOOK

Graduates of this concentration can transfer to bachelor's programs at four-year colleges.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Design, implement, and maintain a software solution for a realistic problem by correctly employing and applying the principles of object oriented programming.
- Write Java code.

Students enrolling in this degree program can earn World Studies Emphasis certification simultaneously.

Associate in Science

Computer Information Technology Department

## Computer Science Transfer Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	MAT197 satisfies Area 4 - see note*		4	MAT194 or placement
Science and Technology	PHY251 satisfies Area 5		4	MAT281
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Intro to Computer Science and Object Oriented Programming	CIT120 satisfies learning communities requirement		4	ENG095 and MAT099 and RDG095 or placement; pre/co-req MAT194
C++ Programming	CIT237		4	MAT194 or placement and CIT120
Java Programming	CIT239		4	MAT194 or placement and CIT120
Advanced Java Programming	CIT285		3	CIT239 and MAT197
Data Structures	CIT242		3	CIT239 and MAT197
Calculus	MAT281		4	MAT197 or placement
Calculus II	MAT282		4	MAT281
College Physics II/Lab	PHY252		4	PHY251; pre/co-req MAT282
<b>ELECTIVES (CHOOSE 4 OF 6)**</b>				
Android Development for Java Programmers	CIT243		3	CIT239; pre or co-req CIT285
Survey of New Popular OOPL for Programmers	CIT287		3	CIT284 or CIT285 and MAT197
Advanced C++/OOP	CIT284		3	CIT237 and MAT194
Linear Algebra	MAT291		4	MAT281
Calculus III	MAT283		4	MAT282
Differential Equations	MAT285		4	MAT282
<b>TOTAL CREDITS</b>			<b>66-68</b>	

Note: Advising Tips - students transferring to UMB should take CS240 Programming in C and UNIX at UMB and transfer the course back to BHCC for one of the electives; students transferring to UML and UMA are recommended to take MAT291 as one of the electives; and students transferring to Tufts are recommended to take MAT283 as one of the electives. It is always best practice to check the current requirements of the transfer institution before selecting computer electives at BHCC. Check with the Computer Science Advisor.

\*Note: MAT197 waived for students placing higher on Accuplacer test.

\*\*For assistance in choosing electives and waiver of computer course prerequisite(s) see the Computer Science Advisor.

Continued on following page

Associate in Science

Computer Information Technology Department

## Computer Science Transfer Option

*Continued from previous page*

The Computer Information Technology Department (CIT) has a clear, well-articulated, three-pronged mission, which includes supporting the IT components of the college's General Education offerings (across divisions, departments, and campuses, as well as through interdepartmental collaboration), preparing an IT workforce through certificate and associate degree offerings, and providing IT students with seamless transfer opportunities to related Baccalaureate Degree programs. The Computer Technology Program offers many courses that apply to other options to afford students the opportunity to explore the many career tracks in Information Technology before selecting a career in Computer Support, Data Base or Networking. The Department's goals are in concert with the College's goals. Using input from its Industry Advisory Committees and internship course, the Department is continually updating and fine tuning its programs of study.

### OPTION OVERVIEW

The Computer Information Technology Department (CIT) has a clear, well-articulated, three-pronged mission, which includes supporting the IT components of the college's General Education offerings (across divisions, departments, and campuses, as well as through interdepartmental collaboration), preparing an IT workforce through certificate and associate degree offerings, and providing IT students with seamless transfer opportunities to related Baccalaureate Degree programs.

### CAREER OUTLOOK

Graduates of this concentration may transfer to bachelor's programs at four-year colleges.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Design, implement, and maintain a software solution for a realistic problem by correctly employing and applying the principles of object oriented programming.
- Write C++ and Java Code.

Certificate

Computer Information Technology Department

## Computer Support Specialist Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Applications/Concepts or InfoTechnology Fundamentals	CIT110 or CIT112		3	ESLO98 or RDG095 or placement
Principles of Information Security	CIT118		3	CIT110 or CIT113 or CIT120 or Chair approval
Introduction to MS Office	CIT133		3	
Cisco Networking I	CIT162		3	RDG095 or ESL098 or placement
PC Hardware and Software	CIT182		3	RDG095 or ESL098 or placement
Help Desk Techniques	CIT230		3	CIT110 or Chair approval
Keyboarding Techniques	OIM100		1	
Advanced MS Office	CIT233		3	CIT133 or CIT110 or CIT113 or Chair approval
Window Operating Systems	CIT268		3	CIT110 or CIT112 or CIT113 or CIT120 or Chair approval
<b>TOTAL CREDITS</b>			<b>25</b>	

### PROGRAM OVERVIEW

This program prepares students to become vital links between the company and its customers; to educate users, solve hardware or software operation and application problems; and to become good sources of product information.

### CAREER OUTLOOK

Graduates of this program qualify for entry-level support positions in hardware support and troubleshooting, help desk, and other Internet support positions.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Have the skill set necessary to take the Comp TIA A+ Certification Examination.
- Understand help desk, Internet support, hardware and other entry level IT support professions.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Computer Information Technology Department

## Computer Support Specialist Option

PROGRAMS OF STUDY

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Oral Communication	ENG171		3	
Application/Concepts	CIT110 (Full-time students take CIT113)		3	ESL098 or RDG095 or placement
Cisco Networking I	CIT162		3	RDG095 or ESL098 or placement
Visual Basic	CIT216		3	CIT110 or CIT113 or CIT120 or Chair approval
Windows Operating Systems	CIT268		3	CIT110 or CIT113 or CIT120 or Chair approval
PC Hardware & Software	CIT182		3	RDG095 or ESL098 or placement
PC Keyboarding Techniques	OIM100		1	
Principles of Internet and Information Security	CIT118		3	CIT110 or CIT113 or CIT120 or Chair approval
Introduction to MS Office	CIT133		3	
Advanced MS Office	CIT233		3	CIT110 or CIT113 or CIT133 or Chair approval
Collaboration, Communication and Integration in MS Office Applications	CIT250		3	CIT110 or CIT113 or Chair approval
Help Desk Techniques	CIT230		3	CIT110 or Chair approval
Internship			3	Chair approval
<b>TOTAL CREDITS</b>			<b>62</b>	

The Computer Information Technology Department (CIT) has a clear, well-articulated, three-pronged mission, which includes supporting the IT components of the college's General Education offerings (across divisions, departments, and campuses, as well as through interdepartmental collaboration), preparing an IT workforce through certificate and associate degree offerings, and providing IT students with seamless transfer opportunities to related Baccalaureate Degree programs.

The Computer Technology Program offers many courses that apply to other options to afford students the opportunity to explore the many career tracks in Information Technology before selecting a career in Computer Support, Data Base or Networking. The Department's goals are in concert with the

College's goals. Using input from its Industry Advisory Committees and internship course, the Department is continually updating and fine tuning its programs of study.

### OPTION OVERVIEW

This option is designed for full-time or part-time students who wish to prepare for the positions of Help Desk Technician, Technical Support Specialist and Customer Service Representative. This occupational group provides technical assistance, support, and advice to customers and users. The degree prepares graduates by developing in them skills ranging from the technical and computer-related to the "people" skills of verbal and written communications, telephone skills, tact, good manners, and logical problem diagnosis and solution.

The degree incorporates preparation for ICT Industry Certification Examinations. A range of general education courses in the program also enrich professional skills.

### CAREER OUTLOOK

Graduates of this option may qualify for entry-level support positions in hardware support, trouble-shooting, help desk, Microsoft applications and other Internet support positions.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Take the Comp TIA A+ Certification Examination.
- Understand help desk, Internet support, hardware and other entry level IT support professions.

Certificate

Computer Information Technology Department

## Data Management (Fast-Track) Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Applications/Concepts or Info Technology Problem Solving or PC Hardware and Software	CIT110 or CIT113 or CIT182		3	Prerequisites for CIT110 or CIT182: ESL098 or RDG095 or placement; prerequisites for CIT113: ENG090 and RDG090 or placement
Introduction to Big Data with R and R-Studio	CIT137		4	CIT110 or CIT113 or CIT120 or CIT182
Cisco Networking I	CIT162		3	RDG095 or ESL098 or placement
SQL Programming	CIT236		3	CIT110 or CIT113 or CIT120 or Chair approval
Decision Support Using MS Excel	CIT234		3	CIT110 or CIT113 or CIT120 or Chair approval
<b>TOTAL CREDITS</b>			<b>16</b>	

### PROGRAM OVERVIEW

This program prepares students to become database and spreadsheet support technicians who work with users to identify their needs and design and program reports and forms to meet those needs.

### CAREER OUTLOOK

Graduates of this program qualify for entry-level database and spreadsheet support positions in a wide range of organizations.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Design and code complex queries.
- Find databases, and convert the data into readable and analyzable formats.
- Support Excel functions and databases.
- Support basic data gathering and manipulation with R programming.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Computer Information Technology Department

## Database Programming and Administration Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or Placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Oral Communications	ENG171		3	
Application/Concepts	CIT110 (Full-time students take CIT113)		3	ESL098 or RDG095 or placement
Introduction to Networking	CIT162		3	CIT110 or CIT113 or CIT120 or Chair approval
Visual Basic	CIT216		3	CIT110 or CIT113 or CIT120 or Chair approval
Windows Operating Systems	CIT268		3	CIT110 or CIT113 or CIT120 or Chair approval
PC Keyboarding Techniques	OIM100		1	
Principles of Internet and Information Security	CIT118		3	CIT110 or CIT113 or CIT120 or Chair approval
Database Design with MS Access	CIT128		3	CIT110 or CIT113 or CIT120 or Chair approval
Intermediate Visual Basic	CIT218		3	CIT216 or Instructor permission or Chair approval
Information Security & Assurance	CIT219		3	CIT268
SQL Programming	CIT236		3	CIT110 or CIT113 or CIT120 or Chair approval
Database Programming	CIT240		3	CIT236 or Chair approval
Database Administration	CIT245		3	CIT236 or Chair approval
<b>TOTAL CREDITS</b>			<b>62</b>	

The Computer Information Technology Department (CIT) has a clear, well-articulated, three-pronged mission, which includes supporting the IT components of the college's General Education offerings (across divisions, departments, and campuses, as well as through interdepartmental collaboration), preparing an IT workforce through certificate and associate degree offerings, and providing IT students with seamless transfer opportunities to related Baccalaureate Degree programs. The Computer Technology Program offers many courses that apply to other options to afford students the opportunity to explore the many career tracks in Information Technology before selecting a career in Computer

Support, Data Base or Networking. The department's goals are in concert with the college's goals. Using input from its Industry Advisory Committees and internship course, the department is continually updating and fine tuning its programs of study.

### OPTION OVERVIEW

The Database Programming and Administration option prepares students to gather data to determine user requirements and to design and program reports and forms so those users can create queries and interpret results. It also prepares students to determine necessary system changes, to create security procedures, and to implement backup and recovery processes.

### CAREER OUTLOOK

Graduates of this option may qualify for entry-level database programming and support positions in a wide range of organizations

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Write programs to support database applications.
- Design and code complex queries.
- Use a database procedural language to design and code database functions, triggers and collections.
- Qualify with the skill set necessary to take the first level of Oracle Database Certification.

Certificate

Computer Information Technology Department

## Database Support Specialist Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Applications/Concepts or Info Technology Fundamentals	CIT110 or CIT112		3	ESL098 or RDG095 or placement
Principles of Information Security	CIT118		3	CIT110 or CIT113 or CIT120 or Chair approval
Introduction to MS Office	CIT133		3	
Cisco Networking I	CIT162		3	RDG095 or ESL098 or placement
PC Hardware and Software	CIT182		3	RDG095 or ESL098 or placement
Help Desk Techniques	CIT230		3	CIT110 or Chair approval
PC Keyboarding Techniques	OIM100		1	
Database Design with MS Access	CIT128		3	CIT110 or CIT113 or CIT120 or Chair approval
Visual Basic	CIT216		3	CIT110 or CIT113 or CIT120 or Chair approval
SQL Programming	CIT236		3	CIT110 or CIT113 or CIT120 or Chair approval
<b>TOTAL CREDITS</b>			<b>28</b>	

### PROGRAM OVERVIEW

This program prepares students to become database programmers or administrators who work with users to identify their needs and design and program reports and forms to meet those needs. The program prepares students to create security procedures, implement backup and recovery processes, and determine necessary system changes.

### CAREER OUTLOOK

Graduates of this program qualify for entry-level database programming and support positions in a wide range of organizations.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Design and code complex queries.
- Support desktop security functions.
- Support Excel and Access functions.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Computer Information Technology Department

## Digital and Computer Forensics and Investigations Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>PREREQUISITE</b>				
Applications/Concepts	CIT110 (Full-time students take CIT113)		3	ESL098 or RDG095 or placement
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual/Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Principles of Internet and Information Security	CIT118		3	CIT110 or CIT113 or CIT120 or Chair approval
Introduction to Computer Forensics	CIT121		3	CIT110 or CIT113 or CIT120 or Chair approval
Cisco Networking I	CIT162		3	RDG095 or ESL098 or placement
Windows Operating Systems	CIT268		3	CIT110 or CIT113 or CIT120 or Chair approval
Visual Basic	CIT216		3	CIT110 or CIT113 or CIT120 or Chair approval
Advanced Computer Forensics	CIT221		3	CIT121 and CIT268
Information Security and Assurance	CIT219		3	CIT268
Batch File Programming	CIT271		1	CIT270 and pre/co-req CIT268
Special Topics in Digital and Computer Forensics	CIT223		3	pre/co-req CIT221
Directed Studies in Digital and Computer Forensics	CIT220		1	CIT221
Criminal law	CRJ103		3	ENG095 and ESL098 or RDG095 or placement
Evidence and Court Procedures	CRJ202		3	ENG111 and CRJ101 and CRJ103 and CRJ208
Cyber Crime in Today's Society	CRJ245		3	ENG111 and CRJ101 and CRJ103 and Chair approval
Career Elective	see note*		3-4	
Career Elective	see note*		3-4	
Career Elective	see note*		3-4	
<b>TOTAL CREDITS</b>			<b>66-69</b>	

\*Note: The career elective may be selected from any non-required CIT courses.

Continued on following page

Associate in Science

Computer Information Technology Department

## Digital and Computer Forensics and Investigations Option

*Continued from previous page*

The Computer Information Technology Department (CIT) has a clear, well-articulated, three-pronged mission, which includes supporting the IT components of the college's General Education offerings (across divisions, departments, and campuses, as well as through interdepartmental collaboration), preparing an IT workforce through certificate and associate degree offerings, and providing IT students with seamless transfer opportunities to related Baccalaureate Degree programs.

The Computer Technology Program offers many courses that apply to other options to afford students the opportunity to explore the many career tracks in Information Technology before selecting a career in Computer Support, Data Base or Networking. The Department's goals are in concert with the College's goals. Using input from its Industry Advisory Committees and internship course, the Department is continually updating and fine tuning its programs of study.

### OPTION OVERVIEW

Digital and Computer Forensics is the name for a newly emerging field of study and practice that incorporates many areas of expertise including but not limited to internet, network and information security, intrusion detection, incident response, infrastructure protection, and computer crime investigation. This program provides to Information Technology and Criminal Justice professionals the opportunity to obtain knowledge, training, and skills in Computer Forensics. Both civil and criminal offenders are using computers to commit crimes such as illegally downloading information, documents, or copyrighted materials, committing accounting fraud or releasing malicious code on computer networks to disrupt services. Internet crimes against children and other vulnerable populations have increased dramatically. Computers and other digital devices now play a part in many criminal activities. As a result, the need for computer forensics-based skills continues to grow.

### CAREER OUTLOOK

This Associate Program is designed to align with the law enforcement, public safety, private industry and homeland security needs to ensure consistent, current and flexible training in the emerging technology field of Computer and Digital Forensics.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Image and analyze the evidence found on a hard drive including file system analysis.
- Demonstrate knowledge of the issues surrounding a digital investigation including evidence and court procedures and search and seizure laws and regulations.
- Analyze digital evidence including evidence found in the seizure of cell phones, PDAs and other mobile devices.

## Electric Power Utility Program – A Partnership with EVERSOURCE

In partnership with EVERSOURCE and Local 369 UWUA, BHCC offers a two-year accredited Associate in Science Degree with a focus on Electric Power Utility Technology. Students receive much of their laboratory training at an

EVERSOURCE facility. Most classroom course work takes place at BHCC. Students receive continuous hands-on training at EVERSOURCE labs and during required internships.

### Electric Power Utility Technology (EPUT) Program Requirements

- Students in this program must earn a grade of C or higher in all the courses required by the program. Failure to meet this academic standard will result in withdrawal from the program. Courses with EPU, MAT, and PHY prefixes must be taken and completed in the sequence indicated in the program grid. Students in this program must successfully pass any random drug or alcohol screening tests mandated by EVERSOURCE during the program; successfully complete all appropriate Skills Aptitude Tests administered by EVERSOURCE; and maintain safety skills to EVERSOURCE criteria as per OSHA 1910 and OSHA 1926 directives.
- In addition to abiding by the BHCC Student Code of Conduct, EPUT students must also abide by all EVERSOURCE policies contained in the Student Progress Report, Good Standing Agreement, and the Student Guidelines for EVERSOURCE Labs and Coops. Students must abide by the EVERSOURCE Code of Conduct while on EVERSOURCE property.
- In the event of dismissal from the program, students will immediately be denied further entry/access to EVERSOURCE property and any courses taught at EVERSOURCE facilities.
- Students dismissed from the EPUT Program will no longer be eligible for financial support for their tuition and fees from EVERSOURCE.
- Re-instatement to the Program will be considered only for documented medical reasons. Extended absences due to illness must be reported immediately to EVERSOURCE and to the Office of Student Affairs at BHCC in writing.
- Students must petition for re-admission in writing, explaining their circumstances and providing appropriate documentation. To be considered for re-instatement students will be required to meet with a Board of EVERSOURCE and BHCC faculty and staff. Decisions will be made on a case by case basis. The decision of the Board will be final.
- EVERSOURCE reserves the right to withhold a job interview from any student who fails to complete the entire program successfully.

#### ADMISSIONS REQUIREMENTS:

Students must apply to the program through Admissions and Enrollment Services and:

- Complete the EVERSOURCE application.
- Possess a high school diploma or GED certificate.
- Complete Foundations of Algebra (MAT097) or place into Intermediate Algebra (MAT099).
- Complete Writing Skills II (ENG095) or place into College Writing I (ENG111).
- Achieve a reading level of 10th grade or higher on the College Placement Test (CPT).
- Qualified applicants undergo a Criminal Offender Record Information (CORI) check and a drug and alcohol test before being accepted to the program.
- Qualified applicants must pass additional physical and mechanical testing.

Associate in Science

Computer Information Technology Department

## Electric Power Utility Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>PREREQUISITE COURSES</b>				
Writing Skills II	ENG095		3	ENG090 or placement
Foundations of Algebra	MAT097		3	MAT093 or placement
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111	Semester I	3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112	Semester II	3	ENG111
Individual and Society	PSY107 satisfies Area 2	Semester II	3	
World View	VMA111 satisfies Area 3	Semester III	3	ENG095 and MAT093 or placement
Quantitative Thought	MAT193 satisfies Area 4	Semester I	3	MAT097 or placement
Science and Technology	PHY191 satisfies Area 5	Semester IV	4	MAT193
Humanities	From Area 6	Semester IV	3	
<b>CONCENTRATION COURSES</b>				
DC Circuit Theory/Lab	EPU101	Semester I	4	pre/co-req MAT193
Fundamentals of Single Phase and Polyphase Metering	EPU151	Semester I	4	Acceptance in Program
Applications/Concepts	CIT110	Semester I	3	ESL098 or RDG095 or placement
AC Circuit Theory/Lab	EPU104	Semester II	4	EPU101
Intro to Underground Operations	EPU203	Semester II	4	Acceptance in Program
Electric Power/Utility Tech Internship	EPU251	Summer I, Year I	3	EPU151 and PSY107 and ENG111
Principles of Management	MAN111	Semester III	3	ESL098 and ESL099 or RDG095 and ENG090 or placement
Intro to Substation Operations	EPU205	Semester III	4	Acceptance in Program
Power and Distribution Systems	EPU257	Semester III	3	EPU104
Intro to Engineering/Lab	ENR101	Semester IV	4	MAT193
Intro to Overhead Linework	EPU207	Semester IV	4	Acceptance in Program
<b>TOTAL CREDITS</b>			<b>62</b>	

### CAREER OUTLOOK

Based on a student's grades, skills, and attitude, employment opportunities exist with Eversource or an Eversource qualified contractor upon graduation. Current starting hourly wage is \$20-30 per hour and overtime is also compensated. Eversource offers a competitive and comprehensive benefits package including health and dental care, life insurance, 401K plan (including company matching program), as well as continuing education reimbursement.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate practiced and acquired skills while working at Eversource in a variety of electrical and gas fields.
- Use a computer to access data and information.
- Communicate effectively both orally and in writing.
- Obtain licenses from Eversource.

### STUDENTS WILL EARN THE FOLLOWING CERTIFICATIONS:

- OSHA 30 Certification.
- First Aid/CPR.
- CDL Pre-trip Training.
- DL Class A Drivers License.
- D.O.T. Medical Certification.
- Certification in Natural Gas Technology.
- EVERSOURCE Hoisting License.

Certificate

Computer Information Technology Department

## Excel Applications Support Specialist Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Applications/Concepts or InfoTechnology Fundamentals	CIT110 or CIT112		3	ESLO98 or RDG095 or placement
Principles of Information Security	CIT118		3	CIT110 or CIT113 or CIT120 or Chair approval
Introduction to MS Office	CIT133		3	
Cisco Networking I	CIT162		3	RDG095 or ESLO98 or placement
PC Hardware and Software	CIT182		3	RDG095 or ESLO98 or placement
Help Desk Techniques	CIT230		3	CIT110 or Chair approval
Keyboarding Techniques	OIM100		1	
Principles of Accounting I	ACC101		3	ESLO98 or RDG095 or placement
Decision Support Using MS Excel	CIT234		3	CIT110 or CIT113 or CIT120 or Chair approval
Collaboration, Communication and Integration in MS Office Applications	CIT250		3	CIT110 or CIT113 or Chair approval
<b>TOTAL CREDITS</b>			<b>28</b>	

### PROGRAM OVERVIEW

This certificate is designed to prepare students for entry-level positions in Excel support. All courses are offered web-based to provide maximum scheduling flexibility for students, and most are offered in the traditional classroom setting each term. This certificate program is open to all CIT, BUS, OIM and other students.

### CAREER OUTLOOK

Most organizations, across all industry segments have increased utilization of Excel software. As a result, the employment prospects for students completing this certificate program are extremely high. Over 1,500 requests for Excel skills can be found through Boston-area searches of job placement websites.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Use spreadsheet models, analyze and evaluate revenues, expenses and cash flows.
- Understand and utilize collaboration techniques of the Microsoft Office Suite.
- Understand the requirements of securing data and computer systems.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

# Gas Utility Technology Degree Option Program

## Gas Utility Technology Degree Option Program

### A collaboration with Feeney Brothers Excavation, LLC

In collaboration with Feeney Brothers Excavation, LLC, 103 Clayton Street, Dorchester, MA, Bunker Hill Community College (BHCC) offers a two year accredited Associated in Science degree option with a focus on Gas Utility Technology. Students receive much of their laboratory training at Feeney Brothers Excavation's Dorchester Training Facility. Most classroom courses will take place at BHCC. Students receive continuous hands-on training at Feeney Brothers Excavation, LLC's labs and during a required internship.

### Gas Utility Power Technology (GUT) Degree Option Program Requirements:

Students in the GUT degree option program must earn a C or higher in all the courses required by the program. Failure to meet this academic standard will result in withdrawal from the program. Courses with ENR, GUT, MAT, and PHY prefixes must be taken and completed in the sequence indicated in the program grid.

Students in this degree option program must successfully pass any pre-employment and random drug or alcohol screening tests mandated by Feeney Brothers Excavation, LLC; successfully complete all Operator Qualification Testing administered by the Northeast Gas Association; maintain safety skills per PHMSA, MUTDC, OSHA 1910 and OSHA 1926 regulations; and pass the First Aid/CPR test.

In addition to abiding by the BHCC Student Code of Conduct, GUT students must also abide by all Feeney Brothers Excavation, LLC's policies including but not limited to the Student Progress Report, Student Guidelines for Feeney Brothers Excavation's labs and internships, and employee policies while employed by Feeney Brothers Excavation.

In the event of dismissal from the GUT degree option program, students will immediately be denied further entry/access to Feeney Brothers Excavation, LLC's property and any courses taught at Feeney Brothers Excavation, LLC.

Students dismissed from the GUT degree option program due to unsatisfactory academic progress in the GUT and related courses will have an opportunity to meet with a BHCC advisor to discuss other programs of study for which they may be eligible.

Students dismissed from the GUT degree option program will no longer be eligible for a paid internship or paid work experience at Feeney Brothers Excavation, LLC.

Re-instatement to the GUT degree option program will be considered only for documented medical reasons. Extended absences due to illness must be reported immediately to Feeney Brothers Excavation, LLC and to the Office of Student Affairs at BHCC in writing.

Students must petition for re-admission in writing, explaining their circumstances and providing the appropriate documentation. To be considered for reinstatement, students will be required to meet with a Board of Feeney Brothers Excavation, LLC and BHCC faculty and staff. Decisions will be made on a case by case basis. The decision of the Board will be final.

Feeney Brothers Excavation, LLC reserves the right to withhold a job interview from any student who fails to complete the entire degree option program successfully.

### Admissions Requirements:

- Students must apply to the Gas Utility Technology degree program through Enrollment Management and Admissions and: Complete a Feeney Brothers Excavation, LLC application which may be found at [www.feenebrothers.com](http://www.feenebrothers.com).
- Possess a high school diploma or GED.
- Applicants must have the legal right to work in the United States.
- Complete Intermediate Algebra (MAT 099) or place into MAT 193.
- Complete Writing Skills (ENG 095) or place into College Writing I (ENG 111).
- Achieve a reading level of 10th grade or higher on the College Placement Test (CPT).
- Participating in internships as an employee of Feeney Brothers Excavation is a requirement of the program. As a result of this requirement, offers of acceptance into the program are conditioned on successfully passing a Criminal Offender Record Information (CORI) check and pre-employment drug and alcohol test conducted by Feeney Brothers Excavation.
- Qualified applicants must interview with Feeney Brothers and Bunker Hill Community College staff and pass additional physical and mechanical testing before being accepted into the program.

Associate in Science

Computer Information Technology Department

## Gas Utility Technology Degree Option Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>PREREQUISITE COURSES</b>				
Writing Skills II	ENG095		3	ENG090 or placement
Intermediate Algebra	MAT099		3	MAT097 or placement
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111	Semester I	3	ESL098 or RDG095 and ENG095 or placement
College Writing II	ENG112	Semester II	3	ENG111
Individual and Society	PSY107 satisfies Area 2	Semester II	3	
World View	From Area 3	Semester III	3	
Quantitative Thought	MAT194	Semester III	4	MAT099 or placement
Science and Technology	Area 5 satisfied by program			
Humanities	From Area 6	Semester III	3	
<b>CONCENTRATION COURSES</b>				
IT Problem Solving	CIT113 satisfies learning communities requirement —see note*	Semester I	3	RDG090 and ENG090
Introduction to Physics/Lab	PHY191	Semester IV	4	MAT193 or placement
Topics in Algebra/Trigonometry	MAT193	Semester I	3	MAT097 or placement
Introduction to the Utility Industry	GUT101	Semester I	4	acceptance into GUT program
Gas Utility Technology I	GUT102	Semester II	4	GUT101
Gas Utility Technology II	GUT103	Semester III	4	GUT102;co-req GUT104
Utility Regulations, Ethics and Safety Standards	GUT104	Semester III	3	GUT101;co-req GUT103
Leadership for the Utility Industry Professional	GUT105	Semester IV	4	GUT103 and GUT104
Gas Utility Technology Summer Internship	GUT299	Summer	4	GUT101
Project Management	MAN215	Semester IV	3	CIT113 and MAT097 and GUT105*see note
Introduction to Engineering/Lab	ENR101	Semester IV	4	Pre/co-req MAT194
DC Circuit Theory AND Lab	EPU101	Semester II	4	Pre/co-req MAT193
<b>TOTAL CREDITS</b>			<b>63</b>	

All prerequisite courses must be completed with a grade of C or better.

\*Note: CIT113 and GUT105 and MAT097 are prerequisites for MAN215 only for students accepted into the Gas Utility Degree Option Program.

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Associate in Science

Computer Information Technology Department

## Gas Utility Technology Degree Option Program

*Continued from previous page*

### OPTION OVERVIEW

The Gas Utility Technology Degree Option Program (GUT) is comprised of courses that will prepare students to obtain a laborer position with utility firms doing business in Massachusetts as well as out-of-state utility firms. In addition to lectures by subject area experts, the GUT courses include a lab component that provides hands-on demonstrations and opportunities to perform industry specific tasks to demonstrate competency under the supervision of faculty mentors. Students are exposed to the local, state and federal regulations and laws governing the utilities industry. Throughout the curriculum, students are required to successfully complete gas specific performance skills testing, proctored by the Northeast Gas Association, leading to the acquisition of 43 - 50 Operator Qualifications. Additionally, students will be required to ensure job safety through safe housekeeping practices and the successful completion of a CPR/First Aid license exam.

To ensure students are prepared for advancement in the utility industry, a leadership course is required to complete the program.

Upon completion of the program, students will be prepared to enter the workforce as laborers in the utility industry.

### CAREER OUTLOOK

Workforce shortages are predicted to occur both in Massachusetts and at out-of-state utilities. Based on the student's grades, skills, and attitude, employment opportunities exist with Feeney Brothers Excavation LLC and other utility companies upon graduation. Current starting salary for laborers ranges from \$32,000 - \$45,000, and overtime is also compensated. There are opportunities for advancement to Gas Utility Operator (\$46,000-\$80,000), Gas Utility Foreman (\$50,000-\$90,000) and Gas Utility Supervisor (\$52,000-\$95,000).

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Explain the history and current state of the communication (fiber optics), electric, natural gas, steam and condensate, and water and sewer utilities.
- Demonstrate safe operation of heavy duty equipment and specialized tools through knowledge acquired in the lab.
- Successfully complete gas specific performance skills testing leading to the acquisition of 43 - 50 Operator Qualifications.
- Successfully complete an examination for CPR/First Aid.
- Demonstrate the ability to work in teams to accomplish a firm's objectives.
- Apply local, state and federal regulations and statutes to ensure regulatory compliance at job sites.
- Identify hazards and unsafe conditions at a job site and initiate corrective action in a timely manner.
- Utilize an understanding of electricity by applying risk assessment and taking remedial action as appropriate in situational analysis.
- Conduct research on current events, create a PowerPoint presentation, and articulate in a clear and concise manner how natural gas is transforming the way the world uses energy.
- Demonstrate the ability to use critical thinking skills, communicate effectively and collaborate with team members to achieve the organization's objectives.

Certificate

Computer Information Technology Department

## Health Information Networking Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
IT Problem Solving or Applications/Concepts or PC Hardware and Software	CIT113* or CIT110 or CIT182*		3	ESL098 or RDG095 or placement
CISCO Networking I	CIT162		3	ESL098 or RDG095 or placement
CISCO Networking II	CIT167		3	CIT162
CISCO Networking III	CIT267		3	CIT167
CISCO Networking IV	CIT274		3	CIT267, or Chair approval
Health Information Networking	CIT277*		3	CIT167
CISCO CCNA Security	CIT279*		3	CIT167
<b>TOTAL CREDITS</b>			<b>21</b>	

\*Note: CIT113 satisfies the Learning Communities Requirement. CIT110 is recommended. CIT182 is the equivalent to Cisco's IT Essentials A+ certification course. After completion of CIT267 and CIT274, students can prepare for the Cisco ICND2 or CCNA certification examination. CIT279 is the equivalent to Cisco's CCNA Security and after completion, students can prepare for the Cisco Network Security certification examination.

### PROGRAM OVERVIEW

The Health Information Networking Certificate program provides students with the networking and security concepts and skills needed to work in industry and in the healthcare field. The sequence of courses will help students prepare for the CCNA (Cisco Certified Networking Associate) certifications and the Cisco Network Security certification. Students enhance their core routing and switching knowledge and learn how to apply networking and security skills to the healthcare field. The health Information Networking Certificate program is designed for students who hope to further their networking skills with healthcare information and communication technology (ICT) and for students seeking career-oriented, entry-level networking and security specialist skills.

### CAREER OUTLOOK

The Health Information Networking Program helps students prepare for entry-level specialized ICT and networking careers in physician offices, hospitals, healthcare facilities and with third-party contractors. Students also gain the knowledge and skills needed to prepare for entry-level security specialist careers and networking careers in industry and will be prepared to take multiple industry certificate exams.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Apply for entry-level networking positions.
- Apply for entry-level network security specialist careers.
- Apply for entry-level network and network security positions in the healthcare industry.
- Prepare to take the Cisco CCNA Certification Examination(s).
- Prepare to take the Comp TIA A+ Certification Examination(s).
- Prepare to take the Cisco Network Security Certification Examination.

This workforce solution is 100% funded by a grant awarded by the U.S. Department Labor, Employment and Training Administration, TAACCCT grant agreement # TC-22505-11-60-A25. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. Massachusetts Community Colleges are equal opportunity employers. Adaptive equipment available upon request for persons with disabilities.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Computer Information Technology Department

## Health Information Technology Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Applications/Concepts or Information Technology Problem Solving	CIT110 or CIT113*		3	Prerequisites for CIT110: ESL098 or RDG095; prerequisites for CIT113: ENG090 and RDG090 or placement
PC Hardware and Software	CIT182**		3	RDG095 or ESL098 or placement
Cisco Networking I	CIT162***		3	RDG095 or ESL098 or placement
Healthcare IT Concepts I	CIT183		3	CIT110 or CIT113 or CIT120 or chair approval: pre/co-req CIT182
Cisco Networking II	CIT167****		3	CIT162
Healthcare IT Concepts II	CIT288		3	pre/co-req CIT183 or chair approval
<b>TOTAL CREDITS</b>			<b>18</b>	

\*Note: CIT113 satisfies the Learning Communities Requirement. CIT110 is recommended. CIT182 is the equivalent to Cisco's IT Essentials A+ certification course. After completion of CIT162 and CIT167, students can prepare for the Cisco ICND1 certification examination. After completion of CIT183 and CIT288, students can prepare for the Healthcare Technology and Information Management certification examinations.

\*\*Note: CIT182 is the equivalent to Cisco's IT Essentials A+ certification course

\*\*\*Note: CIT162 is the equivalent to Cisco's CCNA R&S Semester 1

\*\*\*\*Note: CIT167 is the equivalent to Cisco's CCNA R&S Semester 2

### PROGRAM OVERVIEW

The Health Information Technology (HIT) Certificate Program is designed for students who wish to enter the Healthcare IT field and for current healthcare workers who wish to apply Healthcare IT competencies to their current position. The program will provide students with the knowledge and skills concerning Healthcare IT privacy, security, networking, and mobility to successfully understand the Healthcare IT industry and provide hardware and software support in the healthcare environment. Students will also gain the skills in health information management and workflow analysis needed to utilize Healthcare IT effectively to manage patient care, improve communications, and support information sharing. The Health Information Technology (HIT) Certificate Program is designed to be "Stackable", allowing students to apply completed courses to IT degrees and additional IT certificates, such as the Health Information Networking Certificate.

### CAREER OUTLOOK

The Health Information Technology Certificate Program prepares students for entry-level Healthcare IT careers in a variety of healthcare settings including physician offices, clinics, hospitals, and with third-party contractors. Students also gain the knowledge and skills needed to achieve the national Health Information Technology competencies and will be prepared to take multiple IT certification exams.

### UPON COMPLETION OF THIS PROGRAM, GRADUATES WILL BE ABLE TO:

- Apply for entry-level Healthcare IT positions.
- Apply for entry-level Healthcare IT Systems Support positions.
- Apply for entry-level Healthcare Hardware/Software Support positions.
- Apply for entry-level Healthcare Network Support positions.
- Achieve the national Healthcare Technology and Information Management competencies.
- Apply Healthcare IT competencies to current Healthcare positions.
- Prepare to take the CompTIA A+ Certification Examination(s).
- Prepare to take the Cisco CCENT Certification Examination.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Computer Information Technology Department

## Information Technology Security (Fast-Track) Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Applications/Concepts or Info Technology Problem Solving	CIT110 or CIT113*		3	Prerequisites for CIT110: ESL098 or RDG095 or placement; prerequisites for CIT113: ENG090 and RDG090 or placement
Principles of Internet & Info Security	CIT118		3	CIT110 or CIT113 or CIT120 or Chair approval
Cisco Networking I	CIT162		3	RDG095 or ESL098 or placement
Networking Security	CIT264		3	CIT162
Information Security and Assurance	CIT219		3	CIT268
IT Career Exploration	CIT102		1	
<b>TOTAL CREDITS</b>			<b>16</b>	

\*Note: CIT-113 recommended for this program. CIT113 satisfies Learning Communities Requirement. CIT264 is aligned with CompTIA Security+.

### PROGRAM OVERVIEW

Designed for the IT technician or professional seeking new and updated skills in the area of information security and assurance, this basic level certificate may enhance existing knowledge for increased job opportunities and employment growth. The Information Technology Security + Essentials Certificate aligns with the COMPTIA National Standards for Security + Certification. It may prepare students to be responsible for desktop security support contained within a networked environment.

### CAREER OUTLOOK

This entry level certificate provides the skills necessary to provide basic security support for networked computers. It is an entry point into the field of Information Security. This option is designed to provide alignment with the entry level National Institute of Technology and Standards' (NITS) National Initiative for Cybersecurity Education and Workforce Framework to ensure consistent, current, and flexible training in the growing technology field of Information Security. Graduates of this option may qualify for positions as entry level information security desktop support technicians.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Secure a desktop computer connected to a network.
- Install and configure security software.
- Analyze potential security threats.
- Delineate differences between various operating system security issues.
- Define the types of malicious software found.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Computer Information Technology Department

## Information Technology Security Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Applications/Concepts or Info Technology Problem Solving	CIT110 or CIT113*		3	Prerequisites for CIT110: ESL098 or RDG095 or placement; prerequisites for CIT113: ENG090 and RDG090 or placement
Principles of Internet and Info Security	CIT118		3	CIT110 or CIT113 or CIT120 or Chair approval
Cisco Networking I	CIT162		3	RDG095 or ESL098 or placement
Introduction to Computer Forensics	CIT121		3	CIT110 or CIT113 or CIT120 or Chair approval
Windows Operating Systems	CIT268		3	CIT110 or CIT113 or CIT120 or Chair approval
Networking Security	CIT264		3	CIT162
Information Security and Assurance	CIT219		3	CIT268
Python Programming	CIT125		3	CIT113 or CIT110 or CIT120 or CMT121
Ethical Hacking	CIT273		4	CIT268 or CIT270 or Chair approval
<b>TOTAL CREDITS</b>			<b>28</b>	

\*Note: CIT-113 recommended for this program. CIT113 satisfies Learning Communities Requirement. CIT264 is aligned with CompTIA Security+.

### OPTION OVERVIEW

This option may prepare students to support the security of networks, systems located on these networks, and the data/information contained within those systems; identifying, developing, implementing and maintaining security processes throughout organizations to reduce risks, respond to incidents and limit exposure and liability; identifying, notifying, and responding to security threats to networks.

### CAREER OUTLOOK

This option is designed to align with the National Institute of Technology and Standards' (NITS) National Initiative for Cybersecurity Education Cybersecurity Workforce Framework to ensure consistent, current, and flexible training in the growing technology field of Information Security. Graduates of this option may qualify for positions as entry level information security professionals.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Understand network protocols and routing.
- Understand commonly used network services - DNS, mail, web, etc. as well as less common network services.
- Perform packet analysis and be able to identify malformed packets.
- Understand differences between various operating systems - which OS an event came from and which OS is vulnerable to a certain attack.
- Define the types of malicious software found in modern networks.
- Explain the threats and countermeasures for physical security and social engineering.
- Perform footprinting, port scans, and enumeration on a network.
- Perform very simple programming in C, HTML, and Perl, specifically oriented towards the needs of network security professionals.
- Identify Microsoft Windows vulnerabilities and to harden systems.
- Identify Linux vulnerabilities and to protect servers.
- Describe and deploy security devices, including routers, firewalls, Intrusion Detection Systems, and honeypots.
- Describe the ethics associated with the use of hacking or penetration testing tools and techniques.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Computer Information Technology Department

## Information Technology Security Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 or placement and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Application/Concepts or Information Technology Problem Solving	CIT110 or CIT113 satisfies learning communities requirement*		3	ESL098 or RDG095 or placement
Principles of Internet and Information Security	CIT118		3	CIT110 or CIT113 or CIT120 or Chair approval
PC Hardware and Software	CIT182		3	RDG095 or ESL098 or placement
Cisco Networking I	CIT162		3	RDG095 or ESL098 or placement
Introduction to Computer Forensics	CIT121		3	CIT110 or CIT113 or CIT120 or Chair approval
Windows Operating Systems	CIT268		3	CIT110 or CIT113 or CIT120 or Chair approval
Networking Security	CIT264		3	CIT162
Cisco Networking II	CIT167		3	CIT162
Information Security and Assurance	CIT219		3	CIT268
Python Programming	CIT125		3	CIT113 or CIT110 or CIT120 or CMT121
Ethical Hacking	CIT273		4	CIT268 or CIT270 or Chair approval
Information Security Seminar	CIT275		3	Pre/co-req CIT273
<b>OPTION ELECTIVES (CHOOSE 2)</b>				
Advanced Computer Forensics	CIT221		3	CIT121 and CIT268
Wireless Technology	CIT262		3	CIT162
Cisco Networking III	CIT267		3	CIT167
Linux Administration/Lab	CIT270		4	CIT162
Cisco Networking IV	CIT274		3	CIT267
MS Windows Administration/Lab	CIT282		4	CIT162 and pre/co-req CIT268
Advanced Python Programming	CIT225		3	CIT125 or Chair Approval
Cyber Crime in Today's Society	CRJ245		3	ENG111 and CRJ101 and CRJ103 or Chair approval
<b>TOTAL CREDITS</b>			<b>65-68</b>	

Note\* CIT113 recommended for this program. CIT182 is the equivalent to Cisco's IT Essentials A+ certification course. CIT-(162,167) are available as Fast-Track where each course runs for roughly one month each. After completion of CIT167 students may qualify for ICND1.

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Associate in Science

Computer Information Technology Department

## Information Technology Security Option

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The Computer Information Technology Department (CIT) has a clear, well-articulated, three-pronged mission, which includes supporting the IT components of the college's General Education offerings (across divisions, departments, and campuses, as well as through interdepartmental collaboration), preparing an IT workforce through certificate and associate degree offerings, and providing IT students with seamless transfer opportunities to related Baccalaureate Degree programs.

The Computer Technology Program offers many courses that apply to other options to afford students the opportunity to explore the many career tracks in Information Technology before selecting a career in Computer Support, Data Base or Networking. The Department's goals are in concert with the College's goals. Using input from its Industry Advisory Committees and internship course, the Department is continually updating and fine tuning its programs of study.

### OPTION OVERVIEW

This option prepares students to support the security of networks, systems located on these networks, and the data/information contained within those systems; identifying, developing, implementing and maintaining security processes throughout organizations to reduce risks, respond to incidents and limit exposure and liability; identifying, notifying, and responding to security threats to networks.

### CAREER OUTLOOK

The option is designed to align with the National Institute of Technology and Standards' (NITS) National Initiative for Cybersecurity Education Cybersecurity Workforce Framework to ensure consistent, current, and flexible training in the growing technology field of Information Security. Graduates of this option will qualify for positions as entry-level information security professionals.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Understand network protocols and routing.
- Understand commonly used network services - DNS, mail, web, etc. as well as less common network services.
- Perform packet analysis and be able to identify malformed packets.
- Understand differences between various operating systems - which OS an event came from and which OS is vulnerable to a certain attack.
- Define the types of malicious software found in modern networks.
- Explain the threats and countermeasures for physical security and social engineering.
- Perform footprinting, port scans, and enumeration on a network.
- Perform very simple programming in C, HTML, and Perl, specifically oriented towards the needs of network security professionals.
- Identify Microsoft Windows vulnerabilities and to harden systems.
- Identify Linux vulnerabilities and to protect servers.
- Describe and deploy security devices, including routers, firewalls, Intrusion Detection Systems, and honeypots.
- Describe the ethics associated with the use of hacking or penetration testing tools and techniques.

The GPSTEM Project is funded by a \$20,000,000 grant awarded by the U.S. Department of Labor, Grant #TC26450-14-60-A-25. This product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The U. S. Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

Associate in Science

Computer Information Technology Department

## Information Technology Transfer Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual/Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	Area 4 satisfied by program			
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Applications/Concepts or IT Problem Solving	CIT110 or CIT113 satisfies learning communities requirement		3	Prerequisites for CIT110: ESL098 or RDG095 or placement; prerequisites for CIT113: ESL098 and ESL099 or RDG095 and ENG090 or placement
Visual Basic	CIT216		3	CIT110 or CIT113 or CIT120 or Chair approval
Intermediate Visual Basic	CIT218		3	CIT216 or Instructor permission or Chair approval
HTML/Dreamweaver	CMT111		3	
Cisco Networking I	CIT162		3	RDG095 or ESL098 or placement
SQL Programming	CIT236		3	CIT110 or CIT113 or CIT120 or Chair approval
Windows Operating Systems or Linux Administration/Lab	CIT268 or CIT270		3	Prerequisites for CIT268: CIT110 or CIT113 or CIT120 or Chair approval; prerequisite for CIT270: CIT162
Statistics I	MAT181		3	MAT097 or MAT098 or placement
College Algebra for STEM	MAT194-see note*		4	MAT099 or placement
Calculus for Management Sciences or Elective	MAT231-see note**		4	MAT194
Elective	see note***		3-4	
Elective	see note***		3-4	
Elective	see note***		3-4	
Elective	see note***		3-4	
<b>TOTAL CREDITS</b>			<b>63-67</b>	

\*Note: Students testing out of College Algebra for STEM (MAT194) will be required to take an additional elective. \*\*Note: Students entering UMB through the College of Management may choose to complete the Calculus for Management Sciences course at UMB and therefore should take an elective at BHCC. \*\*\*Note: Recommended electives: CIT118, 121, 219, 221, 223, 240, 264, 282; any programming course; CRJ103, 145, 202.

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Associate in Science

Computer Information Technology Department

## Information Technology Transfer Option

*Continued from previous page*

The Computer Information Technology Department (CIT) has a clear, well-articulated, three-pronged mission, which includes supporting the IT components of the college's General Education offerings (across divisions, departments, and campuses, as well as through interdepartmental collaboration), preparing an IT workforce through certificate and associate degree offerings, and providing IT students with seamless transfer opportunities to related Baccalaureate Degree programs.

The Computer Technology Program offers many courses that apply to other options to afford students the opportunity to explore the many career tracks in Information Technology before selecting a career in Computer Support, Data Base or Networking. The Department's goals are in concert with the College's goals. Using input from its Industry

Advisory Committees and internship course, the department is continually updating and fine tuning its programs of study.

### OPTION OVERVIEW

This program is designed to meet the needs of our Information Technology students who wish to pursue a Baccalaureate Degree. This program will allow our students to move seamlessly to colleges offering Baccalaureate Degrees in Information Technology. This program provides a core foundation in the major pillars of information technology and will allow a student to concentrate in one of the areas before transferring.

### CAREER OUTLOOK

Graduates of this program can transfer to bachelor's programs at four-year colleges.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate an understanding of the major pillars of Information Technology.
- Demonstrate the ability to solve technical programs and to apply critical thinking principles to Information Technology issues.
- Demonstrate an upper level understanding of networking, programming, database, or other technology fields.

Associate in Science

Computer Information Technology Department

## Medical Information Management Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG09 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Skills for Administrative Success	OIM105 satisfies learning communities requirement		3	ENG095 and ESL098 or RDG095 or placement; pre/co-req OIM103
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Medical Terminology	NHP180-see note*		3	
Medical Information Management	OIM190		3	Pre/co-req OIM103
Records and Information Management	OIM106		3	pre/co-req CIT110 or CIT133
MS Word II	OIM112		3	OIM103 and CIT110 or Chair approval
Administrative Business Communication I	OIM132 - see note**		3	ENG095 or placement and OIM103
Introduction to Physicians' Billing	OIM200		3	Pre/co-req NHP180-see note*
Administrative Technology and Procedures	OIM115		3	Pre/co-reqs OIM103 and CIT110
Principles of Internet and Information Security	CIT118		3	CIT110 or CIT113 or CIT120 or Chair approval
Database Design with MS Access or Collaboration, Communication, and Integrating	CIT128 or CIT250		3	CIT110 or CIT113 or CIT120 or Chair approval; CIT110 or CIT113 or Chair approval
Administrative Business Communication II	OIM232 - see note***	Fall	3	OIM132 and Pre/co-reqs OIM106 and OIM112 and OIM115 or Chair approval
Office and Information Management Internship	OIM299	Spring	3	OIM232 and Chair approval
<b>TOTAL CREDITS</b>			<b>61</b>	

OIM103 is a prerequisite or co-requisite to program, which should be taken prior to or during the first semester. An exemption exam is available through the Center for Self-Directed Learning (H-165) for students who type 40 words per minute or more with accuracy and know MS Word and document format.

\*Note: NHP180 course description is found under Surgical Technology

\*\*Note: An exemption exam is available through the Prior Learning Assessment program located in D221I.

\*\*\*Note: OIM232 Administrative Business Communication I must be taken during the fall semester prior to enrolling in OIM299 and requires Chair approval.

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Associate in Science

Computer Information Technology Department

## Medical Information Management Option

*Continued from previous page*

### OPTION OVERVIEW

The Office and Information Management Department's mission is to provide industry-identified knowledge, skills, and abilities to prepare students for entry-level careers within office administration and/or medical office administration fields. For individuals already employed within these fields, professional development can be obtained through the more advanced courses. In addition, transfer to four-year programs is possible. The Department offers a capstone internship program for all degree students.

The Medical Information Management Option prepares students to work as professionals within a medical office environment. The option prepares students in basic medical terminology, which is then applied using MediSoft computer applications, a patient accounting software package. It also prepares students in third-party billing and coding. Students participate in an internship in a medical office setting during their last spring semester to reinforce skills learned.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Medical Information Management Option, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P. For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this option qualify for job opportunities in physicians' and dentists' offices, clinics, HMOs, community health agencies, long-term care facilities, and hospitals. Students also qualify for jobs in large corporations that provide on-site health services, engage in medical research, or produce medical products. Graduates qualify for entry-level positions such as medical receptionists, medical records management specialists, medical office managers, patient service representatives, and medical administrative assistants. Students also may qualify for at-home opportunities as medical transcriptionists.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate proficiency in computer operations and software applications unique to a medical setting.
- Demonstrate proficiency in understanding and using medical terminology.
- Use the complete range of Microsoft applications effectively and efficiently.
- Demonstrate proficiency in medical office operations and communication media

Certificate

Computer Information Technology Department

## Medical Information Management Assistant Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Skills for the Administrative Success Applications/Concepts	OIM105 satisfies learning community requirement		3	ENG095 and ESL098 or RDG095 or placement and pre/co-req OIM103
Medical Terminology	CIT110		3	ESL098 or RDG095 or placement
Administrative Technology and Procedures	NHP180-see note**		3	
Medical Information Management	OIM115		3	OIM103 and CIT110
Records and Information Management	OIM190		3	Pre/co-req OIM103
MS Word II	OIM106		3	Pre/co-req CIT110 or CIT133
Administrative Business Communication I	OIM112		3	OIM103 and CIT110 or Chair approval
Introduction to Physicians' Billing	OIM132 - see note*		3	ENG095 or placement and OIM103
	OIM200		3	Pre/co-req NHP180
<b>TOTAL CREDITS</b>			<b>27</b>	

OIM103 is a prerequisite or co-requisite to program, which should be taken prior to or during the first semester. An exemption exam is available through the Center for Self-Directed Learning (H-165) for students who type 40 words per minute or more with accuracy and know MS Word and document format.

\*Note: An exemption exam is available through the Prior Learning Assessment program located in D2211.

\*\*Note: NHP180 course description is found under the Surgical Technology.

### PROGRAM OVERVIEW

This certificate program is designed to prepare students to work as professionals within a medical office environment. Students learn basic medical terminology, which is then applied using MediSoft patient accounting software, a patient accounting software package. It also prepares students in third-party billing and coding. All program requirements may be applied to the Associate in Science Degree: Office and Information Management Program.

### CAREER OUTLOOK

Graduates of the program qualify for job opportunities in physicians' and dentists' offices, clinics, HMOs, community health agencies, long-term care facilities, and hospitals. They also qualify for jobs within large corporations that provide on-site health services, engage in medical research, or produce medical products. Graduates will qualify for entry-level positions such as medical receptionists, medical records management specialists, patient service representatives, and medical administrative assistants. Students also may qualify for at-home opportunities as medical transcriptionists.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate proficiency in computer operations and the software applications unique to a medical setting.
- Demonstrate proficiency in understanding and using medical terminology.
- Use the complete range of Microsoft applications effectively and efficiently.
- Have demonstrated proficiency in medical office operations and communication media.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Computer Information Technology Department

## Microsoft Applications Support Specialist Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Introduction to Microsoft Office	CIT133		3	
Advanced Microsoft Office	CIT233		3	CIT110 or CIT113 or CIT133 or Chair approval
Collaboration, Communication and Integration in MS Office Applications	CIT250		3	CIT110 or CIT113 or Chair approval
Help Desk Techniques	CIT230		3	CIT110 or Chair approval
Keyboarding Techniques	OM100		1	
<b>TOTAL CREDITS</b>			<b>16</b>	

### PROGRAM OVERVIEW

This certificate prepares students for entry level positions in Microsoft personal computer desktop applications support. recommended non-credit industry certification courses offered through the College's Community Education Office are optional, but will greatly enhance employment prospects. The CIT internship and entrepreneurship courses are also optional.

### CAREER OUTLOOK

Graduates completing this certificate may find employment in information support services departments in organizations large and small as applications support and/or "Help Desk" specialists.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Understand in-depth and support the most common desktop Office Applications.
- Understand and support the Integration features among all Microsoft Office applications.
- Set-up, support and conduct on-line meetings.
- Troubleshoot end-user Office application problems.
- Demonstrate good communication skills and professional behavior while working with customers.
- Qualify to take the Microsoft Office Word, Excel & Outlook Certification Examinations.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Computer Information Technology Department

## Mobile App Starter Certificate: Apple Devices

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
IT Career Exploration	CIT102		1	
Applications/Concepts or Information Technology Problem Solving or Introduction to Computer Science and Objective Oriented Programming	CIT110 or CIT113 or CIT120		3 - 4	Prerequisites for CIT110 and CIT113: ESL099 or RDG095 or placement; Prerequisites for CIT120: MAT099 and ENG095 and RGD095 or ESL098 or placement, pre/co-req MAT194
Mobile App Development	CIT129		3	ENG090 and RDG090 or placement
Introduction to Creating Mobile Apps	CIT131		3	ENG090 and RDG090 or placement
Design for Mobile Devices or Interactive Design	CIT135 or VMA275		3	Prerequisites for CIT135: ENG090 and RDG090 or placement; Prerequisites for VMA275: VMA129
Programming for iOS I	CIT238		3	Programming course or chair approval
<b>TOTAL CREDITS</b>			<b>16-17</b>	

### OVERVIEW

This program prepares students to be able to have an entry-level position as a mobile app developer in an iOS (Apple device) environment.

### CAREER OUTLOOK

This Certificate Program is designed to align with the needs specified by industry partners. This option will have stackable credentials ideal for the working professional who is not seeking a degree, but looking to enhance their existing information technology skills.

### UPON COMPLETION OF THIS PROGRAM, GRADUATES WILL BE ABLE TO:

- Tackle large problems by systematically breaking them down into smaller, more manageable problems.
- Use their knowledge, skills, and resources to effectively adapt to change.
- Utilize a foundation in programming practices and principles.
- Utilize skills and competencies required to program basic Android applications in Java.
- Utilize skills and competencies required to design basic mobile applications on several device platforms.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Computer Information Technology Department

## Network Technology and Administration Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Cisco Networking I	CIT162		3	RDG095 or ESL098 or placement
Cisco Networking II	CIT167		3	CIT162
Cisco Networking III	CIT267		3	CIT167
Cisco Networking IV	CIT274		3	CIT267
MS Windows Server Admin/Lab	CIT282		4	CIT162; pre/co-req CIT268
Linux Administration/Lab	CIT270		4	CIT162
Networking Security	CIT264		3	CIT162
Wireless Technology	CIT262		3	CIT162
PC Hardware	CIT182		3	RDG095 or ESL098 or placement
<b>TOTAL CREDITS</b>			<b>29</b>	

### PROGRAM OVERVIEW

This program prepares students to maintain network hardware and software so that people within the organization receive timely and accurate information. The program prepares students to connect users to the company's computer system, by using cable, fiber optics, or wireless communications. It prepares students to identify, document, solve problems, and recommend system improvements, based on user needs and technological advances.

### CAREER OUTLOOK

Graduates of this program may qualify to become network administrators, responsible for day-to-day network operations, and for other entry-level network positions.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Set up, maintain, and support networks for small and medium sized businesses.
- Qualify to take the Microsoft Certified Professional (MCP) Examination, the Comp TIA Network+ and Comp TIA A+ Certification examinations, the Cisco Certified Network Administrator (CCNA) examination and the Certified Wireless Network Administrator (CWNA) examination.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Computer Information Technology Department

## Network Technology and Administration Option

PROGRAMS OF STUDY

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or Placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Oral Communications	ENG171		3	
Application/Concepts	CIT110 (Full-time students take CIT113)		3	ESL098 or RDG095 or placement
Cisco Networking I	CIT162		3	RDG095 or ESL098 or placement
Windows Operating Systems	CIT268		3	CIT110 or CIT113 or CIT120 or Chair approval
PC Hardware and Software	CIT182		3	RDG095 or ESL098 or placement
PC Keyboarding Techniques	OIM100		1	
Cisco Networking II	CIT167		3	CIT162
Wireless Technology	CIT262		3	CIT162
Networking Security	CIT264		3	CIT162
Cisco Networking III	CIT267		3	CIT167
Cisco Networking IV	CIT274		3	CIT267
MS Windows Server Admin/Lab	CIT282		4	CIT162 and Pre/co-req CIT268
Linux Administration/Lab	CIT270		4	CIT162
<b>TOTAL CREDITS</b>			<b>64</b>	

The Computer Information Technology Department (CIT) has a clear, well-articulated, three-pronged mission, which includes supporting the IT components of the college's General Education offerings (across divisions, departments, and campuses, as well as through inter-departmental collaboration), preparing an IT workforce through certificate and associate degree offerings, and providing IT students with seamless transfer opportunities to related Baccalaureate Degree programs.

The Computer Technology Program offers many courses that apply to other options to afford students the opportunity to explore the many career tracks in Information Technology before selecting a career in Computer Support, Data Base or Networking. The Department's goals are in concert with the College's goals. Using input from its Industry Advisory Committees and internship course, the department is continually updating and fine tuning its programs of study.

### OPTION OVERVIEW

This option prepares students to maintain network hardware and software so that people within the organization receive timely and accurate information. Using cable, fiber optics, or wireless communications, the option prepares students to configure, manage and maintain a company's computer networking infrastructure. The option emphasizes networking technology for local area networks (LANs), and for connecting to larger networks (WANs) and to the Internet.

### CAREER OUTLOOK

Graduates of this option may qualify as network administrators, responsible for day to day network operations as well as for entry level networking positions, that may include hardware support and troubleshooting, software installation, and maintenance of a network.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Have knowledge of the latest versions of Network Operating Systems (NOS) including UNIX, Linux and Microsoft Windows.
- Set up and configure a network. Set up user accounts and profiles to protect the network's integrity and security.
- Qualify to take the Microsoft Certified Professional (MCP) Examination, the Comp TIA Network+ and Comp TIA A+ Certification examinations, the Cisco Certified Network Administrator (CCNA) examination and the Certified Wireless Network Administrator (CWNA) examination.

Certificate

Computer Information Technology Department

## Object Oriented Computer Programming and Design Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Intro to Computer Science and Object Oriented Programming	CIT120		4	ENG095 and MAT099 and RDG095 or ESL098 and pre/co-req MAT194 or placement
C++ Programming	CIT237		4	ENG095 and MAT194 or placement and CIT120
Advanced C++/OOP	CIT284		3	CIT237 and MAT194
Java Programming	CIT239		4	ENG095 and MAT194 or placement and CIT120
Data Structures	CIT242		3	CIT239 and MAT197
Advanced Java	CIT285		3	CIT239 and MAT197
Android Development for Java Programming	CIT243		3	CIT239 and MAT197 or placement and pre/co-req CIT285
Survey New Popular OOPL for Programmers	CIT287		3	CIT284 or CIT285 and MAT197
<b>TOTAL CREDITS</b>			<b>27</b>	

### PROGRAM OVERVIEW

This certificate prepares students with in-depth knowledge of object oriented programming and design. Within two semesters of entering the program, students are expected to demonstrate acceptable keyboarding proficiency.

### CAREER OUTLOOK

Graduates of this certificate qualify as entry-level programmers who can analyze complex problems and design, implement, and run viable solutions using any of the most common object oriented languages.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Design, implement, and maintain software solutions for realistic problems by applying principles of object oriented programming.
- Write sophisticated and efficient code using the latest object oriented programming languages such as C++ and Java.
- Work in both Unix and Windows environments.

Note: For waiver of computer course prerequisite(s) see the Computer Science Advisor.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Computer Information Technology Department

## PC Hardware Support Specialist Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
PC Hardware and Software	CIT182		3	RDG095 or ESL098 or placement
Cisco Networking I	CIT162		3	RDG095 or ESL098 or placement
Windows Operating Systems	CIT268		3	CIT110 or CIT113 or CIT120 or Chair approval
Help Desk Techniques	CIT230		3	CIT110 or Chair approval
Keyboarding Techniques	OIM100		1	
<b>TOTAL CREDITS</b>			<b>16</b>	

### PROGRAM OVERVIEW

This certificate prepares students for entry level positions in personal computer hardware support. Recommended noncredit industry certification courses offered through the College's Community Education Office are optional, but will greatly enhance employment prospects. The CIT internship and entrepreneurship courses are also optional.

### CAREER OUTLOOK

Graduates completing this certificate may find employment in information support services departments in firms large and small as well as other companies specializing in personal computer maintenance support.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Describe, remove, and replace select components of desktop and laptop personal computers; upgrade components based on customer needs and perform preventive maintenance and troubleshooting.
- Understand the basics of the most common desktop Office applications.
- Explain, install, and navigate the most common personal computer operating systems; upgrade components based on customer needs and perform preventive maintenance and troubleshooting.
- Demonstrate good communication skills and professional behavior while working with customers.
- Qualify to take the COMPTIA A+ Essentials Certification Examination.
- Qualify to take the NETWORK+ Certification Examination.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Computer Media Technology Department

## Gaming/Computer Artist Track Simulation Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	MAT172 satisfies Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	VMA104 satisfies Area 6		3	ENG095 or placement
<b>CONCENTRATION COURSES</b>				
Game Development Essentials	CMT101 satisfies learning communities requirement		3	ENG095 and ESL098 or RDG095 or placement
Maya Foundations	CMT121		3	ENG095 and ESL098 or RDG095 or placement
Maya Character Modeling	CMT123		3	CMT121
Maya Character Animation	CMT223		3	CMT123
Creating 3-D Special Effects	CMT229		3	CMT121
Introduction to Audio Technology	VMA151		3	ENG095 and MAT093 or placement
Managing Game Development	CMT103		3	ENG095 and RDG095 or placement
The Human Character	CMT119	Fall	3	CMT101
Oral Communication	ENG171		3	
Photoshop for Gaming	CMT129		3	ENG095 and MAT093 or placement
3D Modeling and Sculpting	CMT217		3	CMT121
3D Liquids Simulation	CMT249	Spring	3	CMT229
Career Elective	see note*		3	
<b>TOTAL CREDITS</b>			<b>61</b>	

\* Note: Select the career elective from the Computer Media Technology or Visual Media Arts department.

The Computer Media Technology program provides students in the design, development, and production skills necessary for entry into the Computer Gaming Industry and the Computer Simulation industry. Students will satisfy the requirements of this program by completing a succession of General Education courses and Gaming/Simulation specific courses as well as elective courses from within the program disciplines. Graduates of this program will qualify for entry-level positions in the computer Gaming and Computer Simulation industries.

### OPTION OVERVIEW

This program option is designed to appeal to those students that have a preference for the artistic side of game and computer simulation

development such as scene lighting, creating customized 3D texture maps, customized shaders, diffuse shaders, sky boxes and bump maps. This option will also instruct students in the fundamentals of 3D Game/Simulation design, development and production construct, shape, texture, and animate 3D objects and characters in a computer game environment. The program also teaches students the techniques and skills required to incorporate depth, lights, textures and 3D liquids into the 3D game to simulate real-world situations.

### CAREER OUTLOOK

Students completing this program qualify for entry level positions in local and national gaming and computer simulation companies. The career outlook for computer

gaming/simulation opportunities is projected to grow at a rapid rate in the coming years. The inclusion of computer generated graphics in movies, television, educational tutorials and social media have made this career choice very attractive.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Create game characters.
- Create custom textures for clothing, surfaces and environmental objects.
- Create 3D objects as game constructs.
- Create 3D lakes, rivers, streams, beverages, soft candy products and liquefied solids to name a few.
- Effectively light and shade the game scene.
- Manage the game development process.

Associate in Science

Computer Media Technology Department

## Gaming/Computer Programming Track Simulation Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	MAT172 satisfies Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	VMA104 satisfies Area 6		3	ENG095 or placement
<b>CONCENTRATION COURSES</b>				
Game Development Essentials	CMT101 satisfies learning communities requirement		3	ENG095 and ESL098 or RDG095 or placement
Maya Foundations	CMT121		3	ENG095 and ESL098 or RDG095 or placement
Maya Character Modeling	CMT123		3	CMT121
Maya Character Animation	CMT223		3	CMT123
Creating 3D Special Effects	CMT229		3	CMT121
Introduction to Audio Technology	VMA151		3	ENG095 and MAT093 or placement
The Human Character	CMT119	Fall	3	CMT101
Managing Game Development	CMT103		3	ENG095 and ESL098 or RDG095 or placement
MEL Scripting	CMT231	Fall	3	CMT229
Game Engines	CMT232	Spring	3	CMT231 or Chair approval
3D Liquids Simulation	CMT249	Spring	3	CMT229
Oral Communication	ENG171		3	
Career Elective	See Note*		3	
<b>TOTAL CREDITS</b>			<b>61</b>	

\*Note: Select the career elective from the Computer Media Technology or Visual Media Arts department.

The computer Media Technology program provides students the design, development and production skills necessary for entry into the Computer Gaming industry and the Computer Simulation industry. Students will satisfy the requirements of this program by completing a succession of General Education courses and Gaming/Simulation specific courses as well as elective courses from within the program disciplines. Graduates of this program will qualify for entry-level positions in the computer Gaming and Computer Simulation industries or for transfer to a four-year institution to complete an undergraduate degree in Game design.

### OPTION OVERVIEW

This program option prepares students in the fundamentals of 3D game/Simulation design, development and production with a focus towards control and construction of gaming components through the use of scripting and programming languages. The programming focus will concentrate on using coding language skills to animate, construct and schedule user interface actions in a game or simulation environment. Students also learn how to utilize state-of-the-art modeling software to create, construct, shape, texture and animate 3D objects and characters in a computer game environment. The program also teaches students techniques and skills required to incorporate depth, lights, textures and 3D liquids into the 3D game to simulate real-world situations. Students are also instructed in the techniques and tools of game program development, management and scheduling techniques.

### CAREER OUTLOOK

Students completing this program qualify for entry level positions in local and national gaming and computer simulation companies. The career outlook for computer gaming/simulation opportunities is projected to grow at a rapid rate in the coming years. The inclusion of computer generated graphics in movies, television, educational tutorials and social media have made this career choice very attractive.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Create game characters.
- Create 3D objects as game constructs.
- Create 3D lakes, rivers, streams, beverages, soft candy products and liquefied solids to name a few.
- Effectively light and shade the game scene.
- Animate the game scene.
- Manage the game development process.

Certificate

Computer Media Technology Department

## Gaming/Computer Simulation in Entrepreneurship Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Maya Foundations	CMT121		3	ENG095 and RDG095 or ESL098 or placement
Maya Character Molding	CMT123		3	CMT121
Maya Character Animation	CMT223	Fall	3	CMT123
Creating 3-D Special Effects	CMT229	Fall	3	CMT121
Game Engines	CMT232	Spring	3	CMT231 or Chair approval
Introduction to Entrepreneurship	MAN107	Fall	3	ENG095 and ESL098 or RDG095 or placement
Principles of Marketing	MAN105		3	ESL098 and ESL099 or RDG095 and ENG090 or placement
Entrepreneurship & Innovation	MAN204	Spring	3	MAN107
<b>TOTAL CREDITS</b>			<b>24</b>	

### PROGRAM OVERVIEW

The Gaming/Computer Simulation in Entrepreneurship Certificate will prepare students in the fundamentals of game/simulation design, development and production and in tandem, will allow individuals to acquire practical entrepreneurial skills. Students will learn the techniques and tools of game program management and will learn to combine these skills with business skills to create opportunities for self-employment potentially leading to starting a gaming company, or the certificate will better prepare them for further career advancement and mobility within the gaming industry.

### CAREER OUTLOOK

Students completing this certificate can expect to be qualified for positions in gaming companies or further, be positioned to explore the option of starting their own gaming company. The computer gaming/simulation industry is rapidly growing providing ample opportunities for the gaming professional.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Analyze viability of business opportunities in the gaming industry from various points of view.
- Create game characters, 3D objects as game constructs, and animate the game scene.
- Develop and implement a business plan designed to manage a game development venture.
- Evaluate the feasibility of gaming ideas and identify the industry factors leading to business opportunity.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Computer Media Technology Department

## Web Development Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
HTML and Dreamweaver	CMT111		3	
Javascript	CMT113		3	CIT110 and CMT111
Flash	CMT115	Fall	3	CMT113
XML	CMT117	Spring	3	CMT111
XSL	CMT211		3	CMT111 and CMT117
ASP.NET	CMT215	Fall	3	CMT113
Windows Operating Systems	CIT268		3	CIT110 or CIT113 or CIT120 or Chair approval
Database Design with MS Access	CIT128		3	CIT110 or CIT113 or CIT120 or Chair approval
Digital Imaging with Photoshop	VMA105		3	ENG095 and MAT093 or placement
<b>TOTAL CREDITS</b>			<b>27</b>	

### PROGRAM OVERVIEW

This program provides students with a sound basis for employment in the field of Web Development. The program trains students in the concepts and applications of leading-edge web delivery mechanisms. This program would also be beneficial to professionals with degrees in other disciplines who are seeking new career options.

In addition, the knowledge gained can be applied toward the pursuit of Webmaster Certification through a certification agency.

### CAREER OUTLOOK

Graduates of this program will qualify as entry-level web developers and web development support personnel.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Design, implement, publish, and maintain websites in support of creating a web presence for businesses and organizations.
- Create animated, event driven multimedia content for web delivery.
- Construct, extract, transform, and present database resident content directly into a web delivery mechanism.
- Construct event driven action scripts within a web page to respond to user stimulations and provide dynamic results in a real time environment.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Computer Media Technology Department

## Web Development in Entrepreneurship Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
HTML and Dreamweaver	CMT111		3	
Javascript	CMT113		3	CIT110 and CMT111
Flash	CMT115	Fall	3	CMT113
XML	CMT117	Spring	3	CMT111
ASP.NET	CMT215	Fall	3	CMT113
Introduction to Entrepreneurship	MAN107		3	ENG095 and ESL098 or RDG095 or placement
Principles of Marketing	MAN105		3	ESL098 and ESL099 or RDG095 and ENG090 or placement
Entrepreneurship & Innovation	MAN204		3	MAN107
<b>TOTAL CREDITS</b>			<b>24</b>	

### PROGRAM OVERVIEW

The Web Development In Entrepreneurship Certificate will provide students with a sound basis of knowledge of web-based delivery and development of products, services and web technologies and will allow individuals to acquire practical entrepreneurial skills. Students will learn leading edge web delivery mechanisms and will learn to incorporate these skills with practical business skills to create opportunities for self-employment potentially leading to starting their own business, or will better prepare them for further career advancement and mobility.

### CAREER OUTLOOK

Students completing this certificate can expect to be qualified for positions as web developers and also be positioned to explore the option of starting their own web design company. Students will be prepared to utilize their knowledge towards the pursuit of eventual Webmaster certification and ultimately, their own web development consulting business.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Design implement, publish and maintain websites in support of creating a web presence for businesses and organizations.
- Develop and implement a business plan designed to create a web development venture.
- Evaluate the feasibility of web development ideas and identify the industry factors leading to business opportunity.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Computer Media Technology Department

## Web Development Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	VMA111 satisfies Area 3		3	ENG095 and MAT093 or placement
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Oral Communication	ENG171		3	
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
SQL Programming	CIT236		3	CIT110 or CIT113 or CIT120 or Chair approval
HTML and Dreamweaver	CMT111		3	pre/co-req CMT125
Javascript	CMT113	Fall	3	CIT110 and CMT111
Flash	CMT115	Fall	3	CMT113
XML	CMT117	Fall	3	CMT111
Cascading Style Sheets	CMT125		3	pre/co-req CMT111
XSL	CMT211-see note*	Spring	3	CMT111 and CMT117
ASP.NET	CMT215		3	CMT113
PHP/MySQL	CMT241		3	CMT111 and CIT236
Windows Operating Systems	CIT268		3	CIT110 or CIT113 or CIT120 or Instructor permission or Chair approval
Digital Imaging with Photoshop	VMA105		3	ENG095 and MAT093 or placement
Web Development Internship	CMT299		3	Chair approval
<b>TOTAL CREDITS</b>			<b>64</b>	

\*Note: Prior to enrolling in course, student must see Department Chair.

The Computer Media Technology program provides students in the design, development, and production skills necessary for entry into the Computer Gaming Industry and the Computer Simulation industry. Students will satisfy the requirements of this program by completing a succession of General Education courses and Gaming/Simulation specific courses as well as elective courses from within the program disciplines. Graduates of this program will qualify for entry-level positions in the computer Gaming and Computer Simulation industries.

### OPTION OVERVIEW

This program prepares students for entry-level positions in firms that specialize in web-based delivery and development of products, services, and web technologies. Additionally,

students may fill entry-level positions in businesses that employ in-house staff to support and develop their own web delivery mechanisms for such support services as company directories and realtime content presentation. The program also provides students with a sound basis to enter the ever-growing opportunities available for independent web development consulting. Students are trained in the concepts and applications of leading-edge web delivery mechanisms such as XML (Extensible Markup Language), XML Transformation languages, ASP.net, advanced graphical techniques and database incorporation into web delivery technologies. The program prepares students to apply their knowledge towards the pursuit of Webmaster certification through a certification agency.

### CAREER OUTLOOK

Graduates of this program will qualify as web developers and for web development support positions, and will have a solid basis for pursuing certification as a Webmaster.

### CAREER OUTLOOK

- Design, implement, publish, and maintain websites in support of creating a web presence for businesses and organizations.
- Create animated, event driven multimedia content for web delivery.
- Construct, extract, transform, and present database resident content directly into a web delivery mechanism.
- Construct event driven action scripts within a web page to respond to user stimulations and provide dynamic results in a real time environment.

Certificate

Early Childhood Development, Education &amp; Human Services Department

## Early Childhood Development Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
LCS or Career Elective	see note*		3	
Program Environments	ECE106		3	ESL098 or RDG095 and ENG095 or placement
Child Growth/Development	ECE103		3	ESL098 or RDG095 and ENG095 or placement
Guidance/Discipline	ECE101		3	ECE103
Curriculum in Early Childhood Education	ECE104		3	ECE103
<b>TOTAL CREDITS</b>			<b>18</b>	

\*Note: Student may choose LCS that best fits his/her interests. Due to the prerequisite requirements, it may not be possible to complete this certificate program in one year.

Career electives: ECE108, ECE151 through ECE168, ECE207, ECE209, ECE210, ECE223, EDU102 or INT123

### PROGRAM OVERVIEW

This program prepares students as teachers and/or lead teachers in the State of Massachusetts. Students must meet additional experiential requirements by working in a licensed child care program during or after meeting the educational requirements for teacher and/or lead teacher certification.

### CAREER OUTLOOK

Graduates of this program qualify as teacher's aides in the State of Massachusetts. For more information on minimal requirements for employment, contact the Department chair.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Childhood Development Certificate Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178 B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P. For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Use knowledge of child development and relationships with children and families to understand children as individuals and plan for their unique development by organizing environments which facilitate development in all developmental areas.
- Design and implement developmentally appropriate learning experiences using methods and materials which promote growth and development.
- Work with parents, families, and community leaders to support growth and development of children by engaging each child in meaningful experiences.
- Observe children in their care to analyze and synthesize information about those children so as to improve their work with children, families, and communities.
- Analyze, evaluate and strengthen their work with children by reflecting upon effective practices and collaborating with other professionals in the field.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Early Childhood Development, Education & Human Services Department

## Early Childhood Development Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	PSY101 satisfies Area 2		3	ESL098 or RDG095 or placement
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	LIT217 satisfies Area 6		3	Pre/co-req ENG111
<b>CONCENTRATION COURSES</b>				
Child Growth/Development	ECE103		3	ESL098 or RDG095 and ENG095 or placement
Program Environments	ECE106		3	ESL098 or RDG095 and ENG095 or placement
Issues in Early Childhood Education	ECE202		3	ESL098 or RDG095 and ENG095 or placement
Guidance/Discipline	ECE101		3	ECE103
Curriculum in Early Childhood Education	ECE104		3	ECE103
Observation/Recording Behavior	ECE217		3	ECE103
Families/Community in Early Childhood Education	ECE212		3	ECE103 plus additional 3 courses in ECE or EDU
Practicum in Early Childhood Education I	ECE220	Fall	3	Chair approval
Young Children with Special Needs	ECE211		3	ECE103 plus additional 3 courses in ECE or EDU
Practicum in Early Childhood Education II	ECE221	Spring	3	Chair approval
Learning community or Elective	see note**		3	
Career Elective	see note*		3	
Career Elective	see note*		3	
<b>TOTAL CREDITS</b>			<b>61</b>	

\* Note: Career electives: ECE108, ECE151 through ECE168, ECE207, ECE209, ECE210, ECE223, EDU102 or INT123

\*\*Note: New degree-seeking students enrolled in 9 credits or more must take a Learning Community Seminar or a Learning Community Cluster within their first year.

Students with credentials from the Council for Early Childhood Professional Recognition as a Child Development Associate (CDA) may apply for 6 credits in the associate degree program through the Prior Learning Assessment Program (PLAP). Students with credit for ECE223 and ECE224 may use these courses in place of ECE221 and a career elective. See Department Chair for details.

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Associate in Science

Early Childhood Development, Education & Human Services Department

## Early Childhood Development Program

*Continued from previous page*

### PROGRAM OVERVIEW

Early Childhood, Education and Human Services Department's mission statement and goals state two primary purposes: 1) To provide knowledge, training and skill development for persons interested in working in the area of social services with specific educational opportunities for those interested in early childhood development, human services, and education, and 2) To serve the community as an information and knowledge-base in the area of social service, with specific expertise in early childhood education and development, human services, and education.

The Early Childhood Development Program prepares students in the fields of growth of the child, influences of the family upon the child, and environmental pressures upon the family.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Early Childhood Development program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this program qualify for employment in a variety of settings, including day care centers, preschools, head start programs, family home care and social service organizations. Students also may transfer to four-year colleges or universities in elementary education, human services work, or special needs childcare. Graduates of this program qualify as teachers and/or lead teachers in the state of Massachusetts.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Use knowledge of child development and relationships with children and families to understand children as individuals and plan for their unique development by organizing environments which facilitate development in all developmental areas.
- Design and implement developmentally appropriate learning experiences using methods and materials which promote growth and development.
- Work with parents, families, and community leaders to support growth and development of children by engaging each child in meaningful experiences.
- Observe children in their care and be able to analyze and synthesize information about children so as to improve their own work with children, families, and communities.
- Analyze, evaluate and strengthen their work with children by reflecting upon effective practices and collaborating with other professionals in the field.

Certificate

Early Childhood Development, Education & Human Services Department

## Early Childhood Development with Child Development Associate Credential Certificate Program

PROGRAMS OF STUDY

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
LCS or Career Elective	see note*		3	
Program Environments	ECE106		3	ESL098 or RDG095 and ENG095 or placement
Child Growth/Development	ECE103		3	ESL098 or RDG095 and ENG095 or placement
Guidance/Discipline	ECE101		3	ECE103
Curriculum in Early Childhood Education	ECE104		3	ECE103
Observation/Recording Behavior	ECE217		3	ECE103
CDA Professional Portfolio	ECE223		3	Admission to the program; ECE101; ECE103; ECE104; ECE106; ENG111 and LCS101 or career elective
CDA Mentoring and Coaching Practicum	ECE224		3	ECE223 or concurrently with Dept. Chair approval
<b>TOTAL CREDITS</b>			<b>27</b>	

\*Note: Student may choose LCS that best fits his/her interests. Due to the prerequisite requirements, it may not be possible to complete this certificate program in one year. Career electives: ECE108, ECE151 through ECE168, ECE207, ECE209, ECE210, ECE223, EDU102 or INT123

### ADMISSION REQUIREMENTS:

- Must be 18 years of age
- Must have completed 120 hours of formal college training in Early Childhood Education in subject areas covered by the ECDev Certificate
- Within the past three years, must have completed 300 hours of professional work experience in a group setting supervised by a professional Early Childhood educator. (An additional 180 hours of practice will be required before application for the national credential is allowed. These hours will be completed in practicum course required by the certificate program).
- Must submit to a CORI/SORI/fingerprinting (if required by the state) records check, as required
- Other requirements as indicated by the CDA Council for Certification.
- Students will be responsible for the cost of attaining credentialing and completing testing as required by the Council at the end of the program. Testing is done off-campus, currently at Pearson test sites in the Boston metro area.

### PROGRAM OVERVIEW

This program prepares students as teachers and/or lead teachers in the State of Massachusetts. Students must meet additional experiential requirements by working in a licensed child care program during or after meeting the educational requirements for teacher and/or lead teacher certification.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Childhood Development Certificate Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178 B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P. For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this program are academically qualified in the State of Massachusetts through the Department of Early Education and Care to be either teacher or lead teacher qualified once work experience is completed as required by the state. For more information contact the Department Chair.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Use knowledge of child development and relationships with children and families to understand children as individuals and plan for their unique development by organizing environments which facilitate development in all developmental areas.
- Design and implement developmentally appropriate learning experiences using methods and materials which promote growth and development.
- Work with parents, families, and community leaders to support growth and development of children by engaging each child in meaningful experiences.
- Observe children in their care to analyze and synthesize information about those children so as to improve their work with children, families, and communities.
- Analyze, evaluate and strengthen their work with children by reflecting upon effective practices and collaborating with other professionals in the field.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Arts

Early Childhood Development, Education &amp; Human Services Department

## Education Concentration

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	Area 2 satisfied by program			
World View	Area 3 satisfied by program			
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	Area 5 satisfied by program			
Humanities	Area 6 satisfied by program			
<b>CONCENTRATION COURSES</b>				
Principles of Psychology	PSY101		3	ESL098 or RDG095 or placement
Child Growth/Development	ECE103		3	ESL098 or RDG095 and ENG095 or placement
CIT Elective	CIT		3	
Oral Communication	ENG171		3	
World Civilization to 1500	HIS111		3	ESL098 and ESL099 or RDG095 and ENG095 or placement
US History: Colonization thru Civil War or US History: Reconstruction to Present	HIS151 or HIS152		3	ESL098 or RDG095 and ENG095 or placement
Children's Literature	LIT217		3	Pre/co-req ENG111
Contemporary Math I	MAT172		3	MAT097 or placement
Introduction to Biology/Lab or Human Biology/Lab	BIO105 or BIO108		4	ENG095 and MAT093 and RDG095 or ESL098 or placement
Environmental Science I	ENV105		4	MAT093 and ENG095 and RDG095 or ESL098 or placement
Intro and Foundations of Education	EDU201		3	ENG095 and RDG095 or ESL098 or placement
Young Children with Special Needs	ECE211		3	ECE103 plus three ECE or EDU courses or equivalent
Practicum in Instruction	EDU220		3	EDU201
Fine Arts Elective	see note*		3	
Literature Elective	LIT		3	Pre/co-req ENG111
LCS or Career Elective	see note**		3	
Career Elective	see Note**		3	
<b>TOTAL CREDITS</b>			<b>62</b>	

Note\* Fine Arts Electives: VMA104, VMA122, VMA123, VMA124, or VMA161

\*\*Note: New degree-seeking students enrolled in 9 credits or more must take a Learning Community Seminar or a Learning Community Cluster within their first year.

Career Electives: ECE151 through ECE168, ECE207, ECE209, ECE210, ECE212, EDU102 or INT123

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Associate in Arts

Early Childhood Development, Education &amp; Human Services Department

## Education Concentration

*Continued from previous page*

### CONCENTRATION OVERVIEW

Early Childhood, Education and Human Services Department's mission statement and goals state two primary purposes: 1) To provide knowledge, training and skill development for persons interested in working in the area of social services with specific educational opportunities for those interested in early childhood development, human services, and education, and 2) To serve the community as an information and knowledgebase in the area of social service, with specific expertise in early childhood education and development, human services, and education.

The Education concentration prepares students seeking bachelor's degrees in education or liberal arts to transfer to four-year colleges or universities. Graduates of this concentration may qualify to transfer using benefits of MassTransfer to a four-year state college or University of Massachusetts campus. For current information on eligible programs, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer). The A.A. Education Concentration is not to be followed by those seeking certification by the Massachusetts Department of Early Education and Care. If work in child care is desired, a student should enroll in the A.S. degree Early Childhood Development. For more information, contact the Department chair.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in this concentration, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178 B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this concentration may qualify to transfer to four-year colleges or universities as juniors. Potential teaching careers include teacher aid; early elementary, later elementary, middle school and high school teaching; preschool and kindergarten teaching; and special education teaching. Students must obtain a bachelor's degree as the minimum requirement for entry into these fields. Graduate work may be necessary, as well.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Describe the interaction of history, culture, literature, economics, and science as studied within a broad liberal arts curriculum.
- Demonstrate a mastery in reading and writing/ literacy skills and the organization of critical thinking and problem solving behaviors.

*Students enrolling in this degree program can earn World Studies Emphasis certification simultaneously.*

Associate in Science

Early Childhood Development, Education &amp; Human Services Department

## Human Services Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	PSY101 satisfies Area 2		3	ESL098 or RDG095 or placement
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Intro to Human Services Profession w/ Field Practice	HSV101		3	ESL098 or RDG095 and ENG095 or placement
Case Management in Human Services	HSV218		3	PSY215 and ESL098 or RDG095 and ENG095 or placement
Child Growth/Development	ECE103		3	ESL098 or RDG095 and ENG095 or placement
Adolescent/Adult Development	PSY224		3	PSY101
Addiction	HSV112		3	PSY101 and ESL098 or RDG095 and ENG095 or placement
Counseling	PSY215		3	PSY101
Human Services Practicum I	HSV220	Fall	3	HSV216 and Chair approval
Human Services Practicum II	HSV221		3	Chair approval and HSV220
Issues in HSV	HSV217		3	HSV101 and PSY101 and PSY215 and PSY224
Pre-Practicum Prep w/Field Experience	HSV216	Spring	3	see note**
Professional Ethics in Human Services	HSV214		3	ENG111 and HSV101 and HSV112
Career Elective	see note*		3	
Learning community or Elective	see note*		3	
<b>TOTAL CREDITS</b>			<b>61</b>	

\*Note: New degree-seeking students enrolled in nine credits or more must take a Learning Community Seminar or a Learning Community Seminar within their first year.

Career Electives: HSV215, HSV219, PSY233, AHE104, PSY227 or INT123

\*\*Note: A placement experience in a human service agency is required by the course following a C.O.R.I. background check. The prerequisite for Associate degree students is a grade of C or better in College Writing II and a minimum of 27 credits completed toward the A.S. in Human Services including, at a minimum, a grade of C or better in HSV101, HSV112, PSY215, and PSY224. Also, HSV216 is to be taken the semester before enrolling in HSV220.

Continued on following page

Associate in Science

Early Childhood Development, Education &amp; Human Services Department

## Human Services Program

*Continued from previous page*

### PROGRAM OVERVIEW

Early Childhood Education and Human Services Department's mission statement and goals state two primary purposes:

1. To provide knowledge, training and skill development for persons interested in working in the area of social services with specific educational opportunities for those interested in early childhood development, human services, and education, and
2. To serve the community as an information and knowledge-base in the area of social service, with specific expertise in early childhood education and development, human services, and education.

This program prepares students as assistants and paraprofessionals in careers that direct the delivery of services to people.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Human Services Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this program qualify for careers in social welfare, mental health, community development, public administration, youth work, work with elderly, family counseling and social service agencies.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Use formal and informal assessment practices to respond to the needs, desires, and interests of participants receiving information and support from a Human Service organization, enhancing the persons' ability to lead a self determining life.
- Communicate effectively and demonstrate skills needed to establish collaborative relationships with participants receiving services.
- Demonstrate knowledge about formal and informal supports available, as well as diverse challenges facing participants, using advocacy strategies to overcome these challenges by mobilizing resources to reach participant goals.
- Demonstrate knowledge and skill in handling crisis prevention, intervention, and resolution techniques with detailed documentation of the work in a human services agency.
- Understand the mission and practices of human services organizations, fully participating in the life of the agency as a professional and be able to identify areas of self improvement and professional development needed for future goal attainment.

## Certificate

## Early Childhood Development, Education &amp; Human Services Department

## Professional Human Services Work Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
Principles of Psychology	PSY101		3	ESL098 or RDG095 or placement
Intro to Human Services Profession w/ Field Practice	HSV101		3	ENG095 and ESL098 or RDG095 or placement
Addiction	HSV112		3	PSY101 and ENG095 and ESL098 or RDG095 or placement.
Counseling	PSY215		3	PSY101
Case Management in Human Services	HSV218		3	PSY215 and ENG095 and ESL098 or RDG095 or placement.
Abnormal Psychology	PSY227		3	PSY101
Professional Ethics in Human Services	HSV214		3	ENG111 and HSV101 and HSV112
Learning Community or Career Elective	see note*		3	
<b>TOTAL CREDITS</b>			<b>27</b>	

\*Note: New degree-seeking students enrolled in 9 credits or more must take a Learning Community Seminar or a Learning Community Cluster within their first year. Student may choose a learning community that best fits his/her interests. Career electives: AHE104, HSV215, HSV219 or PSY233. Due to the prerequisite requirements, it may not be possible to complete this certificate program in one year.

**PROGRAM OVERVIEW**

This certificate prepares students for direct service jobs in human services providing the delivery of services to participants in human service organizations.

**CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS**

As a prerequisite for a clinical placement in the Professional Human Services Work Certificate Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P. For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

**CAREER OUTLOOK**

Students completing the Professional Human Services Work Certificate Program qualify for generalist careers in social welfare, mental health, community development or other similar human service organizations in the community serving families and children, adolescents, elders or other specific populations in need of services through community programming.

**UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:**

- Use assessment practices to respond to the needs of participants and enhance these individuals in leading a life that involves self-empowerment, assertiveness, and strong decision-making skills.
- Communicate effectively and establish collaborative relationships to allow planning, implementation of support services, and interventions with participants, agency supports, and other community resources.
- Demonstrate knowledge of supports available, while understanding the challenges facing participants, assist in gaining resources for aid, advocate by overcoming challenges and providing supports through community and educational resources.
- Demonstrate skill in handling crisis prevention, intervention and resolution techniques to solve problems and keep detailed documentation of the process and outcome of each situation.
- Participate in the life of a human services agency, being familiar with the mission and "best" practices of human services organizations, demonstrating these skills in professional activities

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Hospitality Department

## Baking and Pastry Arts Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	Area 3 satisfied by program			
Quantitative Thought	MAT100 satisfies Area 4 - see note*		3	MAT093
Science and Technology	BIO115 satisfies Area 5 - see note**		4	ENG095 and MAT093 and ESL098 or RDG095 or placement
Humanities	Area 6 satisfied by program			
<b>CONCENTRATION COURSES</b>				
Culinary Arts Seminar	CUL101 satisfies learning communities requirement		3	
Food Service and Sanitation Skills	CUL111		3	
How Baking Works: The Science of Baking	CUL113	Fall	3	
Introduction to Culinary Arts	CUL115	Fall	4	co-req CUL125
Principles of Baking	CUL125	Fall	4	co-req CUL115
Cafe and Bistro Cuisine	CUL135	Spring	4	CUL115 and CUL125 co-req CUL145
Advanced Desserts and Pastries	CUL145	Spring	4	CUL115 and CUL125 co-req CUL135
Cake Decorating	CUL119		3	
Classical and International Pastries	CUL217	Spring	4	CUL145
Pastry Arts Internship	CUL299P	Summer	3	Chair Approval
Advanced Classical Desserts and Showpiece Cakes	CUL247	Spring	3	CUL145
Baking for Health	CUL249	Fall	3	CUL145
Chocolate and Sugar Artistry	CUL241	Spring	4	CUL145
Hot and Cold Desserts	CUL243	Fall	4	CUL145
<b>TOTAL CREDITS</b>			<b>65</b>	

\* Note: This course satisfies "Quantitative Thought" General Education Requirement Area 4 for Culinary Arts and Pastry Arts students only

\*\* Note: This course satisfies "Science and Technology General Education Requirement Area 5

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Associate in Science

Hospitality Department

## Baking and Pastry Arts Option

*Continued from previous page*

The mission of the Culinary Arts Program is to be a leader in Hospitality and Culinary Arts education and to develop future leaders for the Hospitality and Food Service industries. The Culinary Arts Program provides education for entry level careers in Restaurant Management, Food Service Management, and Culinary Arts. In addition, preparation for transfer to four-year, higher education programs and opportunities for professional development will be provided. Students will develop technological, communicative, critical thinking, quantitative, and human relation skills.

### OPTION OVERVIEW

The Baking and Pastry Arts Option prepares students with an intensive, practical application of skills and decision making demanded by the baking and pastry arts profession. The program provides hands on curriculum interwoven with operational procedures found in most pastry production facilities and venues. Students participate in the operation of a restaurant on campus and in an internship experience. The curriculum is based on American Culinary Federation standards.

### CAREER OUTLOOK

Graduates of this program qualify for a variety of entry level positions in retail bakeries, pastry shops and related pastry production facilities. An A.S. degree will position the student for entry level management positions, as well as the opportunity to transfer to a four year institution for further studies

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate an acquired technical skill in the usage of tools, equipment and machinery found in typical bakeries and commercial pastry production facilities.
- Demonstrate the necessary administrative skills common to basic cost control and planning methods found in a typical commercial pastry shop.
- Demonstrate conceptual skills acquired through course work relative to operating a successful pastry shop or bakery facility.
- Demonstrate the ability to apply advanced decorating techniques in cake and pastry design.
- Demonstrate knowledge of advanced chocolate and sugar design.
- Demonstrate a skill in working with the design and implementation of healthy alternatives to recipes.

Certificate

Hospitality Department

## Culinary Arts Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Food Service Sanitation and Skills	CUL111		3	
Menu Design and Purchasing	CUL211		3	
Basic Baking Skills	CUL108	Fall	4	pre/co-req CUL116
Basic Culinary Skills	CUL116	Fall	4	pre/co-req CUL108
Advanced Baking Skills	CUL208	Spring	4	CUL108 and CUL116
Advanced Culinary Skills	CUL216	Spring	4	CUL108 and CUL116
<b>TOTAL CREDITS</b>			<b>22</b>	

### PROGRAM OVERVIEW

This weekend program prepares students with the basic skills and knowledge required for entry-level positions in the food service industry. The two-semester, 22-credit program is scheduled from September through May.

### CAREER OUTLOOK

Graduates of this program qualify for a variety of entry-level positions in food production, including restaurant and institutional line cooking, pastry preparation, steward departments, and other related positions. Students also qualify to transfer all credits to the Associate in Science Degree: Culinary Arts Program.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate practiced and acquired technical skills in the usage of tools and equipment found in a typical food service/ food production setting.
- Demonstrate the necessary administrative skills common to basic cost control and planning methods found in a typical commercial food service/food production setting.
- Demonstrate conceptual skills acquired through course work relative to planning a successful restaurant operation.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Hospitality Department

## Culinary Arts Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	Area 3 satisfied by program			
Quantitative Thought	MAT100 satisfies Area 4		3	MAT093
Science and Technology	BIO115 satisfies Area 5		4	ENG095 and MAT093 and ESL098 or RDG095 or placement
Humanities	Area 6 satisfied by program			
<b>CONCENTRATION COURSES</b>				
Culinary Arts Seminar	CUL101 satisfies learning communities requirement		3	
Food Service Sanitation and Skills	CUL111		3	
Introduction to Culinary Arts	CUL115	Fall	4	co-req CUL125
Principles of Baking	CUL125	Fall	4	co-req CUL115
Café and Bistro Cuisine	CUL135	Spring	4	CUL115 and CUL125;co-req CUL145
Advanced Desserts and Pastries	CUL145	Spring	4	CUL115 and CUL125; co-req CUL135
Menu Design and Purchasing	CUL211		3	
Essentials of Food Production	CUL215	Fall	4	CUL135 and CUL145; co-req CUL225
Essentials of Dining Service	CUL225	Fall	4	CUL135 and CUL145; co-req CUL215
Advanced and Ethnic Food Production	CUL235	Spring	4	CUL215 and CUL225;co-req CUL245
Food and Beverage Operations	CUL245	Spring	4	CUL215 and CUL225;co-req CUL235
Culinary Arts Internship	CUL299		3	Chair approval
Career Elective			3	
<b>TOTAL CREDITS</b>			<b>63</b>	

The mission of the Culinary Arts Program is to be a leader in Hospitality and Culinary Arts education and to develop future leaders for the Hospitality and Food Service industries. The Culinary Arts Program provides education for entry level careers in Restaurant Management, Food Service Management, and Culinary Arts. In addition, preparation for transfer to four-year, higher education programs and opportunities for professional development will be provided. Students will develop technological, communicative, critical thinking, quantitative, and human relation skills.

### OPTION OVERVIEW

The Culinary Arts Option prepares students with an intensive, practical application of skills and decision making demanded by the culinary arts profession. The program provides a hands-on curriculum interwoven with operational procedures found in most food production and service venues. Students participate in the operation of a restaurant on campus and in an internship experience. The curriculum is based on American Culinary Federation standards.

### CAREER OUTLOOK

Graduates of this program qualify for a variety of positions in hotels, restaurants, and resorts. Typically, these positions are in food production, shift supervision, and kitchen management. Students also qualify to transfer to four-year colleges or universities to pursue bachelor's degrees.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate practiced and acquired technical skills in the usage of tools and equipment found in a typical food service/ food production setting.
- Demonstrate necessary administrative skills common to basic cost control and planning methods found in a typical commercial food service/food production setting.
- Demonstrate conceptual skills acquired through course work relative to planning a successful restaurant operation.

Certificate

Hospitality Department

## Hotel and Restaurant Management Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Principles of Management and Service in Hospitality	HRT121		3	
Front Office Operations w/ Technology Component	HRT131	Fall	3	
Principles of Accounting I	ACC101		3	ENG095 and ESL098 or RDG095 or placement
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
Food and Beverage Operations for Hospitality Professionals	HRT112		3	
Culinary Theory in Hospitality	HRT133		3	
Advanced Lodging Operations	HRT231	Spring	3	HRT131
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Food Service Sanitation and Skills	CUL111		3	
<b>TOTAL CREDITS</b>			<b>27</b>	

### PROGRAM OVERVIEW

The mission of the Hospitality Management programs is to be a leader in programs providing education for entry level careers in Hotel and Restaurant Management and Meeting and Event Planning Management. In addition, Preparation for transfer to four year, higher education programs and opportunities for professional development will be provided. Students will develop technological, communicative, critical thinking, quantitative, and interpersonal skills. This option prepares students in skills training and decision making in such crucial areas as guest services, human resources, and hotel and restaurant operations. A variety of teaching methods lead students to a better understanding of the importance of the hotel and restaurant industry as an economic growth vehicle and as a method of working with a culturally diverse workforce.

### CAREER OUTLOOK

Graduates of this option qualify for entry level managerial positions as well as for management training programs in hotels and restaurants. Students also qualify to transfer all credits to the Associate in Science Degree in Hotel and Restaurant Management.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Perform technical skills in basic cooking and kitchen operations, basic skills in front desk, reservations and housekeeping procedures.
- Perform administrative skills in basic business bookkeeping procedure, business cost controls, and planning and coordinating hotel and restaurant operations.
- Demonstrate conceptual skills necessary to understanding the needs of the hotel and restaurant industry.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Hospitality Department

## Hotel/Restaurant Management Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	PSY101 or SOC101 satisfies Area 2		3	ESL098 or RDG095 or placement
World View	From Area 3-see note*		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	BIO115 satisfies Area 5		4	ENG095 and MAT093 and ESL098 or RDG095 or placement
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Principles of Management and Service in Hospitality	HRT121		3	
Hospitality Seminar	HRT105 satisfies learning communities requirement		3	
Hospitality Marketing Management	HRT109		3	HRT121
Basics of Meeting Management	HRT119		3	
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Principles of Hospitality Finance and Accounting	HRT125		3	ACC101
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Front Office Operations w/ Technology Component	HRT131	Fall	3	
Advanced Lodging Operations	HRT231	Spring	3	HRT131
Food and Beverage Operations for Hospitality Professionals	HRT112		3	
Hospitality Law	HRT117		3	
Culinary Theory in Hospitality	HRT133		3	HRT121
Food Service Sanitation and Skills	CUL111		3	
Hospitality Internship	HRT210		3	HRT121
<b>TOTAL CREDITS</b>			<b>64</b>	

\*Note: GEO101 is recommended.

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Associate in Science

Hospitality Department

## Hotel/Restaurant Management Option

*Continued from previous page*

This program prepares students in three options: Hotel and Restaurant Management, Management of Assisted Living and Institutional Facilities and Meeting and Event Planning. The program prepares students in a variety of industry-oriented learning settings and a variety of teaching and learning environments that reflect the unique circumstances of the hospitality industry. Well-trained graduates are in great demand, with opportunities to advance, based upon their technical and critical thinking skills.

### OPTION OVERVIEW

The mission of the Hospitality Management programs is to be a leader in programs providing education for entry level careers in Hotel and Restaurant Management and Food Service Management. In addition, preparation for transfer to four-year, higher education programs and opportunities for professional development are provided. Students develop technological, communicative, critical thinking, quantitative, and interpersonal skills. This option prepares students in skills training and decision making in such crucial areas as guest services, human resources, and hotel and restaurant operations. A variety of teaching methods lead students to a better understanding of the importance of the tourism industry as an economic growth vehicle and as a method of working with a culturally diverse workforce.

### CAREER OUTLOOK

Graduates of this option qualify for many supervisory and managerial positions as well as for management training programs in nationally recognized hotels and restaurants. Students also qualify to transfer to four-year college or university programs in Hotel/Restaurant Management.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Perform technical skills in basic cooking and kitchen operations, basic skills in front desk, reservations and housekeeping procedures.
- Perform administrative skills in basic business bookkeeping procedure, business cost controls, and planning and coordinating hotel and restaurant operations.
- Demonstrate conceptual skills necessary to understanding the interrelationship of the component parts of the travel and tourism/hospitality industry.

Associate in Science

Hospitality Department

## Management of Assisted Living and Institutional Facilities Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	PSY101 or SOC101- satisfies Area 2		3	
World View	PSY141 satisfies Area 3	Spring	3	
Quantitative Thought	Area 4		3	MAT097 or placement
Science and Technology	BIO115 satisfies Area 5		4	ENG095 and MAT093 and ESL098 or RDG095 or placement
Humanities Elective	Area 6		3	
<b>CONCENTRATION COURSES</b>				
Principles of Management and Service in Hospitality	HRT121		3	
Hospitality Marketing Mgt.	HRT109		3	HRT121
Hospitality Law	HRT117		3	
Principles of Hospitality Finance and Accounting	HRT125		3	ACC101
Hospitality Seminar	HRT105 satisfies learning communities requirement		3	
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
Front Office Operations	HRT131	Fall	3	
Advanced Lodging Operations	HRT231	Spring	3	HRT131
Food and Beverage Operations for Hospitality Professionals	HRT112		3	
Marketing and Managing Institutional Facilities	HRT135	Spring	3	HRT109
Assisted Living Internship	HRT299	Summer	3	HRT121 and HLT111 and PSY141 and CUL111 and HRT135
Food Service Sanitation and Skills	CUL111		3	
Health Aspects of Aging	HLT111	Spring	3	
<b>TOTAL CREDITS</b>			<b>64</b>	

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Associate in Science

Hospitality Department

## Management of Assisted Living and Institutional Facilities Option

*Continued from previous page*

This program prepares students in three options: Hotel and Restaurant Management, Management of Assisted Living and Institutional Facilities and Meeting and Event Planning. The program prepares students in a variety of industry-oriented learning settings and a variety of teaching and learning environments that reflect the unique circumstances of the hospitality industry. Well-trained graduates are in great demand, with opportunities to advance, based upon their technical and critical thinking skills.

### OPTION OVERVIEW

This option prepares students in various aspects of the management of assisted living communities. Managing an assisted living complex requires skills in many areas. The director of a facility is comparable in scope to that of the general manager at a resort hotel. Your guests, however, are long term instead of transient. This creates a different focus in terms of both sales and service.

Day to day management of the facility and its programs has many similarities to Hospitality Management, the ability to maintain the highest level of service being imperative. The terms 'Guest' and 'Resident' become interchangeable within this segment of the industry. Management must provide hotel based services including dining room service, housekeeping and entertainment in order to meet guest needs. The medical and social requirements of residents demand a strong understanding of geriatric care in order to manage healthcare providers.

### CAREER OUTLOOK

According to the Assisted Living Federation of America there are 36,000 assisted living communities nationwide serving more than one million senior citizens. Forty-one states, including Massachusetts, allow low-income residents to live in assisted living. The 74 million boomers who are now considering this option for their parents will be the next generation of assisted living residents, making it the most preferred and fastest growing longterm care option for seniors. The career outlook is very good in the underserved, almost non-existent field of Assisted Living Management. The industry is experiencing rapid growth and there are very few programs preparing skilled managers able to meet the diverse needs of the market. These factors combine to provide a strong job market for graduates.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Recognize and respond to the needs of a geriatric resident population.
- Guide financial health of an Assisted Living facility.
- Properly staff all areas of operations.
- Understand the responsibilities in the areas of Sales and Marketing, Food Service, Health Services and Engineering.
- Manage staff in areas of Sales and Marketing, Food Service, Health Services and Engineering.
- Coordinate staffing responsibilities between departments to create a seamless resident experience.
- Respond to crises in an appropriate manner.

Certificate

Hospitality Department

## Meeting and Event Planning Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
Basics of Meeting Management	HRT119		3	
Principles of Management and Service in Hospitality	HRT121		3	
Corporate Travel Management	HRT229	Spring	3	
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Managing Groups	HRT122	Fall	3	HRT119
Event Planning	HRT223	Spring	3	HRT119
Culinary Theory in Hospitality	HRT133		3	
Principles of Accounting I	ACC101		3	ESL098 or RDG095 or placement
<b>TOTAL CREDITS</b>			<b>27</b>	

### PROGRAM OVERVIEW

The mission of the Hospitality Management programs is to be a leader in programs providing education for entry level careers in Hotel and Restaurant Management and Meeting and Event Planning Management. In addition, preparation for transfer to four year, higher education programs and opportunities for professional development will be provided. Students will develop technological, communicative, critical thinking, quantitative, and interpersonal skills. This option prepares students in skills training and decision making in such crucial areas as guest services, event planning, and meeting management. A variety of teaching methods lead students to a better understanding of the importance of the meeting and event planning industry as an economic growth vehicle and as a method of working with a culturally diverse workforce.

### CAREER OUTLOOK

Graduates of this option qualify for entry level managerial positions as well as for management training programs in hotels, restaurants, corporate offices, and conference centers. Students also qualify to transfer all credits to the Associate in Science Degree in Meeting and Event Planning Management.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Perform administrative skills in basic business bookkeeping procedure, business cost controls, and planning and coordinating hotel and restaurant operations.
- Demonstrate conceptual skills necessary to understanding the needs of the hotel, conference center, corporate office, and restaurant industry.
- Demonstrate the skills necessary to perform the various functions related to the needs of the meeting and event planning industry.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

## Meeting and Event Planning Option

PROGRAMS OF STUDY

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Science and Technology	BIO115 satisfies Area 5		4	ENG095 and MAT093 and ESL098 or RDG095 or placement
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Principles of Management and Service in Hospitality	HRT121		3	
Basics of Meeting Management	HRT119		3	
Hospitality Marketing Mgt.	HRT109		3	HRT121
Hospitality Seminar	HRT105 satisfies learning communities requirement		3	
Principles of Accounting I	ACC101		3	
Hospitality Internship	HRT210	Summer	3	HRT121
Principles of Hospitality Finance and Accounting	HRT125		3	ACC101
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Event Planning	HRT223	Spring	3	HRT119
Hospitality Law	HRT117		3	
Managing Groups	HRT122	Fall	3	HRT119
Culinary Theory in Hospitality	HRT133		3	
Corporate Travel Management	HRT229	Spring	3	
Career Elective	see note*		3	
<b>TOTAL CREDITS</b>			<b>64</b>	

\*Note: Select the career elective from HRT112 or HRT131 or CUL111

This program prepares students in three options: Hotel and Restaurant Management, Management of Assisted Living and Institutional Facilities and Meeting and Event Planning. The program prepares students in a variety of industry-oriented learning settings and a variety of teaching and learning environments that reflect the unique circumstances of the hospitality industry. Well-trained graduates are in great demand, with opportunities to advance, based upon their technical and critical thinking skills.

### OPTION OVERVIEW

The mission of the Hospitality Management programs is to be a leader in programs providing education for entry level careers in Hotel and Restaurant Management, Meeting and Event Planning Management and Assisted Living. In addition, preparation for transfer to four year, higher education

programs and opportunities for professional development will be provided. Students will develop technological, communicative, critical thinking, quantitative, and interpersonal skills. This option prepares students in skills training and decision making in such crucial areas as guest services, event planning, and meeting management. A variety of teaching methods lead students to a better understanding of the importance of the meeting and event planning industry as an economic growth vehicle and as a method of working with a culturally diverse workforce.

### CAREER OUTLOOK

Graduates of this option qualify for entry level managerial positions as well as for management training programs in hotels, restaurants, corporate offices, and conference centers. Students also qualify to transfer to four year college or university program.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Perform administrative skills in basic business bookkeeping procedure, business cost controls, and planning and coordinating hotel and restaurant operations.
- Demonstrate conceptual skills necessary to understanding the needs of the hotel, conference center, corporate office, and restaurant industry.
- Demonstrate the skills necessary to perform the various functions related to the needs of the meeting and event planning industry.
- Demonstrate skills acquired through course work relative to planning and executing all types of meetings and events in both the public and private sector.

Certificate

Hospitality Department

## Pastry Arts Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Food Service Sanitation and Skills	CUL111		3	
Introduction to Culinary Arts	CUL115	Fall	4	co-req CUL125
Principles of Baking	CUL125	Fall	4	co-req CUL115
Café and Bistro Cuisine	CUL135	Spring	4	CUL115 and CUL125; co-req CUL145
Advanced Desserts and Pastries	CUL145	Spring	4	CUL115 and CUL125; co-req CUL135
Menu Design and Purchasing	CUL 211		3	
Cake Decorating	CUL119		3	
Classical and International Pastries	CUL217	Spring	4	CUL145
<b>TOTAL CREDITS</b>			<b>29</b>	

### PROGRAM OVERVIEW

This program prepares students with the basic skills and knowledge required for entry-level positions in the baking and pastry industry. This two semester, 29 credit program is scheduled from September through May.

### CAREER OUTLOOK

Graduates of this program qualify for a variety of entry-level positions in retail bakeries, pastry shops and related pastry production facilities. Students also qualify to transfer most credits to the Associate in Science Degree in Culinary Arts.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate practiced an acquired technical skills in the usage of tools and equipment found in a typical bakery or commercial pastry production facility.
- Demonstrate the necessary administrative skills common to basic cost control and planning methods found in a typical commercial pastry shop.
- Demonstrate conceptual skills acquired through course work relative to operating a successful pastry shop or bakery facility.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Criminal Justice and Public Safety Department

## Criminal Justice Career Option

PROGRAMS OF STUDY

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG 095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	SOC101 satisfies Area 2		3	ESL098 or RDG095 or placement
World View	Area 3 satisfied by program			
Quantitative Thought	From Area 4 - see note*		3	
Science & Technology	From Area 5		4	ENG095, a grade of C or better in MAT093, RDG095 or placement
Humanities	From Area 6		3	ENG095, MAT093
<b>CONCENTRATION COURSES</b>				
Principles of Psychology	PSY101		3	ESL098 or RDG095 or placement
Criminology	SOC207		3	PSY101 or SOC101
Introduction to Criminal Justice	CRJ101		3	ENG095 and ESL098 or RDG095 or placement
Criminal Law	CRJ103		3	ENG095 and ESL098 or RDG095 or placement
Introduction to Corrections	CRJ107		3	ENG095 and ESL098 or RDG095 or placement
Criminal Procedure	CRJ211		3	ENG 111, CRJ 101, CR 103 or Instructor permission
Policing	CRJ220		3	ENG 111, CRJ 101, CR 103 or Instructor permission
Career Elective**			3	
Career Elective**			3	
Career Elective**			3	
Career Elective**			3	
Career Elective**			3	
Open Elective			3	
Career Elective	CRJ275		3	All CRJ Core Courses or Instructor Permission
<b>TOTAL CREDITS</b>			<b>61-62</b>	

Note\* Students are advised to take MAT 181 to satisfy Area 4.

Note\*\* Students interested in pursuing the Law Enforcement track are advised to take CRJ202 and CRJ208 as Career Electives. Students interested in pursuing the Corrections track are advised to take CRJ102 and CRJ203 as Career Electives.

### PROGRAM OVERVIEW

The mission of the Criminal Justice Program is to prepare students for employment in various criminal justice related areas and/or for pursuit of Baccalaureate Degrees in criminal justice or other related fields of study by educating them in the fundamental concepts, knowledge and practices of the field.

### CAREER OUTLOOK

Graduates that complete the Transfer Option can transfer to four-year colleges and universities to seek a bachelor's degree in criminal justice or a related field. Graduates who complete the Law Enforcement or Corrections Tracks qualify for entry level positions in law enforcement, corrections or security at local, state, regional and federal agencies.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

1. Demonstrate knowledge, defend and critique the structure of the criminal justice system.
2. Identify, demonstrate and evaluate knowledge of corrections, including its purpose and function.
3. Explain the history and critique major theories of why crime is committed with a focus on criminal behavior.
4. Identify and demonstrate knowledge of Courts including its purpose and function, be able to accurately discuss and relate criminal law and procedure and its constitutional basis.
5. Identify and demonstrate knowledge of policing including its purpose and

- function, describe and assess the general responsibilities of the criminal justice professional including the professional's responsibilities and governing ethics.
6. Articulate and critique the role of data and research in the development of criminal justice and policy.

Associate in Science

Criminal Justice and Public Safety Department

## Criminal Justice Transfer Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG 095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	SOC101 satisfies Area 2		3	ESL098 or RDG095 or placement
World View	Area 3 satisfied by program			
Quantitative Thought	From Area 4 - see note*		3	MAT097 or MAT098 or placement
Science & Technology	From Area 5		4	
Humanities	From Area 6		3	ENG095, MAT093
<b>CONCENTRATION COURSES</b>				
Principles of Psychology	PSY101		3	ESL098 or RDG095 or placement
Criminology	SOC207		3	PSY101 or SOC101
Introduction to Criminal Justice	CRJ101		3	ENG095 and ESL098 or RDG095 or placement
Criminal Law	CRJ103		3	ENG095 and ESL098 or RDG095 or placement
Introduction to Corrections	CRJ107		3	ENG095 and ESL098 or RDG095 or placement
Criminal Procedure	CRJ211		3	ENG 111, CRJ 101, CR 103 or Instructor permission
Policing	CRJ220		3	ENG 111, CRJ 101, CR 103 or Instructor permission
Lab Science Elective			3 or 4	
Humanities Elective			3	
Humanities Elective			3	
Behavioral Science Elective			3	
Career Elective			3	
Career Elective			3	
Career Elective	CRJ275		3	All required CRJ courses or Instructor Permission
<b>TOTAL CREDITS</b>			<b>62</b>	

\*Note: Students are advised to take MAT181 to satisfy Area 4.

### PROGRAM OVERVIEW

The mission of the Criminal Justice Program is to prepare students for employment in various criminal justice related areas and/or for pursuit of Baccalaureate Degrees in criminal justice or other related fields of study by educating them in the fundamental concepts, knowledge and practices of the field.

### CAREER OUTLOOK

Graduates that complete the Transfer Option can transfer to four-year colleges and universities to seek a bachelor's degree in criminal justice or a related field. Graduates who complete the Law Enforcement or Corrections Tracks qualify for entry level positions in law enforcement, corrections or security at local, state, regional and federal agencies.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

1. Demonstrate knowledge, defend and critique the structure of the criminal justice system.
2. Identify, demonstrate and evaluate knowledge of corrections, including its purpose and function.
3. Explain the history and critique major theories of why crime is committed with a focus on criminal behavior.
4. Identify and demonstrate knowledge of Courts including its purpose and function, be able to accurately discuss and relate criminal law and procedure and its constitutional basis.
5. Identify and demonstrate knowledge of policing including its purpose and

- function, describe and assess the general responsibilities of the criminal justice professional including the professional's responsibilities and governing ethics.
6. Articulate and critique the role of data and research in the development of criminal justice and policy.

Certificate

Criminal Justice and Public Safety Department

## Fire Protection and Safety Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
The Fire Service, This Century and the Next, What Should We Expect – Learning Community Seminar	FPS111		3	First-time college students
Principles of Fire and Emergency Services Safety & Survival	FPS119		3	ENG095 and ESL098 or RDG095 or placement
Principles of Emergency Services	FPS123		3	ENG095 and ESL098 or RDG095 or placement
Fire Protection Systems	FPS133		3	ENG095 and ESL098 or RDG095 or placement
Fire Behavior and Combustion	FPS135		3	ENG095 and ESL098 or RDG095 or placement
Fire Prevention	FPS139		3	ENG095 and ESL098 or RDG095 or placement
Building construction for Fire Protection	FPS223		3	FPS123
Career Electives	see note*		3	
<b>TOTAL CREDITS</b>			<b>27</b>	

\*Note: Choose one career elective if FPS 111 has been completed. If FPS 111 has been waived, choose two career electives from the following career electives: FPS121, FPS125, FPS127, FPS137, FPS221, FPS225 and FPS227.

### PROGRAM OVERVIEW

This program prepares students with practical and technical information and instruction. Students may include both potential fire fighters and in-service fire fighters wishing to upgrade their career status. A certificate in fire protection and safety may lead to higher scores on promotional examinations. This program is offered in the afternoon and evening.

### CAREER OUTLOOK

Graduates of this program qualify for careers in municipal, state and federal agencies, industry, and insurance companies. Graduates also qualify to transfer to the two-year Associate in Science Degree: Fire Protection and Safety. This program also prepares fire fighters who wish to upgrade their career status.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Understand the principles of fire protection and safety.
- Demonstrate preparedness to be a fire company officer.
- Understand the principles of arson investigation (see FPS209).
- Demonstrate familiarity with inspections for fire prevention.
- Demonstrate preparedness to take promotional civil service fire exams.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Criminal Justice and Public Safety Department

## Fire Protection and Safety Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Principles of Sociology	SOC101 satisfies Area 2		3	ESL098 or RDG095 or placement
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	MAT097 or placement
Principles of Inorganic Chemistry and Lab	CHM120 satisfies Area 5		4	ENG095 and ESL098 or RDG095 and MAT097 or placement
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Fire Company Officership	FPS107		3	ENG095 and ESL098 or RDG095 or placement
The Fire Service, This Century and the Next, What Should We Expect	FPS111 satisfies learning communities requirement		3	
Principles of Fire and Emergency Services Safety & Survival	FPS119		3	ENG095 and ESL098 or RDG095 or placement
Principles of Emergency Services	FPS123		3	ENG095 and RDG095 or placement
Fire Prevention	FPS139		3	ENG095 or and RDG095 or placement
Fire Protection Systems	FPS133		3	ENG095 and ESL098 or RDG095 or placement
Fire Behavior and Combustion	FPS135		3	ENG095 and ESL098 or RDG095 or placement
Building construction for Fire Protection	FPS223		3	FPS123
Oral Communication	ENG171		3	
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Behavioral Science Elective			3	
Career Elective	see note*		3	
Career Elective	see note*		3	
<b>TOTAL CREDITS</b>			<b>61</b>	

\*Note: Choose two career elective if FPS111 has been completed. If FPS111 has been waived, three career electives are required. Choose from the following career electives: FPS121, FPS125, FPS127, FPS137, FPS221, FPS225, and FPS227.

This program is offered in the late afternoon and evening.

### PROGRAM OVERVIEW

This program prepares students with practical and technical information and instruction. Students may include both potential fire fighters and in-service fire fighters wishing to upgrade their career status. An associate degree in fire protection and safety may lead to higher scores on promotional examinations.

### CAREER OUTLOOK

Graduates of this program qualify for careers in municipal, state and federal agencies, industry, and insurance companies. Graduates also qualify to transfer to four-year colleges or universities in fire protection and safety. This program also prepares fire fighters who wish to upgrade their career status.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Understand the principles of fire protection and safety.
- Demonstrate preparedness to be a fire company officer.
- Understand the principles of arson investigation.
- Demonstrate familiarity with inspections for fire prevention.
- Demonstrate preparedness to take promotional civil service fire exams.

Certificate

Criminal Justice and Public Safety Department

## Law Enforcement Certificate Program

PROGRAMS OF STUDY

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Introduction to Criminal Justice	CRJ101		3	ENG095 and RDG095, or ESL098
Criminal Law	CRJ103		3	ENG095 and RDG095, or ESL098
Evidence and Court Procedure	CRJ202		3	ENG111, CRJ101, CRJ103, and CRJ208 or Instructor permission
Policing in a Democratic Society	CRJ220		3	ENG111, CRJ101, CRJ103, or Instructor permission
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
Principles of Sociology	SOC101		3	ESL098 or RDG095 or placement
Principles of Psychology	PSY101		3	ESL098 or RDG095 or placement
Criminology	SOC207		3	PSY101 or SOC101
Oral Communication	ENG171		3	
<b>TOTAL CREDITS</b>			<b>27</b>	

### PROGRAM OVERVIEW

Developed in cooperation with the Massachusetts Chiefs of Police Association, the Law Enforcement Certificate Program has been approved by the Massachusetts Department of Higher Education for participation in the Police Career Incentive Program (PCIP-Quinn Bill). The certificate combines specialized criminal justice and general education coursework to provide students with the knowledge and skills they need to compete for entry into the Massachusetts law enforcement field. All of the credits earned in the certificate program can be applied to a Quinn Bill eligible Associate in Science degree in Criminal Justice.

### CAREER OUTLOOK

The certificate program has been ratified by the Massachusetts Chiefs of Police Association's Training and Education Committee as an important step in their goal to have a better-educated and more professional workforce. Although the certificate is not yet a requirement in the hiring and training procedures, it is anticipated that it will substitute for a significant part of the Massachusetts Training Council curriculum in the future. Since the Law Enforcement Certificate Program will only be offered at PCIP approved colleges, all courses qualify students for the pay incentives once they earn the A.S. degree in Criminal Justice.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate enhanced cultural awareness and interpersonal communication skills.
- Demonstrate specific content knowledge of criminal justice and criminal law.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Paralegal and Legal Studies Department

## Paralegal Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Introduction to Law	PLG101		3	ENG095 and ESL098 or RDG095 or placement
Legal Research/Writing	PLG102		3	PLG101
Litigation	PLG103		3	PLG101
Legal Ethics	PLG104		3	PLG101
Business Organizations	PLG202		3	PLG101
<b>OPEN ELECTIVES (CHOOSE 4)</b>				
Family Law	PLG201		3	PLG101
Real Estate	PLG203		3	ENG095 and ESL098 or RDG095 or placement
Criminal Law	CRJ103		3	ENG095 and ESL098 or RDG095 or placement
Willis, Estates, and Trusts	PLG204		3	ENG095 and ESL098 or RDG095 or placement
Practical Legal Writing	PLG105		3	PLG101 and PLG102 and ENG111
Paralegal Internship	PLG299		3	All required PLG courses and a 3.0 GPA
<b>TOTAL CREDITS</b>			<b>27</b>	

### PROGRAM OVERVIEW

This program introduces students to paralegal practice and procedures. Students develop paralegal skills and knowledge that enables them to assist lawyers in conducting research and in preparing legal documents. The program is intended for students with an associate or bachelor's degree.

### CAREER OUTLOOK

Paralegals typically find jobs with law firms, corporations, government offices, non-profit entities, banks, health care organizations, biotech companies and financial institutions. Areas of specialization include litigation, corporate law, criminal law, regulatory compliance, intellectual property, bankruptcy, labor law, immigration, family law, and real estate. The number of jobs in the paralegal field is expected to grow much faster than average through 2016, and the position of paralegal is consistently ranked among the best jobs in America. Boston is home to one of the top legal markets in the United States and BHCC's main campus is minutes away from many courthouses, law schools, law firms, and government offices.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Understand the legal process and the nature of law practice.
- Construct and evaluate logical arguments in support of specific positions.
- Conduct effective legal research and oversee legal projects.
- Understand, identify and resolve legal and ethical issues associated with the paralegal profession.

### UNAUTHORIZED PRACTICE OF LAW STATEMENT:

A Legal Studies graduate may work as a paralegal only under the supervision of an attorney and is not authorized to engage in the practice of law. The ABA (American Bar Association) defines a paralegal or legal assistant as "a person, qualified by education, training or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Paralegal and Legal Studies Department

## Paralegal Studies Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	ENG095 and MAT093
Quantitative Thought	From Area 4		3-4	MAT097 or placement
Science and Technology	From Area 5		4	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Introduction to Law	PLG101 satisfies learning communities requirement		3	ENG095 and ESL098 or RDG095 or placement
Legal Research and Writing	PLG102		3	PLG101
Litigation	PLG103		3	PLG101
Legal Ethics	PLG104		3	PLG101
Business Organizations	PLG202		3	PLG101
Applications/Concepts	CIT110-see note*		3	ESL098 or RDG095 or placement
Behavioral Science Elective			3	
Behavioral Science Elective			3	
Lab Science Elective			4	
Humanities Elective			3	
Humanities Elective			3	
<b>OPTION ELECTIVES (CHOOSE 3)</b>				
Criminal Law	CRJ103		3	ENG095 and ESL098 or RDG095 or placement
Practical Legal Writing	PLG105		3	PLG101 and PLG102 and ENG111
Family Law	PLG201		3	PLG101
Real Estate	PLG203		3	ENG095 and ESL098 or RDG095 or placement
Wills, Estates, and Trusts	PLG204		3	ENG095 and ESL098 or RDG095 or placement
Paralegal Internship	PLG299		3	All required PLG courses and a 3.0 GPA
<b>TOTAL CREDITS</b>			<b>65-66</b>	

\*Note: This course may be waived on the basis of previous coursework or experience. Please see the Dean of Professional Studies.

Continued on following page

Associate in Science

Paralegal and Legal Studies Department

## Paralegal Studies Program

*Continued from previous page*

### PROGRAM OVERVIEW

This program prepares students for legal employment by training them to assist lawyers in gathering and analyzing factual data, drafting correspondence, researching legal questions, and preparing legal documents. Paralegal employment provides flexibility (full-time, part-time, per diem, temporary or freelance) and the opportunity to enter the legal field without first obtaining a law degree. Graduates of the program may directly enter the work force or opt to continue their education and pursue a four year degree.

### CAREER OUTLOOK

Paralegals typically find jobs with law firms, corporations, government offices, non-profit entities, banks, health care organizations, biotech companies and financial institutions. Areas of specialization include litigation, corporate law, criminal law, regulatory compliance, intellectual property, bankruptcy, labor law, immigration, family law, and real estate. The number of jobs in the paralegal field is expected to grow much faster than average through 2016, and the position of paralegal is consistently ranked among the best jobs in America. Boston is home to one of the top legal markets in the United States and BHCC's main campus is minutes away from many courthouses, law schools, law firms, and government offices.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Understand the legal process and the nature of law practice.
- Construct and evaluate logical arguments in support of specific positions.
- Conduct effective legal research and oversee legal projects.
- Understand, identify and resolve legal and ethical issues associated with the paralegal profession.

### UNAUTHORIZED PRACTICE OF LAW STATEMENT:

A Legal Studies graduate may work as a paralegal only under the supervision of an attorney and is not authorized to engage in the practice of law. The ABA (American Bar Association) defines a paralegal or legal assistant as "a person, qualified by education, training or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible.

Associate in Arts

Visual and Media Arts Department

## Fine Arts Concentration

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual/Society	From Area 2		3	
World View	Area 3 satisfied by program			
Quantitative Thought	From Area 4		3	MAT097 or placement
Scientific View of the World	From Area 5		4	
Humanities	Area 6 satisfied by program			
<b>CONCENTRATION COURSES</b>				
VMA Freshman Seminar	VMA100 satisfies learning communities requirement		3	ENG095 and MAT093 or placement
Visual Design: Composition and Color	VMA102		3	ENG095 and MAT093 or placement
Drawing I	VMA104		3	ENG095 or placement
Figure Drawing	VMA207		3	VMA104
Introduction to Mass Media	VMA111		3	ENG095 and MAT093 or placement
Art History Prehistoric to Medieval or Art History Renaissance to Contemporary	VMA112 or VMA113		3	ENG095 and MAT093 or placement
Visual Design: Form and Time	VMA103		3	ENG095 and MAT093 or placement
Painting I for Fine Arts	VMA221		3	VMA104
Painting II for Fine Arts	VMA225		3	VMA221
Career Elective	see note*		3	
Behavioral Science Elective			3	
Social Science Elective			3	
Lab Science Elective			4	
Literature Elective			3	pre/co-req ENG111
Literature Elective			3	pre/co-req ENG111
Mathematics Elective			3	MAT097 or placement
<b>TOTAL CREDITS</b>			<b>65</b>	

\*Note: Select the career elective from VMA courses.

### CONCENTRATION OVERVIEW

This concentration prepares students to transfer to four-year colleges or universities offering fine arts degrees. Graduates of this concentration may qualify to transfer using benefits of MassTransfer to a four-year state college or University of Massachusetts campus. For current information on eligible programs, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer).

### CAREER OUTLOOK

Graduates of this concentration qualify to transfer to bachelor's degree-granting colleges or universities. Potential careers in the visual arts, which vary according to the chosen major, include teaching, museum work, illustration, medical and scientific illustration, advertising and printing, photography, and merchandise display. A bachelor's degree is the minimum requirement for entry into these fields. Graduate work may be necessary, as well.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Develop a portfolio in preparation for transfer to a four-year college or university.
- Demonstrate proficiency in the techniques of drawing and painting.
- Demonstrate a basic understanding of color theory.

*Students enrolling in this degree program can earn World Studies Emphasis Certification simultaneously.*

Associate in Science

Visual and Media Arts Department

## Fine Arts Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College writing I	ENG 111		3	ENG095 and ESL098 or RDG095 or placement.
College Writing II	ENG 112		3	ENG 111
Individual / Society	From Area 2		3	
World View	Area 3 satisfied by program			
Quantitative Thought	From Area 4		3	
Scientific View of the World	From Area 5		4	
Humanities	Area 6 satisfied by program			
<b>CONCENTRATION COURSES</b>				
VMA Freshman Seminar	VMA100 satisfies learning communities requirement		3	ENG095 and MAT093 or placement
Visual Design: Composition and Color	VMA102		3	ENG095 and MAT093 or placement
Drawing I	VMA 104		3	ENG095 or placement
Figure Drawing	VMA 207		3	VMA 104
Introduction to Mass Media	VMA 111		3	ENG095 and MAT093 or placement
Arts History Prehistoric to Medieval	VMA 112		3	ENG095 and MAT093 or placement
Arts History Renaissance to Contemporary	VMA 113		3	ENG095 and MAT093 or placement
Visual Design: Form and Time	VMA103		3	ENG095 and MAT093 or placement
Painting I for Fine Arts	VMA 221		3	VMA 104
Painting II for Fine Arts	VMA 225		3	VMA 221
Observational Drawing	VMA 226		3	VMA 207
Digital Photography Techniques	VMA 261		3	VMA 102
Ideas in Art: Fine Arts Studio	VMA 227		3	VMA207 or VMA225
Multilevel Studio	VMA 228		3	VMA 227
Career Elective			3	
Career Elective			3	
<b>TOTAL CREDITS</b>			<b>64</b>	

### PROGRAM DESCRIPTION

This program prepares students for transfer into a four-year studio intensive program in Fine Arts. A fine arts education provides students with a highly versatile skill set that can be translated into successful careers within and outside of the arts. Gaining technical mastery over the foundational basic elements of art and principles of design provides them the flexibility to produce compelling artwork in any medium; skills with obvious, translatable commercial value.

### CAREER OUTLOOK

Career tracks include: Fine Arts, Commercial Arts, Graphic Design, Photography, Sculpture/3-D Designer, Illustration, Animation, Filmmaker, Videography, Architecture/Interior Architecture, Fashion Designer, Art Therapy, Art Education, Art Criticism and Theory, Art Historian, Art Critic, Curator, Gallerist/Art Dealer, Video Game Designer, Audio/Visual Artist, Audio Technician, Web Designer, Display Designer, Product Designer and the list can go on. Students of all these tracks receive the same foundational curriculum within a typical Four-Year Art College.

### PROGRAM OBJECTIVES

Building foundational skills such as: observational drawing, principles of design, color theory, concept development. production of a portfolio for acceptance/advanced placement into a four-year studio intensive B.F.A program

Associate in Science

Visual and Media Arts Department

## Visual Design Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	VMA111 satisfies Area 3		3	ENG095 and MAT093 or placement
Quantitative Thought	From Area 4		3	MAT097 or placement
Scientific View of the World	From Area 5		4	
Humanities	VMA104 satisfies Area 6		3	ENG095 or placement
<b>CONCENTRATION COURSES</b>				
VMA Freshman Seminar	VMA100 satisfies learning communities requirement		3	ENG095 and MAT093 or placement
Visual Design:Composition and Color	VMA102		3	ENG095 and MAT093 or placement
Digital Image-Making for Artists and Designers	VMA106 see note*		3	VMA 102
History of Graphic Design	VMA114 see note*		3	ENG095 and MAT093 or placement
Typography I	VMA132		3	ENG095 and MAT093 or placement
Visual Design with HTML and CSS	VMA129		3	VMA132
Typography II	VMA133 see note*		3	VMA114 and VMA132
Illustration for Designers	VMA135 see note*		3	VMA102 and VMA104
Visual Design Lab I	VMA232		3	VMA133 and VMA135
Visual Design Lab II	VMA233 see note*		3	VMA232
Interactive Design I	VMA275 see note*		3	VMA129
Visual Design Portfolio	VMA 290 see note*		3	pre/co-req VMA233
Career Elective	See note**		3	
Career Elective	See note**		3	
<b>TOTAL CREDITS</b>			<b>64</b>	

\*Note: All VMA courses that are pre- or co-requisites of other VMA courses require a grade of C or higher.

\*\*Note: Career Electives: VMA103, VMA207, VMA261, VMA276 or VMA299.

### OPTION OVERVIEW

The Associate in Science Degree in Visual Design is intended to prepare students for transfer to 4-year design schools and for entry into the field of visual design. This program is comparable to the first two years of a typical four-year design program. It provides students with rigorous foundation and design courses, and pragmatic experience. Working through the program, students will produce a portfolio of design work that demonstrates their preparedness in industry-standard technical and visual-thinking skills essential for transfer into undergraduate design programs, and entry-level jobs.

### CAREER OUTLOOK

Graduates of this program will produce a portfolio of design work demonstrating foundation and entry-level skills and

knowledge needed for careers in fields such as: advertising, print and digital book design, editorial design, environmental design, experience design, identity design, illustration, information design, in-house design, interaction design, motion graphics, packaging, print design, product design, typography, UX design, and web design.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Approach visual design as a responsive process of problem identification, ideation, and creation.
- Apply design skills in typography, color, image, form, and materials to print and digital media projects.
- Produce portfolio content that is suitable for applying to four-year design programs,

internships, and design-related employment.

- Demonstrate proficiency in software applications for drawing, image editing, and layout.
- Use industry standard procedures to produce files and materials for print and digital production.
- Plan and execute projects to meet deadlines and design objectives.
- Practice effective communication and presentation skills necessary to engage in professional visual design practice.
- Engage in creative and analytical discourse about design in order to communicate concepts to colleagues and clients.
- Cultivate habits of life-long learning and creativity.

Certificate

Allied Health Department

## Medical Assistant Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Principles of Clinical Practice	AHE110		3	
Medical Assistant Skills	AHE112		3	co-req AHE110
Advanced Clinical Skills	AHE201*		3	AHE111 or AHE112
Practicum/Medical Assistant	AHE205		3	AHE112; co-req AHE201
Practicum Seminar Allied Health	AHE209		1	co-req AHE205
Applications/Concepts or Medical Computer Applications	CIT110 or OIM102		3	Prerequisite for CIT110: ESL098 or RDG095 or placement; prerequisite for OIM102: Chair approval
Procedures for the Medical Office	OIM170		3	OIM102 or Chair approval
Medical Terminology	NHP180		3	
Understanding Human Behavior for Health Care Professionals or Human Growth and Development	AHE104 or PSY213		3	PSY101
<b>TOTAL CREDITS</b>			<b>25</b>	

\* Prerequisite for AHE201 is AHE112 for students in the Medical Assistant Certificate Program.

This program is offered on the Chelsea Campus each Fall and Spring semester. Applicants to this program are required to undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. Admission to an Allied Health program does not guarantee clinical placement. The outcome of the CORI/SORI check may impact the student's ability to participate in the clinical experience. For further information, see the Department Chair. Students must maintain a grade of B- or better in AHE110 and AHE112 in order to continue into the second semester.

### ADMISSION REQUIREMENTS:

To be admitted to this program, students must apply to the program through Admissions and Enrollment Services and:

- Possess a high school diploma or GED certification.
- Attend an information session.
- Provide evidence of health insurance, complete a health form and submit proof immunization.
- Place out of or complete ENG095 and RDG095 with a grade of C or better.

### PROGRAM OVERVIEW

This program prepares students to function as members of a health care delivery team and to perform administrative and clinical duties. The program prepares students in Healthcare Provider CPR, EKG, and phlebotomy.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Medical Assistant Certificate Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178 B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this program qualify for employment in hospitals, clinics, health maintenance organizations, and physicians' offices as multi-skilled workers, medical assistants, medical aides, clinical assistants, and clinical practice assistants.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Assist with the examination and treatment of patients in clinical areas, phlebotomy, and EKG.
- Perform computer and medical office tasks.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Allied Health Department

## Medical Interpreting Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Medical Interpreting I	AHE101-see note*	Fall	3	ENG095 and ESL099 or RDG095 or placement
Vital Signs: Understanding Human Behavior for the Health Care Professional	AHE104	Fall	3	
Medical Terminology	NHP180	Fall	3	
Computer Course	CIT 101 or CIT 110	Fall	3	
Medical Interpreting II	AHE102	Spring	2	AHE101
Medical Interpreting Internship	AHE299	Spring	1	co-req AHE102
Communication Skills for Health Care	AHE117	Spring	3	
<b>TOTAL CREDITS</b>			<b>18</b>	

A grade of B- or better in the Medical Interpreting I course is required for progression in the program.

This program is offered on the Chelsea Campus as a part-time evening program each fall semester.

Applicants to this program are required to undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. The outcome of the CORI/SORI check may impact the student's ability to participate in the clinical experience.

### ADMISSION REQUIREMENTS:

Students must apply to the program through Admissions and Enrollment Services and:

- Possess a High School Diploma or GED Certification.
- Be invited to a language assessment.
- Attend an information session.
- Place out of, or complete, ENG 095 and RDG 095.
- Be literate in their native language.
- Be fluent in English.
- Provide evidence of health insurance and complete a health form.

### PROGRAM OVERVIEW

This program prepares students, through lectures and hospital-based clinical experience, to be medical interpreters in a variety of health care settings.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Medical Interpreting Certificate Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178 B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P. For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this program qualify for employment in hospitals, clinics, chronic care facilities, and health maintenance organizations as medical interpreters.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Take the certification examination offered by the National Board of Certification for Medical Interpreters.
- Assist the health care team by serving as a certified medical interpreter between the patient or the patient's family and the health care provider.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Allied Health Department

## Patient Care Technician Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Principles of Clinical Practice	AHE110		3	
Patient Care Skills	AHE111		3	co-reqs AHE106 and AHE110
CNA Practicum	AHE106		1	co-reqs AHE110 and AHE111
Understanding Human Behavior for Health Care Professionals or Human Growth and Development	AHE104 or PSY213		3	PSY101
Advanced Clinical Skills	AHE201*		3	AHE111 or AHE112
Practicum/Patient Care Technician	AHE204		3	AHE111; co-req AHE201
Practicum Seminar/Allied Health	AHE209		1	co-req AHE204
Applications/Concepts or Medical Computer Applications	CIT110 or OIM102		3	Prerequisite for CIT110: ESL098 or RDG095 or placement; prerequisite for OIM102: Chair approval
Medical Terminology	NHP180		3	
Elective			3	
<b>TOTAL CREDITS</b>			<b>26</b>	

\*Prerequisite for AHE201 is AHE111 for students enrolled in the Patient Care Technician Program.

This program is offered on the Chelsea Campus each fall and spring semester. Applicants to this program are required to undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. The outcome of the CORI/SORI check may impact the student's ability to participate in the clinical experience. Admission to an Allied Health program does not guarantee clinical placement. For further information, see the Department Chair. Students must maintain a grade of B- or better in AHE110 and AHE111 in order to continue into the second semester.

### ADMISSION REQUIREMENTS:

To be admitted to this program, students must apply to the program through Admissions and Enrollment Services and:

- Possess a high school diploma or GED certification.
- Attend an information session.
- Complete college placement tests in reading and English.
- Provide evidence of health insurance, complete a health form and submit proof of immunization.
- Place out of or complete ENG095 and RDG095 with a grade of C or better.

### PROGRAM OVERVIEW

This program prepares students to deliver direct patient care through classroom teaching, lab practice, and actual clinical experience in hospitals and long-term care facilities. The program prepares students for a variety of positions in the health care field.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Patient Care Technician Certificate Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178 B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this program qualify for employment in hospitals, clinics, chronic care facilities, and the home environment as multi-skilled workers, patient care technicians, patient care associates, medical aides, certified nursing assistants, and home health aides. The program prepares students in Healthcare Provider CPR Certifications. Graduates are eligible to sit for certification exams for State Nurse Aide and Home Health Aide.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Perform direct patient care competently.
- Perform basic computer skills.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

## Paramedic

The Paramedic is a health care professional who cares for those injured or suddenly taken ill in the pre-hospital setting. BHCC's Paramedic Studies Program is a sixteen month program that includes classroom, in hospital clinical rotations and a field internship. The program prepares the student to be eligible to sit for the National Registry of Emergency Medical Technician Paramedic Certification examinations.

### Paramedic Studies Program

Located at the Bunker Hill Community College Campus, the 16 month Paramedic Studies Program provides instruction in advanced emergency medical skills.

The program, which follows the National Standard EMT-Paramedic Curriculum, meets and/or exceeds the requirements set forth by the Commonwealth of Massachusetts Office of Emergency Medical Services. BHCC's experienced instructors utilize state-of-the-art equipment, including a self-contained ambulance simulator and manikins. BHCC is committed to preparing graduates with the knowledge, skills and professional attributes associated with entry-level paramedic positions. The program has been approved by the Massachusetts Office of Emergency Medical Services (OEMS), and the Committee on the Accreditation of Educational Programs for the Emergency Medical Services (CoAEMSP), under a Letter of Review # 600796, a subsidiary of the Commission on Accreditation of Allied Health Education Programs (CAAHEP), a non-profit, non-governmental agency, who reviews and accredits over 2000 educational programs in nineteen (19) health science occupations. CAAHEP issues accreditation to Paramedic education programs, based on the review and upon its recommendation from the CoAEMSP.

### Admission

The Paramedic Certificate and Associate Degree in Paramedic Studies is a selective admissions program.

Please contact Nicholas J. Cardellicchio, Program Director, Department of Emergency Medical Studies, Chelsea Campus, Room 313, Chelsea, MA 02150, (617)-936-1973, njcardel@bhcc.mass.edu regarding application

and entrance requirements. All potential candidates for admission to the program must apply through the college. The Paramedic Studies Certificate program is sixteen months and awards forty-six credits. An Associate Degree in Paramedic Studies is available upon completion of an additional five courses.

Candidates for the Paramedic program must have achieved their EMT certification prior to application, maintain EMT certification throughout the program, submit all required health records/utilizations prior to the start of the program, attend an information session and submit to a CORI/SORI check.

### Program Notes

Minimum Grades: A grade of B- (80%) or higher must be earned and maintained for the term of the program.

Pre/co-requisites: College Writing; ENG 111 & Human Biology/Lab, BIO 108.

### Scope Of Practice

The Paramedic is a highly trained individual who provides both in hospital and out of hospital: Patient assessment, Advanced Airway Management, Vascular access, EKG Interpretation and Treatment, Emergency Pharmacology, and Management of Medical and Trauma Emergencies.

### Tuition & Fees

Tuition cost is \$9,062 for the Certificate and \$12,017 for the Associate Degree. Students are responsible for the purchase of texts, equipment, uniforms, certification and exam fees.

### GI Bill

Bunker Hill Community College is an approved institution for veterans' education benefits. For specific information on how the GI Bill works, and to apply for benefits please visit the United States Department of Veterans Affairs GI Bill Site at <http://gibill.va.gov/>.

## Paramedic

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### Program Goals & Objectives

- Provide individuals with a career preparation associated with Entry-Level and Advanced Practitioner Paramedic care competencies with consideration of the needs and expectations of the program's communities of interest.
- Provide a curriculum that leads to eligibility for the national credentialing process, entry into the Massachusetts licensure process, and employment in paramedicine
- Promote the development of those intellectual skills that foster critical thinking and problem solving that are necessary for life-long learning
- Provide the development of life-long professional attitudes and values
- Understand and manage self, to function effectively in social and professional environments and to make reasonable judgments on understanding the diversity of the world community
- Locate, understand, evaluate, synthesize, information and data in a technological and data driven society.

The Paramedic Studies Certificate program is sixteen months and awards forty-six credits and sixty one credits for an Associate Degree in Paramedic Studies.

### Nationwide Employment Opportunities

National Registry certification allows an individual reciprocity in most of the United States.

### Career Opportunities

The United States Bureau of Labor Statistics reports that the number of jobs in 2012 was 239,100. The job growth from 2012-2022 is projected to grow by 23% (faster than the national average of 11%) Projected Employment Change of new Paramedics from 2012-2022 is expected to be 55,300.

### Job Opportunities

Municipalities, Fire Departments, private ambulance companies, hospitals & clinics.

### Salary Outlook

According to the Journal of Emergency Medical Services (JEMS), the national average salary is \$41,085 per year (2014).

### Related Job Titles

EMT-Paramedic, Paramedic.

### National Registry of Emergency Medical Technicians

Year	Number of Students	Percentage Passed
2013	No Students Eligible	N/A
2014	No Students Eligible	N/A
2015	As of January 2016	
	First Attempt Written      7	85%
	First Attempt Practical      7	100%

Certificate

Emergency Studies Department

## Paramedic Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>PREREQUISITE COURSES</b>				
Human Biology/Lab	BIO108		4	ENG095 and MAT093 and ESL098 or RDG095 or placement
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
<b>PROGRAM CURRICULUM</b>				
Principles of Paramedicine I	EMS205	Fall	10	
Paramedic Clinical Rotation I	EMS214	Fall	3	
Principles of Paramedicine II	EMS206	Spring	10	EMS205
Paramedic Clinical Rotation II	EMS215	Spring	3	EMS214
Principles of Paramedicine III	EMS207	Summer I	4	EMS206
Paramedic Clinical Rotation III	EMS216	Summer I	1	EMS215
Principles of Paramedicine IV	EMS208	Summer II	4	EMS207
Paramedic Clinical Rotation IV	EMS217	Summer II	1	EMS216
Paramedic Field Internship	EMS218	Fall	3	EMS208 AND EMS217
<b>TOTAL CREDITS</b>			<b>46</b>	

### PROGRAM OVERVIEW

This fifteen-month program prepares the student through lectures, laboratory activities, hospital-based hands on clinical experience and a field internship to evaluate, treat and care for patients experiencing medical emergencies or trauma. Paramedic students work under the direction of a nurse, nurse practitioner, physician, physician assistant and/or experienced Paramedics in a variety of healthcare settings such as acute care hospitals and on Advanced Life Support Paramedic Ambulances. The program begins in the fall semester with the didactic and clinical educational components correlated to provide reinforcement in the clinical setting of skills learned in the classroom.

All paramedic students are required to undergo a physical examination; complete the necessary immunization forms, including but not limited to the three (3) dose Hepatitis B. immunization series, proof of immunity against measles, tetanus, mumps, rubella and chicken pox; current proof of freedom from tuberculosis, and any other immunization(s) that clinical or field sites require. Students will undergo and pass a drug screening analysis in order to be able for placement in a clinical facility or field internship as well as be required to undergo and pass random drug screening analysis as required by a clinical facility or field internship ambulance service.

### ADMISSION REQUIREMENTS:

Students must apply to the program through Admissions and Enrollment Services

- Attend a mandatory information session with the Program Director
- Possess a high school diploma or GED certificate
- Possess a valid Driver's license
- Possess a current American Heart Association, Basic Life Support Health Care Provider Card
- Complete a minimum of one (1) year experience as an Emergency Medical Technician
- CORI & SORI Report
- Prerequisites: Human Biology/Lab (BIO108) & College Writing I (ENG111)

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a pre-requisite for a clinical and field placement in the Emergency Medical Technician Paramedic Studies Certificate Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical or field experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical or field placement. The College is authorized by the Commonwealth's Department of Criminal Justice Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI Records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

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Certificate

Emergency Studies Department

## Paramedic Certificate Program

*Continued from previous page*

### CAREER OUTLOOK

The U.S. Bureau of Labor Statistics predicts that employment of emergency medical technicians (EMTs) and paramedics will grow nine percent between 2008 and 2018, which is about as fast as the average percentage for all occupations ([www.BLS.gov](http://www.BLS.gov)). As our population ages and individuals face increased medical concerns, the likelihood of medical emergencies will increase; thus increasing the need for EMTs and paramedics. In addition emergency rooms are frequently overcrowded, which increases the amount of time that the EMTs and paramedics must spend with each patient. This is also likely to increase the number of potential positions. Job prospects are expected to be good since paid employees are needed to replace volunteers who have a high turnover rate.

### UPON COMPLETION OF THIS PROGRAM, GRADUATES WILL BE ABLE TO:

- After successful completion of the program, the student will receive a Certificate of Completion enabling him or her to apply for and take the National Registry of Emergency Medical Technicians (NREMT) Paramedic written and practical examinations.
- Participants who successfully pass the NREMT certification examination may go onto practice with fire departments, private ambulance services, third service ambulance services, hospital emergency departments, and various clinical settings where advanced emergency care is required.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Emergency Studies Department

## Paramedic Studies Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>PREREQUISITE COURSES</b>				
Human Biology/Lab	BIO108		4	
College Writing I	ENG111		3	ENG095 or placement
<b>GENERAL EDUCATION REQUIREMENTS</b>				
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	From Area 4		3	
Science and Technology	Area 5 satisfied by program		3	
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Principles of Paramedicine I	EMS205	Fall	10	
Paramedic Clinical Rotation I	EMS214	Spring	3	
Principles of Paramedicine II	EMS206	Spring	10	EMS205
Paramedic Clinical Rotation II	EMS215	Spring	3	EMS214
Principles of Paramedicine III	EMS207	Summer I	4	EMS206
Paramedic Clinical Rotation III	EMS216	Summer I	1	EMS215
Principles of Paramedicine IV	EMS208	Summer II	4	EMS207
Paramedic Clinical Rotation IV	EMS217	Summer II	1	EMS216
Paramedic Field Internship	EMS218	Fall	3	EMS208 AND EMS217
<b>TOTAL CREDITS</b>			<b>61</b>	

### PROGRAM OVERVIEW

This program prepares the student through lectures, laboratory activities, hospital based hands-on clinical experience and a field internship to evaluate, treat and care for patients experiencing medical emergencies or trauma. Paramedic students work under the direction of a nurse, nurse practitioner, physician, physician assistant and/or experienced Paramedics in a variety of health care settings such as acute care hospitals and on Advanced Life Support Paramedic Ambulances. The program begins in the fall semester with the didactic and clinical educational components correlated to provide reinforcement in the clinical setting of skills learned in the classroom.

All paramedic students are required to: undergo a physical examination; complete the necessary immunization forms, including, but not limited to the three (3) dose Hepatitis B immunization series, proof of immunity against measles, tetanus, mumps, rubella and chicken pox; current proof of freedom from tuberculosis, and any other immunization(s) that clinical or field sites require. Students will undergo and pass a drug screening analysis in order to be eligible for placement in a clinical facility or field internship as well as be required to undergo and pass random drug screening analysis as required by a clinical facility or field internship ambulance service.

### ADMISSION REQUIREMENTS:

Students must apply to the program through Admissions and Enrollment Services

- Attend a mandatory information session with the Program Director
- Possess a high school diploma or GED certificate
- Possess a valid Driver's license
- Possess a current American Heart Association, Basic Life Support Health Care Provider Card
- Complete a minimum of one (1) year experience as an Emergency Medical Technician
- CORI & SORI Report
- Prerequisites: Human Biology/Lab (BIO-108) & College Writing (ENG-111)

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Associate in Science

Emergency Studies Department

## Paramedic Studies Program

*Continued from previous page*

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a pre-requisite for a clinical and field placement in the Emergency Medical Technician Paramedic Studies Certificate Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical or field experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical or field placement. The College is authorized by the Commonwealth's Department of Criminal Justice Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI Records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P. For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

The U.S. Bureau of Labor Statistics predicts that employment of emergency medical technicians (EMTs) and paramedics will grow nine percent between 2008 and 2018, which is about as fast as the average percentage for all occupations ([www.BLS.gov](http://www.BLS.gov)). As our population ages and individuals face increased medical concerns, the likelihood of medical emergencies will increase; thus increasing the need for EMTs and paramedics. In addition emergency rooms are frequently overcrowded, which increases the amount of time that the EMTs and paramedics must spend with each patient. This is also likely to increase the number of potential positions. Job prospects are expected to be good since paid employees are needed to replace volunteers who have a high turnover rate.

### UPON COMPLETION OF THIS PROGRAM, GRADUATES WILL BE ABLE TO:

- After successful completion of the program, the student will receive a Certificate of Completion enabling him or her to apply for and take the National Registry of Emergency Medical Technicians (NREMT) Paramedic written and practical examinations.
- Participants who successfully pass the NREMT certification examination may go onto practice with fire departments, private ambulance services, third service ambulance services, hospital emergency departments, and various clinical settings where advanced emergency care is required.

Associate in Science

Biology and Chemistry Department

## Biology Transfer Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual/Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	MAT281 satisfies Area 4		4	MAT197 or placement
Science and Technology	Area 5 satisfied by program			
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
General Biology I/Lab	BIO195		4	ENG095 and ESL098 or RDG095 and MAT194 or placement
General Biology II/Lab	BIO196		4	BIO195
Cell Biology/Lab	BIO207		4	BIO120 and BIO195 or BIO195 and BIO196 or Chair approval
Genetics and Lab	BIO208		4	BIO196 or Chair approval
General Chemistry I/Lab	CHM201		4	C+ in MAT197 or MAT281 as co-req and ENG111; see note*
General Chemistry II/Lab	CHM202		4	CHM201
General Physics I/Lab or College Physics I/lab	PHY201 or PHY251		4	Prerequisite for PHY201: MAT197, prerequisite for PHY251: MAT281
General Physics II/Lab or College Physics II/Lab	PHY202 or PHY252		4	Prerequisite for PHY202: PHY201, prerequisites for PHY252: PHY251 and pre/co-req MAT282; see note*
<b>OPTION ELECTIVES (CHOOSE 3)</b>				
Organic Chemistry/Lab I	CHM251		4	CHM202 and ENG112
Organic Chemistry/Lab II	CHM252		4	CHM251
Statistics I	MAT181		3	MAT097
Calculus II	MAT282		4	MAT281
Introduction to Biotechnology	BIO120		4	ENG095 and MAT099 and ESL098 or RDG095 or placement
Environmental Microbiology/Lab	BIO211		4	BIO195
Population Ecology/Lab	BIO210		4	BIO196 or chair approval
Advanced Laboratory Techniques in Biotechnology	BIO261**		3	BIO120 and BIO195 and BIO196 or Chair approval
Principles of Molecular Biotechnology	BIO262**		3	BIO207 and BIO208 or Chair approval
Honors Seminar	HON200		3	
Interpretation and Presentation of Scientific Research	SCI221		3	Complete Two: BIO195 or above, CHM201 or above, PHY201 or above, and/or ENR101 or above or Chair approval
<b>TOTAL CREDITS</b>			<b>60-63</b>	

\*Note: MAT197 requires a grade of C+ or better.

\*\*Note: It is anticipated that both BIO261 and BIO262 must be taken for transfer.

Continued on following page

Associate in Science

Biology and Chemistry Department

## Biology Transfer Option

*Continued from previous page*

This program offers two degree options: Biology Transfer and Biotechnology. Each option prepares students for employment and for transfer to four-year colleges and universities. Each option engages students in industry-level, inquiry based laboratory activities in order to develop and strengthen their critical thinking as well as their industry skills.

### OPTION OVERVIEW

This option provides students with the technical coursework and laboratory experience that enables them to succeed in undergraduate biology programs. Upon graduation from BHCC, students are able to pursue further study at four-year colleges and universities in any number of areas including physiology, ecology, cell biology, biotechnology, genetics, botany, zoology, microbiology, biochemistry, wildlife conservation, or any of the health sciences. BHCC has articulation agreements with UMass Boston, UMass Amherst and UMass Lowell, enabling Biology Transfer graduates to enroll in any one of these universities as juniors, without losing credits.

### CAREER OUTLOOK

This option will allow students to transfer to four-year colleges and universities to seek a bachelor's degree in biology. Students planning to transfer into a pre-medical, pre-veterinary, pre-dental, pharmacy or chiropractic degree program should enroll in this program.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Use currently accepted biological, chemical, and physical concepts to investigate problems and ideas presented in advanced biological study.
- Use biological concepts to evaluate their own science related concerns such as personal health or careers.
- Use laboratory technology, equipment and techniques to investigate scientific problems critically and safely using proper scientific methods.
- Use molecular and cellular laboratory techniques that are commonly used in Biotechnology.
- Explain the major concepts of cell structure, function and cellular processes that are key to life.

Associate in Science

Biology and Chemistry Department

## Biotechnology Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual/Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	MAT197 satisfies Area 4		4	MAT194
Science and Technology	Area 5 satisfied by program			ENG095 and ESL098 or RDG095 and MAT194 or placement; see note*
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
General Biology I/Lab	BIO195		4	ENG095 and RDG095 and MAT194 or placement; see note*
General Biology II/Lab	BIO196		4	BIO195; see note*
Introduction to Biotechnology/Lab	BIO120		4	ENG095 and MAT099 and ESL098 or RDG095 or placement; see note*
General Chemistry I/Lab	CHM201		4	MAT197 and ENG111; see note*
General Chemistry II/Lab	CHM202		4	CHM201; see note*
Cell Biology/Lab	BIO207		4	BIO120 and BIO195 or BIO195 and BIO196 or Chair approval; see note*
Genetics and Lab	BIO208		4	BIO196 or Department approval; see note*
Advanced Laboratory Techniques in Biotechnology	BIO261		3	BIO120 and BIO195 and BIO196 or Chair approval; see note*
Principles of Molecular Biotechnology	BIO262		3	BIO207 and BIO208 and BIO261; see note*
Biotechnology Laboratory Simulations	BIO270		4	BIO207, BIO208, BIO261 AND BIO262 or Chair approval; see note*
<b>OPTION ELECTIVES (CHOOSE 1)</b>				
Microbiology/Lab	BIO205		4	BIO195 or BIO203; see note*
Principles of Organic Biochemistry/Lab	CHM121		4	CHM120; see note*
Statistics I	MAT181		3	MAT097 or MAT098 or placement
Calculus I	MAT281		4	MAT197
Honors Seminar	HON200		3	
Interpretation and Presentation of Scientific Research	SCI221		3	Complete Two: BIO195 or above, CHM201 or above, PHY201 or above, and/or ENR101 or above or Chair approval
<b>TOTAL CREDITS</b>			<b>60-61</b>	

\*Note: All science, engineering, and math courses that are pre or co-requisites of other science and engineering courses require a grade of C+ or better.

Continued on following page

Associate in Science

Biology and Chemistry Department

## Biotechnology Option

*Continued from previous page*

This program offers two degree options: Biology Transfer and Biotechnology. Each option prepares students for employment and for transfer to four-year colleges and universities. Each option engages students in industry-level, inquiry based laboratory activities in order to develop and strengthen their critical thinking as well as their industry skills.

### OPTION OVERVIEW

This option covers the concepts, methodology and techniques of biochemistry, cell biology, genetics, cell culture, molecular biology, immunology, bioinformatics and microbiology. The option provides students with a rigorous academic background as well as industry-specific laboratory skills including sophisticated laboratory procedures, experimental design, data interpretation, and equipment maintenance. The program also reinforces general industry-specific skills such as communication, organization and teamwork. Graduates of this program may transfer to four-year colleges and universities to continue their studies in biotechnology or other life sciences.

### CAREER OUTLOOK

Students completing this option qualify for entry level positions in a wide range of biotechnology disciplines in industry, police, government and academic labs. These positions require a biotechnology certificate, AS degree or BS degree with 0-2 years of experience. Such positions offer the possibility of merit bonus and promotion and are available locally as well as nationwide.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Use currently accepted biological, chemical, and physical concepts to investigate problems and ideas presented in advanced biological study.
- Use biological concepts to evaluate their own science related concerns such as personal health or careers.
- Use laboratory technology, equipment and techniques to investigate scientific problems critically and safely using proper scientific methods.
- Use molecular and cellular laboratory techniques that are commonly used in Biotechnology.
- Explain the major concepts of cell structure, function and cellular processes that are key to life.
- Explain current models, concepts and principles of genetics and inheritance.
- Explain and apply the underlying concepts of current topics and experimental models in molecular biology and Biotechnology.
- Use industry skills and work practices of the biotechnology industry for direct employment.

Associate in Arts

Biology and Chemistry Department

## Chemical Science Concentration

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	MAT281 satisfies Area 4		4	MAT197 or placement
Science and Technology	Area 5 satisfied by program			MAT197 and ENG111
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Calculus II	MAT282		4	MAT281
General Chemistry I/Lab	CHM201		4	MAT197 and ENG111; see note*
General Chemistry II/Lab	CHM202		4	CHM201
Organic Chemistry I/Lab	CHM251		4	CHM202 and ENG112
Organic Chemistry II/Lab	CHM252		4	CHM251
College Physics I/Lab	PHY251		4	MAT281
College Physics II/Lab	PHY252		4	PHY251; pre/co-req MAT282
Social Science Elective			3	
Behavioral Science Elective			3	
Literature Elective			3	pre/co-req ENG111
Literature Elective			3	pre/co-req ENG111
Concentration Elective			3-4	
<b>CONCENTRATION ELECTIVES (CHOOSE 1)</b>				
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Statistics I	MAT181		3	MAT097 or MAT098 or placement
Calculus III	MAT283		4	MAT282
Honors Seminar	HON200		3	Instructor permission
<b>TOTAL CREDITS</b>			<b>62-63</b>	

\*Note: MAT197 requires a grade of C+ or better.

### CONCENTRATION OVERVIEW

This concentration prepares students to transfer to four-year colleges or universities to seek bachelor's degrees in chemistry. After transferring, students develop a course of study to become proficient in one or more of the divisions of chemistry; e.g., polymer chemistry, physical chemistry, organic chemistry, biochemistry, analytical chemistry, chemical engineering, or hazardous waste management. A further goal of the program is to provide students with the technical coursework and laboratory experience that would enable them to enter the work force as entry-level laboratory technicians in positions that require some background in the physical

and/or biological sciences. Graduates of this concentration may qualify to transfer using benefits of MassTransfer to a four-year state college or University of Massachusetts campus. For current information on eligible programs, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer).

### CAREER OUTLOOK

Graduates of this concentration should transfer to a four year college or university because entry-level employment opportunities in chemistry such as lab or field technicians usually require a minimum of a bachelor's degree in chemistry. Professional positions such as engineers, researchers, or college instructors usually require a minimum of a master's degree.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Use currently accepted chemical concepts to investigate problems and ideas presented in advanced chemical study.
- Use chemical concepts to evaluate their own science-related concerns such as personal health or careers in science.
- Use laboratory technology, equipment, and techniques critically and safely to investigate scientific problems using proper scientific methods.

*Students enrolling in this degree program can earn World Studies Emphasis certification simultaneously.*

Associate in Science

Engineering and Physical Science Department

## Biomedical Engineering Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual/Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	Area 4 satisfied by program			
Science and Technology	Area 5 satisfied by program			
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Intro to Engineering /Lab	ENR101		4	MAT194; see note*
Biomedical Engineering/Lab	BME100		4	MAT281 and CHM201 co-req MAT282; see note*
Biomedical Engineering II	BME200		3	BME100 and MAT282; co-req MAT283; see note*
Biomedical Engineering III	BME250		3	BME200; co-req MAT285; see note*
Calculus I	MAT281		4	MAT197 or placement
Calculus II	MAT282		4	MAT281; see note*
Calculus III	MAT283		4	MAT282; see note*
Ordinary Differential Equations	MAT285		4	MAT282
College Physics I/Lab	PHY251		4	MAT281; see note*
College Physics II/Lab	PHY252		4	PHY251; pre/co-req MAT282; see note*
General Chemistry I/Lab	CHM201		4	MAT197 and ENG111; see note*
General Chemistry II/Lab	CHM202		4	CHM201; see note*
General Biology I/Lab	BIO195		4	ENG095 and MAT194 or placement; see note*
General Biology II/Lab	BIO196		4	BIO195; see note*
<b>TOTAL CREDITS</b>			<b>69</b>	

\*Note: All science, engineering, and math courses that are pre or co-requisites of other science and engineering courses require a grade of C+ or better.

The Associate of Science in Engineering Program is offered as part of a response to the long-term shortage of skilled workers in the engineering workforce, and is consistent with the mission of the College. It is designed to meet the needs of BHCC students and to address the workforce demands of Greater Boston. The curriculum is structured to mirror the freshman and sophomore years of a university engineering degree. Accordingly, the Engineering and Physical Sciences Department is developing articulation agreements with area universities to enable BHCC engineering graduates to transfer as juniors upon completing the Associate of Science degree. The curriculum offers two options: a Biomedical Engineering Option and an Engineering Transfer Option.

### OPTION OVERVIEW

This option brings engineering design and technology into the field of biology and medicine. The option prepares students to transfer to four-year institutions as Biomedical Engineering majors, or for direct employment in entry-level positions.

### CAREER OUTLOOK

Graduates with an associate of science degree will be qualified for direct employment in entry-level research/lab assistant, design and manufacturing positions available in private industries, academic research institutions, and hospitals locally and nationwide.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Design and conduct experiments.
- Analyze and interpret data.
- Apply computational tools and scientific concepts to biomedical engineering problems.
- Design systems, components, or processes for solving biomedical engineering problems.
- Function as part of a biomedical engineering team.
- Articulate the professional and ethical responsibilities required of engineers.

Associate in Science

Engineering and Physical Science Department

## Electrical Engineering Transfer Option

PROGRAMS OF STUDY

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and RDG095 or ESL098 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	MAT281 satisfies Area 4			MAT197 or placement
Science and Technology	PHY251 satisfies Area 5 - see note*			MAT281
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Introduction to Engineering/Lab	ENR101 - see note*		4	MAT194 or placement
Circuit Design and Analysis I/Lab	ENR 271 - see note*		4	MAT282 and PHY251 and ENR101; co-req PHY252
Circuit Design and Analysis II/Lab	ENR272 - see note*		4	ENR271; co-req MAT285
Digital Logic Systems/Lab	ENR275 - see note*		4	ENR271; co-req MAT283
Calculus I	MAT281 - see note*		4	MAT197 or placement
Calculus II	MAT282 - see note*		4	MAT281
Calculus III	MAT283		4	MAT282
Ordinary Differential Equations	MAT285 - see note*		4	MAT282
College Physics I/Lab	PHY251 - see note*		4	MAT281
College Physics II/Lab	PHY252		4	PHY251; co-req MAT282
<b>CAREER ELECTIVES; CHOOSE 3 FROM THE FOLLOWING</b>				
General Chemistry I/Lab	CHM201		4	MAT197 and ENG111
Linear Algebra	MAT291		4	Pre/co-req MAT281
Introduction to Computer Science and Pre/Co-req Object Oriented Programming	CIT120		4	ENG095 and RDG095 or ESL098 or placement; pre/co-req MAT194
C++ Programming	CIT237		4	ENG095 and MAT194 or placement and CIT120 or chair approval
<b>TOTAL CREDITS</b>			<b>67</b>	

\*Note: All science, engineering and math courses that are pre/co-requisites of other science and engineering courses require a grade of C+ or better.

### OPTION OVERVIEW

This option provides students with the technical coursework and modern laboratory experience that enable them to succeed in an undergraduate electrical engineering program. Upon graduation from BHCC, students are able to pursue further study at four-year colleges and universities.

### CAREER OUTLOOK

Graduates completing a four-year degree will have a strong electrical engineering foundation and be able to select from a variety of high-demand fields for the balance of their training. Such high-demand fields include nanotechnology, high-tech manufacturing, electronic devices, and robotics.

### UPON COMPLETION OF THIS PROGRAM, GRADUATES WILL BE ABLE TO:

- Design and conduct experiments.
- Analyze and interpret data.
- Apply modern computational tools and lab techniques, along with scientific concepts, to solve engineering problems.
- Design systems, components, and processes for solving problems in electrical engineering.
- Function as part of an engineering team.
- Articulate the professional and ethical responsibilities required of engineers.

Certificate

Engineering and Physical Science Department

## Energy and Sustainability Management Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Survey of Renewable Energy/Lab	ENV111	Semester I	4	ENG095 and ESL098 or RDG095 and MAT093 or placement
Green Buildings	ESM105	Semester I	3	ENG095 and ESL098 or RDG095 and MAT093 or placement
Sustainable Resource Conversation/Lab	ENV110		4	ENG095 and ESL098 or RDG095 and MAT093 or placement
Sustainable Facilities Management	ESM115		3	ENG095 and ESL098 or RDG095 and MAT093 or placement
Project Management and Finance for Energy	ESM211	Semester II	3	ENV111
Greening Existing Buildings: Operation and Maintenance or Internship	ESM205, ESM299-see note*	Semester II	3	ESM105; Director approval
<b>OPTION ELECTIVES (CHOOSE 2)</b>				
Introduction to Geospatial Technology	CIT123		3	CIT110 or CIT113
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
Environmental Science I/Lab	ENV105		4	ENG095 and ESL098 or RDG095 and MAT093 or placement
Environmental Science II/Lab	ENV106		4	ENG095 and ESL098 or RDG095 and MAT093 or placement
Tropical Field Studies	ENV120		4	Director approval
Greening Existing Buildings: Operation and Maintenance	ESM205	Semester II	3	ESM105
Energy, Life and Sustainability	LCS101E	Semester I	3	First semester students
Introduction to Entrepreneurship	MAN107		3	ENG095 and ESL098 or RDG095 or placement
Principles of Management	MAN111-see note**		3	ESL098 or RDG095 and ESL099 or ENG090 or placement
Project Management	MAN215		3	CIT110 and MAN111 and MAT097 or placement
<b>TOTAL CREDITS</b>			<b>26-28</b>	

\*Note: Students must be enrolled in the Energy and Sustainability Management Program, have completed a minimum of ten credits in ESM courses with a B average or higher or have approval of Program Directors.

\*\*Note: Declared majors in Business Concentration, Management, and Finance options must take BUS101 as a prerequisite. Non-majors are eligible to take MAN111 without BUS101 as a prerequisite, but must meet other course prerequisites listed in the College catalog.

Continued on following page

Certificate

Engineering and Physical Science Department

## Energy and Sustainability Management Certificate Program

*Continued from previous page*

### PROGRAM OVERVIEW

The design of the program is interdisciplinary, combining coursework in project management and finance for renewable and efficient energy projects with training in operating and maintaining environmentally friendly, healthy, and efficient buildings.

### CAREER OUTLOOK

Graduates of the ESM program may seek employment in a variety of entry-level positions such as technicians, coordinators, administrators, sales representatives, or specialists in a wide range of industries including renewable energy, construction, facilities management, environmental protection services, energy efficient services, utilities, and industrial operations. In addition to earning BHCC's ESM Certificate, graduates will qualify to sit for the LEED Green Associate (LEED GA) exam, a nationally recognized certification administered by the US Green Building Council.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Identify and implement environmental sustainability or energy efficiency strategies within their workplace, home, or community taking into consideration factors such as project impact, cost effectiveness, and technical feasibility.
- Establish competencies to sit for the Leadership in Environmental and Energy Design (LEED) Green Associate exam, a nationally recognized certification.

*This workforce solution is 100% funded by a grant awarded by the U.S. Department of Labor, Employment and Training Administration, TAACCCT grant agreement # TC-22505-11-60-A25. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. Massachusetts Community Colleges are equal opportunity employers. Adaptive equipment available upon request for persons with disabilities.*

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Associate in Science

Engineering and Physical Science Department

## Engineering Transfer Option

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual/Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	Area 4 satisfied by program			
Science and Technology	Area 5 satisfied by program			
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Intro to Engineering /Lab	ENR101		4	MAT194; see note
Engineering Statics	ENR260		3	PHY251; pre/co-req MAT282; see note*
Ordinary Differential Equations	MAT285		4	MAT282
Engineering Dynamics	ENR265		3	ENR260; co-req MAT285; see note*
Strength of Materials	ENR270		3	ENR260; co-req MAT285; see note*
Calculus I	MAT281		4	MAT197
Calculus II	MAT282		4	MAT281
Calculus III	MAT283		4	MAT282
College Physics I/Lab	PHY251		4	MAT281; see note
College Physics II/Lab	PHY252		4	PHY251; pre/co-req MAT282; see note*
General Chemistry I/Lab	CHM201		4	MAT197 and ENG 111; see note*
General Chemistry II/Lab	CHM202		4	CHM201; see note*
Career Elective	see note*		3-4	Departmental approval
Career Elective	see note*		3-4	Departmental approval
<b>TOTAL CREDITS</b>			<b>66-67</b>	

\*Note: Career elective selection must be recommended and approved by the Engineering Advisor and/or the Engineering and Physical Sciences Department. All science, engineering, and math courses that are pre or co-requisites of other science and engineering courses require a grade of C+ or better.

The Associate of Science in Engineering Program is offered as part of a response to the long-term shortage of skilled workers in the engineering workforce, and is consistent with the mission of the College. It is designed to meet the needs of BHCC students and to address the workforce demands of Greater Boston. The curriculum is structured to mirror the freshman and sophomore years of a university engineering degree. Accordingly, the Engineering and Physical Sciences Department is developing articulation agreements with area universities to enable BHCC engineering graduates to transfer as juniors upon completing the Associate of Science degree. The curriculum offers two options: a Biomedical Engineering Option and an Engineering Transfer Option.

### OPTION OVERVIEW

This option provides students with the technical coursework and laboratory experience that enables them to succeed in undergraduate engineering programs. Students planning to transfer into Civil, Mechanical, Electrical, Structural, Materials, or other related engineering degree programs should enroll in this option. Upon graduation from BHCC, students are able to pursue further study at four-year colleges and universities.

### CAREER OUTLOOK

Graduates completing a four-year degree will have a strong engineering foundation and able to select from a variety of high

demand fields for the balance of their training. Such high demand fields include Nanotechnology, Materials, and Robotics.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Design and conduct experiments.
- Analyze and interpret data.
- Apply computational tools and scientific concepts to engineering problems.
- Design systems, components, or processes for solving engineering problems.
- Function as part of an engineering team.
- Articulate the professional and ethical responsibilities required of engineers.

## PROGRAMS OF STUDY

Associate in Science

Engineering and Physical Science Department

### Environmental Science

PROGRAMS OF STUDY

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	MAT181 satisfies Area 4 - see note*		3	MAT097 or placement
Science and Technology	ENV105 satisfies Area 5 - see note*		4	ENG095 and ESL098 or RDG095 or placement, MAT093
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
Introduction To Geographic Information Systems/Lab	GIS124		4	ENG095 and ESL098 or RDG095 and MAT093 or placement
Sustainable Resource Conservation/Lab	ENV110		4	ENG095 and ESL098 or RDG095 and MAT093 or placement
Survey of Renewable Energy/Lab	ENV111		4	ENG095 and ESL098 or RDG095 and MAT093 or placement
General Chemistry I/Lab	CHM201		4	MAT197 and ENG111; see note*
General Chemistry II/Lab	CHM202		4	CHM201; see note*
General Biology I/Lab or General Physics I/Lab	BIO195 or PHY201		4	Prerequisite for BIO195: ENG095 and ESL098 or RDG095 and MAT194 or placement; prerequisite for PHY201: MAT197 or placement
General Biology II/Lab or General Physics II/Lab	BIO196 or PHY202		4	Prerequisite for BIO196: BIO195; prerequisite for PHY202: PHY201
<b>OPTION ELECTIVES (CHOOSE 2, 8 CREDITS TOTAL)</b>				
Earth Science	ENV115		4	ENG095 and ESL098 or RDG095 and MAT093 or placement
Introduction to Oceanography/Lab	ENV113		4	ENG095 and ESL098 or RDG095 and MAT093 or placement
Environmental Science II/Lab	ENV106		4	ENG095 and ESL098 or RDG095 and MAT093 or placement
Population Ecology/Lab	BIO210		4	BIO196, or permission of the engineering and physical science department
Environmental Microbiology/Lab	BIO211 see note****		4	BIO195
<b>CAREER ELECTIVES (CHOOSE 2, 6-8 CREDITS TOTAL) SEE NOTE**</b>				
Green Buildings	ESM105		3	MAT093 and ENG095 and ESL098 or RDG095 or placement
Sustainable Facilities Management	ESM115		3	MAT093 and ENG095 and ESL098 or RDG095 or placement
Applications/Concepts	CIT110		3	ESL098 or RDG095
Project Management and Finance for Energy	ESM211		3	ENV111
Introduction to Engineering/Lab	ENR101		4	MAT194*
Precalculus	MAT197		4	MAT194 or placement
Calculus I	MAT281		4	MAT197 or placement
Greening Existing Buildings: Operation and Maintenance	ESM205		3	ESM105 or program director approval
Energy and Sustainability Internship	ESM299		3	Program director approval
Interpretation and Presentation of Scientific Research	SCI221 see note***		3	BIO195, CHM201, PHY201 and/or ENR101 or Chair approval
<b>TOTAL CREDITS</b>			<b>64-66</b>	

Continued on following page

Associate in Science

Engineering and Physical Science Department

## Environmental Science

*Continued from previous page*

\*Note: All science, engineering, and math courses that are pre- or co-requisites of other science and engineering courses require a grade of C+ or better.

\*\*Note: Career Electives include: any ESM Energy and Sustainability Management course, ENR101 "Introduction to Engineering", CIT110 "Applications/Concepts", MAT281 "Calculus I", SCI221 "Interpretation of Scientific Research". Any other course must be approved by the program director to be used as a career elective.

\*\*\* Note: Choose two of the four prerequisite courses. The following courses may also be used: BIO196 or above, CHM202 or above, PHY202 or above, ENR103 or above.

\*\*\*\*Note: Completion or concurrent enrollment in General Biology II/Lab is recommended.

### PROGRAM OVERVIEW

Environmental Science is an interdisciplinary field based on the interactions of living and non-living components of nature and with an emphasis on the interaction and impact humans have on the environment.

Environmental Scientists examine the role of humans as agents of change within the environment as a means to better understand causes and effects of issues that threaten the sustainability of the environment and human health.

### CAREER OUTLOOK

This program will allow students to transfer to four-year colleges and universities to seek a bachelor's degree in environmental science or studies.

### UPON COMPLETION OF THIS PROGRAM, GRADUATES WILL BE ABLE TO:

- Use currently accepted biological, chemical, and physical concepts to investigate problems and issues in the environment.
- Identify and implement environmental sustainability or energy efficiency strategies within their workplace, home, or community taking into consideration factors such as project impact, cost effectiveness, and technical feasibility.
- Explain and apply the underlying concepts of current topics in environmental science and sustainability.

Associate in Arts

Engineering and Physical Science Department

## Physics Concentration

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>GENERAL EDUCATION COURSES</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
College Writing II	ENG112		3	ENG111
Individual and Society	From Area 2		3	
World View	From Area 3		3	
Quantitative Thought	Area 4 satisfied by program			
Science and Technology	Area 5 satisfied by program			
Humanities	From Area 6		3	
<b>CONCENTRATION COURSES</b>				
College Physics I/Lab	PHY251		4	MAT281; see note*
College Physics II/Lab	PHY252		4	PHY251; pre/co-req MAT282; see note*
Calculus I	MAT281		4	MAT197
Calculus II	MAT282		4	MAT281
Calculus III	MAT283		4	MAT282
Ordinary Differential Equations	MAT285		4	MAT282
Linear Algebra	MAT291		4	MAT281
General Chemistry I/Lab	CHM201		4	MAT197 and ENG111; see note*
General Chemistry II/Lab	CHM202		4	CHM201; see note*
Computer Elective or Introduction to Engineering	CIT or ENR101		3	MAT194 or placement
Behavioral Science Elective			3	
Literature Elective			3	pre/co-req ENG111
Literature Elective			3	pre/co-req ENG111
Social Science Elective			3	
<b>TOTAL CREDITS</b>			<b>66</b>	

\*Note: All science, engineering, and math courses that are pre or co-requisites of other science and engineering courses require a grade of C+ or better.

### CONCENTRATION OVERVIEW

This concentration prepares students to transfer to four-year colleges or universities to seek bachelors' degrees in physical science or physics. After transferring, students study to become more proficient in one or more of the divisions of the physical sciences; e.g., theoretical physics, particle physics, astrophysics, biophysics, or applied physics. Graduates of the concentration may qualify to transfer using benefits of MassTransfer to one of the Massachusetts State Universities or the University of Massachusetts. For current information on eligible programs, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer).

### CAREER OUTLOOK

Graduates of this concentration should transfer to a four-year college or university because employment opportunities in physical science such as lab technicians usually require a minimum of a bachelor's degree. Professional positions such as researchers or college instructors usually require a minimum of a master's degree.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Demonstrate the connections between the major concepts and theories in the field of physics.
- Analyze and create solutions for problems involving principles of physics.
- Apply mathematical techniques in scientific problem solving.
- Properly report on the findings of a designed experiment.

*Students enrolling in this degree program can earn World Studies Emphasis certification simultaneously.*

Associate in Science

Medical Laboratory Technician Department

## Medical Laboratory Technician Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
<b>PREREQUISITE COURSES:</b>				
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
Statistics I	MAT181 satisfies Area 4		3	MAT097 or MAT098 or placement
Anatomy and Physiology I	BIO203		4	BIO105, BIO108 or BIO195
Anatomy and Physiology II	BIO204		4	BIO203
Microbiology & Lab	BIO205		4	BIO204 or BIO195
Principles of Inorganic Chemistry & Lab	CHM120		4	ENG095 and RDG095 or ESL098 and MAT093 or placement
Principles of Organic and Biochemistry & Lab	CHM121		4	CHM120
<b>PROGRAM CURRICULUM:</b>				
College Writing II	ENG112		3	ENG111
Principles of Psychology	PSY101 satisfies Area 2		3	ESL098 or RDG095 or placement
World View	From Area 3		3	
Intro to Medical Laboratory Science and Urinalysis	MLT101 (fall only)	Semester I	4	Admission to program
Immunology and Serology	MLT213 (fall only)	Semester I	4	Admission to program
Medical Microbiology and Lab	MLT212 (spring only)	Semester II	4	MLT101 and MLT213
Hematology and Hemostasis	MLT211 (spring only)	Semester II	4	MLT101, MLT213
Immunoematology	MLT241 (spring only)	Semester II	4	MLT101 and MLT213
Clinical Chemistry	MLT242 (summer only)	Semester III	4	MLT101, MLT213, MLT212, MLT241, MLT211
Clinical Laboratory Science Practicum	MLT251 (fall only)	Semester IV	12	All MLT courses
<b>TOTAL CREDITS</b>			<b>71</b>	

Continued on following page

Associate in Science

Medical Laboratory Technician Department

## Medical Laboratory Technician Program

*Continued from previous page*

For this program, students must earn a numerical grade of 80 or higher in all Medical Laboratory Technician courses. Either failure to meet clinical objectives or failure to obtain a numerical course grade of 80 or better in all MLT courses constitutes failure in that course. Students may apply for readmission to the program.

All Medical Laboratory Technician students are required to: undergo a physical examination, complete the necessary immunization forms, including a three (3) dose Hepatitis B immunization series; carry malpractice and health insurance; and undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check.

### PREREQUISITES FOR THE MEDICAL LABORATORY TECHNICIAN PROGRAM

- BHCC admissions application completed with documentation of high school diploma or GED certificate
- In- State Tuition Eligibility Form with one (1) form of citizenship documentation and two (2) forms of Massachusetts residency documentation
- Attach a copy of MANDATORY information session confirmation
- Achieve a reading level of 10th grade or higher on the College Placement Test (CPT)
- Complete the following courses with a grade C or better:
  - Statistics (MAT 181)
  - College Writing I (ENG 111)
  - BIO 203, Anatomy and Physiology I /Lab with a grade of C or better. (Credits for Anatomy and Physiology I/Lab that were earned more than five (5) years prior to enrollment in the Medical Laboratory Technician program are not accepted)

- BIO 204, Anatomy and Physiology II /Lab with a grade of C or better. (Credits for Anatomy and Physiology I I/Lab that were earned more than five (5) years prior to enrollment in the Medical Laboratory Technician Program are not accepted)
- BIO 205, Microbiology/Lab with a grade of C or better. (Credits for Microbiology /Lab that were earned more than five (5) years prior to enrollment in the Medical Laboratory Technician Program are not accepted)
- CHM 120, Principles of Inorganic Chemistry/Lab
- CHM 121, Principles of Inorganic Chemistry & Biochemistry/Lab

### PROGRAM OVERVIEW

This program prepares students through lectures, laboratory activities and hospital-based clinical experience to become Medical Laboratory Technicians. Students will acquire the skills and knowledge essential to working in a medical laboratory and performing tests that aid in the diagnosis and treatment of disease and the maintenance of health.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Medical Laboratory Technician program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal

Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this program are eligible to take the CLT/MLT certification exam administered by the American Society of Clinical Pathology. Graduates are then qualified for employment in hospitals, clinics and health maintenance organizations.

### PROGRAM ACCREDITATION

Graduates have a 100% completion rate, an 86% pass rate on certification exams and a 100% employment rate. Students successfully completing the program are eligible to take the American Society for Clinical Pathology (ASCP) Medical Laboratory Technician (MLT) certification examination. The Program is accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS), 5600 North River Rd. Suite 720, Rosemont, IL 60018, telephone 773-714-8880. Graduates of the Program are eligible to take national certification

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Collect and prepare clinical specimens for analysis.
- Operate laboratory instruments.
- Prepare a variety of diagnostic analyses according to prescribed methodology.
- Relate test results to other patient information to the extent required for understanding the analyses.

Certificate

Pharmacy Technology Department

## Pharmacy Technician Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Pharmacy Practice for Pharmacy Technicians I	PMT111		4	ENG095 or placement
Pharmacy Practice for Pharmacy Technicians II	PMT112		4	PMT111
Pharmacy Practice for Pharmacy Technicians III	PMT113		4	PMT112
Practicum and Seminar for the Pharmacy Technician	PMT299		4	ENG095 or placement
<b>TOTAL CREDITS</b>			<b>16</b>	

### PROGRAM OVERVIEW

Through classroom teaching and practical experience in one or more pharmacy settings, the student will be prepared to work in teams supervised by a pharmacist to prepare prescriptions; provide customer service and perform inventory control, record keeping and the packaging of drugs. Courses in this 16-credit program include the following topics: Pharmacy Operations, Pharmaceutical Calculations, Pharmacology and Pharmacy Law. Students also participate in a 150 hour Internship in a pharmacy. This certificate program is designed to be completed in one semester.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for placement in a clerkship site, to take the PTCB examination, and for registration as a technician with the Board of Pharmacy, all students must undergo a Criminal Offender Record Information (CORI) check. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services pursuant to Massachusetts General Laws, Chapter 6 Sections 167 – 178B, to access CORI records. For more information regarding the College's CORI check process, please contact the College CORI Officer at 617-228-2193.

### CAREER OUTLOOK

According to the Bureau of Labor and Statistics (BLS), employment of pharmacy technicians is expected to increase by more than 20 percent by 2022.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Upon completion of the certificate program and after attaining a 75% or better score on the Board of Pharmacy Qualification Exam, the student will be able to apply and be licensed as a Pharmacy Technician in Massachusetts.
- Graduates are prepared to apply and sit for the National Pharmacy Technician Certification Board (PTCB).
- Upon passing the National PTCB Exam graduates will be able to be registered as a Pharmacy Technician in Massachusetts.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Surgical Technology Department

## Central Processing Certificate Program

PROGRAMS OF STUDY

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
Central Processing I	SGT109	Fall	2	
Central Processing I Clinical	SGT109A	Fall	2	
Medical Terminology	NHP180-see note*		3	
Central Processing II	SGT110	Spring	2	SGT109 and SGT109A and ENG090 and MAT093 and RDG090 or placement
Central Processing II Clinical	SGT110A	Spring	2	SGT109 and SGT109A
Applications/Concepts	CIT110		3	ESL098 or RDG095 or placement
Central Processing Clinical	SGT111	Spring	2	SGT109 and SGT109A
Communication Skills for Health Care	AHE117		3	
<b>TOTAL CREDITS</b>			<b>19</b>	

\*Note: NHP180 course description is found under the Surgical Technology heading.

This program is offered on the Chelsea Campus as a part-time evening program. Applicants to this program are required to undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. Admission to the central processing program does not guarantee clinical placement. The outcome of the CORI/SORI check may impact the student's ability to participate in the clinical experience. For further information, see the Department Chair.

### ADMISSION REQUIREMENTS:

Students must apply to the program through Admissions and Enrollment Services and:

- Possess a high school diploma or GED certificate.
- Attend an information session.
- Complete the college placement tests in reading, math, and English (may be taken during the first semester in the program).

### PROGRAM OVERVIEW

This evening program prepares working students to enter this expanding field as Registered Central Processing Technicians. The program prepares students to assume leadership roles within the profession, through a blend of clinical skills and business concepts. The program prepares students in computer competency, accounting, medical terminology, central processing functions, central processing skills and regulations.

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Central Processing Certificate Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### CAREER OUTLOOK

Graduates of this program qualify as Central Processing Technicians who perform duties in one or more of the functional areas of materials management, supply, processing and distribution. Graduates qualify for positions in healthcare facilities and industry. Graduates qualify for advanced responsibilities within the profession, and job prospects are excellent.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Qualify for the Registered Central Processing Technician certifying exam.
- Support the operative team during surgical procedures.
- Prepare equipment and supplies for use throughout the hospital.
- Assist in resource allocation and budget preparation for central processing.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

Certificate

Surgical Technology Department

## Surgical Technology Certificate Program

COURSE TITLE	COURSE NUMBER	SEMESTER TAKEN	CREDITS	PREREQUISITES
College Writing I	ENG111		3	ENG095 and ESL098 or RDG095 or placement
Principles of Psychology	PSY101		3	ESL098 and RDG095 or placement
Human Biology/Lab	BIO108		4	ENG095 and MAT093 and RDG095 or placement
Surgical Technology I	SGT105	Fall	5	Acceptance into program; pre/co-req NHP180
Medical Terminology	NHP180	Fall	3	
Asepsis for Surgical Technology	SGT115	Fall	2	Acceptance into program
Pharmacology for the Surgical Technologist I	PMT103	Fall	1	Acceptance into program
Human Growth/Development	PSY213	Spring	3	PSY101
Surgical Technology II	SGT106	Spring	8	BIO108 and SGT105
Pharmacology for the Surgical Technologist II	PMT105	Spring	1	PMT103
Surgical Technology III	SGT107	Summer	3	SGT106, PMT105 and PSY213
Surgical Seminar	SGT116	Summer	4	SGT106 and PSY213
<b>TOTAL CREDITS</b>			<b>40</b>	

This program is offered on the Chelsea Campus.

Students must maintain a grade of C or better in all surgical technology courses. Applicants to this program are required to undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check.

The outcome of the CORI check may impact the student's ability to participate in the clinical experience. For further information, see the Department chair.

### ADMISSION REQUIREMENTS:

Students must apply to the program through Admissions and Enrollment Services and:

- Possess a high school diploma or GED certificate.
- Attend an information session.
- Complete Writing Skills II (ENG095) with a grade of C or better or place into College Writing I (ENG111).
- Complete Foundations of Mathematics (MAT093) with a grade of C or better or place above Fundamentals of Mathematics (MAT093) on the college placement test.
- Complete the college placement tests in reading, math, and English (10th grade reading level preferred).

When they have completed the admission requirements, qualified applicants will be evaluated using an admissions rubric.

### PROGRAM OVERVIEW

Through classroom teaching, lab observation and practice, and clinical experience, this full-time, 11-month certificate program prepares students to work closely with surgeons, anesthesiologists, registered nurses, and other surgical personnel to deliver patient care in the operating room. The program prepares students to handle the instruments, supplies and equipment necessary during the surgical procedure; to understand the procedures being performed and anticipate the needs of the surgeon; to have the necessary knowledge and ability to provide quality patient care during the operative procedure and to maintain sterile technique. Students spend two days per week in area hospitals during spring semester and work full-time during June and July.

### CAREER OUTLOOK

Graduates of this program qualify for surgical technologist positions in hospitals. The prospect for jobs is very good at the present time as the cost of health care rises. Graduates of the program qualify to take the certification exam after a few months of on-the-job experience.

For more information about our graduation

### CRIMINAL OFFENDER RECORD INFORMATION AND SEX OFFENDER REGISTRY INFORMATION CHECKS

As a prerequisite for a clinical placement in the Surgical Technology Certificate Program, all students must undergo a Criminal Offender Record Information (CORI) check and a Sex Offender Registry Information (SORI) check. These checks are required due to potential unsupervised contact with children, the disabled, or the elderly during a clinical experience. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible for clinical placement. The College is authorized by the Commonwealth's Department of Criminal Justice Information Services, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College's CORI/SORI check process, please contact the College CORI/SORI Officer at 617-228-2193.

### UPON COMPLETION OF THIS CONCENTRATION GRADUATES WILL BE ABLE TO:

- Assist the operative team during the pre-operative, intra-operative, and post-operative phases of surgery.
- Prepare equipment and supplies for use during surgery.
- Function as "first scrub" on most surgical procedures.

To view gainful employment information for this program, please visit our website at [bhcc.edu/certificate-programs](http://bhcc.edu/certificate-programs).

## COURSE DESCRIPTIONS

### ACCOUNTING

#### ACC-101 Principles of Accounting I 3 Credits

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).

#### ACC-102 Principles of Accounting II 3 Credits

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 are 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).

#### ACC-104 Introduction to Accounting Software 1 Credit

This course introduces students to Accounting Software with an emphasis on specific applications for accounting software. The modules covered include, among other topics: customer and vendor information, bill pay, and banking. It includes recording transactions, payroll and inventory control in a variety of business situations. Prerequisites: Writing Skills II (ENG095) or placement and Academic Reading III (ESL098) or Reading Skills II (RDG095).

#### ACC-105 Accounting Information Systems 3 Credits

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).

#### ACC-107 Accounting Forensics 3 Credits

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).

#### ACC-201 Intermediate Accounting I 3 Credits

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).

#### ACC-202 Intermediate Accounting II 3 Credits

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).

#### ACC-203 Personal Income Tax 3 Credits

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).

#### ACC-205 Volunteer Income Tax Assistance 3 Credits

This VITA internship provides an opportunity for students to perform a community service in cooperation with the Internal Revenue Service and the Massachusetts Department of Revenue. The course trains students to assist taxpayers in filling out tax returns. There are several mandatory trainings that take place prior to the start of classes. Please get more information in room C309. Prerequisite: Federal Income Tax I (ACC203).

#### ACC-207 Cost Accounting 3 Credits

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).

#### ACC-216 Managerial Accounting 3 Credits

This course examines the needs of management and provides students with the necessary analytical skills that become critical to the financial decision-making process. The course covers such areas as budgetary planning and control, cost information, management decision-making, cost volume profit analysis, capital budgeting decisions, and control of decentralized organizations. Prerequisite: Cost Accounting I (ACC207).

#### ACC-217 Mass Tax Law I 3 Credits

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.

#### ACC-299 Mass. Dept. of Revenue Internship 3 Credits

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.

### ALLIED HEALTH

#### AHE-101 Medical Interpreting I 3 Credits

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.

#### AHE-102 Medical Interpreting II 2 Credits

A continuation of Medical Interpreting I, this course includes an in depth discussion of cross-cultural communication including values and attitudes toward non-traditional health beliefs. Students will examine issues such as giving bad news to patients, and dealing with difficulties between patients and health care providers. Other topics of discussion include prescription medicines, measurements for medical dosages, therapies and treatments, and medical insurance verbiage. Finally, chronic conditions such as asthma/COPD, HIV and diabetes as well as medical specialties such as mental health and obstetrics/gynecology are discussed. Prerequisite: Medical Interpreting I (AHE101).

#### AHE-104 Understanding Human Behavior for the Health Care Professional 3 Credits

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; and psychological and sociological factors involved in the patient healthcare professional relationship.

#### AHE-106 CNA Practicum Patient Care 1 Credit

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. Co-requisites: Principles of Clinical Practice (AHE110) and Patient Care Skills (AHE111).

**AHE-110 Principles of Clinical Practice**

3 Credits

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.

**AHE-111 Patient Care Skills**

3 Credits

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. Co-requisites: CNA Practicum (AHE106) and Principles of Clinical Practice (AHE110).

**AHE-112 Medical Assistant Skills**

3 Credits

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. Co-requisite: Principles of Clinical Practice (AHE110).

**AHE-117 Communication Skills for Health Care**

3 Credits

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.

**AHE-201 Advanced Clinical Skills**

3 Credits

This course covers advanced theory and skills for the patient care technician and medical assistant. Students are cross-trained in EKG and Phlebotomy. Prerequisite: Patient Care Skills (AHE111) or Medical Assisting Skills (AHE112).

**AHE-204 Patient Care Technician**

3 Credits

This course consists of a clinical practicum at local health care facilities. Students keep a daily journal and complete a work portfolio. Additional expenses may include supplies, equipment, and/or uniforms. Prerequisite: Patient Care Skills (AHE111). Co-requisite: Advanced Clinical Skills (AHE201).

**AHE-205 Practicum Medical Assistant**

3 Credits

This course consists of a clinical practicum at local health care facilities. Students keep a daily journal and complete a work portfolio. Additional expenses may include supplies, equipment, and/or uniforms. Prerequisite: Medical Assisting Skills (AHE112). Co-requisite: Advanced Clinical Skills (AHE201).

**AHE-209 Allied Health Practicum Seminar**

1 Credit

This seminar is an inter-disciplinary course that provides a broad overview of the medical workplace. Taken concurrently with an Allied Health Practicum, it includes discussions of the internship experience, employment opportunities as well as job search skills. Co-requisite: Practicum Patient Care Assistant (AHE204) or Practicum Medical Assistant (AHE205) or Practicum Phlebotomy Technician (AHE206) or Practicum Laboratory Assistant (AHE207).

**AHE-299 Medical Interpreting Internship**

1 Credit

Students will be placed in a 30-hour internship to be completed over the course of the semester at a local healthcare facility under the direct supervision of a professional interpreter and mentor. This internship will consist entirely of active interpreting. Co-requisite: Medical Interpreting II (AHE102).

**ARABIC****ARB-101 Elementary Arabic I**

3 Credits

This course is a beginning class in modern standard Arabic. The course begins with exposure to the alphabet, basic vocabulary, and expressions of greetings. The course then focuses on the spoken and written language used in contemporary life in Arab countries. The course works on all skill areas: listening, speaking, reading, and writing, presenting pertinent grammar in context. The course is not intended for native speakers or students who have studied this language within the last three years.

**ARB-102 Elementary Arabic II**

3 Credits

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).

**ASTRONOMY****AST-102 Astronomy/Lab**

4 Credits

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.

**BIOLOGY****BIO-105 Introduction to Biology**

4 Credits

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 and 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.

**BIO-108 Human Biology/Lab**

4 Credits

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 and 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.

**BIO-111 Food/Nutrition**

3 Credits

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.

**BIO-115 Nutrition Science and Lab**

4 Credits

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.

**BIO-120 Introduction to Biotechnology**

4 Credits

This course offers an introduction to the field of biotechnology. General principles of biology, recombinant DNA technology, and the applications of biotechnology will be presented. The medical, social, political and ethical implications of recombinant DNA technology and the Human Genome Project will be discussed. Work practices and career opportunities in the biotechnology industry will also be outlined. Students will be introduced to industry-specific laboratory skills and basic investigative techniques and procedures used in research through labs designed to reinforce lecture concepts. Class meets: 3 hrs. lecture; 3 hrs. lab. Prerequisites: Writing Skills II (ENG095), Intermediate Algebra (MAT099), and Reading Skills (RDG095) or Academic Reading III (ESL098) or placement equivalency.

## COURSE DESCRIPTIONS

### BIO-195 General Biology I and Lab

4 Credits

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 Introduction to Biology (BIO105) 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).

### BIO-196 General Biology II and Lab

4 Credits

As a continuation of General Biology I/Lab (BIO195), the course begins with a study of the 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).

### BIO-203 Anatomy/Physiology I and Lab

4 Credits

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, and 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 Introduction to Biology (BIO105), Human Biology (BIO108) or General Biology I/Lab (BIO195).

### BIO-204 Anatomy/Physiology II and Lab

4 Credits

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 student's 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).

### BIO-205 Microbiology and Lab

4 Credits

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.

### BIO-207 Cell Biology and Lab

4 Credits

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: Introduction to Biotechnology and Lab (BIO120) and General Biology I/Lab (BIO195) or General Biology I/Lab (BIO195) and General Biology II/Lab (BIO196).

### BIO-208 Genetics and Lab

4 Credits

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, and 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.

### BIO-261 Advanced Laboratory Techniques in Biotechnology

3 Credits

Laboratory activities will emphasize proper laboratory protocol and documentation, inquiry based investigations, formal laboratory report writing, and standard laboratory skills used both in industry and in biotechnology research such as media and buffer preparation, protein purification, cell culture and immunological techniques. 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. Depending on the college, both BIO261 and BIO262 may need to be completed for credits to transfer. Course meets: 1 hr. lecture/2.5 hrs. lab. Prerequisite: Grade of C or better in Introduction to Biotechnology (BIO120), General Biology I/Lab (BIO195), and General Biology II/Lab (BIO196) or departmental approval.

### BIO-262 Principles of Molecular Biotechnology

3 Credits

The emphasis in this course will be on 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. This course will also expand on the concepts and applications presented in Introduction to Biotechnology (BIO120) and Advanced Laboratory Techniques in Biotechnology (BIO261). Upon completion of this course, students will be qualified for entry level employment or internships in the biotechnology field. Depending on the college, both BIO261 and BIO262 may need to be completed for credits to transfer. Course meets: 3hrs. lecture. Prerequisites: Grade of C or better in Advanced Laboratory Techniques in Biotechnology (BIO261), Cell Biology and Lab (BIO207), and Genetics and Lab (BIO208) or departmental approval.

### BIO-270 Biotechnology Laboratory Simulations

4 Credits

This multidisciplinary laboratory course will focus on providing theoretical and hands-on experience in advanced laboratory techniques and technologies such as High Pressure Liquid Chromatography (HPLC), Polymerase Chain Reaction (PCR), Real-Time PCR and bioreactors. This course will include laboratory simulations that will mimic a real-world work experience. Laboratory activities will reinforce an understanding of theory and basic principles as well as method development, operations, applications and instrumentation. Key industry skills including documentation, current Good Manufacturing Practices (cGMP), Standard Operating Procedures (SOPs) and Validation will be emphasized and reinforced. Advanced scientific writing and oral presentation skills will also be developed. Course meets: 6 hrs. lab. Prerequisites: Grade of C or better in Cell Biology and Lab (BIO207), Genetics and Lab (BIO208), and Advanced Laboratory Techniques in Biotechnology (BIO261). Principles of Molecular Biotechnology (BIO262) must be taken either as a prerequisite or as a co-requisite or departmental approval.

## BIOMEDICAL ENGINEERING

### BME-100 Biomedical Engineering I

4 Credits

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).

### BME-200 Biomedical Engineering II

3 Credits

This course explores the techniques for analysis and modeling of biomedical systems with applications of advanced mathematics including Differential Equations, Difference Equations, State-Variables, and computer-aided methods to study problems at the interface of engineering and biology. Other topics include elements of physiological modeling and the solution of the transient and forced response for a variety of biomechanical and bioelectrical systems. Class meets: 3 hrs. lecture. Prerequisites: Grade of C or better in Biomedical Engineering I (BME100) and a grade of C or better in Calculus II (MAT282). Co-requisite: Calculus III (MAT283).

**BUSINESS****BUS-101 Introduction to Business** 3 Credits

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.

**BUS-106 International Business I** 3 Credits

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).

**BUS-111 Globalization** 3 Credits

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. 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.

**BUS-201 Business Law I** 3 Credits

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.

**BUS-207 Professional Communication** 3 Credits

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).

**CHEMISTRY****CHM-120 Principles of Inorganic Chemistry and Lab** 4 Credits

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.

**CHM-121 Principles of Organic and Chemistry with Lab** 4 Credits

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 Principles of Inorganic Chemistry and Lab (CHM120) or grade of C or better in General Chemistry I (CHM201).

**CHM-151 Basic Chemistry (Non-Lab)** 3 Credits

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).

**CHM-201 General Chemistry I and Lab** 4 Credits

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 co-requisite Calculus I (MAT281) 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 and Lab (CHM120).

**CHM-202 General Chemistry II and Lab** 4 Credits

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).

**CHM-251 Organic Chemistry I and Lab** 4 Credits

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).

**CHM-252 Organic Chemistry II and Lab** 4 Credits

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).

**CHM-522 Biochemistry** 4 Credits

This course is modeled after the CH383 and CH384 two semester course sequence taught at University of Massachusetts, Boston. The course is taught as a Learning Contract at BHCC as material covered in the course is not covered in the curriculum at the college. The chemistry of life processed is discussed in terms of structure and biological functions of protein, nucleic acids, carbohydrates, lipids, and other cellular components. Special emphasis is given to protein structure and function, enzymology, and carbohydrate metabolism for biomedical applications. Transport mechanisms, biochemistry and synthesis of nucleic acids and proteins, structural motifs in protein folding, metabolisms of lipids and amino acids is also covered. An introduction to the biological applications of advanced instrumentation (NMR, Mass Spec, EPR, and Crystallography) is provided. Prerequisites: CHM-201, CHM-202, and BIO-195, permission of instructor is required.

**CHINESE**

**CHN-101 Elementary Mandarin I** 3 Credits

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.

**CHN-102 Elementary Mandarin II** 3 Credits

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.

**COMPUTER INFORMATION TECHNOLOGY**

**CIT-101 Computer Essentials** 3 Credits

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.

**CIT-102 IT Career Exploration** 1 Credit

This is a hands-on workshop class that provides students with the tools necessary to explore Information and Communications Technology (ICT) industry career and employment opportunities. Students will engage in activities and assignments designed to assess and evaluate personal values, skills and interests as they relate to the world of work. Students will utilize resources on the College Student portal and beyond to explore careers, research employers and navigate the local job market in the ICT industry. Course assignments and activities will culminate in each student having a thorough understanding of the characteristics that make up a viable career plan that will enhance their gainful employment opportunities. This class is open to anyone with an interest in guided career exploration and a desire to be employed within the field of Information and Communications Technology.

**CIT-110 Applications/Concepts** 3 Credits

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.

**CIT-113 Information Technology Problem Solving** 3 Credits

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: 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.

**CIT-118 Principles of Internet and Info Security** 3 Credits

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 and 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 and OOP (CIT120), equivalent experience or permission of the department chairperson. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.

**CIT-120 Intro to Computer Science and Object Oriented Programming** 4 Credits

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.

**CIT-121 Introduction to Computer Forensics** 3 Credits

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 cybercrime, 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 and Object Oriented Programming (CIT120) or permission of the department chair.

**CIT-125 Python Programming**

3 Credits

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. All prerequisites must be completed with a C or better. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.

**CIT-128 Database Design with MS Access**

3 Credits

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 functionalities 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 and OOP (CIT120), equivalent experience or permission of the department chairperson. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.

**CIT-129 Mobile App Development**

3 Credits

This course introduces application development for mobile devices such as Android, Apple, Windows, and web. Students will program simple apps on multiple devices, using standard development environments commonly used professionally, using a series of skill-based lessons. Prerequisites: Writing Skills I (ENG090) and Reading Skills I (RDG090).

**CIT-131 Introduction to Creating Mobile Apps**

3 Credits

This course is designed for individuals with no experience with programming languages or previous experience creating mobile applications. The course uses a graphical-user interface blocks editor for students to build their own Android based mobile apps. The course offers reading about the editor and basic programming concepts, tutorial walk through assignments within the editor, and assessments which require students to build unique apps based on the tutorials so that they can demonstrate their understanding and knowledge of what they have learned. Specific programming concepts covered include design logic, programming conditions, variables, procedures, branching and looping. Specific app functionality covered includes sprite animation, multiple screens, and integration with device sensors, texting, databases, video, and other web APIs. Prerequisites: Writing Skills I (ENG090) and Reading Skills I (RDG090) or placement.

**CIT-133 Introduction to Microsoft Office**

3 Credits

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.

**CIT-135 Design for Mobile Devices**

3 Credits

This course introduces the central components of user interface design for mobile devices (phones, tablets, and other). Students will learn how to prototype user interface designs using a series of scaffolded, skill based lessons culminating in a mobile application interface design for an application. Prerequisites: Writing Skills I (ENG090) and Reading Skills I (RDG090) or placement.

**CIT-137 Intro to Big Data with R and R-Studio Studio**

4 Credits

This course provides practical foundation level training that enables immediate and effective participation in big data and other analytics projects. It includes an introduction to big data and the Data Analytics Lifecycle to address business challenges that leverage big data. The course provides grounding in basic and advanced analytic methods and an introduction to big data analytics technology and tools, including MapReduce and Hadoop. Labs offer opportunities for students to understand how these methods and tools may be applied to real world business challenges by a practicing data scientist. The course takes an "Open", or technology-neutral approach, and includes a final lab which addresses a big data analytics challenge by applying the concepts taught in the course in the context of the Data Analytics Lifecycle. Prerequisite: Information Technology Problem Solving (CIT113) or equivalent or department chair approval.

**CIT-162 CISCO Networking I**

3 Credits

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Prerequisite: Reading Skills II (RDG095) or Academic Reading III (ESL098) or placement. For additional information contact CITDepartment@bhcc.mass.edu

**CIT-182 PC Hardware and Software**

3 Credits

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. Prerequisite: Reading Skills II (RDG095) or Academic Reading III (ESL098) or placement. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.

**CIT-183 Healthcare IT Concepts I**

3 Credits

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.

**CIT-216 Visual Basic**

3 Credits

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 and OOP (CIT120). For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.

**CIT-218 Intermediate Visual Basic** 3 Credits

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.

**CIT-219 Information Security and Assurance** 3 Credits

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 from the International Information Systems Security Certification Consortium, Inc. (www.isc2.org). Prerequisite: Windows Operating Systems (CIT268). For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.

**CIT-221 Advanced Computer Forensics** 3 Credits

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) and Windows Operating Systems (CIT268).

**CIT-229 Programming with Android I** 3 Credits

This course introduces the central components of Android programming. Students will learn how to program in Java using the Android Development Tools using a series of scaffolded, skill based lessons culminating in a mobile application which can be exported and placed on a device. Prerequisites: Information Technology Problem Solving (CIT113) or Intro to Computer Science and Object Oriented Programming (CIT120) or Mobile App Development (CIT129) or Chair approval.

**CIT-230 Help Desk Techniques** 3 Credits

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.

**CIT-233 Advanced Microsoft Office** 3 Credits

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. 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: 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.

**CIT-234 Decision Support Using MS Excel** 3 Credits

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 database 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. Prerequisite: Applications/Concepts (CIT110) or Introduction to Computer Science and OOP (CIT120) or Information Technology Problem Solving (CIT113) or equivalent experience or permission of the department chairperson. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.

**CIT-236 SQL Programming** 3 Credits

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 database, 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 Oriented Programming (CIT120), or permission of the department chairperson. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.

**CIT-237 C++ Programming** 4 Credits

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 and 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 CITDepartment@bhcc.mass.edu. All prerequisites must be completed with a C or better.

**CIT-239 JAVA Programming** 4 Credits

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 and 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.

**CIT-240 Database Programming** 3 Credits

This is an intermediate course in procedural programming for database management systems. Topics in this course include: anonymous and named blocks, named procedures and functions, cursors, triggers, collections and the creation and manipulation of temporary tables. Students perform mid-to advanced level manipulation of databases required for logical processing and user interaction with relational databases. Prerequisite: SQL Programming (CIT236) or permission of department chair. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.

**CIT-242 Data Structures**

3 Credits

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.

**CIT-243 Android Development for Java Programmers** 3 Credits

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 fees, 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, AndEngine 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, and 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).

**CIT-250 Collaboration, Communication, and Integrating** 3 Credits

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 and 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 coursework 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.

**CIT-262 Wireless Technology** 3 Credits

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: CISCO Networking I (CIT162).

**CIT-264 Networking Security** 3 Credits

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: CISCO Networking I (CIT162).

**CIT-268 Windows Operating Systems**

3 Credits

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.

**CIT-270 Linux Administration/Lab** 4 Credits

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: CISCO Networking I (CIT162). For additional information and/or a course syllabus contact CITDept@bhcc.mass.edu.

**CIT-271 Batch File Programming** 1 Credit

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.

**CIT-273 Ethical Hacking** 4 Credits

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.

**CIT-275 Information Security Seminar** 3 Credits

This course enables the security specialist to employ the various methodologies, tools, and techniques acquired in earlier course curriculum in protecting, hardening and attacking a network in a Capstone course. The student will be introduced to projects/problems/or scenarios which will require hands on engagement to address. The course will emphasize problem solving, critical thinking, and use of multiple skills, techniques, and tools because of the complex nature of the projects/problems/scenarios. Students are expected to have access to computer with internet access outside of class as there is a major web component to the course. Pre/corequisite: Ethical Hacking (CIT273) or permission of the Department Chair.

**CIT-279 Cisco CCNA Security** 3 Credits

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: CISCO Networking II (CIT167). For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.

## COURSE DESCRIPTIONS

### **CIT-282 MS Windows Administration/Lab Network** 4 Credits

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: CISCO Networking I (CIT162). Pre/corequisite: Windows Operating Systems (CIT268). For additional information and/or a course syllabus contact CITDept@bhcc.mass.edu.

### **CIT-284 Advanced C++/OOP** 3 Credits

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.

### **CIT-285 Advanced Java Programming** 3 Credits

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.

### **CIT-287 Survey of New Popular OOP for for Programmers** 3 Credits

This course is for students who already have deep knowledge of an Object Oriented Language (Advanced Java or Advance C++). This course will cover in depth three of the most commonly requested OOP in the job market, C#, Visual Basic.NET and Python (languages covered may change depending on the current job market needs). The course will focus on the idiosyncrasies of the different new languages. Knowledge of programming structures and ability to implement lengthy and complex programming solutions, use of the debuggers and ease to adapt in deferent IDEs is assumed. Long capstone-like projects will be required for each language examined and students will be responsible to analyze and solve the problems by applying the good programming practices and styles already learned in prior semesters. Prerequisites: Grade of C or better in Advanced Java programming (CIT285) or Advanced C++ (CIT284), and Precalculus (MAT197).

### **CIT-288 Healthcare IT Concepts II** 3 Credits

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. Pre/co-requisite: Healthcare IT Concepts I (CIT183) or permission of the department chair.

### **CIT-543 Data Analytics and Predictive Analysis** 3 Credits

Predictive analytics encompasses a variety of statistical techniques from modeling, machine learning, and data mining that analyze current and historical facts to make predictions about future, or otherwise unknown, events. In business, predictive models exploit patterns found in historical and transactional data to identify risks and opportunities. Models capture relationships among many factors to allow assessment of risk or potential associated with a particular set of conditions, guiding decision making for candidate transactions. This course is the follow up course to Introduction to Big Data with R and R-Studio. The course will pick up where the last one left off at linear regression, and it will continue into other predictive modeling techniques which include multiple linear regression, sentiment analysis, regression trees and neural networks along with basic machine learning techniques. Prerequisite: Intro to Big Data with R and R-Studio (CIT137). For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.

### **CIT-545 MS Word Comprehensive Skills for Workplace Success** 3 Credits

This is a comprehensive course for the development of advanced Word Processing skills based on the most current version of MICROSOFT WORD. Topics covered include basic word processing operations, document presentation and productivity, using tables and mail-merge, collaboration and research, desktop publishing and graphic design, use of templates, multiple documents and themes, document automation and security using forms and macros, desk-top publishing and graphic design, creating newsletters, working with graphics and linking objects, WORD and the Internet, web-page creation, enhancement and blogs. Emphasis is placed on the practical applications of Word Processing found in most organizations today as well as INTERNET applications and integration with the other MS OFFICE programs. Upon completion of this course students will have an in-depth knowledge of Word Processing Skills for workplace success. Microsoft Corporation has approved this course material as course ware for the Microsoft Office Specialist (MOS) Certification Examination and students may choose to take the MOS WORD Certification Examination(s) upon completion of this course. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.

### **CIT-549 Programming for iOS II** 3 Credits

This is an advanced course designed for any student interested in learning advanced app development for iOS devices. In this course students will explore classes, object oriented programming, and the process of app development in an iOS-centric environment. Student will use current IDEs and software to develop native apps for Apple devices. Students will complete hands-on individual projects, individual assessments, group projects, and exams to assess student success at achieving the course outcomes. Prerequisites: Programming for iOS I (CIT543) or C++ (CIT237) or equivalent experience with chair approval. All prerequisites must be completed with a C or better.

## COMPUTER MEDIA TECHNOLOGY

### **CMT-101 Game Development Essentials** 3 Credits

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.

### **CMT-103 Managing Game Development** 3 Credits

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).

### **CMT-111 HTML and Dreamweaver** 3 Credits

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. Pre/Co-requisite: Cascading Style Sheets (CMT125).

### **CMT-113 JavaScript** 3 Credits

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 and Dreamweaver (CMT111).

**CMT-117 XML**

3 Credits

This course introduces the student to writing Extensible Markup Language documents for the Web, using custom markup tags, Cascading Style Sheets and Extensible Style Language Style Sheets. Students will create a Document Type Definition (DTD) for validating their documents with an XML parser. Students will also learn how to transform XML documents into other formats for computers that are not capable of viewing XML format documents. Prerequisite: HTML and Dreamweaver (CMT111).

**CMT-119 The Human Character**

3 Credits

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 polygonals. 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).

**CMT-121 Maya Foundations**

3 Credits

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).

**CMT-123 Maya Character Modeling**

3 Credits

This course will present advanced concepts in the creation of 3D 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 polygonals. These skills are requisite skills of 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 Foundations (CMT121).

**CMT-125 Cascading Style Sheets**

3 Credits

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 to being incorporated as an in-line component, and embedded component, and a remote component on every HTML, JavaScript, XML, ASP.net, PHP, and Ruby page written. It is prevalent and used in IE Explorer, Firefox, Mozilla, Safari, Opera, and Netscape browsers. CSS can be used to create a myriad 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. Pre/Co-requisite HTML and Dreamweaver (CMT111).

**CMT-129 Photoshop for Gaming**

3 Credits

This course will cover Adobe Photoshop techniques as used in a 3D production pipeline. Students will learn the creative and technical processes of creating 2D concept art and illustrations for objects, environments, creatures and characters. Students will also learn how to create and use various texture maps such as color, bump, luminosity, secularity, and transparency. In combination, these maps will be used to create sophisticated materials (shaders) that can be applied to 3D models. Upon completion of the course, students will have a solid foundation and understanding of how Photoshop is used in 3D game and film production. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).

**CMT-217 3D Modeling and Sculpting**

3 Credits

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).

**CMT-223 Maya Character Animation**

3 Credits

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).

**CMT-229 Creating 3-D Special Effects**

3 Credits

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 ChubbChubbs". Prerequisite: Maya Foundations (CMT121).

**CMT-231 MEL Scripting in Maya**

3 Credits

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).

**CMT-241 PHP/MySQL**

3 Credits

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 and Dreamweaver (CMT111) and SQL Programming (CIT236).

**CMT-249 3D Liquids Simulation**

3 Credits

This course will instruct the student in the techniques and processes required to simulate computer generated liquids and liquid flows. The student will be taught the techniques used in the generation of large scale simulations such as floods, oceans, and breaking waves. The student will also be taught the principles and processes for small scale liquid simulations such as water splashes, pouring liquids, animated contained liquids, and molten materials. Additionally the student will study and design realistic interactions, splashes, and redirections that occur between liquids and solid objects.

**CMT-507 jQuery**

3 Credits

This course will provide the student a solid foundation in the use and application of the JavaScript layer known as jQuery. jQuery is an advanced form of JavaScript which provides real-time dynamic effects and multifunctional tasks on a client-side application. jQuery is often viewed in modern web design as a dynamic menu or a dynamic special effect such as a photographic slide show. jQuery is also used to traverse and manipulate the Document Object Model (DOM) and to create user interfaces for mobile devices. Prerequisite: JavaScript (CMT113).

**CRIMINAL JUSTICE****CRJ-101 Introduction to Criminal Justice**

3 Credits

This course is an introduction to the purpose and functions of the criminal justice system. This course will provide students with the history and role of the American Criminal Justice System, and a description of the police, courts, and corrections at the local, state, and federal levels. The course will emphasize the current growing problems of the criminal justice system, ethical issues and professionalism, as well as the future trends of the system. Introduction to criminal justice is of practical concern to professional personnel involved in the system, and also to anyone who wants to understand better the aim of criminal law and how the criminal justice system operates. The course fulfills the Learning Community Seminar requirement for students in AS Criminal Justice. Prerequisites: Writing Skills II (ENG095), and Academic Reading III (ESL098) or Reading Skills II (RDG095) or placement.

## COURSE DESCRIPTIONS

### CRJ-102 Juvenile Justice

3 Credits

This course examines youthful offenders, the civil and criminal procedures used in juvenile court, and the history of the development of the juvenile courts and juvenile justice. The course presents an overview of the institutional response to the problems of juvenile delinquency, along with status offenders, gender specific offenders, special needs offenders and a focus on dependent/neglected and abused children. It emphasizes the police, court, correctional, and child protective agencies that process young offenders. Prerequisites: Writing Skills II (ENG095) and Academic Reading III (ESL098) or Reading Skills II (RDG095), or placement.

### CRJ-103 Criminal Law

3 Credits

This course examines the nature, purpose and development of criminal law from common law to contemporary statutory law. The course will emphasize the principles of criminal liability and elements of crime. Legal analysis, knowledge of concepts and the ability to identify them in complex fact patterns, and the application of legal principles to fact situations in a logical way will be introduced. Prerequisites: Writing Skills II (ENG095) and Academic Reading III (ESL098) or Reading Skills II (RDG095) or placement.

### CRJ-107 Introduction to Corrections

3 Credits

This course provides a historical and philosophical survey of the correctional system. It provides an understanding of corrections as an essential component in the criminal justice system, focusing on punishment, sentencing, probation, community corrections, jails and detention facilities, institutional corrections, inmates, parole, and reentry. The course also gives students an orientation to current correctional concepts and various correctional institutions. Prerequisites: Writing Skills II (ENG095) and Academic Reading III (ESL098) or Reading Skills II (RDG095), or placement.

### CRJ-117 St Law: an Overview of the American Legal System

3 Credits

This course examines 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, history, and government.

### CRJ-201 Management in Criminal Justice

3 Credits

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.

### CRJ-202 Evidence and Ct Procedures

3 Credits

This course examines the structure, organization, and procedures of the American Criminal Court system. The course focuses on case analysis to understand the aspect of criminal prosecution and the role of the key actors in the court. The course addresses concepts of legal analysis and the prospects of reform of the Criminal Court system. Prerequisites: A grade of C or better in College Writing I (ENG111), Introduction to Criminal Justice (CRJ101) and Criminal Law (CRJ103), Criminal Investigation I (CRJ208), or chair approval.

### CRJ-203 Rehabilitation of the Offender

3 Credits

This course provides an examination of community rehabilitation, current programs and services available in the corrections component of the criminal justice system. It emphasizes contemporary practices in corrections such as the community-based work-release programs, furloughs, halfway houses, and individual treatment services. Alternatives to incarceration are also examined. Prerequisites: A grade of C or better in College Writing I (ENG111), Introduction to Criminal Justice (CRJ101) and Criminal Law (CRJ103), or chair approval.

### CRJ-208 Criminal Investigation

3 Credits

This course identifies the fundamentals of criminal investigation within the criminal justice system. The duties and responsibilities of the investigator, both in the field and in the courtroom, are emphasized. The course explores the fundamental components of interviewing and interrogation. Issues concerning rules and chain of custody of evidence will be explored. Prerequisites: A grade of C or better in College Writing I (ENG111), Introduction to Criminal Justice (CRJ101) and Criminal Law (CRJ103) or chair approval.

### CRJ-210 Ethics and Diversity

3 Credits

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. This course also gives students an overview of the ethical dilemmas facing criminal justice professionals as they interact with a diverse population. Prerequisites: a grade of C or better in College Writing I (ENG111), Introduction to Criminal Justice (CRJ101) and Criminal Law (CRJ103) or chair approval.

### CRJ-211 Criminal Procedure

3 Credits

This course examines the workings of those Amendments to the United States Constitution relate to the field of Criminal Justice and that protect the rights of the people. Students will learn about habeas corpus, search and seizure practices pursuant to the Fourth Amendment; self-incrimination under the Fifth Amendment; right to counsel under the Sixth Amendment; and how the rights protected by these amendments were incorporated by the Fourteenth Amendment and made applicable to both state and federal law enforcement. Prerequisites: a grade of C or better in College Writing I (ENG111), Introduction to Criminal Justice (CRJ101) and Criminal Law (CRJ103) or chair approval.

### CRJ-212 Community Corrections

3 Credits

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.

### CRJ-230 American Drug Law

3 Credits

This course explores the problems with drugs, illicit and lawful, and the ways the laws in the United States relate to drugs, their users and distributors. Students learn the manner in which federal and state laws differ in terms of punishment. The course analyzes the dichotomy in the federal treatment of crack cocaine as opposed to powder cocaine and the attendant affect this policy has on communities of color. The course also examines the minimum, mandatory drug sentencing laws and their impact on the criminal justice system. Students also learn about the major worldwide drug smuggling routes through the Balkans, South East Asia, and South and Central America, and the way United States interdiction policies affect this smuggling. Prerequisites: Introduction to Criminal Justice (CRJ101) and Criminal Law (CRJ103) or instructor approval.

### CRJ-299 Criminal Justice Internship

3 Credits

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 in a hands-on learning experience 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. Prerequisites: Completion of all CRJ required courses, a cumulative grade point average of at least 3.0 in the program, a grade of C or better in College Writing I (ENG111) and all of the Criminal Justice Core Courses, and department chair approval.

### CRJ-523 Criminal Forensics/Lab

4 Credits

Forensic science is the application of the scientific method to criminal investigation. Topics include recognition, identification, and evaluation of physical evidence such as hairs, fibers, drugs, blood, glass, soil, fingerprints, and documents. Such topics as serology, analysis of arson debris, forensic analysis of drugs, gunshot residues, papers and inks, paint chips and DNA fingerprints will be discussed in detail. The course is designed for students with minimal background in science. 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.

**COMPUTED TOMOGRAPHY (CT)****CTC-111 Computed Tomography I** 3 Credits

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, and quality control will be discussed. Multi-slice 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.

**CTC-211 Computed Tomography II** 3 Credits

This interactive, web-based course will present patient care in computed tomography, including administration of contrast agents. Imaging procedures of the head, neck, chest, abdomen, pelvis and musculoskeletal system will be discussed, as well as relevant pathology. Special procedures including but not limited to 3-D studies, biopsies, drainage and aspiration and PET/CT fusion will also be presented. Prerequisite: Computed Tomography I (CTC501).

**CTC-299 Computed Tomography Clinical Internship** 3 Credits

This 100-hour clinical introduction will enhance the academic experience for students by introducing them to the clinical practice of CT. Students are responsible for providing their own clinical site. Clinical sites must be pre-approved by program faculty. Students must comply with the clinical policies, as stated in the Student Manual before attending clinical. Criminal Offender Record Information (CORI) checks will be conducted on all students before placement and the outcome may impact the student's ability to participate in the internship experience. Health clearance is also required prior to participation. Prerequisite: permission of department chairperson, Medical Imaging Department. Pre/corequisite: Computed Tomography II (CTC211).

**CULINARY ARTS****CUL-101 Culinary Arts Seminar: If You Can't Stand the Heat** 3 Credits

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.

**CUL-108 Basic Baking Skills** 4 Credits

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.

**CUL-111 Food Service Sanitation and Skills** 3 Credits

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.

**CUL-113 How Baking Works: the Science of Baking** 3 Credits

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.

**CUL-115 Introduction to Culinary Arts** 4 Credits

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. Co-requisite: Principles of Baking (CUL125). This course is for Culinary Arts students only or by permission of the department chairperson.

**CUL-116 Basic Culinary Skills** 4 Credits

This course will provide students with 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.

**CUL-119 Cake Decorating** 3 Credits

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.

**CUL-125 Principles of Baking** 4 Credits

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. Co-requisite: Introduction to Culinary Arts (CUL115). This course is for Culinary Arts students only or by permission of the department chairperson.

**CUL-135 Cafe and Bistro Cuisine** 4 Credits

This seven-week course introduces students to the procedures of the art of Garde Manger and cold food preparation. The course covers basic cooking methods and the chemistry of cooking. The course teaches students to become responsible for menu preparation and production of the daily meal in a cafe environment. The hands-on production lab teaches students to prepare various types of basic stocks, soups, sauces, salads, and sandwiches throughout the course. Additional expenses may include supplies, equipment, and/or uniforms. Prerequisites: Introduction to Culinary Arts (CUL115) and Principles of Baking (CUL125).

**CUL-145 Advanced Desserts** 4 Credits

This seven-week course takes students beyond the basic principles of baking. The students learn cake decorating and advanced pastry production techniques. The course introduces students to the proper application of mixes, laminated dough, fillings, and choux pastries. Additional expenses may include supplies, equipment, and/or uniforms. Prerequisites: Introduction to Culinary Arts (CUL115) and Principles of Baking (CUL125).

**CUL-208 Advanced Baking Skills** 4 Credits

This course will teach advanced pastry production techniques. Students will be instructed in the application of icings, fillings, laminated dough, and yeast products. Students will learn the various techniques used for artisan bread production, as well as laminated dough and their uses. Students will learn and practice basic cake decorating techniques. An introduction to some European pastries will be taught. An emphasis will be placed on timing and execution of the various pastry products, as required in a professional pastry shop. Additional expenses may include supplies, equipment, and/or uniforms. Prerequisites: Basic Baking Skills (CUL108) and Basic Culinary Skills (CUL116).

**CUL-211 Menu Design and Purchasing** 3 Credits

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.

## COURSE DESCRIPTIONS

### **CUL-215 Essentials of Food Production**

4 Credits

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). Co-requisite: Essentials of Dining Service (CUL225). This course is for Culinary Arts students only or by permission of the department chairperson.

### **CUL-216 Advanced Culinary Skills**

4 Credits

This course will build upon skills taught in the Basic Culinary Skills course (CUL116). Students will be immersed in an actual restaurant simulation and will learn proper timing and execution of the meal. Various stations within the kitchen brigade will be taught and students will become proficient in these stations. Students will be introduced to the various types of professional cooking careers and opportunities. Additional expenses may include supplies, equipment, and/or uniforms. Prerequisites: Basic Culinary Skills (CUL116) and Basic Baking Skills (CUL108).

### **CUL-217 Classical and International Pastries**

4 Credits

This course takes the student beyond the basic principles of baking. The students will continue to refine their cake decorating skills and learn European pastry production techniques. The course introduces the students to the techniques used to assemble tiered cakes, as well as the proper cutting and service of tiered cakes. The students will learn how to work with fondant, chocolate and pastillage. Students will learn the basic techniques used in candy making. Prerequisite: Advanced Desserts and Pastries (CUL145).

### **CUL-225 Essentials of Dining Service**

4 Credits

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). Co-requisite: Essentials of Food Production (CUL215). This course is for Culinary Arts students only or by permission of the department chairperson.

### **CUL-235 Advanced and Ethnic Food Production**

4 Credits

This course expands upon students' knowledge of the principles of cooking. The course teaches students to become responsible for preparation and production of a meal from a variety of ethnic cuisines that are integrated into a restaurant setting. Also, the course emphasizes the significance and influence of geography as a factor in the development of regional and international cuisine and culture. The course introduces students to advanced Garde Manger and Dessert techniques that fully complement the meal. Additional expenses may include supplies, equipment, and/or uniforms. Prerequisites: Essentials of Food Production (CUL215) and Essentials of Dining Service (CUL225).

### **CUL-241 Chocolate and Sugar Artistry**

4 Credits

This course is designed to familiarize students with how to work with chocolate and sugar using various techniques. Students will practice these techniques in the production of chocolate confections, such as truffles and molded chocolates. Sugar artistry, such as poured, pulled and blown sugar will be demonstrated and applied. Students will also work with pastillage, marzipan, and gum paste. Additional expenses may include supplies, equipment, and/or uniforms. Prerequisite: Advanced Desserts (CUL145).

### **CUL-243 Hot and Cold Desserts**

4 Credits

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).

### **CUL-245 Food and Beverage Operations**

4 Credits

This course acquaints students with current industry technology and sales techniques. It discusses nutrition and food allergy concerns. The course exposes students to all managerial procedures required in the food service industry. Students learn how to interpret a basic financial statement and use current technology as is required in the restaurant industry. The course introduces students to the wines and spirits that might be paired with the various ethnic cuisines. In this course, students provide service for the Advanced and Ethnic Food Production course. Additional expenses may include supplies, equipment, and/or uniforms. Prerequisites: Essentials of Food Production (CUL215) and Essentials of Dining Service (CUL225).

### **CUL-247 Advanced Classical Desserts and Showpiece Cakes**

3 Credits

This course takes the students to an advanced level of pastry expertise. The students will continue to refine their cake decorating skills and learn advanced pastry production. The course introduces the students to the techniques used to assemble tiered cakes, as well as the proper cutting and service of tiered cakes. Students will learn costing techniques and conversion formulas. Students will analyze costing formulas and pricing criteria for wedding and special occasion cakes. Emphasis is placed on design, construction and preparation of showpieces using sweet and savory ingredients. Prerequisite: Advanced Desserts and Pastries (CUL145) and Introduction to Cake Decorating (CUL119).

### **CUL-249 Baking for Health**

3 Credits

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).

### **CUL-299 Culinary Arts Internship**

3 Credits

The internship allows students the opportunity to gain practical experience in the field of culinary arts. The internship begins after completion of the first academic year and consists of 150 hours of work experience in an approved foodservice facility.

## EARLY CHILDHOOD DEVELOPMENT

### **ECE-101 Guidance and Discipline**

3 Credits

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).

### **ECE-103 Child Growth and Development**

3 Credits

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) or Reading Skills II (RDG095) and Writing Skills II (ENG 095) or exemption from reading and writing requirements by placement testing.

### **ECE-104 Curriculum in Early Childhood Education**

3 Credits

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).

### **ECE-106 Program Environments**

3 Credits

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) or Reading Skills II (RDG095) and Writing Skills II (ENG 095) or exemption from reading and writing requirements by placement testing.

**ECE-108 Infant/Toddler Curriculum Development** 3 Credits

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) or Reading Skills II (RDG095) and Writing Skills II (ENG 095) or exemption from reading and writing requirements by placement testing.

**ECE-157 What/How of Emergent Curriculum and the Project Approach of ECE** 1 Credit

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 the course. Prerequisite: Grade of C or better in Child Growth and Development (ECE103) or equivalent.

**ECE-158 Project Planning Emergent** 1 Credit

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 (ECE 104) prior to enrolling in the course. Prerequisite: Grade of C or better in Child Growth and Development (ECE-103) or equivalent.

**ECE-159 Project Planning-Pushing Beyond Beginnings** 1 Credit

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 the course. Prerequisite: Grade of C or better in Child Growth and Development (ECE103) or equivalent.

**ECE-160 Language and Literacy: Why So Important** 1 Credit

Language development is a critical skill needed by every young child. This module will look at the emergence of language skills, brain development and the need for stimulation from the people and environments interacting with the child. Ways to evaluate the needs of young children and counter challenges with strong literacy environments will be addressed. Grade of C or better in ECE 103 Child Growth and Development or equivalent. Recommended: ECE 104.

**ECE-161 Reading, Writing, Listening, Speaking Pushing It Beyond the Basics** 1 Credit

Language development begins with listening skills and moves through speaking, pre-reading and pre-writing skills. This module will consider these areas of need and ways to help children grow and develop in their skills in all areas. Prerequisites: Students must have a grade of C or better in ECE 103 Child Growth and Development or equivalent prior to enrolling in the courses in this series. It is recommended that students will have taken ECE 104 prior to taking these courses for a better understanding of the material.

**ECE-162 Dual Language Learners The Challenges** 1 Credit

Because language development is so critical to growth and development of the young child, those children who are dual language learners need particular attention to help them reach their potential for strong development in all areas. Ways to address these concerns in the classroom will be a focus. Prerequisites: Students must have a grade of C or better in ECE 103 Child Growth and Development or equivalent prior to enrolling in the courses in this series. It is recommended that students will have taken ECE 104 prior to taking these courses for a better understanding of the material.

**ECE-163 Science and Nature With Young Children In Supervision** 1 Credit

Children learn science concepts by playing the easiest place for that to occur is in the natural environment. Emphasis of this module will be on the ways children learn science and the match between young children's curiosity and science learning. Prerequisite: Grade of C or better in Child Growth and Development (ECE103). Recommended: ECE 104 prior to taking these courses for better understanding of material.

**ECE-164 Using Nature and Science to Plan In Supervision** 1 Credit

Science seems scary and foreign to many teachers and children. Figuring out what to do and how to understand ways to pique 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 with nature study and science learning is all about the skills of observing the children around the classroom. Prerequisite: Grade of C or better in Child Growth and Development (ECE103) or equivalent. Recommended: Curriculum in ECE (ECE104) prior to taking these courses for better understanding of material.

**ECE-165 Pushing the Plan Beyond the Simple In Supervision** 1 Credit

Considering what projects to plan and how long a project should last is tricky. How to keep the children interested and how to develop the project are also essential ingredients of a successful project. How do we help children "document" their ideas and go beyond the simple plans to more complex thinking and activity? Prerequisite(s). Grade of C or better in Child Growth and Development (ECE103) or equivalent. Recommended: Curriculum in ECE (ECE104) prior to taking these courses for better understanding of material.

**ECE-202 Issues in Early Childhood Education** 3 Credits

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) or Reading Skills II (RDG095) and Writing Skills II (ENG 095) or exemption from reading and writing requirements by placement testing.

**ECE-207 Literacy Development and Learning for Children** 3 Credits

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).

**ECE-209 Math Concepts and Learning for Children** 3 Credits

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 and Development (ECE103) or its equivalent, and Curriculum in Early Childhood Education (ECE104) or Child Growth and Development (ECE103) and Introduction and Foundations of Education (EDU101).

**ECE-210 Science Concepts and Learning for Children** 3 Credits

This course is a study of concept development and learning in early childhood education programs with emphasis on curriculum development in the area of science for young children. Prerequisites: Child Growth and Development (ECE103) and Curriculum in Early Childhood Education (ECE104) or Child Growth and Development (ECE103) and Introduction and Foundations of Education (EDU101).

**ECE-211 Young Children With Special Needs** 3 Credits

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.

**ECE-212 Families/Community in Early Childhood Ed** 3 Credits

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.

**ECE-213 Child Care Administration I** 3 Credits

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.

## COURSE DESCRIPTIONS

### **ECE-217 Observation/Recording Behavior** 3 Credits

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).

### **ECE-220 Practicum in Early Childhood Education I** 3 Credits

This practicum experience in an early childhood setting must be completed during the final two semesters of study. The department assigns and/or approves student placement settings. Students must make application for placement and enrollment one semester prior to registration. Acceptance into the Early Childhood Development program does not assure permission to enroll in the course or a placement assignment. For complete course requirements and application procedures, contact the department chair. The course is graded on a pass-fail scale. The course is open only to students matriculated in the Associate in Science Degree: Early Childhood Concentration. Prerequisite: Permission of department chair.

### **ECE-221 Practicum/Early Childhood Education II** 3 Credits

This practicum experience in an early childhood setting must be completed during the final two semesters of study. The department assigns and/or approves student placement settings. Students must make application for placement and enrollment one semester prior to registration. Acceptance into the Early Childhood Development program does not assure permission to enroll in the course or a placement assignment. For complete course requirements and application procedures, contact the department chair. The course is graded on a pass-fail scale. The course is open only to students matriculated in the Associate in Science Degree: Early Childhood Development Program. Prerequisite: Permission of department chair.

## ECONOMICS

### **ECO-201 Macroeconomics** 3 Credits

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) or Pre-Statistics (MAT098) and Reading Skills II (RDG095) or placement.

### **ECO-202 Microeconomics** 3 Credits

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) or Pre-Statistics (MAT098) and Reading Skills II (RDG095) or placement.

## EDUCATION

### **EDU-102 Becoming a Teacher: a Learning Community Seminar** 3 Credits

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.

### **EDU-201 Introduction and Foundations of Education** 3 Credits

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.

### **EDU-220 Practicum in Instruction** 3 Credits

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 and Foundations of Education (EDU201).

## EMERGENCY STUDIES

### **EMS-205 Principles of Paramedicine I** 10 Credits

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 and Physiology, Documentation, Communications, Therapeutic Communications, Medical/Legal Aspects and Ethical Considerations, Basic and Advanced Airway Management and Ventilation, Wave Form Capnography, Patient Assessment, Trauma and Medical Physical Exam Techniques, Obstetric and 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).

### **EMS-206 Principles of Paramedicine II** 10 Credits

This course builds upon the knowledge and skills learned in Principles of Paramedicine I. Topics: Pharmacology, Introduction to Cardiology, Rhythm Interpretation, Introduction to 12 Lead ECG, Advanced Cardiac Life Support (ACLS), Management of Cardiac Emergencies, Medical Emergencies, Pulmonology, Neurology, Stroke Management, Endocrinology, Metabolic Emergencies, Anaphylaxis, Gastrointestinal Emergencies, Urological and Renal Emergencies, Toxicology, Substance Abuse, Hematological Emergencies, Infectious Diseases, and Behavioral Emergencies. Students will demonstrate knowledge and perform manipulative skills under the supervision of the course instructor, program director, medical director, and/or skilled preceptor. Adherence to the attendance policy and minimum final course grade of B- must be achieved in order to advance in the program. Prerequisites: Principles of Paramedicine I (EMS205) and Paramedic Clinical Rotation I (EMS214). Co-requisite: Paramedic Clinical Rotation II (EMS215).

### **EMS-207 Principles of Paramedicine III** 4 Credits

This course builds upon the knowledge and skills learned in Principles of Paramedicine I and II. Topics: Pediatrics, Assessment of the Pediatric Patient, Pediatric Advanced Life Support (PALS), Geriatrics, Traumatic Systems and Mechanisms of Injury, Hemorrhage and Shock, Head and Facial Trauma, Thoracic Trauma, Abdominal Trauma, and Musculoskeletal Trauma. Students will demonstrate knowledge and perform manipulative skills under the supervision of the course instructor, program director, medical director, and/or skilled preceptor. Adherence to the attendance policy and minimum final course grade of B- must be achieved in order to advance in the program. Prerequisites: Principles of Paramedicine II (EMS206) and Paramedic Clinical Rotation II (EMS215). Co-requisite: Paramedic Clinical Rotation III (EMS216).

### **EMS-208 Principles of Paramedicine IV** 4 Credits

This course builds upon the knowledge and skills learned in Principles of Paramedicine I, II, and III. Topics: International Trauma Life Support (ITLS), Hazardous Materials, Responding to Terrorist Acts, Rescue Awareness, Medical Incident Command, Abuse and Assault, Crime Scene Response, EMS Stress Management, Ambulance Operations and Acute Interventions for Chronic Care Patients. Students will demonstrate knowledge and perform manipulative skills under the supervision of the course instructor, program director, medical director, and/or skills preceptor. Adherence to the attendance policy and a minimum final course grade of B- must be achieved in order to advance in the program. Prerequisites: Principles of Paramedicine III (EMS207) and Paramedic Clinical Rotation III (EMS216). Co-requisite: Paramedic Clinical Rotation IV (EMS217).

**EMS-214 Paramedic Clinical Rotation I**

3 Credits

Work-based learning experience conducted in a hospital/clinical setting that enables the paramedic student to apply specialized occupational theory, concepts, and skills learned in Principles of Paramedicine I (EMS201). Students will complete a minimum of 150 hours in this clinical practicum. Students will integrate instruction with clinical experience under the supervision of a preceptor. Clinical rotations will be conducted in a variety of medical-related facilities to include, emergency divisions, respiratory therapy, anesthesia, surgical units, and labor and delivery. Students will be required to document all clinical time and complete program requirements for patient assessments, intubations, medication administrations, IV Bolus, infusions, live births, and cannulations. Adherence to the program requirements, attendance policy, and receipt of satisfactory clinical evaluations must be achieved in order to advance in the program. Students are required to take and pass a terminal skill competency practical conducted by the program and/or medical director at the conclusion of this course. Co-requisite: Principles of Paramedicine I (EMS205).

**EMS-215 Paramedic Clinical Rotation II**

3 Credits

This course is a continuation of Paramedic Clinical Rotation I (EMS214). It is a work-based learning experience conducted in a hospital/clinical setting that enables the paramedic student to apply specialized occupational theory, concepts, and learning skills in Principles of Paramedicine I (EMS205) and Principles of Paramedicine II (EMS206). Students will complete a minimum of 150 hours in this clinical practicum. Students will continue to integrate instruction with clinical experience under the supervision of a preceptor. Clinical rotations will be conducted in a variety of medical-related facilities to include: emergency divisions, intensive care/critical units, psychiatric, and pediatrics. Students will be required to document all clinical time and complete program requirements for ECG interpretations including 12 lead, Advanced Cardiac Life Support (ACLS), patient assessments in psychiatric, pediatrics, geriatrics. Adherence to the program requirements, attendance policy, and receipt of satisfactory clinical evaluations must be achieved in order to advance in the program. Students are required to take and pass a terminal skill competency practical conducted by the Program Director and/or the medical director at the conclusion of this course. Prerequisites: Principles of Paramedicine I (EMS205) and Paramedic Clinical Rotation I (EMS214). Co-requisite: Principles of Paramedicine II (EMS206).

**EMS-216 Paramedic Clinical Rotation III**

1 Credit

This course is a continuation of Paramedic Clinical Rotation II (EMS215). It is a work-based learning experience conducted in a hospital/clinical setting that enables the paramedic student to apply specialized occupational theory, concepts, and learning skills in Principles of Paramedicine I (EMS205), Principles of Paramedicine II (EMS206), and Principles of Paramedicine III (EMS207). Students will continue to integrate instruction with clinical experience under the supervision of a preceptor. Clinical rotations will be conducted in a variety of medical-related facilities to include: emergency divisions, intensive care/critical units, psychiatric, and pediatrics. Students will be required to document all clinical time and complete program requirements for ECG interpretations including 12 lead, Advanced Cardiac Life Support (ACLS), patient assessments in psychiatric, pediatrics, geriatrics. Adherence to the program requirements, attendance policy, and receipt of satisfactory clinical evaluations must be achieved in order to advance in the program. Students are required to take and pass a terminal skill competency practical conducted by the Program Director and/or the medical director. Prerequisites: Principles of Paramedicine II (EMS206) and Paramedic Clinical Rotation II (EMS215). Co-requisite: Principles of Paramedicine III (EMS207).

**EMS-217 Paramedic Clinical Rotation IV**

1 Credit

This course is a continuation of Paramedic Clinical Rotation III (EMS216). It is a work-based learning experience conducted in a hospital/clinical setting that enables the paramedic student to apply specialized occupational theory, concepts, and learning skills in Principles of Paramedicine I (EMS205), Principles of Paramedicine II (EMS206), Principles of Paramedicine III (EMS207), and Principles of Paramedicine IV (EMS208). Students will complete 50 hours in this clinical practicum. Students will be required to document all clinical time and complete program requirements for ECG interpretations including 12 lead, Advanced Cardiac Life Support (ACLS), patient assessments in psychiatric, pediatrics and geriatrics. Adherence to the program requirements, attendance policy, and receipt of satisfactory clinical evaluations must be achieved in order to advance in the program. Students are required to take and pass a terminal skill competency practical conducted by the Program Director and/or the Medical Director. Prerequisites: Paramedicine III (EMS207) and Paramedic Clinical Rotation III (EMS216). Co-requisite: Principles of Paramedicine IV (EMS208).

**EMERGENCY MEDICAL TECHNICIAN****EMT-103 Emergency Medical Technician**

7 Credits

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.

**ENGLISH****ENG-090 Writing Skills I**

3 Credits

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).

**ENG-095 Writing Skills II**

3 Credits

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.

**ENG-111 College Writing I**

3 Credits

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.

**ENG-112 College Writing II**

3 Credits

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).

**ENG-115 Writing Tutor Seminar**

3 Credits

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.

**ENG-171 Oral Communication**

3 Credits

This course develops students' pose and self-confidence through oral expression. The course emphasizes presentation of individual talks and participation in class discussions.

**ENG-203 Creative Writing Workshop**

3 Credits

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).

**ENG-231 Introduction to Fiction Writing**

3 Credits

Everyone tells stories, but what makes a story "good"? Why are there some we want to hear over and over, tirelessly, even though we know what will happen in the end? In this class, students will look at solid story structure, the elements that make up a "good" compelling story, and ways to tell the tales we have to tell in the best possible way to capture our audience. Students will participate as writers and critical readers in examining their own creative work, the work of their peers, and of established authors. This course meets the General Education Humanities Requirement 6. Pre/Co-requisite: College Writing I (ENG111).

## COURSE DESCRIPTIONS

### ENG-232 Introduction to Poetry Writing

3 Credits

This course offers a thorough, hands-on exploration of the principles of writing poetry with emphasis on the elements of craft, voice, form, and analysis of the techniques, structures and styles of established poets. Through extensive reading and writing exercises, students will be able to develop a deeper understanding of the historical and global context of the craft, how it resonates within contemporary culture, while strengthening their own poetic voice. By the end of the course, students will have produced a body of work that expresses his/her ideas or ideals in an original and coherent manner. This course meets the General Education Humanities Requirement 6. Pre/Co-requisite: College Writing I (ENG111).

### ENG-241 Journalism I

3 Credits

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).

### ENG-242 Journalism II

3 Credits

This course combines class discussions of journalistic principles with practice in writing news stories. The course then shifts emphasis to field work for the student newspaper, The Third Rail, or another 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).

### ENG-503 Fiction Writing Workshop

3 Credits

This course presents the fundamentals of short story writing: plot structure, narrative voice, character development, as well as point of view, dialogue, description and significant detailing. Through short story reading assignments, class discussions and writing exercises, students will gain a deeper understanding of the fiction process while sharpening their own unique voice in writing the short story form. The majority of class time is devoted to the workshop process, reading and responding to the creative work.

### ENG-521 Poetry Writing Workshop

3 Credits

This course offers a thorough, hands-on exploration of the principles of writing poetry with emphasis on the elements of craft, voice, form, and analysis of the techniques, structures and styles of established poets. Through extensive reading and writing exercises, students will strengthen their own poetic voice while developing a deeper understanding of the craft. The majority of course time will be dedicated to the workshop process of reading and responding to student writing. Prerequisite: Writing Skills II (ENG095) or placement in College Writing I (ENG111).

## ENGINEERING

### ENR-101 Introduction to Engineering/Lab

4 Credits

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 a teamwork approach to engineering projects. Course meets 3 hrs. lecture - 3 hrs. lab.

### ENR-103 Fundamentals of Computer-Aided Drawing And Design

3 Credits

This course will introduce students to the use of computer software for creating engineering drawings and developing engineering designs and design models. Students will use the AUTOCAD software package as they learn standard views and dimensions for engineering drawings, replicate standard geometrical models, and create models and drawings for selected 2D and 3D engineering designs and projects. Pre/corequisite: Intro to Engineering (ENR101).

### ENR-260 Engineering Statics

3 Credits

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).

### ENR-265 Engineering Dynamics

3 Credits

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 hearts and bladders, to predictions of the motions of satellites, spacecraft, etc. Course meets 3 hours lecture. Prerequisite: Grade of C or better in Engineering Statics (ENR260). Co-requisite: Ordinary Differential Equations (MAT285).

### ENR-270 Strength of Materials

3 Credits

The course extends the equilibrium analysis covered in statics to deformable bodies, especially to various members that make up structures and machines. Students will learn the three fundamental concepts in this course, i.e. Equilibrium, Force-Temperature-Deformation Behavior of Materials, and Geometry of Deformation. The course includes the following concepts: stress and strain, stress transformation, temperature stresses, stress and deformation in bodies under axial, shearing, flexural, torsional and combined loadings, shear and bending moment diagrams, and Euler's columns. Course meets: 3 hour lecture. Prerequisite: Grade of C or better in Engineering Statics (ENR260). Co-requisite: Ordinary Differential Equations (MAT285).

### ENR-500 Engineering Internship

3 Credits

An Engineering Education Internship at the Museum of Science. Student will get hands-on experience in the development of an elementary engineering curriculum.

### ENR-511 Engineering for Utility Technicians

4 Credits

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 problem-solving, team building, and teamwork approach to engineering projects. EPUT and GUT students only. Prerequisite: College Algebra (MAT194) or Topics in Algebra/Trigonometry (MAT193).

## ENVIRONMENTAL SCIENCE

### ENV-105 Environmental Science I/Lab

4 Credits

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.

### ENV-106 Environmental Science II/Lab

4 Credits

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 Foundations of Math (MAT093) or placement, and Academic Reading III (ESL098) or Reading Skills II (RDG095), or placement.

### ENV-110 Sustainable Resource Conservation

4 Credits

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.

**ENV-111 Survey of Renewable Energy** 4 Credits

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.

**ENV-113 Introduction to Oceanography/Lab** 4 Credits

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. This course will satisfy the General Education "Science and Technology" Area 5 requirement. Prerequisites: Writing Skills II (ENG095), Foundations of Mathematics (MAT093), and Reading Skills II (RDG095) or placement.

**ENV-115 Earth Science** 4 Credits

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. This course will satisfy the General Education "Science and Technology" Area 5 requirement. Prerequisites: Writing Skills II (ENG095), a grade of C or better in Foundations of Mathematics (MAT093), and Reading Skills II (RDG095) or placement.

**ENV-120 Tropical Field Studies** 4 Credits

This course is an investigation of the ecology, conservation, and diversity of tropical ecosystems. As part of a study-abroad student team, students will learn and participate in scientific field research methods on location in a tropical country. By participating in a variety of trips, and activities students will also investigate the interrelationship of local culture, ecotourism, and conservation. Students will be required to complete a self-designed scientific field research project and participate in a community services project while in the country of study. Past studies have occurred in Costa Rica and Nicaragua but future trips are not limited to these two tropical countries. Course requires additional travel fees and purchase of personal field supplies. Course meets General Education "Science and Technology" Requirement Area 5. Study-Aboard scholarships are available for qualified students. Prerequisite: submission of study-abroad application and approval of the science and engineering department.

**ENV-515 Independent Study in Environmental Sci** 1 Credit

This course provides an opportunity for advanced students to work on a specialized topic or research project under the guidance of a sponsoring environmental science faculty member outside the traditional, lecture/laboratory course framework. Days and meeting times to be determined.

**ELECTRIC POWER UTILITY****EPU-101 DC Circuit Theory and Lab** 4 Credits

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.

**EPU-104 AC Circuit Theory/Lab** 4 Credits

This course provides in-depth coverage of alternating current electrical theory. Topics covered include inductance, transformers, capacitance, reactance, impedance, and resonance. The j-operator is employed. Course meets 3 hrs. lecture/3 hrs. lab. Prerequisite: DC Circuit Theory/Lab (ETT101).

**EPU-151 Fundamentals of Single Phase and Polyphase Metering** 4 Credits

This course introduces students to the fundamentals of Single Phase and 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.

**EPU-203 Intro to Underground Operations** 4 Credits

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.

**EPU-205 Introduction to Substation Operations** 4 Credits

This course introduces students to electric substations. Through classroom instruction and extensive "hands-on" experience students will learn about the basic purpose and operation of substations as key parts of power distribution systems. Students will learn the various job responsibilities of substation personnel. Safety procedures including vault entry/exit and rescue procedures will be discussed and demonstrated. Students will learn how to read and interpret substation prints. Substation equipment orientation will be performed to provide students with an understanding of substation equipment. Students will become familiar with the dispatch center and its functions. (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 the Electric Power Utility Program-General Worker Option.

**EPU-251 Electric Power/Utility Tech Internship** 3 Credits

This course will cover a variety of topics that consist of practical work experience in the NSTAR workforce environment involving working on line trucks and learning and performing all of the tasks of an overhead line worker. The course will also cover the instruction and practical exercise of soft skills in today's work environment. Soft skills are those skills used every day in the workplace to assist in making assigned tasks easier to accomplish through teamwork and collaboration in a multi-cultural environment. Soft skills are increasingly being incorporated in job descriptions throughout the workforce as companies and institutions seek to employ students that have had successfully incorporated soft skills as part of their curriculum. Prerequisites: College Writing I (ENG111), Fundamentals of Single Phase and Polyphase Metering (EPU151), Underground and Substation Operations (EPU153), and Group Dynamics (PSY107).

**EPU-257 Power and Distribution Systems** 3 Credits

This course introduces the basic concepts of electrical power systems. Subject areas include 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).

**ENGLISH AS A SECOND LANGUAGE****ESL-074 Listening Comprehension and Discussions** 3 Credits

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.

## COURSE DESCRIPTIONS

### ESL-075 Grammar Structures and Editing 3 Credits

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.

### ESL-078 Academic Reading I 3 Credits

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.

### ESL-079 Academic Writing I 3 Credits

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.

### ESL-085 Intermediate Grammar and Editing 3 Credits

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.

### ESL-086 Academic Listening and Note-Taking 3 Credits

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.

### ESL-087 Contemporary Issues and Conversations 3 Credits

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.

### ESL-088 Academic Reading II 3 Credits

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.

### ESL-089 Academic Writing II 3 Credits

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.

### ESL-095 Advanced Grammar and Editing 3 Credits

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.

### ESL-096 Lecture Comprehension and Academic Vocabulary 3 Credits

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.

### ESL-097 Academic Discussions and Presentations 3 Credits

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.

### ESL-098 Academic Reading III 3 Credits

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.

### ESL-099 Academic Writing III 3 Credits

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.

## ENERGY AND SUSTAINABILITY MANAGEMENT

### ESM-105 Green Buildings 3 Credits

This course provides a framework for making practical design and construction decisions that are environmentally responsible by focusing on 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.

**ESM-115 Sustainable Facilities Management** 3 Credits

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 and 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.

**ESM-211 Project Management and Finance for Energy** 3 Credits

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).

**ESM-299 Energy and Sustainability Internship** 3 Credits

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 ESM program directors. Students who do not meet attendance standards for the ESM program may not be eligible to participate in the internship.

**FINANCE****FIN-106 Introduction to Corporate Finance** 3 Credits

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.

**FIN-111 Investments** 3 Credits

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).

**FIN-112 Personal Finance** 3 Credits

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.

**FIN-210 Financial Management** 3 Credits

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).

**FIN-211 Money and Banking** 3 Credits

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).

**FIN-213 Mutual Fund Industry** 3 Credits

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 (FIN111).

**FILM****FLM-101 Film As Art** 3 Credits

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).

**FLM-102 American Cinema** 3 Credits

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).

**FIRE PROTECTION AND SAFETY****FPS-107 Fire Company Officership** 3 Credits

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.

**FPS-111 Fire Service, This Century and the Next, What Should We Expect?** 3 Credits

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 of 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 National Fire Protection Association (NFPA) 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.

**FPS-119 Principles of Fire and Emergency Services Safety and Survival** 3 Credits

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

**FPS-123 Principles of Emergency Services** 3 Credits

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; and 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.

**FPS-125 Hazardous Materials Chemistry** 3 Credits

This course provides an overview of basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity, and health hazards encountered by emergency service. 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.

## COURSE DESCRIPTIONS

### FPS-127 Fire Protection Hydraulics and Water Supply 3 Credits

This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. Prerequisites: A grade of C or better in Writing Skills II (ENG095) or by placement testing; a grade of C or better in Academic Reading III (ESL098) or Reading Skills II (RDG095) or by placement testing; and a grade of C or better in Foundations of Algebra (MAT097) or Pre-Statistics (MAT098) or by placement testing.

### FPS-133 Fire Protection Systems 3 Credits

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.

### FPS-135 Fire Behavior and Combustion 3 Credits

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.

### FPS-139 Fire Prevention Services Safety and Survival 3 Credits

This course provides fundamental knowledge relating to the field of fire prevention. Topics include: the history and philosophy of fire prevention; the organization and operation of a fire prevention bureau; the 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).

### FPS-221 Strategy and Tactics 3 Credits

This course provides the principles of fire ground control through utilization of personnel, equipment, and extinguishing agents. Prerequisites: Principles of Emergency Services (FPS123) and 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.

### FPS-223 Building Construction for Fire Protection 3 Credits

This course provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are shown 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.

## FRENCH

### FRE-101 Elementary French I 3 Credits

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.

### FRE-102 Elementary French II 3 Credits

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.

### FRE-201 Intermediate French I 3 Credits

This course is a review of basic French 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.

### FRE-202 Intermediate French II 3 Credits

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.

## GEOGRAPHY

### GEO-101 World Regional Geography 3 Credits

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.

## GERMAN

### GER-101 Elementary German I 3 Credits

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.

### GER-102 Elementary German II 3 Credits

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.

## GEOGRAPHIC INFORMATION SYSTEMS

### GIS-124 Intro to Geographic Information Systems 4 Credits

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 complement 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. This course will satisfy the General Education "Science and Technology" Area 5 requirement. Prerequisites: Writing Skills II (RDG095) or Academic Reading III (ESL098) or exemption by placement.

## GOVERNMENT

### GOV-101 Government/Politics in US 3 Credits

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.

### GOV-103 State/Local Politics 3 Credits

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.

### GOV-211 Comparative Governments 3 Credits

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.

**GOV-507 International Relations**

3 Credits

This course focuses on basic patterns and concepts which explain interactions among nations, supranational organizations, and various actors in the international system. Special attention is given to the role of ideologies, international organizations, conflict resolution, the impact of multinational corporations, development, the international dimension of human rights, identity based differences (e.g., ethnicity, race, gender, religion), environmental policy, and the dynamics of globalization. Prerequisite: Grade of C or better in College Writing I (ENG111).

**GAS UTILITY TECHNOLOGY****GUT-101 Introduction to the Utility Industry**

4 Credits

This lab course presents an introductory examination of the history, concepts and applied techniques of the natural gas and associated utilities including communications (fiber optics), electric, steam and condensate, and water and sewer. Special focus will be placed on providing the background and context for students to understand the evolution of the utility industry. The lab portion of the course will provide students with the knowledge and skills required to demonstrate the competencies required to obtain eight Basic Operator Qualifications used in the winter intersession two week work experience and the summer internship. Students will be introduced to heavy equipment, specialized tools and materials used in the utility industry. Prerequisites: Acceptance into the Gas Utility Technology Degree Option Program; Grade of C or better in Writing Skills II (ENG095) or placement; and a grade of C or better in Foundations of Algebra (MAT097) or placement.

**GUT-102 Gas Utility Technology I**

4 Credits

This lab course further defines the tools, challenges, processes, and safety measures used in the natural gas utility industry and explores the components that make up the complex transmission and processing methods. The lab portion of the course will be a hands-on learning experience focused on teaching students about specific task operator qualifications (OQ's) that are necessary to work in the natural gas industry in order to ensure safety and quality. Students may earn between 8-15 additional task specific OQ's which will allow them to take on more responsibility in the field. Prerequisites: Grade of C or better in Intro to the Utility Industry (GUT101).

**GUT-103 Gas Utility Technology II**

4 Credits

This lab course creates a deeper understanding of the natural gas industry and discusses the future of natural gas as an energy source both domestically and globally. This course explores environmental concerns (i.e. with land, air, and water) that could be affected due to pollution by byproducts of the tracking process. The lab portion of the course further explores specific operator qualifications. Students will be immersed in best practice discussions with subject matter experts and exposed to some of the more challenging tasks within the industry. Prerequisite: Grade of C or better in Gas Utility Technology I (GUT102). Co-requisite: Utility Industry Regulations, Ethics, and Safety Standards (GUT104).

**GUT-104 Utility Industry Regulations, Ethics, and Safety Standards**

3 Credits

This course will provide students with an introduction to local, state and federal regulations governing the utilities industry. Emphasis will be placed on regulatory compliance, safety standards, and, business ethics. Special focus will be placed on Pipeline and Hazardous Material Safety (PHMSA) regulations governing the transportation of hazardous materials and spill response; Occupational Safety and Health Administration's (OSHA) regulations; CPR and First Aid requirements and training; Manual for Uniform Traffic Control Devices (MUTDC); Massachusetts Department of Public Utilities'(DPU) regulations, and local permitting requirements. Prerequisites: Acceptance into the Gas Utility Technology Degree Option Program and Gas Utility Technology I (GUT102). Corequisite: Gas Utility Technology II (GUT103).

**GUT-105 Leadership for the Utility Professional**

4 Credits

This lab course introduces the traits required for effective leadership and advancement to foreman in the utility industry. It begins with an introduction to customer service, transitions to a more in depth exploration of safety and compliance issues, quality workmanship, and reliability standards. Students are then introduced to global economics, geopolitics, and the environment. The course continues to explore tracking, hydraulic fracturing, horizontal drilling, and the development of a worldwide natural gas infrastructure. Students will also be introduced to additional tools and technology utilized in the natural gas pipeline replace, repair, and maintenance industry. The lab portion further explores specific operator qualifications. Students will be immersed in best practice discussions with subject matter experts and exposed to some of the more challenging tasks within the industry. Students have an opportunity to earn an additional 8-15 Operator Qualifications (OQ's). Prerequisites: Grade of C or better in Gas Utility Technology II (GUT103) and Utility Industry Regulations, Ethics, and Safety Standards (GUT104).

**GUT-299 Gas Utility Technology Summer Internship**

4 Credits

This course enhances the academic experience for students enrolled in the Gas Utility Technology Degree Option Program. All internships take place at Feeney Brothers Excavation, LLC or another utility company. Students engage in activities that improve knowledge of the practical world of work and help them gain professional experience. The internship experience applies resources gained from students' study in the classroom and lab components. This is accomplished while in a supervised on-the-job (OJT) training environment with assigned mentors. A faculty coordinator supervises and grades all courses. Students are responsible for following all guidelines in the BHCC Internship Handbook. Prerequisite: Gas Utility Technology I (GUT102) with a grade of C or better and permission of Department Chair.

**HISTORY****HIS-101 Western Civilization to the Renaissance**

3 Credits

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.

**HIS-102 Western Civilization from the Renaissance**

3 Credits

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.

**HIS-111 World Civilization to 1500**

3 Credits

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.

**HIS-112 World Civilization From 1500**

3 Credits

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.

**HIS-117 Women in U.S. History**

3 Credits

This class will explore women's roles in American history. It will provide a chronology of the progress of their role from 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.

**HIS-151 US History: Colonization through the Civil War**

3 Credits

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.

**HIS-152 US History: Reconstruction to the Present**

3 Credits

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.

## COURSE DESCRIPTIONS

### HIS-535 Civil Rights Movement

3 Credits

The civil rights movement represents arguably the most important social movement of the twentieth century. Its political, economic, and cultural reverberations transcended race, class, and gender. While 1954's Brown Supreme Court decision signaled the beginning of the modern Civil Rights Movement, the struggle for civil rights began years before then. While educated leaders such as Martin Luther King, Jr. led a successful bus boycott, racial violence and terror continued to escalate. Grass roots movements such as SNCC led effective sit-ins to force social and political change. The modern women's movement began the fight for gender equality, equal pay, equal rights, and privacy rights. Same-sex groups fought for equal rights afforded all other groups. This course will examine the struggles of African Americans, women, LGBTQ, and other groups in a broad context of 20th century American History. Prerequisites: Grade of C or better in College Writing 1 (ENG 111) and a history course (HIS 101 or 102, HIS 111 or 112, HIS 151 or 152).

## HONORS

### HON-200 Honors Seminar

3 Credits

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.

## HOSPITALITY

### HRT-105 Hospitality Seminar

3 Credits

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.

### HRT-109 Hospitality Marketing Management

3 Credits

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).

### HRT-112 Food and Beverage for Hospitality Prof

3 Credits

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 to 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.

### HRT-117 Hospitality Law

3 Credits

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 Americans with Disabilities Act compliance are also addressed.

### HRT-119 Basics of Meeting Management

3 Credits

This course covers applied knowledge and skills 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.

### HRT-121 Principles of Management and Service in Hospitality

3 Credits

This 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.

### HRT-131 Front Office Operations

3 Credits

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.

### HRT-133 Culinary Theory in Hospitality

3 Credits

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.

### HRT-210 Hotel/Rest/Tour Field Exp Internship

3 Credits

This course integrates classroom study with practical work experience. Under the guidance of a site supervisor and a faculty member, the experience helps students to shape career goals and to gain valuable work experience. Prerequisite: Principles of Management and Service in Hospitality (HRT121).

### HRT-223 Event Planning

3 Credits

This course covers applied knowledge and skills that students need to plan professional and non-profit events. The course takes students through the step-by-step process and the decisions, problems, and concerns of planning special events. The class format requires students to undertake a team project based on a variety of typical professional specifications. The specific needs of producing social functions, concerts, corporate events and sporting events are discussed in detail. The needs and goals of various fund-raising programs are also explored. Prerequisite: Basics of Meeting Management (HRT119).

### HRT-229 Corporate Travel Management Hospitality

3 Credits

This course discusses the budget-driven needs of corporate travel purchasers and the convenience-based needs of the corporate traveler. The goal of the course is to use knowledge acquired in previous courses to control the travel spending of a corporation. This changes the focus from service, which is stressed in almost every other Hospitality course, to cost control. The role of the effective Travel Manager, who is challenged to balance these two competing needs in a corporate travel department, is studied. Prerequisite: Travel Services Management (HRT127).

### HRT-231 Advanced Lodging Operations

3 Credits

This course continues to explore the functions of hotel management including Food and Beverage, Engineering, Housekeeping, Security and other "back of the house" issues. Students will complete their understanding of management technique and the lodging environment. Prerequisite: Front Office Operations with Technology Component (HRT131).

## HUMAN SERVICES

### HSV-101 Intro Human Services W/Field Practice

3 Credits

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) or Reading Skills II (RDG095) and Writing Skills II (ENG095) or exemption from reading and writing requirements by placement testing.

### HSV-112 Addiction

3 Credits

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) 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.

### HSV-214 Ethics in Human Services

3 Credits

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 w/Field Practice (HSV101), and Addiction (HSV112).

### HSV-215 Introduction to Substance Abuse Counseling

3 Credits

This course provides an introduction to human services and addictions, including the types of clients served, the duties of human service personnel, philosophy and dynamics of addictions treatment and an overview of state and community resources. Case studies are used to examine the development, identification, dynamics and recovery of addicts. Prerequisites: Addiction (HSV112) and Counseling (PSY215).

**HSV-216 Pre-Practicum Prep With Field Experience** 3 Credits

This course is designed to provide an orientation to practicum experiences in the human services program. Students will review the process for setting up a placement, understanding professional requirements for an interview, and complete a series of critical thinking and reflective assignments. A placement experience in a human service agency is required by the course following a CORI background check. A grade of "B" or better is required in this course to allow for enrollment in further practicum coursework in the program. Prerequisites: for Associate degree students: Grade of C or better in College Writing II (ENG112) and a minimum of 27 credits completed toward the A.S. in Human Services including, at a minimum, a grade of C or better in HSV101, HSV112, PSY215 and PSY224. For Certificate students: Grade of C or better in College Writing I (ENG111) and a minimum of 15 credits completed toward the Certificate Option including, at a minimum, PSY215 and HSV112.

**HSV-217 Current Issues in Human Services** 3 Credits

This course is the study of current issues in the human services delivery system with emphasis on human, legal, and civil rights, service delivery, and resource availability. Economic, political, and social changes in society that affect the delivery of human services with particular attention to the needs of housing, employment, health, nutrition, and well-being of participants in the system will be examined. Prerequisites: Intro to the HS Profession Practicum (HSV101), Principles of Psychology (PSY101), Counseling (PSY215), and Adolescent and Adult Development (PSY224).

**HSV-218 Case Management in Human Services** 3 Credits

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.

**HSV-220 Practicum in Human Services I** 3 Credits

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 and Human Services. Course is graded on a pass/fail scale. HSV 220, and 221 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.

**HSV-221 Practicum in Human Services II** 3 Credits

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 chairperson of Early Childhood, Education and Human Services. Course is graded on a pass/fail scale. HSV220, and 221 are to be taken in sequence beginning in the fall semester and concluding in the first term of the summer semester. Prerequisite: Practicum in Human Services I (HSV220).

**INTERDISCIPLINARY STUDIES**

**INT-101 Introduction to Yoga Studies** 3 Credits

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.

**INT-110 American Culture** 3 Credits

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.

**INT-299B Learn and Earn Business Internship** 3 Credits

Interdisciplinary internship course

**INT-299BI Learn and Earn Biotech Internship** 3 Credits

Interdisciplinary internship course

**INT-299CU Learn and Earn Culinary Internship** 3 Credits

Interdisciplinary internship course

**INT-299E Learn and Earn Engineering Internship** 3 Credits

Interdisciplinary internship course

**INT-299G Learn and Earn Graphic Internship** 3 Credits

Interdisciplinary internship course

**INT-299H Learn and Earn Hospitality Internship** 3 Credits

Interdisciplinary internship course

**INT-299IT Learn and Earn Info Tech Internship** 3 Credits

Interdisciplinary internship course

**INT-299P Learn and Earn Paralegal Internship** 3 Credits

Interdisciplinary internship course

**INT-511 Intro to African American Studies** 3 Credits

The course will introduce students to the growing field of African American Studies. Emphasis will be placed on introducing students to the culture of African Americans including, explorations of literature, social thought and political protest. We take an interdisciplinary approach to the African American experience, using historical, sociological, psychological, philosophical and literary texts, films and documentaries, music, folklore, and news and current events. We will also explore the global influence of African American culture on political thought and artistic expression internationally. Students will also explore Boston's resources for African American Studies, including visits to the African American History Museum, African American Studies Programs at local colleges, and African American artists' studios. The course will also provide students with an understanding of the origins, relevance, and scope of African American Studies, and prepare them for further study in the field. Prerequisites: Writing Skills II (ENG095) or placement in College Writing I.

**ITALIAN**

**ITL-101 Elementary Italian I** 3 Credits

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.

**ITL-102 Elementary Italian II** 3 Credits

This course is a continuation of Elementary Italian I (ITL101), emphasizing speaking and reading skills. The course meets General Education "Humanities" Requirement Area 6. Prerequisite: Elementary Italian I (ITL101) or one year of high school Italian. This course is offered in alternate years.

**JAPANESE**

**JPN-101 Elementary Japanese** 3 Credits

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.

## COURSE DESCRIPTIONS

### JPN-102 Elementary Japanese II

3 Credits

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 to 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).

## LEARNING COMMUNITY SEMINAR

### LCS-101A Careers in Health Care: What's Right for Me?

3 Credits

This course offers answers to the following questions. What do the various health professions do? What are the qualifications for the various health professions? What credentials are needed? The seminar will explore health professions such as nursing, medical imaging, occupational therapy, physical therapy, respiratory therapy, and surgical technology. Current issues facing health care will be discussed, including patient interactions, end of life issues, health disparities and workforce shortages. Open to first year students interested in pursuing a career in health.

### LCS-101AB Life in Rhymes: Voicing Your Future

3 Credits

This course inspires students to tap into their creative skills, build strength and confidence in their writing, and go forth into higher education with a more clear connection to their life goals and vision. Students examine the art of poetry, song, and hip hop and through reflection develop a better understanding of personal identity, purpose, and potential. Through an exploration of career and life shaping strategies, students in this class design blogs and ePortfolios to present and share expressive ideas and build a professional online presence. Open to first-year students.

### LCS-101AE Batarangs and Kryptonite

3 Credits

More than simply enduring, super heroes like Batman, Wonder Woman, and Spider-Man have earned their places in literature. The longevity of the character Batman, who celebrates his 75th anniversary this year, dismisses any notion that this slice of pop culture is disposable. This seminar will examine the history of comic book heroes as well as the themes their adventures have long illustrated: heroism, identity, morality and self-improvement. Through readings, writing, classroom activities and field study, students will explore the world of comic books and reinvent themselves as comic book heroes. This seminar is open to first-year students.

### LCS-101AF The Theory of Everything

3 Credits

The Theory of Everything is a single theory, which tries to have an all-encompassing explanation of reality and existence. For centuries, scientists have searched for a single grand model that explains all of reality and existence in the universe. Today, that hope is projected on a complicated theory called string theory, which sounds simple enough until we hear that the "strings" in this case vibrate in 10 or 11 dimensions. Through reading, writing, hands on classroom activities and field study, this seminar will explore the connections between Physics and reality. This seminar is open to first-year students.

### LCS-101AG Hip Hop: the American Experience

3 Credits

In this course, students will explore the world of Hip Hop through listening, reading, writing and interactive group projects. Students will trace the origins of Hip Hop from the Bronx in the 1970's through to the global phenomenon this genre has become today. Topics will include: the intersection between Hip Hop and issues of race, gender, and class, urban politics, and the dual dichotomy of the American experience. Open to first-year students interested in Hip Hop music and culture.

### LCS-101AI Open Spaces

3 Credits

In this class we will examine the role of parks, community gardens and urban wilds in cities with a special focus on the city of Chelsea. Through visiting and studying local open spaces and related issues of health, community development, and environmental justice, you will develop an understanding of ways in which urban open spaces shape and are shaped by individuals, society and the environment. Coursework will include field research, reading, writing, classroom activities, group projects and public speaking. Service learning in collaboration with local organizations will be an important component of this class. Open to first-year students.

### LCS-101AL Do the Right Thing

3 Credits

Years before the deaths of Eric Garner, Michael Brown, Tamir Rice, and Sandra Bland, Spike Lee created "Do the Right Thing." This classic movie raises profound questions about America's racial history and social justice. In this course we will identify themes from Lee's film to explore further in other movies, texts, and your own experiences. We will examine the influences of cultural role models and heroes, and the racial divide and violence that have given voice to "Black Lives Matter." Through reading, writing, viewing, and interactive group work, we will challenge one another to think critically about social justice and what it means to "do the right thing." Open to first-year students.

### LCS-101AO Stepping Out of the Box Experience

3 Credits

Have you ever accomplished something that you were told was out of reach? This class will focus on icons, athletes, and everyday people who have pushed self-imposed and societal boundaries to achieve great success. Students will explore the ways in which they have been boxed into certain social, cultural, familial, and academic roles and expectations, and they will develop and explore strategies to push down walls, step out of boxes, challenge boundaries and maximize their potential to achieve their goals. Open to first-year students.

### LCS-101AP Let Me Clear My Throat: the Power of the Experience

3 Credits

In this course, students will respond creatively and critically to current social, economic and political issues/topics/themes that are associated with public perceptions of urban communities. Students will be introduced to the elements of craft, voice, form, techniques and styles of the journal writing process, in order to reclaim and give voice to their own experiences. Open to first-year students.

### LCS-101AS Immigrant Experiences in the U.S.

3 Credits

In this seminar class, you will explore and analyze different immigrant experiences as well as attitudes and current trends around immigration in the US. Through discussing articles, podcasts, short videos, a film and a novel, you will explore concepts and issues such as attitudes towards immigrant integration, ethnocentrism, multi-cultural representations of identity, 1st and 2nd generation experiences, and immigrant history, policy and resistance in the US. Designed for students with immigrant backgrounds or families, one goal of this class is for you to explore how your identity, culture and experiences in the US relate and connect with other immigrant groups in the US. Open to all first-year students.

### LCS-101D Motivations and Movements

3 Credits

This course examines what it means to be a psychologist and sociologist. Students will have the opportunity to stand on the spot where the Boston Massacre occurred, cheer on Boston sports teams, and explore what motivates individuals and groups of people to participate in these and other actions. Career options in the behavioral science field will be explored. Open to first-year students interested in the behavioral or social science fields.

### LCS-101DD GPS: Guide to Purpose and Success

3 Credits

College is not just about learning a specific program of study but also about discovering what you want to do in life or who you want to become. One's experiences inside and outside of the classroom can change or confirm one's purpose, place and direction in life. Through readings, class discussions, multi-media sources, and writing, students will examine their educational plans, career plans, personal goals, and begin to define their purpose, place and direction in college and in life. Open to first-year students.

### LCS-101E Energy, Life, and Sustainability

3 Credits

Investigate the environmental and social consequences of energy production and consumption with emphasis on climate change impacts. This seminar will explore solutions to slow down global warming and investigate new sources of clean and sustainable energy. Learn how we can all play a role in ensuring a more livable planet. Open to first-year students.

### LCS-101F Exploring Cultural Traditions Traditions and Identity

3 Credits

This course considers the diverse cultural traditions that help to form our individual and collective identities. Through readings, writings, discussion and field study, students will gain self-awareness and explore the significance their primary culture plays in their relationships, perceptions and aspirations. The course encourages students to understand, appreciate, and honor historic rituals and family traditions which are common to all cultures. Open to first-year students.

**LCS-101FF History in the Making: How Current Events Shape Your World** 3 Credits

This course will expose students to the local and global events that are shaping the world in which they live. News stories and headlines will be analyzed in order to assess their political, social and economic effects. From domestic politics to international affairs, from development to war, this course will explore the greater history behind each story. Events from all regions of the world will be analyzed, with an emphasis on the roots of each issue, conflict and resolution. Students will be required to conduct research, write editorials and present their ideas during in-class discussions and debates. Open to first-year students.

**LCS-101GG The Color of Success: Exploring Issues of Women of Color** 3 Credits

This seminar will consider the cultural heritage, history, and media representations of women of color in America. Students will examine society's perceptions of women of color, self-perceptions, and the issues that contribute to these perceptions. The course will encourage students to make decisions that lead to academic, career and personal success. This Seminar is designed for women interested in exploring issues of women of color and is open to first-year students.

**LCS-101H Connecting to Your Inner Orange Line Next Stop: Community College** 3 Credits

Using Boston subway's "Orange Line" as a metaphor for life, this course explores the many critical issues faced by urban males. Drawing on the traditions of the Yoruba of Africa, the Buddhist of Asia, the Natives of America, and the Judeo-Christian foundations of American religious thought, students will engage in a variety of activities designed to create community and foster personal transformation. Open to first-year students. This course is designed for urban males.

**LCS-101J Parents As First Teachers** 3 Credits

Students in this seminar will explore methods of incorporating literacy into children's lives. Topics will include reading with children and best practices for developing a print-rich environment at home. This course is appropriate for parents and prospective parents, child-care providers, elementary education majors, early childhood majors, nursing or medical field majors, social work majors, and anyone interested in modeling good reading habits for children. Open to first-year students.

**LCS-101JJ Got Art?** 3 Credits

What is art? Is it public? Is it personal? Is it only in museums? This Seminar is about learning to look at our created visual environment in ways that enhance art appreciation. Art is not just for artists; art is political, social, personal, and it is everywhere. Students will explore, assess and develop responses to the arts through class activities, visits to the BHCC gallery, field trips, and participation in a service learning project. Together students will design virtual museums and galleries that represent their philosophies of art. Open to first-year students.

**LCS-101KK Red, White, Blue and Islam** 3 Credits

Given that Islam is the largest religion in the world and one in every five individuals identifies themselves as Muslim today, our understanding of Islam is crucial. In this seminar, students will examine various aspects of Islam: Islamic religious beliefs, diversity in Islamic culture, the status of women in Islam, and the concept of Jihad. A brief historical overview of the relationship between Islam and the west will provide the context for study. Class activities will include visiting a local Mosque and experiencing Muslim culture through tasting traditional foods, exploring clothing, listening to music, and examining art. Open to first-year students.

**LCS-101L Haunting Lessons: Exploring Cultural Beliefs About the Supernatural** 3 Credits

From classics such as Dracula, Frankenstein, and A Christmas Carol to the modern sensation of Harry Potter, our society continues to be captivated by the supernatural. Through readings, writing, discussion, field study, and a group project, students will examine cultural beliefs in the supernatural and analyze these beliefs as a metaphor for many of the desires and fears in our lives - power, eternal life, and the duality of human nature and unbridled science. Open to first-year students.

**LCS-101LL Sports: Success in College and Life** 3 Credits

Success in college and success in sports are the result of similar efforts. This seminar examines the factors behind successful athletes and how those factors translate to successful academics. The seminar discusses how student and professional athletes manage the demands of athletics and academics and/or outside commitments. Students examine a wide range of sports-related topics, including health and fitness, college eligibility, community engagement and education through sports; and how sports can reflect the aspirations and attitudes of a community. Open to first-year students. This course is designed for student athletes.

**LCS-101MM Financial Literacy for All** 3 Credits

This course provides students with the skills and knowledge to make informed and effective financial decision. Students explore the basics of financial literacy, from balancing a checkbook to investing in a 401k. They engage in activities that help them set financial goals while learning to manage debt, understand their credit score, evaluate alternative modes of financing and plan for retirement. Open to first-year students.

**LCS-101NN Healthy Habits: Healthy Neighborhoods** 3 Credits

The social, physical and economic environments, in which we live and work, can actually get under our skin, just as the germs and viruses that make us sick. This course highlights the major health challenges of Boston residents, and discusses the intersection of wellness, race, ethnicity, socioeconomic status, gender and age. Through readings, discussions, films, and writing, students examine issues of urban health and develop strategies for their own personal wellness. Open to first-year students.

**LCS-101O Gender, Race, and the Media** 3 Credits

This course considers gender and racial identity in America from a number of personal and critical perspectives. Elements of modern media and popular culture are examined to help illustrate the socio-cultural contexts of each work. Through engaging in discussions, critical reflection, writing, students will collaborate with each other to better understand the role that gender and race play in the modern world. This course provides a supportive environment to discuss critical and controversial issues surrounding modern day culture and gender and race dynamics. Open to first-year students.

**LCS-101PP Getting Fit Together** 3 Credits

What are the challenges and rewards to living a healthy lifestyle? In this course, students will stay abreast of health issues and set personal health and wellness goals. A broad range of issues will be explored including nutrition, physical fitness, stress management and social and emotional wellness. Students will learn about the importance of knowledge, attitude and awareness related to health and wellness. Each week one hour of class will be spent in the College's Fitness Center. Open to first-year students.

**LCS-101R Learning for Success** 3 Credits

This course provides an understanding of the learning process, the role learning styles play, how memory works, and the impact of attention on learning. Students will discover their learning styles and practice strategies for maximizing learning potential, improving attention, and helping memory work more efficiently. Open to first-year students.

**LCS-101SS Politically Incorrect The 21st Century** 3 Credits

What does it mean to be politically correct or politically incorrect? Society has trained us to be politically correct, but we rarely examine what exactly this means and how it affects us. This class is designed to create a safe environment where students can explore the social dynamics around race, gender, religion and sexual orientation, and the policies and movements that have influenced these social constructions. Through readings, writing assignments, collaborative projects, and filed study, students will consider and reconsider what it means to be politically correct. Open to first-year students.

**LCS-101T The Power of the Heart** 3 Credits

More than just a physical organ, the heart possesses an intelligence that far surpasses that of the mind. Based on the book and movie "The Power of the Heart", this class explores the role of the heart as a source of wisdom to help transform the way we think, live, learn and lead. Through readings, facilitated dialogues, storytelling, artistic projects, multi-media presentations, as well as the examination of artistic works from some of the most notable icons of our time, you will learn how to use the wisdom of your heart to transform your views of money and success, health and happiness, relationships and community. Small group activities, exercises and contemplations will guide you to activate your heart's special powers, including intuition, intention, gratitude, forgiveness and loving-kindness. Open to first year students.

**LCS-101TT Life and Light: the Intersection of Optical Technology and Biolog** 3 Credits

In this course, students explore concepts and principles of the study of life, Biology, and the applications of light, Photonics. Enrolled students learn about this emerging scientific area that is used to study and understand the inner workings of cells and tissues in living organisms. Students in this class examine the fundamental principles of Biology and Photonics through a combination of laboratory and classroom exercises, and apply these ideas to real-world devices that are used to answer or ask questions that address pharmaceutical, biomedical and biological issues. Open to first-year students interested in the sciences.

## COURSE DESCRIPTIONS

### LCS-101XX Telling Our Stories

3 Credits

Students in this class learn about the significant role stories and storytelling play in society. From bedtime stories, gripping newspaper headlines, history, to stories inherited from one generation to another, stories are imbedded in the fabric of people's lives. This class explores the art of storytelling through writing exercises, reading assignments, classroom discussions and museum visits. Throughout the course, students examine short stories and creative nonfiction by master storytellers Baldwin, Bambara, Butler, Lamott, O'Brien, O'Connor and Walker in this seminar and craft original short stories and creative essays. Open to first-year students.

### LCS-101Y "Ain't I a Woman" ..Unpacked and Re-packed

3 Credits

What does it mean to be a good, strong, loving and successful woman? Women's rights activists Sojourner Truth and bell hooks have each articulated, for their time, a vision of what it means. Students in this course will develop their own vision of what it means in today's world. The course will include an examination of the history and psychosocial forces that shape identity, including biology, family, relationships and social networks. Students will read, write, reflect, discuss, create, collaborate and act. Open to first-year students. This course is designed for women.

### LCS-101ZZ Latinas: a Culture of Empowerment

3 Credits

What do Supreme Court Justice Sonia Sotomayor, writer Isabel Allende, Boston businesswoman Ivonne Garcia, and Celebrity Chef Evette Rios have in common? They are all Successful Latina women making significant contributions in their fields and in their communities. Through readings, writing assignments, collaborative projects and case studies of these accomplished women, students explore the social, historical and structural contexts defining the experiences of Latinas in the United States. Students learn how to utilize lessons from these stories to better understand their own identity, academic goals and career aspirations. Open to first-year students and designed for Latina students.

## LITERATURE

### LIT-201 Introduction to Literature

3 Credits

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 stories, and drama. The course meets General Education Humanities Requirement Area 6. Pre/corequisite: College Writing I (ENG111).

### LIT-203 Literature in America I

3 Credits

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).

### LIT-204 Literature in America II

3 Credits

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).

### LIT-206 English Literature II

3 Credits

This course continues the survey of English literature by studying themes, techniques, and genres from the Romantic poets to the modern writers such as Joyce, Lawrence, and Eliot. The list may vary. The course meets General Education Humanities Requirement Area 6. Pre/corequisite: College Writing I (ENG111).

### LIT-207 Literature and Society I

3 Credits

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).

### LIT-211 Masterpieces of World Literature I

3 Credits

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).

### LIT-212 Masterpieces of World Literature II

3 Credits

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).

### LIT-217 Children's Literature I

3 Credits

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).

### LIT-218 Children's Literature II

3 Credits

As follow-up to Children's Literature I (LIT217), this course focuses on one of the most significant themes in literature, particularly in works written for children and young adults: the search for identity. The course examines full-length works, classics, contemporary novels and works of fantasy that explore this theme. Discussion topics may include hero-worship, self-reliance, society's view of the child, the impact of environment, and peer pressure. The course closely examines narrative techniques, especially point of view. The department recommends that students complete Children's Literature I (LIT217) prior to taking this course. The course meets General Education "Humanities" Requirement Area 6. Pre/corequisite: College Writing I (ENG111).

### LIT-219 African Literature

3 Credits

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).

### LIT-221 Latin American Literature

3 Credits

This course examines the uniqueness of the Latin American experience as expressed in its literature. The course gives particular attention to those works that reflect the social, political, ethnic, or cultural values of Latin America. The course also examines the impact of Latin American themes and literary techniques on contemporary world literature. The course meets General Education "Humanities" Requirement Area 6. Pre/corequisite: College Writing I (ENG111).

### LIT-223 Immigrant Experience in Literature

3 Credits

The course explores the experience and contributions of the many ethnic groups who have shaped American culture. Short stories, novels, plays, essays, and poems present the bi-cultural American story told both by those whose roots have been long established in this country and by those who have more recently arrived. The course meets General Education "Humanities" Requirement Area 6. Pre/co-requisite: College Writing I (ENG111).

### LIT-224 Middle East Literature

3 Credits

This course examines the literature of the Middle East and provides students with an understanding of the impact of religion, tradition, and politics on the lives of people. Students read, analyze, and discuss a variety of letters, historical documents, short stories, and novels in an effort to understand Middle East cultures in their dimensions. The course fulfills a requirement for World Studies Emphasis certification. The course meets General Education "Humanities" Requirement Area 6. Pre/co-requisite: College Writing I (ENG111).

### LIT-225 Introduction to Dramatic Literature

3 Credits

This course examines selected plays in an historical context to provide students with a basic awareness of theater development from ancient Greek drama to contemporary plays. The selection may vary from semester to semester. The course meets General Education "Humanities" Requirement Area 6. Pre/corequisite: College Writing I (ENG111).

**LIT-227 African-American Literature**

3 Credits

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).

**LIT-229 Sophocles and Shakespeare**

3 Credits

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.

**LIT-231 Mystery and Detective Fiction**

3 Credits

The course will introduce students to the art of 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/Co-requisite: College Writing I.

**LIT-233 Gender and Literature And the Fool**

3 Credits

(FORMERLY LIT-521)How has our idea of "femininity" and "masculinity" changed over time? In what ways do social and cultural influences affect our understanding of what it means to be a man or woman? By examining some of the theories contributing to the gender debate in the west, and applying critical reading to a variety of literature, students will seek a deeper understanding of gender identity and gender roles. In doing so, the class will examine the many ways sex and gender are influenced by distinctions of race, class and ethnicity. The course meets General Education "Humanities" Requirement Area 6. Pre/co-requisite: College Writing I (ENG111).

**LIT-241 Supernatural and Horror Literature**

3 Credits

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 roles 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).

**LIT-527 Contemporary African American Literature**

3 Credits

The course will survey literature by African American authors from the last half of the twentieth century to the present day. Students will examine poems, essays, novels and lyrics to explore the Civil Rights Era, Black Feminism, Hip Hop, LGBTQ issues, and the growing number of authors across the African diaspora who write about the African/African American experience. Among the topics considered are the oral tradition; the positive and negative effects of the Black arts movement; the re-envisioning of slavery in the modern imagination; intersections of race and sexuality; and cross cultural identities. Students will also explore Boston as a living site for the development of African American literature by visiting museums, landmarks, and attending readings by local African American authors. Pre/co-requisite: College Writing I (ENG111).

**LIT-529 Black Women in Literature**

3 Credits

This course examines literature by and about Black women from diverse cultural backgrounds. We will investigate the intersections and divergent experiences of Black women across gender, class, sexuality, ideology, as well as the influence of colorism. Our exploration of novels, short stories, poetry, creative non-fiction, music, and drama will help us to analyze how these cultural categories attempt to define Black womanhood. The course meets General Education "Humanities" requirement Area 6. Prerequisite: Writing Skills II (ENG095) or placement in College Writing I (ENG111).

**MAMMOGRAPHY****MAC-111 Mammography Principles I**

3 Credits

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.

**MAC-211 Mammography Clinical Internship  
Mammography Principles II**

3 Credits

This interactive, web-based course presents the Mammography Principles II 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: Mammography Principles I (MAC111).

**MAC-299 Mammography Clinical Internship**

3 Credits

This 100-hour clinical introduction will enhance the academic experience for students by introducing them to the clinical practice of mammography. Students are responsible for providing their own clinical site. Clinical sites must be pre-approved by program faculty. Students must comply with the clinical policies, as stated in the Student Manual before attending clinical. Criminal Offender Record Information (COR) checks will be conducted on all students before placement, and the outcome may impact the student's ability to participate in the internship experience. Health clearance is also required prior to participation. Prerequisite: Permission of department chair. Prerequisite/co-requisite: Mammography Principles II (MAC521).

**MANAGEMENT****MAN-105 Principles of Marketing**

3 Credits

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.

**MAN-106 International Marketing**

3 Credits

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).

**MAN-107 Introduction to Entrepreneurship**

3 Credits

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.

**MAN-111 Principles of Management**

3 Credits

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.

**MAN-112 Organizational Behavior/Design**

3 Credits

Organizational behavior and design, social systems and contemporary management issues are explored and experienced, with an emphasis on the interrelationship of culture, organizational structure and policies upon individual, group and organizational performance. Topics include: 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. Prerequisite: Academic Reading I (ESL098) and Academic Writing III (ESL099) or Reading Skills II (RDG095) and Writing Skills (ENG090) or exemption by placement testing.

## COURSE DESCRIPTIONS

### MAN-201 Management Seminar

3 Credits

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).

### MAN-204 Entrepreneurship and Innovation

3 Credits

In this course, students develop the skills and creativity to cultivate and market innovative ventures. This course uses an experiential approach to provide students with a foundation for innovative thinking and to prepare them for entrepreneurial projects. The class examines entrepreneurial theories, practices and thought processes. In critical thinking exercises, students examine the difference between entrepreneurship and innovation. Through case study reviews and other activities, the class evaluates the viability of new business enterprises and develops strategies to market them successfully. Prerequisite: Introduction to Entrepreneurship (MAN107) or instructor approval.

### MAN-207 Small Business Management

3 Credits

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. Prerequisite: Principles of Accounting II (ACC102) or Accounting Information Systems (ACC105); Principles of Management (MAN111); Principles of Marketing (MAN105) or permission of instructor.

### MAN-215 Project Management

3 Credits

This course examines concepts and applied techniques for cost-effective management of both long-term development programs and smaller short-term projects. Special focus on planning, controlling, and coordinating efforts of multiple individuals and/or working groups, such as those found in large scale software and engineering programs, and in critical research and development projects. Case studies and classroom simulations are used extensively to teach students the effective integration of analytical/technological tools and organizational design and supervisor approaches. Prerequisites: Application/Concepts (CIT110), Foundations of Algebra (MAT097), and Principles of Management (MAN111). Students enrolled in the Gas Utility Technology degree must complete IT Problem Solving (CIT113) and Foundations of Algebra (MAT097) or Pre-Statistics (MAT098) and the pre/corequisite of Leadership for the Utility Professional (GUT105).

### MAN-299 Business Internship

3 Credits

This course enhances the academic experience for students. All internships take place at pre-approved sites. Students engage in activities that improve knowledge of the practical world of work and help them gain professional experience. The internship experience applies resources gained from students' study to improve the quality of their contributions to the employer. A faculty coordinator supervises and grades all courses. Students are responsible for following all guidelines in the BHCC Internship Handbook. Prerequisite: Permission of the department chair.

## MATHEMATICS

### MAT-093 Foundations of Mathematics

3 Credits

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).

### MAT-097 Foundations of Algebra

3 Credits

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.

### MAT-098 Pre-Statistics

3 Credits

This course is designed as a substitute for Foundations of Algebra (MAT097) for non-STEM students who will be taking Statistics I (MAT181) 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 (MAT093) or placement.

### MAT-099 Intermediate Algebra

3 Credits

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.

### MAT-100 Topics in Career Math

3 Credits

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.

### MAT-133 Introduction to Metric System

1 Credit

This course enables students to recognize and use metric terms, roughly measure using body parts, and use estimation within the metric system.

### MAT-171 Finite Mathematics

3 Credits

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) or Pre-Statistics (MAT098).

### MAT-172 Contemporary Math I

3 Credits

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 Pre-Statistics (MAT098) or placement.

### MAT-173 Contemporary Math II

3 Credits

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), calculator (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 Pre-Statistics (MAT098) or placement.

**MAT-181 Statistics I**

3 Credits

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 Pre-Statistics (MAT098) or placement.

**MAT-193 Topics in Algebra/Trigonometry**

3 Credits

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).

**MAT-194 College Algebra for STEM**

4 Credits

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: A grade of C or better in Intermediate Algebra (MAT099) (a grade of B or better is recommended) or placement.

**MAT-197 Precalculus**

4 Credits

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. A graphing calculator is required. Prerequisite: A grade of C or better in College Algebra-STEM (MAT194) or placement.

**MAT-231 Calculus for Management Science**

4 Credits

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. A graphing calculator is required. Prerequisite: A grade of C or better in College Algebra for STEM (MAT194) or placement.

**MAT-281 Calculus I**

4 Credits

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. A graphing calculator required. Prerequisite: A grade of C or better in Precalculus (MAT197) or placement.

**MAT-282 Calculus II**

4 Credits

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. A graphing calculator is required. Prerequisite: A grade of C or better in Calculus I (MAT281) or placement.

**MAT-283 Calculus III**

4 Credits

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. A graphing Calculator is required. Prerequisite: A grade of C or better in Calculus II (MAT282) or placement.

**MAT-285 Ordinary Differential Equations**

4 Credits

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).

**MAT-291 Linear Algebra**

4 Credits

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).

**MEDICAL IMAGING****MIG-101 Introduction to Ultrasound**

2 Credits

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.

**MIG-105 Ultrasound Physics and Instrumentation**

3 Credits

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.

**MIG-107 Introduction to Medical Radiography**

2 Credits

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.

**MIG-109 Patient Care for Medical Imaging**

4 Credits

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).

**MIG-111 Imaging Technology I**

3 Credits

This course covers topics in physics of special significance in radiography. Specific areas include Newton's Laws, and the concepts of mass force, energy, work, and power. It includes heat and its production and transfer. It emphasizes the physics of wave motion. The course covers some general concepts of modern physics including Einstein's energy equation, the Heisenberg Principle, and quantum concepts. A computer component introduces students to the principles and background of computers.

**MIG-112 Echo I**

3 Credits

This course covers a comprehensive study of adult echocardiography. It begins with an introduction to cardiac embryology, M-mode, two-dimensional and Doppler, and color Doppler technique. The course also covers transducer orientation and ultrasound appearance of the normal heart and abnormal echo findings in such conditions as valvular heart disease, prosthetic heart valves, pericardial disease, and cardiac tumors. Prerequisite: Introduction to Ultrasound (MIG101).

**MIG-115 Interpretation I**

4 Credits

This course covers an integrated approach to the echocardiography technique. Students view the Mayo Clinic tapes and discuss the basic anatomy, transducer positions, and patient preparation that are necessary in the performance of these examinations. Students practice their skill in a hands-on setting and relate this experience to the didactic material presented in their echo classes and on the Mayo tapes. Students discuss pathologic processes to further enhance their understanding of the echo presentation of various valvular heart diseases. Prerequisite: Patient Care for Medical Imaging (MIG109).

**MIG-119 Echo II**

3 Credits

This continuation course of the material presented in Echo I deals specifically with left ventricular function, cardiomyopathy, CAD, color Doppler, and imaging technique used to aid in the demonstration of these diseased states. This course also includes the technique of transesophageal, stress, and contrast echo technique. Prerequisite: Echo I (MIG112).

## COURSE DESCRIPTIONS

### **MIG-120 Radiologic Imaging I**

3 Credits

Using lecture and lab sessions, this course presents an introduction to the basic elements necessary for the production of the radiographic image. Course content will include but not be limited to: the role of the radiologic technologist on the healthcare team, the function of the PACS in today's digital department, digital image receptors (CR, indirect and direct DR), analog imaging systems, latent image formation, processing, filtration and beam restrictors, and technique. Prerequisite: Introduction to Medical Radiography (MIG 107).

### **MIG-121 Related Procedures in Pharmacology**

2 Credits

This course provides students with knowledge of diagnostic cardiac procedures, emphasizing indications, utility, and limitation of these procedures. The course also provides students with a basic knowledge and understanding of clinical pharmacology as it relates to cardiovascular disease and echocardiography. Prerequisite: Interpretation I (MIG115).

### **MIG-122 Positioning I**

3 Credits

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 (MIG124F).

### **MIG-124F FT Medical Radiography Clinical I**

2 Credits

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.

### **MIG-124P Part Time Medical Radiography Clinical I**

1 Credit

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 clinical tracking software, and/or uniforms. Course meets two (2) evenings/week with 8 hours of clinical practice weekly.

### **MIG-126 Positioning II**

3 Credits

Using lecture and lab sessions, this course helps students achieve competency in the performance of radiographic examinations of the vertebral column and pelvic girdle. In addition, students study the principle of contrast agent administration in conjunction with radiographic examination of the urinary system, upper and lower gastrointestinal tract and gall bladder. Prerequisite: Positioning I (MIG122). Co-requisite: Full Time Medical Radiography Clinical II (MIG128F) or Part Time Medical Radiography Clinical II (MIG128P).

### **MIG-128F Full Time Medical Radiography II**

2 Credits

This course covers a continuation of the clinical experience. Students assist in and observe an increasing number of different radiographic examinations as studied in Positioning I (MIG122). Additional expenses may include supplies, equipment and/or uniforms. Course meets two (2) days/week, with 16 hours of clinical practice weekly. Prerequisite: Full-Time Medical Radiography Clinical I (MIG124F).

### **MIG-128P Part Time Medical Radiography Clin II**

1 Credit

This course covers a continuation of the clinical experience. Students assist in and observe an increasing number of different radiographic examinations as studied in Positioning I (MIG122). 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 I (MIG124P).

### **MIG-131 Imaging Informatics I**

4 Credits

This introductory hybrid course presents major concepts of state-of-the-art imaging informatics and Picture Archiving and Communication Systems (PACS) administration. Topics presented include but are not limited to: DICOM, DICOM associations, ACR guidelines, the PACS system components, functions and required infrastructure, modality integration, security, and HIPAA compliance. The integration of the PACS system with the Hospital Information (HIS) and Radiology Information (RIS) Systems, and the perspective of various stakeholders of the Imaging Informatics/PACS enterprise environment will be a major focus of this course, with a particular emphasis on the responsibilities of the PACS administrator. Upon completion of this course the student will have the basic knowledge, skills and competencies necessary to administer a PACS system at a fundamental level. Corequisite: Intro to Diagnostic Imaging and PACS (MIG161).

### **MIG-161 Intro to Diagnostic Imaging and PACs**

3 Credits

Designed for students with previous experience in Medical Imaging or Computer Science who wish to pursue a career in PACS 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.

### **MIG-201 Echo III**

4 Credits

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).

### **MIG-203 Interpretation II**

3 Credits

This continuation course of Interpretation I covers an integrated approach to the echocardiography technique. Students review the Mayo Clinic tapes and discuss the development of skills necessary to exercise independent judgment and discretion in the performance of echocardiographic examinations. Students review and critique weekly case studies. The class uses group demonstrations to highlight the patient/sonographer/physician interactions. Students learn pathologic processes in order to build on their knowledge base in the interpretation of normal and abnormal echo features. Prerequisite: Interpretation I (MIG115).

### **MIG-205 Vascular Ultrasound**

3 Credits

This course covers an introduction to the fundamentals of vascular ultrasound. It includes hemodynamic, Doppler spectral analysis, and duplex visualization of the cerebrovascular system. It also covers carotid, venous, and transcranial Doppler techniques. Prerequisite: Echo II (MIG119) for Cardiac Sonography Option. Co-requisite: General Sonography Clinical II (SON123) for General Sonography Option.

### **MIG-207 Ultrasound Physics and Instrumentation for the Cardiac Sonographer**

2 Credits

This course is a continuation of Ultrasound 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. Prerequisites: Ultrasound Physics and Instrumentation (MIG105) and Echo II (MIG119).

### **MIG-211 Cardiac Sonography Clinical I**

3 Credits

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).

### **MIG-213 Cardiac Sonography Clinical II**

4 Credits

This course covers a continuation of clinical practical experience in echocardiography and further refines students' skill in the performance of echocardiograms. Under supervision of their clinical instructor and the BHCC clinical coordinator, students enhance their interpretive skills and continue hands-on experience at the clinical sites. Students' performances are evaluated through clinical competencies in each related echo area. Additional expenses may include supplies, equipment, and/or uniforms. Course meets four (4) days/week. Prerequisite: Medical Radiography Clinical I (MIG211). Co-requisite: Echo IV (MIG215).

### **MIG-215 Echo IV/Interpretation**

4 Credits

This course covers a continuation of Echo I, II, and III, and deals with advanced echo technique and interpretation. The course covers related procedures such as angio, thallium, muga studies, EKG, and coronary artery sonography. Students compile a folder of exams, videos, and related medical findings to present in class. The class focuses on helping students coordinate the multi-facets of an examination including the interpersonal relationships and professional or ethical situations that may arise. Prerequisite: Interpretation II (MIG203).

**MIG-216 Advanced Interpretation Seminar**

2 Credits

This is an interactive course that provides the cardiac sonography student an opportunity to enhance their cardiac sonography interpretation skills through the use of slides, videos, and CD Rom material of actual case studies. A review of cardiovascular principles and instrumentation will occur and the student will participate in mock registry question segments through the use of ARDMS registry preparation material. Prerequisites: Cardiac Sonography Clinical I (MIG211) and Cardiac Sonography Clinical II (MIG203). Co-requisite: Echo IV/Interpretation (MIG215).

**MIG-217 Cardiac Sonography Clinical III**

4 Credits

This course covers a continuation of clinical practical experience in echocardiography. Under supervision of the clinical instructor and the BHCC clinical coordinator, students enhance their skills in performing echocardiograms. Faculty evaluate students' performances through clinical competencies in each related echo area. Students gain competency in the performance of echocardiograms. Students also obtain related experience in examinations such as stress echo and transesophageal. Additional expenses may include supplies, equipment, and/or uniforms. Course meets five (5) days/week. Prerequisite: Cardiac Sonography Clinical II (MIG213).

**MIG-220 Positioning III**

2 Credits

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).

**MIG-222P Part Time Medical Radiography Clin III**

1 Credit

This course allows students to expand upon skills developed during earlier clinical experience. Students assume more direct responsibility for specific radiographic examinations. 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).

**MIG-224 Radiologic Technology II**

3 Credits

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).

**MIG-226 Radiologic Imaging II**

3 Credits

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).

**MIG-227 Pharmacology of Radiology**

1 Credit

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 pharmacodynamic 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).

**MIG-228F Full-Time Medical Radiography Clin V**

3 Credits

This course allows students to develop additional experience in the materials covered in Positioning I, Positioning II, and Positioning III, and to further 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).

**MIG-228P Part-Time Medical Radiography Clin V**

5 Credits

This course allows students to develop additional experience in the materials covered in Positioning I, Positioning II, and Positioning III, and to further expand their clinical skills. Additional expenses may include supplies, equipment, and/or uniforms. Course meets five (5) days/week, with 35 hours of clinical practice weekly. Prerequisite: Part-time Medical Radiography Clinical III (MIG222P).

**MIG-230 Radiation Protection**

3 Credits

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.

**MIG-234 CT/Cross Section Anatomy**

2 Credits

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).

**MIG-236F FT Medical Radiography Clinical V**

3 Credits

This final phase of medical radiography instruction allows students an opportunity to review and assess clinical skills acquired during their training. At the end of this rotation students are clinically proficient in general radiography. Additional expenses may include supplies, equipment, and/or uniforms. Course meets three (3) days/week with 24 clinical hours of practice weekly. Prerequisite: Full-Time Medical Radiography Clinical IV (MIG228F).

**MIG-238 Advanced Medical Radiography Seminar**

2 Credits

The focus of this capstone course is the transition from student technologist to entry-level technologist. A variety of learning activities, including case studies and a research project, will be utilized to promote critical thinking. The course will also focus on professional development, credentialing, lifelong learning, and cultural competence in the workplace. A review module will prepare students for success on the American Registry of Radiologic Technologists Examination. Additional expenses will include certification mock exam software. Prerequisites: Radiologic Technology II (MIG224) and Radiologic Imaging II (MIG226).

**MEDICAL LABORATORY TECHNICIAN****MLT-101 Introduction to Medical Lab Science and Urinalysis**

4 Credits

This course explores the nature and scope of work in the clinical laboratory. The primary focus will be the role of the laboratory in the healthcare system, duties of the Medical Laboratory Technician and professional conduct, safety in the laboratory, laboratory mathematics and quality control. The laboratory will include exercises that reflect each of the major clinical laboratory sub-disciplines: Clinical Chemistry, Diagnostic Microbiology, Hematology, and Blood Banking. Additional laboratory exercises will focus on routine urinalysis as well as normal and abnormal physiological functions of the renal system. A phlebotomy unit will teach the fundamental skills required to collect blood specimens for testing. Prerequisite: Admission to the Medical Laboratory Technician program.

**MLT-211 Hematology and Hemostasis**

4 Credits

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).

**MLT-212 Medical Microbiology and Lab**

4 Credits

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 bacteria 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).

**MLT-213 Immunology and Serology**

4 Credits

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).

**MLT-241 Immunohematology**

4 Credits

This course consists of the study of the genetic basis and immunological interaction of the major 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 and Serology (CLS213).

## COURSE DESCRIPTIONS

### **MLT-242 Clinical Chemistry** 4 Credits

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 and Serology (MLT213).

### **MAGNETIC RESONANCE (MR)**

#### **MRC-111 MR Concepts I** 3 Credits

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.

#### **MRC-211 MR Concepts II** 3 Credits

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).

#### **MRC-299 MR Clinical Internship** 3 Credits

This 100-hour clinical introduction will enhance the academic experience for students by introducing them to the clinical practice of MRI. Students are responsible for providing their own clinical site. Clinical sites must be pre-approved by program faculty. Students must comply with the clinical policies, as stated in the Internship Handbook, before attending clinical. Criminal Offender Record Information (CORI) check will be conducted on all students before placement, and the outcome may impact the student's ability to participate in the internship experience. Health clearance is also required prior to participation. Pre/corequisite: MR Concepts II (MRC211) and permission of department chair.

### **MUSIC**

#### **MUS-129 Rock and Roll History** 3 Credits

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.

#### **MUS-141 Rock and Roll History** 3 Credits

This course is a survey of rock music and its history. This course covers the various styles of rock, from its early roots to the music of the present in addition to other closely-related styles of music. Students will examine the musical aspects of the genre and its major figures, as well as the social, economic, political, and technological factors that shaped its development. No prior musical experience is required. This course meets General Education Humanities Requirement Area 6. Prerequisites: A grade of C or better in Academic Reading II (ESL088) and Academic Writing II (ESL098), or Reading Skills I (RDG090) and Writing skills I (ENG090), or exemption by placement testing.

#### **MUS-157 Vocal Performance Workshop** 3 Credits

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.

#### **MUS-161 World Music** 3 Credits

This course fosters an appreciation of music from around the world (especially non-Western music.) Students will explore the music of Africa, the Middle East, Asia, East Asia, the Indian subcontinent, and the Americas, including the Caribbean. Students will learn how music functions as an expression of social customs and shared values, and how it is impacted by the history and geography of each culture. 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.

### **MUS-171 Intro to Music Technology** 3 Credits

This course serves as an introduction to the use of technology in the creation of music. Using digital audio software, students learn the basics of sound manipulation, including sequencing, editing, synthesis, and mixing. Additional course topics include the properties of sound, basic recording technology, and music notation software. This course is designed for both music majors and non-majors.

#### **MUS-531 Beginning Guitar** 3 Credits

This course serves as an introduction to guitar playing. Students will learn foundational techniques, including chord shapes, strumming patterns, picking, fingering, basic note reading, and basic instrument maintenance. Students are expected to provide their own instrument.

#### **MUS-533 Music Technology II** 3 Credits

This course continues the exploration of music production techniques begun in MUS 539, focusing more specifically on post-production. Course topics include advanced editing, use of virtual instruments, signal processing, and mixing. Prerequisite: Music Tech and Recording (MUS539) or permission of instructor.

#### **MUS-537 Songwriting** 3 Credits

This course is an introduction to popular songwriting. Through writing their own songs and analyzing the classics, students will examine concepts such as melody, lyrics, chord progressions, and structure as applied to various kinds of popular music. Prerequisite: Foundations of Music (MUS122) or permission of instructor.

### **SURGICAL TECHNOLOGY**

#### **NHP-180 Medical Terminology** 3 Credits

This course provides instruction in the development of basic medical terminology. Competency in medical terminology promotes effective communication among members of the healthcare team.

### **NURSING**

#### **NUR-095 Success in Nursing** 3 Credits

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.

#### **NUR-099 Nursing Pathways** 2 Credits

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.

#### **NUR-100 Drug Calculation** 1 Credit

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.

#### **NUR-101 Health Assessment and Basic Skills/Lab** 2 Credits

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).

**NUR-111 Nursing I**

7 Credits

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).

**NUR-112 Nursing II**

10 Credits

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).

**NUR-211 Nursing III**

9 Credits

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 (PSY213).

**NUR-212 Nursing IV**

9 Credits

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).

**NUR-213 Nursing Seminar**

1 Credit

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).

**OFFICE AND INFORMATION MANAGEMENT****OIM-100 PC Keyboarding Techniques**

1 Credit

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.

**OIM-102 Medical Computer Applications**

3 Credits

(Formerly OIM142) 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.

**OIM-103 Microsoft Word I**

3 Credits

(Formerly OIM101) This course uses Microsoft Word and covers 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. Students develop correct keyboarding technique in order to meet the industry standard for speed and accuracy. Note: An exemption exam for students with previous keyboarding experience is available through the Center for Self-Directed Learning each semester by contacting the Prior Learning Coordinator.

**OIM-104 OIM Career Exploration**

1 Credit

This online course provides students with the tools needed to evaluate their career goals and to explore strategies for securing employment within the office and/or medical office job market. Students will complete modules that engage them in activities designed to evaluate values, skills, and interests as related to their prospective careers. Students will use resources on the BHCC portal and elsewhere to explore individual careers and research employers and the local job market. Resumes and cover letters will also be completed.

**OIM-112 Microsoft Word II**

3 Credits

This course covers intermediate and advanced Microsoft Word applications to create common business documents such as letters, memorandums, tables, reports, desktop publishing flyers, and electronic forms. Students learn to use accelerator keys, macros, templates, bullets, and numbering, headers, merging, sorting, hyperlinks, section breaks, styles, formulas, clip art, WordArt, and column layout. Diagnostic, and speed building exercises are used to improve keyboarding accuracy and speed. A minimal speed of 40 words per minute is strongly recommended. Students acquire skills that prepare them for MOUS (Microsoft Office User Specialist) certification. Prerequisite: Grade of C or better in MS Word I (OIM103) or Keyboarding:Document Generation I (OIM101) and Applications/Concepts (CIT110) or by permission of the department chairperson.

**OIM-115 Administrative Technology and Procedures**

3 Credits

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: MS Word I (OIM103), Document Generation I (OIM101) and Applications/ Concepts (CIT110).

**OIM-170 Medical Office Procedures**

3 Credits

This course includes Windows, word processing, medical office procedures, and computerized medical management software. Students create documents commonly used in a medical office as well as job application materials, using templates, macros, and/or merged documents. Concepts covered include interpersonal communications, telecommunications, billing and collections, reimbursement procedures, records management, and mail classification and procedures. Hands-on experience using computerized medical management software provides practice in entering patient information, diagnostic cases, and financial transactions; processing insurance claims; scheduling patient appointments; and generating commonly used reports. Note: For Allied Health students or by permission of department chair. Prerequisite: Document Generation I (OIM101), MS Word I (OIM103), or Medical Computer Application (OIM102; formerly OIM142), or any computer applications course or by permission of the department chair.

**OIM-190 Medical Information Management**

3 Credits

This course covers the medical environment, patient and staff scheduling, medical documents and computerized medical applications, professional activities and travel arrangements for medical staff, health insurance, and HIPAA 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 presentations on an issue related to medical office administration. Pre/co-requisite: MS Word I (OIM103) or Document Generation I (OIM101).

## COURSE DESCRIPTIONS

### **OIM-200 Introduction to Physicians' Billing** 3 Credits

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).

### **OIM-299 Office and Information Management Internship** 3 Credits

This field experience takes place during the spring semester of the second year and provides specific occupational preparation for office careers. Students work in an off-campus work environment related to their career goals, abilities, and skills. Students participate in seminars prior to internship and during the field experience. This course is offered spring semester only. Prerequisite: Administrative Business Communication II (OIM232 - formerly OIM2330) and permission of the department chairperson or designee. Note: Administrative Business Communication II (OIM232) is offered fall semester only and must be taken the fall semester prior to internship.

## PHILOSOPHY

### **PHL-101 Introduction to Philosophy** 3 Credits

This introductory course acquaints students with the philosophic method, the problems and living issues of philosophy, and the great philosophers. This course satisfies the General Education Humanities Area 6. 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.

### **PHL-103 Ethics** 3 Credits

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. Prerequisites: A 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.

### **PHL-515 Knowledge and Power** 3 Credits

This course explores knowledge and power both separately and together, aided by the philosophical areas of inquiry known as epistemology and political philosophy, and drawing from other ways of knowing as well. What is knowledge, and how do we produce, construct, and restrict it? What is power, and how do we exercise, limit, and resist it? And how do knowledge and power relate to one another? These fundamental questions lead to more questions. Who (if anyone) gets to own knowledge? How do we decide whose knowledge is valid? How is it possible to exercise power without knowing it? How can knowledge confer and enforce power? How can increased awareness cause a person to choose to limit their power? These and other questions relevant to knowledge and power may be explored. Course activities include seminar discussions and individual projects involving research and analysis. Prerequisites: Successful completion of ENG 111, College Writing I with C or better, successful completion of at least 12 college level credits including at least 6 credits of PHL, GOV, HIS, PSY, SOC, or LIT, or permission of instructor.

### **PHY-191 Introduction to Physics/ Lab** 4 Credits

This course provides the background for the study of electronics and other technical areas. Topics include classical mechanics, the conservation laws, and electrostatics. This course meets General Education "Science and Technology" Requirement Area 5. This course is for Electric Power Utility Program students only. Prerequisite: A grade of C or better in Topics in Algebra/Trigonometry (MAT193).

### **PHY-201 General Physics I/Lab** 4 Credits

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).

### **PHY-202 General Physics II/Lab** 4 Credits

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).

### **PHY-251 College Physics I/Lab** 4 Credits

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).

### **PHY-252 College Physics II/Lab** 4 Credits

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).

## PARALEGAL

### **PLG-101 Introduction to Law** 3 Credits

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.

### **PLG-102 Legal Research and Writing** 3 Credits

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).

### **PLG-103 Litigation** 3 Credits

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).

### **PLG-104 Legal Ethics** 3 Credits

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).

### **PLG-201 Family Law** 3 Credits

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).

**PLG-202 Business Organizations**

3 Credits

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).

**PLG-203 Real Estate Law**

3 Credits

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.

**PLG-204 Wills, Estates and Trusts**

3 Credits

This course covers the initial investigation and preparation of estates and trusts in detail. Topics include the causes and effects of trusts, wills and probate; litigation and procedural laws. Prerequisites: Writing Skills II (ENG095), Reading Skills II (RDG095) or Academic Reading III (ESL098) or placement.

**PLG-299 Paralegal Internship**

3 Credits

An internship in Paralegal Studies is a hands-on learning experience at law firms, public agency, corporations, 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. 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. 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.

**PHARMACY TECHNICIAN****PMT-103 Pharmacology for the Surgical Technologist I**

1 Credit

This course provides the student with a 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

**PMT-105 Pharmacology for the Surgical Technologist II**

1 Credit

This course is the second in a two-course sequence designed to provide the student with a basic foundation in pharmacology. This course is oriented to providing the student with information regarding commonly used pre-operative and post-operative medications. This class is a lecture class and meets one hour per week for 15 weeks. 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. Prerequisite: Pharmacology for the Surgical Technologist I (PMT103).

**PMT-111 Pharmacy Practice for Pharmacy Technicians I**

4 Credits

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 routinely used 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.

**PMT-112 Pharmacy Practice for Pharmacy Technicians II**

4 Credits

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).

**PMT-113 Pharmacy Practice for Pharmacy Technicians III**

4 Credits

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).

**PMT-299 Pharmacy Practicum/Seminar**

4 Credits

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.

**PSYCHOLOGY****PSY-101 Principles of Psychology**

3 Credits

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.

**PSY-107 Group Dynamics**

3 Credits

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.

**PSY-131 Psychology of Popular Culture**

3 Credits

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.

**PSY-201 Learning and Memory**

3 Credits

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 of Psychology (PSY101).

**PSY-203 Psychology of Personal Adjustment**

3 Credits

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.

## COURSE DESCRIPTIONS

### PSY-209 Child Psychology

3 Credits

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).

### PSY-213 Human Growth and Development

3 Credits

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: A grade of C or better in Principles of Psychology (PSY101).

### PSY-215 Counseling

3 Credits

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 Development, Psychology, or Sociology programs or by permission of the department chair of Education, Early Childhood Development, and Human Services or the department chair of Behavioral Sciences. Prerequisite: A grade of C or higher in Principles of Psychology (PSY101).

### PSY-219 Social Psychology

3 Credits

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: A grade of C or higher in Principles of Psychology (PSY101).

### PSY-223 Personality

3 Credits

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: A grade of C or higher in Principles of Psychology (PSY101).

### PSY-224 Adolescent and Adult Development

3 Credits

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: A grade of C or higher in Principles of Psychology (PSY101).

### PSY-227 Abnormal Psychology

3 Credits

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: A grade of C or higher in Principles of Psychology (PSY101) or permission of instructor.

### PSY-233 Intro to Psychiatric Rehabilitation

3 Credits

This course provides an overview of the underlying core values, principles and methods of psychosocial rehabilitation. Course topics include understanding the experience of mentally ill persons and their paths to recovery; a brief historical background on the emergence of psychosocial rehabilitation as an alternative to traditional models of diagnosis and treatment; the principles of psychosocial rehabilitation and their application to assessment and rehabilitation planning and intervention, practitioner competencies, different program settings; and the role of the family in psychosocial rehabilitation. Prerequisite: Introduction to Psychology (PSY101).

### PSY-235 Introduction to Behavioral Research

3 Credits

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).

### PSY-521 Learning and Memory

3 Credits

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 of Psychology (PSY101).

## READING

### RDG-090 Reading Skills I

3 Credits

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 their 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.

### RDG-095 Reading Skills II

3 Credits

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.

## RELIGIOUS STUDIES

### REL-111 World Religions

3 Credits

This course helps students to inquire into, analyze, and contextualize practices and beliefs of religions in all regions of the world. Students analyze different religions in relation to one another, contemplate the diversity of practices and beliefs even within a single religious tradition, consider how various religions engage significant human questions, and encounter religion as a living, evolving process. Students locate religions and their development within social, geographical, and political contexts. Students develop information literacy and communication tools to inquire into and discuss beliefs and practices with respect, curiosity, engagement, and intercultural competency. This course fulfills the Area 3 World View requirement for General Education. Prerequisites: Writing Skills II (ENG095) and Reading Skills II (RDG095) or exemption from requirements due to placement testing.

## RUSSIAN

### RUS-101 Elementary Russian I

3 Credits

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.

## SCIENCE

### SCI-221 Interpretation and Presentation of Scientific Research

3 Credits

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.

**SURGICAL TECHNOLOGY****SGT-105 Surgical Technology I**

5 Credits

This course is an introduction to the profession of surgical technology. The foundation and theory of the practice of Surgical Technology are presented to the student in conjunction with hands on experience in surgical technology, standard precautions, surgical equipment and instrumentation, and the care of the surgical patient. The introduction to the clinical setting is presented in the lab. The surgical conscience is defined and developed as well as standards of professionalism. Prerequisite: admission into the Surgical Technology Program.

**SGT-106 Surgical Technology II**

8 Credits

This course focuses on the introduction of surgical specialties. During clinical placement students participate in the corresponding surgical interventions as they apply to each specialty. Prerequisites: Basic Anatomy/Physiology/Lab (BIO107) or Human Biology/Lab (BIO108) and Surgical Technology I (SGT105).

**SGT-107 Surgical Technology III**

3 Credits

This course provides a direct focus on performance in the clinical setting. Students participate as independent members of the surgical team, demonstrating beginning-level competence of advanced skills and anticipation of surgical needs. Classroom discussions will include legal, ethical, moral issues, or incidents, emergencies, and understanding the surgical patient's reaction to stress and illness. Prerequisite: Surgical Technology II (SGT106), PMT (103), and Human Growth and Development (PSY213).

**SGT-109 Central Processing I**

2 Credits

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.

**SGT-109A Central Processing I Clinical**

2 Credits

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.

**SGT-110 Central Processing II**

2 Credits

This course introduces high- and low-temperature sterilization, sterile packaging and storage. The chemistry of Sterilization is presented. Quality control, risk management regulations and recommendations and recommended practices are introduced. Inventory management and principles of purchasing are also introduced. Course meets 2 hrs lecture. Prerequisites: Central Processing I (SGT109), Writing Skills I (ENG090), Foundations of Mathematics (MAT093) and Reading Skills I (RDG090).

**SGT-110A Central Processing II Clinical**

2 Credits

During clinical experience, students participate in applications of theory to actual practice. A minimum of 90 hrs of clinical is required. Prerequisites: Central Processing I (SGT109) and Central Processing Clinical (SGT111) with a grade of C or better.

**SGT-111 Central Processing Clinical**

2 Credits

This course is clinically focused, with students focusing on clinical skills acquisition. Students develop both depth and breadth of experience during clinical rotation. Course meets the first night to discuss clinical placement. 6 hrs clinical. Prerequisite: Central Processing I (SGT109) with a grade of C or better. People working in Central Processing can apply for Prior Learning Assessment credits.

**SGT-115 Asepsis for Surgical Technology**

2 Credits

This course covers the principles and practices of surgical asepsis that must be maintained in the operating room. This course will cover a brief introduction to microbiology with emphasis on infection control in the surgical setting. The course will cover sterilization, disinfection and antisepsis and the role of the surgical technologist as it applies to these principles. Prerequisites: Admission into the Surgical Technology Program.

**SGT-116 Surgical Seminar**

4 Credits

This course provides students with an opportunity to advance their knowledge of surgical procedures through the use of case studies. The seminar will be an online course that focuses on discussion of surgical specialties, complications, new technologies and the role of the surgical technologist as they advance from student to employee. Prerequisites: Surgical Technology II (SGT106) and Human Growth and Development (PSY213).

**SOCIOLOGY****SOC-101 Principles of Sociology**

3 Credits

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.

**SOC-109 Cultural Anthropology**

3 Credits

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.

**SOC-110 Physical Anthropology**

3 Credits

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; and where do we go from here? This course is offered through the Center for Self-Directed Learning only.

**SOC-203 Social Problems**

3 Credits

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 in Principles of Sociology (SOC101).

**SOC-204 Sociology of Organizations**

3 Credits

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).

**SOC-205 Urban Sociology**

3 Credits

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).

**SOC-206 Juvenile Delinquency**

3 Credits

This 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.

**SOC-207 Criminology**

3 Credits

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).

**SOC-211 The Family**

3 Credits

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.

## COURSE DESCRIPTIONS

### **SOC-225 Sociology of Homosexuality** 3 Credits

This survey course examines issues dealing with homosexuality from the perspective of the sociologist. The course emphasizes the essentialist/constructionist debate; facts and myths about homosexuality; the influence of prejudice and discrimination on the lives of gay men, lesbians and their families; and the homosexual culture/community/lifestyle. Other topics include coming out issues, development of gay and lesbian identities, the needs of a gay family member, gay history, gay spirituality, the AIDS crisis, and the gay liberation movement and its impact on contemporary culture.

### **SOC-229 Sociology of Film** 3 Credits

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.

## SONOGRAPHY

### **SON-113 Cross Sectional Anatomy** 4 Credits

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).

### **SON-115 Abdominal Ultrasound** 3 Credits

This course familiarizes the student with interpretation of normal and abnormal sonographic findings of the abdominal cavity. 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 abdominal sonography will be covered. Prerequisite: Cross-Sectional Anatomy (SON113). Co-requisite: General Sonography Clinical I (SON121).

### **SON-117 Ultrasound Scanning and Pathology** 4 Credits

This course consists of a lecture component and hands-on component. The student will have the opportunity to apply knowledge that they have gained via lecture directly to hands-on scanning applications. Topics addressed include proper machine set up, annotation of the equipment with reference to anatomy, and basic images. Students will be exposed to the various scan planes and transducer orientations that are utilized in daily practice as a sonographer. In addition, exam protocols and pathology will be discussed. The student will have the opportunity to use the equipment in the classroom. Prerequisite: Cross-Sectional Anatomy (SON113). Co-requisite: General Sonography Clinical I (SON121).

### **SON-119 Subspecialty Sonography and Neurosonography** 3 Credits

This hybrid course will familiarize the student with interpretation of normal and abnormal sonographic findings of subspecialty exams. This course will also have a hybrid and in-class component for an introduction to neurosonography. 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 subspecialty sonography and neurosonography will be covered. Prerequisite: Cross-Sectional Anatomy (SON113). Co-requisite: General Sonography Clinical I (SON121).

### **SON-121 General Sonography Clinical I** 3 Credits

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: Cross-Sectional Anatomy (SON113). Co-requisites: Abdominal Ultrasound (SON115), Ultrasound Scanning and Pathology (SON117), and Subspecialty Sonography/Neurosonography (SON119).

### **SON-123 General Sonography Clinical II** 3 Credits

This hybrid course is a combination of classroom teaching and an online learning experience. This course continues with the presentation and physics of ultrasound. Special attention is given to the Doppler effect and its relevance in the field of general sonography. Sonographic artifacts, harmonics, contrast agents, bioeffects and safety are covered as well. Review from Ultrasound Instrumentation I is covered in the form of online weekly registry review tests. Prerequisite: Ultrasound Instrumentation (MIG105). Co-requisite: General Sonography Clinical III (SON223).

### **SON-213 Ultrasound Physics and Instrumentation for the General Sonographer** 2 Credits

This hybrid course presents the physics of Ultrasound 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 and 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 and 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). Co-requisite: General Sonography Clinical III (SON223).

### **SON-215 Advanced General Sonography I** 2 Credits

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).

### **SON-217 Advanced General Sonography II** 2 Credits

This hybrid course is a combination of classroom teaching and online learning experience. Course topics include a review of obstetrical and gynecological sonography as well as physics and instrumentation. 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: Advanced General Sonography (SON215). Co-requisite: General Sonography Clinical IV (SON225).

### **SON-219 Obstetrical/Gynecological Sonography I** 3 Credits

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).

### **SON-221 Obstetrical and Gynecological II** 3 Credits

This course is a continuation of Obstetrical/Gynecology Sonography I. Abnormal sonographic findings as they relate to second and third trimesters will be covered. Fetal anomalies as well as maternal disease will be discussed. Related scanning techniques and associated Color Flow and Doppler will be described. Sonographic/medical terminology, pathophysiology, clinical presentation and associated laboratory findings as they relate to the second and third trimesters will be covered. Prerequisite: Obstetrical/Gynecological Sonography I (SON219) Co-requisite: General Sonography Clinical IV (SON225).

### **SON-223 General Sonography Clinical III** 3 Credits

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).

### **SON-225 General Sonography Clinical IV** 3 Credits

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 III (SON223). Corequisites: Obstetrical and Gynecology Sonography II (SON221) and Advanced General Sonography (SON217).

### **SON-227 General Sonography Clinical V** 3 Credits

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 IV (SON225).

**SPORT MANAGEMENT****SPM-101 Principles of Sport Management** 3 Credits

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. Pre/Co-requisite: Introduction to Business (BUS101).

**SPM-215 Sport Marketing and Promotion** 3 Credits

This course takes an in-depth look at fundamental marketing practices as applied to various sport venues and provides a detailed analysis of sport as a product, sport consumer markets, and sport product markets. Students will become familiar with marketing strategies applied to specific segments of the sport industry including amateur, college, professional and recreational markets. Students will prepare and organize marketing, promotional, and public relations campaigns applied to the sport and leisure industry. Legal issues and other challenges facing the sport industry will also be examined. Prerequisite: Principles of Sport Management (SPM101).

**SPANISH****SPN-101 Elementary Spanish I** 3 Credits

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.

**SPN-102 Elementary Spanish II** 3 Credits

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.

**SPN-201 Intermediate Spanish I** 3 Credits

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.

**SPN-202 Intermediate Spanish II** 3 Credits

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.

**SPN-512 Conversation and Reading** 3 Credits

In this class students will develop and practice speaking and reading skills acquired in Intermediate Spanish. Class is designed for students who have good knowledge of Spanish grammar and want to be able to function adequately in professional and travel situations. Class is not for Heritage speakers. Consult with instructor for appropriate level.

**SPN-515 Advanced Spanish I** 3 Credits

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.

**SPN-517 Latino Identity: the Media, Culture, and Myths** 3 Credits

This course will explore the agenda behind the manipulation of the Latino experience in the media, how this contributes to the perpetuation of stereotypes, and how these myths/system of fictions affects the notions of self-identity. This course is taught in English.

**THEATRE****THE-107 Acting I** 3 Credits

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.

**THE-108 Acting II** 3 Credits

This scene study class covers intensive work with imagery and improvisation to heighten actors' abilities to perform roles dynamically. The course focuses on students' discovering their strengths as they learn to trust their impulses and create characters that are vulnerable and compelling. Each participant works on two scenes. Prerequisite: Acting I (THE107).

**THE-109 Play Production Workshop** 3 Credits

This course covers practical training in acting, costuming, makeup, lighting, and stage management related to the production performed by each class. All students work as crewmembers and are encouraged to audition for roles in the play. Students may repeat this course three times, earning one credit for each repetition.

**THE-111 Improvisation** 3 Credits

This course explores improvisation both as an art and also as the basis for developing roles for stage and on-camera work. Students develop spontaneity, narrative skills, the ability to work off a partner, and to make strong choices on stage. Students work with the repertoire of comedy improvisation groups, with more dramatic and naturalistic improvisation groups, and with more dramatic and naturalistic improvisation situations. Students may repeat this course three times, earning one credit for each repetition.

**THE-115 Playwriting** 3 Credits

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.

**VISUAL AND MEDIA ARTS****VMA-100 VMA Freshman Seminar** 3 Credits

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).

**VMA-102 Visual Design: Composition and Color** 3 Credits

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).

**VMA-103 Visual Design: Form and Time** 3 Credits

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).

## COURSE DESCRIPTIONS

### VMA-104 Drawing I

3 Credits

This is 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).

### VMA-105 Digital Imaging With Photoshop

3 Credits

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).

### VMA-106 Digital Imaging for Artists and Designers

3 Credits

In this course students will learn the Adobe Photoshop and conceptual skills necessary to create digital illustrations, collage and mixed media work comprised of photography, scanned images, found materials and student artwork. Students will learn the technical aspects of digital imaging such as scanning, image resolution, color reproduction, nondestructive editing, and image retouching and manipulation. These will be applied to projects where students explore principals of color and composition, meaning, expression, representation, sequence and narrative. Prerequisites: Grade of C or better in Visual Language:Composition and Color (VMA102).

### VMA-111 Introduction to Mass Media

3 Credits

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).

### VMA-112 Art History: Prehistoric to Medieval

3 Credits

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 Moven 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).

### VMA-113 Art History: Renaissance-Contemporary

3 Credits

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).

### VMA-114 History of Graphic Design

3 Credits

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 and Media Arts Department. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).

### VMA-115 The Moving Image

3 Credits

This course critically investigates and explores the history and technical development of the moving image, including major and influential works, artists, technical advances, and movements in film, television, and digital presentations. This course builds critical thinking and visual skills. The course provides a necessary historical basis for students in the Media Communications Program in the Visual and Media Arts Department. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).

### VMA-122 Painting for General Education

3 Credits

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).

### VMA-123 Water Color I

3 Credits

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).

### VMA-124 Printmaking I

3 Credits

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).

### VMA-125 Introduction to Adobe Suite

3 Credits

This is an introductory course in Adobe Illustrator, Photoshop, and InDesign, the industry-standard applications for graphic design. Through in-class and independent projects, students will learn the basic functionality of Illustrator for digital illustrations. Photoshop for editing images, and InDesign for layout and design. Students will be introduced to the basic tools and vocabulary needed to continue building skills independently. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093). Please note: This course cannot be used for credit in the VMA Visual Design Option.

### VMA-129 Visual Design with HTML and CSS

3 Credits

Visual Design students will learn typography, layout and design in the context of interactive media, using HTML and CSS as visual design tools. Through a variety of onscreen projects, students will build on typesetting and layout skills and practice the principals of interactive design. Projects will focus on web typography, fluid design, functional style, navigation, and kinetic typography on screen. Prerequisite: Grade of C or better in Typography I: Form, Style, and Hierarchy (VMA132).

### VMA-133 Typography II: Layout, Typesetting, and Systems

3 Credits

In this course students will continue to build on typographic foundation principles, strengthening their skills through projects of moderate complexity. Projects involve information design and design of long-form content for print and digital books, magazines and other publication formats. Students will learn to develop consistent type and navigation systems, and explore the relationship between type and image. There will be an emphasis on working through the design process from sketch, revision, and final presentation. Software used: Adobe Illustrator, InDesign, and some Adobe Photoshop. Prerequisites: Grade of C or better in History of Graphic Design (VMA114) and Typography I (VMA132).

### VMA-135 Illustration for Designers

3 Credits

In this course students will use their observational and conceptual drawing skills to create projects in Adobe Illustrator that communicate concepts and information. There will be an emphasis on developing visual research, sketching and rendering practices in order to create illustrations, data graphics and logotypes using vector drawing techniques. Prerequisites: Grade of C or better in Drawing I (VMA104) and Visual Language: Composition and Color (VMA102).

**VMA-141 Elements of Video Production**

3 Credits

This course gives students an overview of the theoretical, aesthetic, and practical elements of digital video pre-production, production, and post-production. Through a series of creative exercises, lectures, and classroom critiques, students will gain an understanding of the fundamental skills required in planning, scripting, directing, shooting, lighting, and editing digital video productions for a variety of purposes and audiences. The course provides a special emphasis on understanding and using visual storytelling techniques to relate information and emotion. Recommended prerequisite: Digital Imaging with Photoshop (VMA105). Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).

**VMA-151 Introduction to Audio Technology**

3 Credits

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).

**VMA-161 Introduction to Digital Photography**

3 Credits

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).

**VMA-207 Figure Drawing**

3 Credits

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).

**VMA-221 Painting I for Fine Arts**

3 Credits

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).

**VMA-225 Painting II for Fine Arts**

3 Credits

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 heavy body paints while learning more advanced techniques. This course also serves as an introduction to portraiture and figure painting while providing a framework for students 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).

**VMA-226 Observational Drawing**

3 Credits

This course provides students with intermediate to advanced 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 (VMA207).

**VMA-227 Ideas in Art: Fine Arts Studio**

3 Credits

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 (VMA207) or Painting I for Fine Arts (VMA221).

**VMA-228 Multi-Level Art Studio**

3 Credits

This course is designed to accommodate above beginning level fine arts students as they hone their creative practice within a skill-based curriculum. The emphasis of this course is to provide students with the space and guidance to develop projects of their own design. Applicable formal and conceptual considerations will be explored by investigating contemporary and historical practices. Students will exercise their conceptual and visual problem solving skills through group critiques and individual meetings. This course will conclude the presentation of aesthetically and conceptually original art portfolio from each student. Prerequisite: Ideas in Art: Fine Arts Studio (VMA227).

**VMA-232 Visual Design Lab I**

3 Credits

In this rigorous studio lab course, students will strengthen foundations of visual language, typography, image, and materials by working on pragmatic and expressive design problems. Students explore design process, methods of research, concept development, sketching, critique and revision in order to produce and present effective visual design solutions. Students learn to analyze and discuss their work, and the work of others, through frequent class critiques. Prerequisites: Grade of C or better in Typography II: Layout, Typsetting, and Systems (VMA133) and Illustration for Designers (VMA135).

**VMA-244 Media Project Planning**

3 Credits

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).

**VMA-261 Digital Photography Techniques**

3 Credits

This course examines professional practices in digital photography. Emphasis is on the continuity of the digital workflow and the production of fine prints. Technical issues of acquisition, image processing, out-put, and archiving will be addressed. Work derives from topical shooting assignments and student-defined projects. Students must have a digital camera with manual exposure control, and preferably one with RAW capture capability. Prerequisite: Visual Design: Composition and Color (VMA102).

**VMA-290 Visual Design Portfolio**

3 Credits

In this course Visual Design majors will refine, expand on, and assemble existing portfolio content for transfer to 4-year design programs, internships, and entry-level employment. The portfolio content is evidence of the student's abilities in design, concept development, and technical skills. Students will produce a resume and self-marketing materials. They will learn presentation techniques and participate in portfolio review. Prerequisite: Grade of C or better in Visual Design I (VMA232). Pre/Co-requisite: Visual Design Lab II (VMA233).

**VMA-299M Media Communication Internship**

3 Credits

This internship course is dedicated to field experience in a professional job situation and is recommended as a final semester course. Students arrange for placement at an internship site with the departmental supervisor in the semester previous to the actual internship. Site experience requires 120-150 hours, as well as a personal project related to the internship. Prerequisite: Advanced Video Production (VMA241) or permission of department chair.

**ALLIED HEALTH**

**Barbara Chassaing**  
Workforce Development Specialist  
Tufts Medical Center

**Terry Egan, R.M.A.**  
Supervisor-Medical Assistants  
Massachusetts General Hospital

**Kathy Field**  
Volunteer Services  
East Boston Neighborhood Health Center

**Elizabeth Mullen**  
Administrator  
Leonard Florence Center for Living

**Mary O'Brien, R.N.**  
Clinical Educator  
Massachusetts General Hospital

**Alysia Ordway**  
Director of Workforce Initiatives  
Boston Private Industry Council

**Les Schwab, M.D.**  
Director of Medicine  
Harvard Vanguard Medical Associates

**BIOTECHNOLOGY**

**Dr. Joan Abrams**  
Biotechnology Faculty  
Cambridge Rindge and Latin High School

**Dr. Jim Barber**  
Consultant  
Industrial Biotechnology

**Michelle Eldridge**  
Senior Training Manager  
Genzyme

**John Kyranos**  
Vice President, Facilities and Engineering  
Shire

**Chris Masterson**  
Vice President  
Quality Cubist Pharmaceuticals

**Dr. Palani Palaniappan**  
Vice President  
Biologics Takeda Pharmaceutical Company, Limited

**Connie Phillips**  
Director  
Boston University Program in Biomedical and Laboratory and Clinical Science, City Lab Academy.

**Dr. Alexia Pollack**  
Associate Professor, Biology  
UMass Boston

**Robert Steininger**  
Senior Vice President, Manufacturing  
Acceleron Pharma

**Dr. Philip (Rusty) Warren**  
Senior Advisor  
Polestar Technologies, Inc.

**Dr. Tod Woolf**  
President  
IPIFINI

**BUSINESS**

**Rodrigo Cerveira**  
Loan Officer  
Accion USA

**Ross Dowd**  
Senior Vice President  
Global Marketing and Client Services

**Susan Duffy**  
Executive Director of the Center for Women's Leadership  
Babson College

**Nancy Folan**  
Senior Vice President of Human Resources  
Pioneer Investments

**German E. Lam**  
Chief Executive Officer  
Glam Foods

**John Moore**  
Owner  
Navy Yard Bistro

**Louis J. Piazza**  
Entrepreneur

**David Saulnier**  
Senior Vice President of Risk Management  
State Street Financial Center

**Paul R. Sullivan**  
Consultant  
University of Michigan

**Debby Wiesen**  
Vice President and Dean of the Veterans Training School  
New England Center for Homeless Veterans

**COMPUTER INFORMATION TECHNOLOGY**

**Robin Anderka**  
Oncology Lead Coordinator  
Hematology and Oncology Department  
Mount Auburn Hospital

**Tony Collias**  
Regional Vice President  
Primerica Financial Services

**Angel Figueroa**  
Operational Supervisor  
Revere Health Center

**Michelle Gordon-Seemore**  
Director of Staffing and Recruitment, Human Resources,  
Children's Hospital

**Ismail Sadik**  
Lead Medical Administrator  
Neuro-Ophthalmology Department  
Massachusetts Eye and Ear Infirmary

**Arifa Kapadia**  
Manager, Division of Nephrology  
Children's Hospital

**Kathy Lovell**  
Vice President  
ING

**Eric Marks**  
President and Chief Executive Officer  
AgilePath Corporation

**George Mellor**  
Vice President of Services and Operations  
CBE Technologies

**Harold Mellor**  
Senior Manager, Associate Director, Staffing  
Novartis Institutes for BioMedical Research

**Vic Pascarelli**  
Area Vice President and General Manager  
Comcast

**Melissa Rischall**  
Enrollment Coach  
Northeastern University

**Laurie Sutherland**  
Vice President, Information Technology  
Comcast (North Central Division)

**Lisa D. Vigliotta**  
Assistant Director, Human Resources  
Suffolk University

**COMPUTER MEDIA TECHNOLOGY**

**Kevin Dill**  
Staff Software Engineer  
Lockheed Martin Advanced Simulation Center

**David Flamburis**  
Senior Artist  
Demiurge Studios

**Tom Lin**  
Creative Director, Co-founder  
Demiurge Studios

**Charles Murphy**  
Founder and President  
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**Julia Burnham**

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The Adjunct Faculty seniority listing is current as of June 1, 2017. Updates will be available online at [bhcc.edu/catalog](http://bhcc.edu/catalog) under **Addendum**.

**A.A. – ASSOCIATE IN ARTS** – An undergraduate degree of at least 60 credits awarded upon successful completion of a program of study in liberal arts and sciences that prepares students to transfer to a baccalaureate institution.

**A.S. – ASSOCIATE IN SCIENCE** – An undergraduate degree of at least 60 credits awarded upon successful completion of a program of study in an applied subject area, such as computers, electronics, or health that prepares students to enter the work force.

**ACADEMIC ADVISOR** – College staff member responsible for providing guidance in course and/or program-related issues.

**ACADEMIC COURSE LOAD** – The number of credit hours in which a student is enrolled during the semester.

**ACADEMIC PLANNING** – The outlining of a course of action to help the student to achieve their personal and career goals.

**ACADEMIC TERM (SEMESTER)** – Fall, spring and summer weeks when classes are in session. The fall and spring semesters are approximately 16 weeks long. The summer semester usually has three sessions varying in length from five to twelve weeks.

**ACADEMIC YEAR** – Fall, spring, and summer semesters, generally from early September to mid-August.

**ACCREDITATION** – Certification by an independent educational board that colleges or university's practices and policies meet or exceed official standards.

**ACE MENTOR PROGRAM** – The ACE Mentor program provides students enrolled in Learning Community courses assistance in making a successful transition to college by focusing on academic achievement, engagement, and cultural competency.

**ADD A COURSE** – To enroll in additional courses after registration is complete, accomplished through Admissions and Enrollment Services.

**ADMINISTRATION** – College staff members responsible for management and supervision.

**ALUMNI** – Graduates, in the plural.

**ARTICULATION AGREEMENT** – A formal agreement between Bunker Hill Community College and a four-year college or university which eases students' transfer to that institution.

**AUDIT** – To take a course under an agreement which does not result in a final grade of A, B, C, etc... Generally involves regular attendance and participation, but limits graded activities, such as exams; requires full payment of tuition.

**BOARD OF TRUSTEES** – An appointed board that oversees and is responsible for the policies and fiscal affairs of a college.

**BOOT CAMP** – A free special college program designed for students to complete pre-college courses before officially beginning their first semester.

**BRIDGE SESSION** – An eight week semester that runs during the summer for a few three-credit courses and all four-credit courses.

**BURSAR** – College official responsible for the billing and collecting of tuition and fees.

**CAREER PLANNING** – Prepares students for employment that matches their interests and professional goals.

**CAREER PROGRAM** – A specialized degree designed to equip a student with the skills and educational background needed for employment in a specific field, such as business administration, criminal justice, etc...

**CERTIFICATE PROGRAM** – An academic program of study in a specific field intended for occupational training, upgrading, or retraining, generally 30 credits or less in duration. A certificate is awarded upon successful completion of the program.

**COMMENCEMENT** – Graduation.

**COMMUNITY EDUCATION** – Courses offered by this department are non-credit and taken by students for personal enrichment.

**CO-REQUISITE** – A course requirement that is taken concurrently with another course.

**COURSE CLUSTER** – Two or more courses grouped together around a common academic theme. Instructors teaching in a cluster situation work as a team to ensure cluster objectives are met.

**CREDIT COURSE** – An academic course numbered 100 or above in the college catalog which may be applied toward completion of a degree or certificate. (See also Developmental Course).

**CREDIT HOUR** – A standard measure of the amount of instructional time required to successfully complete a course. For example, ENG111, College Writing I, is a 3 credit hour course, which means that it meets for 3 hours each week for one semester.

**CSDL** – An academic center at which students can register for a wide range of courses. Students can learn at their own pace through a variety of instructional media/materials.

**CURRICULUM** – A set of courses focused in a particular field, e.g. accounting, criminal justice, early childhood.

**DEAN** – A member of the administrative staff responsible for supervision and management of a particular division of the college.

**DEGREE PROGRAM** – At Bunker Hill Community College, an Associate in Arts or Associate in Science program of study requiring 60 credits or more for completion.

**DEVELOPMENTAL COURSE** – A basic skill development course numbered below 100 in the college catalog which carries college credit but does not count toward the requirements for graduation.

**DROP A COURSE** – To cancel registration in a course. It may be accomplished only during the schedule adjustment period as specified on the academic calendar and is processed through Admissions and Enrollment Services.

**EARLY ADVANTAGE** – An early intervention program designed to identify students who are experiencing difficulty in a course(s) early in the semester and to provide guidance and assistance that will help them have a successfully complete the course(s).

**EDUCATION PLAN** – A student's map or guide that delineates the courses they need to take to earn their degree or certificate and when those courses will be taken and in what format.

*Continued on following page*

- EDUCATIONAL PLANNING** – The planning process in which both staff and student create an educational pathway to facilitate persistence and success.
- ELECTIVE** – A course in a program of study which may be selected from a variety of courses in the designated discipline and is numbered above 100.
- ePORTFOLIO** – This is a vehicle for students to track their academic journeys through college by sharing their accomplishments and reflecting on their learning in ways that are both personally and publicly meaningful.
- FACULTY** – An employee of the College who delivers academic instruction.
- FEES** – Charges by the College for specific services to students.
- FINANCIAL AID** – Funding from various sources provided to students to assist in defraying expenses of college (See Financial Aid section of this catalog).
- FINANCIAL PLANNING** – A set of resources and tools designed to help students make sound financial decisions that are in line with their personalized plan.
- FREE APPLICATION FOR FEDERAL STUDENT AID (FAFSA)** – A required standardized application that includes detailed financial data and is used to determine eligibility for all financial aid programs.
- FULL-TIME (STUDENT)** – Student registered for 12 or more credits in the fall or spring semester or six (6) credits in the summer.
- GED** – General Educational Development (high school equivalency diploma).
- GENERAL EDUCATION** – A common core of courses required of all students that provides for the acquisition of core skills and knowledge necessary in a literate citizenry.
- GOOD ACADEMIC STANDING** – A student is considered making satisfactory process and in good academic standing if G.P.A. is 2.0 or higher and has completed 66 percent of his/her credits attempted.
- G.P.A. (CUMULATIVE G.P.A.)** – Grade Point Average, used to compute student academic standing.
- HYBRID COURSE** – Courses that combine traditional classroom instruction with online learning to deliver academic content that is the same as received in a pure classroom setting.
- INSTRUCTIONAL DELIVERY** – The modality used to impart course content.
- INTERNSHIP** – A program designed to give a student real work place experience in their intended career before graduation.
- INTERGRATED SUPPORT NETWORK** – Identifies and directs students to people, resources, and services that meet their unique needs to promote success and individual growth.
- IP GRADE (In Progress)** – A grade conferred by a faculty member giving a student a period of time after the end of the semester to complete all of the required coursework to earn a passing grade.
- LEARN AND EARN PROGRAM** – Paid internships at companies located in the greater Boston area.
- LEARNING COMMUNITY CLUSTER** – Enrolls the same group of students in two or more courses centered on common academic themes enabling students to learn and study together.
- LEARNING COMMUNITY SEMINAR** – A course designed to assist first time students make a successful transition to college.
- LEARNING CONTRACT** – An independent learning agreement between a student and a faculty member under the auspices of a Dean that allows a student to enroll in and complete a course that is not offered in any other format in a semester.
- LIFEMAP** – A system of shared responsibility between students and the college, as students navigate their personalized plan for identifying and achieving their academic, career, and personal goals.
- MAJOR/PROGRAM OF STUDY** – The degree or certificate program a student is officially enrolled in.
- MATRICULATION** – Formal application to and acceptance in a degree or certificate program.
- MIDNIGHT COURSES** – College courses starting at 11:45 p.m. and ending at 2:30 a.m. to accommodate the learning needs second shift workers and other students whose schedules are very tight or just prefer to learn during that time period.
- MID-SEMESTER WARNING GRADE** – Official notice to a student by faculty that at the half-way point of the semester a student is in danger of not passing a course(s) with a grade of C or better.
- MID-TERM** – The point midway through an academic term.
- NA GRADE (Never Attended)** – An administrative withdrawal designation conferred by faculty to students enrolled in a course(s) and who do not attend one class during the first four weeks of the semester.
- NON-CREDIT COURSE** – A course that is non-credit bearing and cannot be used to satisfy an academic requirement for any degree or certificate program.
- NON-MATRICULATED STUDENT** – A student taking college courses without being enrolled in a degree or certificate program.
- ONLINE DEGREE PROGRAM** – Degree programs that allow students the ability to fulfill all of the requirements by completing online courses.
- OPEN ADMISSION** – A students' automatic acceptance into a non-selective degree or certificate program with a High School diploma or GED.
- PART-TIME (STUDENT)** – Student enrolled for 11 credits or fewer in the fall or spring semester.
- PLA - PRIOR LEARNING ASSESSMENT** – A program through which students may earn credit for college-level learning acquired through non-collegiate experiences such as employment, military training, community service, and volunteer activities.

Continued on following page

**PLANNED COURSES** – The formal process of determining the order and semester courses have to be taken in to earn a degree or certificate.

**PORTAL** – The computerized entryway to the student information system.

**PREREQUISITE** – Skill or course required for entry into a course or program of study.

**PROBATION** – Formal notice that a student is not in good academic standing and imposes limits on the number of credits a student may register for in a semester.

**RE-ADMISSION** – The process by which students who return to the College to re-enroll in a degree or certificate program after an absence of at least one semester.

**SATELLITE CAMPUS** – Location besides a college's main or branch campus where classes are held and courses are facilitated.

**SATISFACTORY ACADEMIC PROGRESS (S.A.P.)** – Minimum grade point average and course completion rate that must be earned by a student to be considered in good academic standing.

**SCHEDULE ADJUSTMENT (ADD/DROP)** – A short period of time after a semester begins that allows students to change their course enrollment and/or course schedules.

**SELECTIVE PROGRAM ADMISSION** – Some programs are competitive and have specific requirements that must be met before a student may submit an application for admission. These programs are competitive and acceptance is not guaranteed.

**SELF-DIRECTED LEARNING** – An approach to learning that requires students to take the lead in determining how they will learn subject matter and work to autonomously to acquire that knowledge.

**SOCIAL NETWORKING** – Connects students to other students, faculty, staff, and the larger community to assist them in achieving their educational, career, and financial goals.

**STAFF** – An employee of the College who does not teach or facilitate academic instruction.

**START SMART ORIENTATION** – The formal process of welcoming new students to the college and providing them with information on the resources, services, and departments they may access to assist them to be academically successful.

**STEM** – Stands for Science, Technology, Engineering, and Mathematics.

**STOP-IN** – A student who takes a course during the summer session while on their semester break from their four-year college or university.

**STREAMING MEDIA** – Online courses providing students with access to asynchronous instruction.

**SUCCESS COACH** – A Success Coach is assigned to a Learning Communities course to assist students. Success coaches collaborate with faculty and ACE mentors to engage students in academic content and to work with students to identify pathways that encompass academic, career, and personal goals.

**SUSPENSION** – Students on probation who after taking a reduced course load, continue to not meet the grade and completion rate threshold to be in good academic standing. These students may be required to take a semester off.

**TO BE ANNOUNCED (TBA)** – An instructor and/or a room has yet to be assigned for a course.

**TRANSFER GUIDELINES** – Informal documents suggesting courses to be taken at Bunker Hill Community College for most effective transfer to a four-year college or university.

**TRANSFER PROGRAM** – A degree program designed for students who plan to continue their academic careers beyond the associate degree level through transfer to a four-year college or university.

**TRANSCRIPT** – Permanent record of students' academic grades; available through Admissions and Enrollment Services.

**TUITION** – Charges by the College to a student for registration in credit courses.

**VIRTUAL COURSES** – Online synchronous learning.

**WEB COURSE** – A course that is completely online and provides the same academic content that is delivered in a traditional classroom course.

**WITHDRAWAL FROM COLLEGE** – The formal process of notifying the College of the decision to discontinue attending all classes.

**WITHDRAWAL FROM A COURSE** – The formal process of notifying the college of the decision to discontinue attending a Course.

COURSE NUMBER	SECTION	TITLE	COURSE NUMBER	SECTION	TITLE
COURSE NUMBER	SECTION	TITLE	COURSE NUMBER	SECTION	TITLE
COURSE NUMBER	SECTION	TITLE	COURSE NUMBER	SECTION	TITLE

DAY	7:00 - 8:15	8:30 - 9:45	10:00 - 11:15	11:30 - 12:45	1:00 - 2:15	2:30 - 3:45	4:00 - 5:15	EARLY EVENING	EVENING
MONDAY	A	C	E	G	I	J	L		
TUESDAY	B	D	F	H	ACTIVITY PERIOD	K	M		
WEDNESDAY	A	C	E	G	I	J	L		
THURSDAY	B	D	F	H	ACTIVITY PERIOD	K	M		
FRIDAY		N		O					
SATURDAY			9:00 - 11:45		12:00 - 2:45				

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