QUINSIGAMOND
Community College

2025-2026
CATALOG

Our Vision

Quinsigamond Community College is a premier learning community…recognized for teaching and learning excellence, relevant and responsive programming, students' success, and community outreach and impact. We thrive as a vital regional asset and first choice for transforming lives and sustaining healthy, prosperous communities. All are welcomed and embraced in our community, where students come first and faculty and staff strive to develop potential and help make dreams come true.

At QCC, we excite…we ignite…we open new vistas of opportunity.

Our Mission

Quinsigamond Community College is the gateway to advanced educational and employment opportunities in Central Massachusetts. We are a public, student-centered institution of higher learning, providing accessible, affordable, high quality educational and training programs and services that are relevant and responsive to diverse regional and student needs.

Our Mission Principles

In fulfillment of our mission, the college community commits to the following principles:

- Students First
- Teaching and Learning
- Comprehensive, Flexible Programming and Services
- Open Access to Learning
- Potential for Success
- Community Outreach and Support

Our Values

Faculty and staff infuse life in our vision and live our mission principles by creating and sustaining a college climate and culture where all are warmly welcomed, accepted and valued for their individual dignity and worth. We recognize the importance of diversity and acknowledge the rich and unique contributions that each community member makes to advance the College. To this end, the following values guide our individual actions and community interactions:

- Excellence and Quality
- Integrity and Accountability
- Inclusiveness
- Cooperation and Collaboration
- Respect and Trust
- Open, Civil Communications and Collegiality
- Creativity and Innovation

QCC Land Acknowledgement Statement

We want to acknowledge that we gather as Quinsigamond Community College on the traditional land of the Nipmuc, past and present. While a land acknowledgment statement is an important initial step and not enough, it is a necessary decolonial practice that promotes indigenous visibility and social justice, reminding us that we are on settled indigenous land. We condemn the unjust deeds done in the past and honor with gratitude the land itself and the indigenous people who have stewarded it throughout the generations. We commit to continuing to work for peace and reconciliation and to be better neighbors and caretakers of the land we inhabit.

College Community Statement

At Quinsigamond Community College, we promote a positive environment for all students, staff, and faculty. The College is a community where kindness and respect are integral to our values, ensuring that everyone feels seen, heard, respected, and valued.

Welcome

A Message from the President

Dear Future Student,

Welcome to Quinsigamond Community College (QCC), where your dreams of a bright and exciting future can become a reality. At QCC, we pride ourselves on being more than just a college — we are a close-knit community, committed to supporting you in your academic aspirations. Since the college's founding in 1963, QCC has evolved and grown. Today we offer more than 100 degree and certificate programs, alongside a wide range of non-degree options through our Center for Workforce Development and Continuing Education. No matter where your career desires lie, we have the resources and opportunities to help you succeed.

Whether you're fresh out of high school, looking to switch careers, hoping to advance in your current field, or looking to try something new, there's a place for you here. We offer an affordable, hands-on education with small class sizes and dedicated professors, many of whom bring real-world industry experience into the classroom. Additionally, our Access and Opportunity Office is here to ensure that we create a welcoming and supportive environment for every student.

Our Student Success Center is at the heart of our commitment to you, providing a positive and nurturing learning experience. Our Admissions counselors will help guide you through the enrollment process, and our academic advisors are here to assist you in designing a personalized academic path that aligns with your goals.

We understand that each student has unique needs, and we're proud to offer a variety of support services tailored to our diverse student body. From financial aid advisors who work closely with you to craft a financial plan that fits your life, to tutoring services (both in-person and online), counseling, wellness programs, and support for parenting students and veterans — we're here to help you succeed. Be sure to explore the Student Services section of our catalog for a complete list of resources.

QCC is also part of two important state programs designed to make higher education even more accessible and affordable for Massachusetts residents: MassReconnect and MassEducate. Make sure to visit www.QCC.edu/free to learn more.

Whether you prefer remote, online, or in-person classes, QCC offers flexible learning options at various locations, including our main campus on West Boylston Street, as well as in Southbridge, downtown Worcester, and the Worcester Senior Center. No matter where you're located or how you like to learn, we have a course option that will work for you.

Our faculty, staff, and administration are committed to supporting you in achieving your higher education goals, and we eagerly look forward to being a part of your educational journey.

Sincerely,

Luis G. Pedraja, Ph.D.
President

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New England Commission of Higher Education, Inc. Accredited Member

Quinsigamond Community College is accredited by the New England Commission of Higher Education, Inc. (NECHE), formerly the New England Association of Schools and Colleges (NEASC).

Inquiries regarding the accreditation status by the Commission should be directed to the administrative staff of the institution. Individuals may also contact:

New England Commission of Higher Education
301 Edgewater Place,
Suite 210 Wakefield, MA 01880
781.425.7785 | www.neche.org

Individual Programs of Study are also fully accredited by various agencies:

Practical Nursing & Nurse Education Programs: Accredited by The Accreditation Commission for Education in Nursing (ACEN)

Occupational Therapy: Accredited by The Accreditation Council for Occupational Therapy Education of the American Occupational Therapy Association (ACOTE)

Medical Assisting: Accredited by The Commission on Accreditation of Allied Health Education Programs (CAAHEP) based on recommendations of the Medical Assisting Educational Review Board (MAERB)

Radiologic Technology: Accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT)

Respiratory Care: The Commission on Accreditation for Respiratory Care (CoARC)

Dental Hygiene & Dental Assisting: The Commission on Dental Accreditation (CODA) of the American Dental Association

EMS/Paramedic: Accredited by Commission on Accreditation of Allied Health Education Programs (CAAHEP) based on recommendations of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)

Surgical Technology: Accredited by Commission on Accreditation of Allied Health Education Programs (CAAHEP) based on recommendations of the ARC/STSA

Early Childhood Education: Accredited by the National Association for the Education of Young Children

Equal Opportunity/Affirmative Action Policy

Quinsigamond Community College is an affirmative action/equal opportunity employer and does not discriminate on the basis of race, color, national origin, ethnicity, sex, disability, religion, age, veteran status, genetic information, pregnancy or related conditions, gender identity, sex characteristics, sex stereotypes or sexual orientation in its programs and activities as required by Title IX of the Educational Amendments of 1972, the Americans with Disabilities Act of 1990, Section 504 of the Rehabilitation Act of 1973, Title VII of the Civil Rights Act of 1964, and other applicable statutes and college policies. The College prohibits Sex-Based Harassment. Inquiries or complaints concerning discrimination, harassment, or retaliation shall be referred to the College's Affirmative Action Officer and/or Title IX Coordinator, the Massachusetts Commission Against Discrimination, the Equal Employment Opportunities Commission or the United States Department of Education's Office for Civil Rights.

Contact Information

- Sara Simms: ssimms@qcc.mass.edu | 508.854.2757
- Liz Woods: lwoods@qcc.mass.edu | 508.854.2791

Clery Statement

Quinsigamond Community College's Annual Security Report is available to the College community. This 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 Quinsigamond Community College; and on public property within, or immediately adjacent to and accessible from, the campus. The report also includes institutional policies concerning campus security, such as policies concerning sexual assault, and other matters. A copy of this report can be obtained by contacting the Campus Police or by accessing the following website:

www.QCC.edu/clery

College Calendar

Summer 1

Monday	May 26	Memorial Day – NO CLASSES
Tuesday	May 27	Classes begin
Thursday	May 29	Last day to Add/Drop
Friday	May 30	Withdrawal period begins
Thursday	June 19	Juneteenth Independence Day – NO CLASSES
Friday	June 20	Last day to withdraw deadline
Thursday	July 3	Last day of classes/exams

Summer 2

Friday	July 4	Independence Day – NO CLASSES
Wednesday	July 9	Classes begin
Friday	July 11	Last day to Add/Drop
Saturday	July 12	Withdrawal period begins
Friday	August 1	Last day to withdraw deadline
Thursday	August 14	Last day of classes/exam

Fall 2025

Monday	September 1	Labor Day – NO CLASSES
Tuesday	September 2	All College Day – NO CLASSES
Wednesday	September 3	Classes begin
Wednesday	September 10	Last day to Add/Drop
Thursday	September 11	Withdrawal period begins
Wednesday	October 1	Faculty and Staff Professional Development Day – NO CLASSES
Monday	October 13	Indigenous Peoples' Day – NO CLASSES
Mon. – Mon.	Oct 27 – Nov. 10	Returning Student Registration
Tuesday	November 11	Veterans Day – NO CLASSES
Wednesday	November 12	New student registration begins
Friday	November 14	Last day to withdraw deadline
Thurs.– Sun.	Nov. 27 – 29.	Thanksgiving Recess – NO CLASSES
Thurs. – Wed.	Dec. 11 – 17	Final week of classes
Thurs. – Fri.	December 18 – 19	Weather Make Up Dates

Fall 1 2025 (7 week)

Monday	September 1	Labor Day – NO CLASSES
Tuesday	September 2	All College Day – NO CLASSES
Wednesday	September 3	Classes begin
Friday	September 5	Last day to Add/Drop
Saturday	September 6	Withdrawal period begins
Wednesday	October 1	Faculty and Staff Professional Development Day – NO CLASSES
Wednesday	October 8	Last day to withdraw deadline
Monday	October 13	Indigenous Peoples' Day – NO CLASSES
Wednesday	October 22	Last day of classes/exams

Fall 2 2025 (7 week)

Monday	October 27	Classes begin
Wednesday	October 29	Last day to Add/Drop
Thursday	October 30	Withdrawal period begins
Tuesday	November 11	Veterans Day – NO CLASSES
Thurs.– Sun.	Nov. 27 – 30	Thanksgiving Recess – NO CLASSES
Monday	December 1	Last day to withdraw deadline
Wednesday	December 17	Last day of classes/exams
Thurs. – Fri.	December 18-19	Weather Make Up Dates

Intersession 2026

Monday	January 5	Classes begin
Monday	January 5	Last day to Add/Drop
Tuesday	January 6	Withdrawal period begins
Wednesday	January 14	Last day to withdraw deadline
Monday	January 19	Martin Luther King Jr. Day – NO CLASSES
Wednesday	January 21	Last day of classes/exams

Spring 2026

Friday	January 23	All College Day – NO CLASSES
Monday	January 26	Classes begin
Monday	February 2	Last day to Add/Drop
Tuesday	February 3	Withdrawal period begins
Monday	February 16	President's Day – NO CLASSES
Tuesday	March 3	Faculty and Staff Professional Development Day – NO CLASSES
Sun. – Sat.	March 22 – 28	Spring recess – NO CLASSES
Mon. – Fri.	Mar. 30 – April 10	Returning Student Registration
Sunday	April 5	NO CLASSES
Monday	April 13	New student registration begins
Friday	April 17	Last day to withdraw deadline
Monday	April 20	Patriot's Day – NO CLASSES
Wed - Tues	May 13 – 19	Last week of classes
Thursday	May 21	Commencement at 1:00 PM

Spring 1 2026 (7 week)

Monday	January 26	Classes begin
Wednesday	January 28	Last day to Add/Drop
Thursday	January 29	Withdrawal period begins
Monday	March 2	Last day to withdraw deadline
Thursday	March 19	Last day of classes/exams

Spring 2 2026 (7 week)

Monday	March 30	Classes begin
Wednesday	April 1	Last day to Add/Drop
Thursday	April 2	Withdrawal period begins
Monday	May 4	Last day to withdraw deadline
Tuesday	May 19	Last day of classes/exams

College Business Hours: 8:00 a.m. to 5:00 p.m. - College Offices (Admissions, Advising, Financial Aid, and Business Office) may have variable hours throughout the year. Please contact each office for the most accurate information.

About Quinsigamond

For over 60 years, Quinsigamond Community College has provided thousands of students opportunities for a first-rate education and personal growth, whether preparing them for immediate entry into the workforce, transfer to bachelor-level programs at four-year colleges and universities, or for personal and cultural enrichment. Area and regional businesses and professionals have benefited through regular and customized workforce training and education programming.

In addition, the College works directly with K-12 school systems in a variety of collaborations and has a robust early college program with schools across Central Massachusetts, offering hundreds of high school students the opportunity to earn college credits.

QCC was established in 1963 to provide access to higher education to residents of Central Massachusetts and today serves over 13,000 full and part-time students. The College offers over 100 associate degree and certificate career options, as well as over 1,000 non-credit traditional and online courses, workshops, seminars, professional development and customized training programs through QCC's Center for Workforce Development and Continuing Education.

There are in nine areas of study for credit programming:

- Business, Financial and Hospitality Management
- Computer and Information Technology
- Education
- Engineering and Engineering Technology
- Healthcare
- Installation, Maintenance and Repair Technologies
- Liberal Arts and General Studies
- Mathematics & Sciences
- Public and Social Services

For detailed information about any program, call Admissions at 508.853.2300 or visit our ww.QCC.edu/Academics.

QCC's main campus is located on 670 West Boylston Street in Worcester. The College maintains the following satellite locations:

- QCC Healthcare and Workforce Development Center in downtown Worcester
- QCC at Southbridge
- QCC at the Worcester Senior Center
- QCC at Burncoat
- Community Learning Hub at Great Brook Valley

The College is accredited by the New England Commission of Higher Education (NECHE). Membership in the Commission indicates that an institution has been stringently evaluated and found to meet high standards agreed upon by qualified educators. Additionally, individual programs may also be accredited by their respective agencies.

QCC Quick Facts

- The College serves over 13,000 students annually through its Credit and Non-Credit/Workforce Training divisions
- The College offers over 100 associate degrees and certificate programs
- The Center for Workforce Development and Continuing Education offers over 1,000 non-credit, traditional and online professional development courses, workshops, seminars, and customized training programs
- QCC's student to faculty ratio is 15 to 1
- The average student age is 26
- Courses are offered days, nights, weekends and online
- Student Life offers 35+ clubs, teams and organizations
- The Adult Community Learning Center offers 30 free English literacy programs from beginner to intermediate and 13 GED/HiSET classes
- Career Placement Services that include credit for prior learning, workplace experience and training
- 78% of QCC students receive financial aid such as: Federal and State loans, private loans, grants and scholarship funds[1]
- Current endowment of $5.9 million
- One of the 100 largest employers in Central Massachusetts
- QCC Alumni number over 36,000
- 81% of QCC graduates stay in Massachusetts upon graduating[2]
- 99% of alumni would recommend QCC to others[3]

[1]IPEDS (Integrated Postsecondary Education Data System) Data Center, Quinsigamond Community College, https://nces.ed.gov/ipeds/datacenter/institutionprofile.aspx?unitId=167534

[2]College statistics as of October 2020

[3]Alumni survey results 2023

Accreditations

QCC is accredited by the New England Commission of Higher Education, Inc. (NECHE), which accredits schools and colleges in the six New England states. Membership in NECHE indicates that an institution has been carefully evaluated and found to meet standards agreed upon by qualified educators. Individual programs of study are also fully accredited by various agencies. These include the following: the Commission on Dental Accreditation (CODA) of the American Dental Association (ADA); the Accreditation Commission for Education in Nursing (ACEN); the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP); the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA); The Department of Public Health Office of Emergency Medical Services; the Massachusetts Board of Registration in Nursing (MABORN); the Joint Review Committee on Education in Radiologic Technology (JRCERT); the Commission on Accreditation for Respiratory Care (CoARC); the Commission on Accreditation of Allied Health Education Programs (CAAHEP); and the National Association for the Education of Young Children (NAEYC).

We are Easy to Find

QCC is only a short drive from most locations in Central Massachusetts. Our Main Campus is located on West Boylston Street in North Worcester. We are a short distance from both Routes 290 and 190. Our Main Campus is easily accessed via public transportation; the West Boylston Street or Burncoat Street Worcester Regional Transit Authority (WRTA) bus routes will bring students directly to our campus.

The College also offers select courses at: QCC at Southbridge (Southbridge High School) at 132 Torrey Road, Southbridge, QCC at Burncoat (Burncoat High School) at 179 Burncoat Street, Worcester (Automotive Technology programs); QCC at the Worcester Senior Center at 128 Providence Street, Worcester (Hospitality and Recreation Management programs); and QCC at the Healthcare and Workforce Development Center at 25 Federal Street, Worcester (Healthcare, Workforce Development, and Continuing Education programs).

Our Student Body

QCC gives personal attention to individual student needs. Our student body is as unique as the communities we serve. Some students attend right out of high school; some come to QCC after several years in the workforce. Some of our students are senior citizens. We have full-time students and part-time students, those preparing for immediate entry into a career, those planning to transfer to bachelor degree programs, and some who just want to improve their skills to qualify for a promotion.

Many of our students choose to attend in order to begin a new chapter in their lives. Our students come from almost every city or town in Central Massachusetts - from Milford to the Brookfields and Dudley to Princeton. They all have one thing in common - the desire to attain a quality education and a chance to succeed.

Many of our students have families; many work while attending school. We are sensitive to the needs of the individual students. We provide flexible scheduling, options for full-time or part-time study, on-campus child care, and day, evening, online, and weekend courses.

What Makes Us Different

Our Faculty

QCC's faculty is its most important asset. Our faculty members hold advanced degrees in their respective fields of study. Many have published books and served as consultants. They help students succeed whatever their goal. At QCC, a strong bond is established between faculty and students, witnessed by the fact that graduates often return to the campus to visit their former professors.

Our Staff

From the moment students contact the College, they will know that our staff members care. There are friendly, helpful people throughout the College who want to help students succeed. They will answer questions, guide students through various processes, and take a personal interest in their needs.

Family Education Rights and Privacy Act (FERPA)

Quinsigamond Community College complies fully with the provisions of the Family Educational Rights and Privacy Act (FERPA) of 1974 as amended. FERPA affords students certain rights with respect to their education records. These rights are as follows:

1. The right to inspect and review the student's education records within 45 days of the day the College receives a request for access.
2. The right to request an amendment of student's education records that the student believes are inaccurate or misleading or otherwise in violation of the student's privacy rights under FERPA.
3. The right to provide written consent to disclosures of personally identifiable information from the student's education records, except to the extent that FERPA authorizes disclosure without consent.
4. The right to be notified annually by the College of what student record information the College designates as "directory information," and the right to request that no student information be designated as directory information.
   - The College identifies the following student information as directory information: a student's name, major field of study, dates of attendance, full-time/part-time status, degree and awards received, and participation in officially recognized activities and sports.
   - Directory information may be released by the College to a requesting third-party without a student's prior written consent. A student has the right to request that no student information be designated as directory information. If you prefer not to have your directory information shared, you must notify the Registrar by emailing registrar@qcc.mass.edu and a flag will be put on your student account within 48 hours of submitting a request.
5. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the 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
   400 Maryland Avenue, S.W. Washington, DC 20202-5901

To read the full FERPA statement please visit the student handbook at www.QCC.edu/handbook.

Electronic Communication Policy

The College uses Microsoft (Student Email) as an official means of communication with students. All students are expected to read their College email regularly and respond appropriately. If students choose to forward their email to another email provider, they are still responsible for receiving all College communications. The College also has an Emergency Alert text messaging system. Students can choose to sign up for this service through *The Q*, the College's Student and Faculty Portal.

QCC Mobile App

The QCC Mobile App was developed to provide students with the resources necessary to achieve academic success at QCC, as well as to strengthen the student's engagement within the QCC community.

With our QCC Mobile App, students (as well as the QCC community) can access their course information and grades, and find online resources. In addition, students will be able to make Bookstore purchases, utilize QCC Library services, campus maps, and much more!

www.QCC.edu/app

While Quinsigamond Community College strives to make this catalog as accurate as possible, certain circumstances or environmental factors may require modifications to the information presented. For the most up to date information, please visit us at www.QCC.edu.

Admissions

Quinsigamond Community College (QCC) believes that everyone should have an opportunity to further their education. Whether a student strives to attain an associate degree, certificate, or select courses for personal and professional growth, our Admissions Staff will gladly help the student through every step of the process.

Applicants who do not meet the minimum academic criteria for admission may still enroll at QCC. They can take courses to meet the minimum requirements as a non-degree student, or they will be admitted to the General Studies program. If a student does not wish to be admitted into the General Studies program, they must contact the QCC Admissions Office (Welcome Center, HLC, 2nd Floor) at QCC Worcester (Main Campus) at 508.853.2300 or at admissions@qcc.mass.edu.

QCC has established minimum academic requirements for admission to most programs, which are designed to help assure academic success. Information about minimum requirements can be found in the Areas of Study section of this catalog.

How to Apply

1. Apply online at www.QCC.edu/enrollment-steps. Applications are also available in the QCC Admissions Office at QCC Worcester (Main Campus) at 670 West Boylston Street, Worcester, or at QCC Southbridge, or through high school guidance departments. Applicants may also contact the QCC (Worcester) Admissions Office at 508.853.2300 to request an application.
2. Submit the online application. Return the paper application to the QCC Admissions Office at QCC Worcester (Main Campus), or via mail to "Quinsigamond Community College, Attn: Admissions Office, 670 West Boylston Street, Worcester, MA 01606-2092". To qualify for the In-State Resident tuition rate, applicants must certify continuous residence in Massachusetts during the six months preceding the application and be a permanent resident or citizen of the United States (U.S.). Applicants can contact the QCC Admissions Office for questions regarding the resident tuition rate.
3. QCC requires a high school transcript, diploma, or demonstration of high school equivalency, such as the General Equivalency Development or General Equivalency Diploma (GED) test or the High School Equivalency Test (HiSET). Applicants can upload a copy of their transcript on *The Q*, the Student Portal, under the Admissions tab and click on Admissions Document Center or email their high school document to enrollmentprocessing@qcc.mass.edu.
4. Applicants who have never obtained a high school diploma or the equivalency must obtain a high school equivalency in order to be accepted to the College. Applicants can contact the QCC Admissions Office for detailed information on how to enroll in the College.

Admission to Health Programs

Students who meet the established Admissions Requirements for the Health Programs (Dental Assisting, Dental Hygiene, Medical Assisting, Nurse Education, Occupational Therapy, Paramedic Technology, Practical Nursing, Radiologic Technology, Respiratory Care, and Surgical Technology) will be accepted on a rolling basis until the class is full. Qualified students will be given a start date for their clinical/core courses and placed on a waiting list if the program is full for the upcoming semester. Students will begin their clinical classes no later than their given start date. If a slot in an earlier semester becomes available, the student will be contacted and given an opportunity to begin sooner. While on the waitlist, if a student wishes to enroll in education courses that apply to the program, the student must contact the QCC Admissions Office.

Applicants who do not meet the Admissions Requirements can still be accepted to the Healthcare program at a later term. Alternatively, they should make an appointment to meet with an Academic Advisor after acceptance who will assist them in meeting the Admissions Requirements of their chosen program.

January (Spring) and May (Summer) Admissions

Applications for admission to the College for the Spring and Summer semesters are accepted on a rolling basis. Some programs only have a Fall start and course offerings vary from year to year. Students should visit the QCC website at www.QCC.edu for program start dates.

Undeclared Students

Prospective students who wish to enroll in individual courses and do not wish to pursue an associate degree or certificate can enroll at QCC as an Undeclared Student. All course prerequisites apply to Undeclared Students in the same

manner as degree-seeking students. Credits earned in the Undeclared Student status may be applied to an associate degree or certificate curriculum. Undeclared Students are not eligible for financial aid.

Transfer Students

Transfer student applicants are required to submit a high school transcript, diploma or official documentation of high school equivalency (GED or HiSET) and official college transcript. Applicants who have previously completed an undergraduate or graduate degree may provide documentation of their earned degree in lieu of high school completion.

Transferring Credits

Applicants who have previously attended a regionally accredited post-secondary institution and are seeking to transfer credit must submit an official college transcript issued directly to QCC from the institution where the credit was earned. Credit is awarded for courses completed with a grade of "C" or higher, provided the courses are applicable to the student's QCC major. Credit will transfer as a QCC course equivalent or as an elective within a comparable department if an equivalent does not exist. Courses with "D" grades may also transfer if the student's Quality Point Average (QPA) is 2.00 or higher at the institution from which they are transferring. However, "D" grades are only accepted in lower sequence courses and only if they have completed the upper sequence of the same course with a grade of "C" or higher at the transfer institution. A formal transfer credit evaluation is prepared for students upon their acceptance to QCC. Submission of course descriptions or syllabi from previously attended institutions may also be required for the purpose of performing a transfer credit evaluation.

For credits earned at international institutions, the College will follow the guidelines established by National Association of Credential Evaluation Services (NACES). Students must request a "course by course" evaluation of transcripts from institutions outside the U.S. from a credential evaluation service that is a current member of NACES and is subject to approval by the VP of Academic Affairs.

Transferred credits count as earned credit hours only. No quality points or grades are transferred or calculated in the student's QPA. A minimum of 25% of the credit hours in the degree or certificate being conferred is required to fulfill the College residency requirement.

Approval of transfer credit may be authorized by the Registrar's Office or academic deans. For more information, contact the QCC Registrar's Office at registrar@qcc.mass.edu.

Campus Tours

Both individual and group campus tours of QCC Worcester (Main Campus) are available. To schedule a tour, please visit www.QCC.edu/campus-tours, or contact the QCC Admissions Office at admissions@qcc.mass.edu.

Placement

QCC currently uses multiple measures to help place students into appropriate courses in Mathematics and English. These measures might include:

- High school transcript or most recent report card, showing overall GPA
- College transcripts or previous QCC courses and grades
- AP test scores, SAT or ACT test scores
- HiSET or GED test scores
- Mathematics Assessment
- English Self-Assessment

QCC recommends that students work with an academic advisor to determine their individual need for college placement assessment into Mathematics and English courses.

Students will receive information from Advising about the math intake and English self-assessment through the Navigate360 platform.

QCC divides the College Placement Assessment into two parts, one for Mathematics and one for English. Students may need to complete either or both of the placement assessments as determined by program choice and by past educational experience. The Mathematics assessment is a computer-based, multiple-choice test, and it will take students no more than two (2) hours to complete. The English placement assessment is self-guided, and it will take students no more than 30 minutes to complete. Once the desired assessments are complete, students will discuss the results with an advisor before registering for their Mathematics and English courses.

High School Equivalency Test

Massachusetts and QCC now offer both GED and HiSET testing. Both tests provide students the opportunity to earn a high school credential. This credential is recognized as a key to employment opportunities, career advancement, and further education.

Both tests are offered at QCC at the Healthcare and Workforce Development Center, 25 Federal Street, Worcester, Room 114D.

To learn about the tests, apply for accommodations, or schedule a test appointment, visit the HiSET website at

www.hiset.org, or the GED website at www.ged.com. Questions about testing may be directed to the QCC Testing Office, 508.854.2784 or testing@qcc.mass.edu.

Test takers who are under the age of 18 must contact the state office before registering for either test. Please call 781.338.6625.

Not ready to take the test? Looking for a free HiSET/GED preparatory class? Contact the Adult Community Learning Center at 508.751.7926, aclc@qcc.mass.edu, or visit www.QCC.edu/ACLC.

New England Regional Student Program

QCC participates in the New England Regional Student Program (RSP), which provides tuition savings every year to thousands of New England residents. Students from any of the six New England states may qualify for the Massachusetts in-state tuition rate plus 50 percent. Contact the QCC Admissions Office for specific details. Information is also available at www.nebhe.org.

Homeschooled Students

All homeschooled students, without a high school diploma or equivalent, are eligible to apply for admission to an associate degree or certificate program provided they have successfully completed an approved homeschool program in accordance with Massachusetts General Laws or the laws of their home state. If a homeschooled student has not completed an approved homeschool program, the student should contact the QCC Admissions Office.

To determine whether a student has participated in an approved homeschool program, the student shall submit, with the application for admission, evidence that the homeschool program was approved by the superintendent or school committee of the student's school district. Additionally, if the homeschooled student is under the age of compulsory attendance, which is 16 years old in Massachusetts, a letter from the student's school district's superintendent or school committee is required, stating that the student is not considered truant and would not be required to attend further schooling or continue to be homeschooled, if the student has completed his or her homeschool program before the age of 16.

The College reserves the right to limit or deny enrollment of a student under the age of 16 in a course or program based on this case-by-case consideration of a variety of factors, including, but not limited to: the student's maturity, life experience, placement test scores, prior education, course content, instructional methodology, and risks associated with a particular course or program.

International Students

International Students must use the International Student Application at www.QCC.edu/international-students. Deadlines are July 1 for the Fall semester and November 1 for the Spring semester.

Only students who have a secondary school diploma or who have passed an equivalency test - and can speak, read, write and understand English well enough to take a full-time program - will be considered for admission. If a student's native language is not English, they will be asked to demonstrate their ability to understand English. International Students must demonstrate adequate financial support for the time they will be attending QCC. Financial support can be verified by providing a certification of sponsorship and a bank statement documenting sufficient available funds. International Students who have student visas are required to enroll in a minimum of 12 credits during each semester. Information about International Student regulations, admission, and fees are available from the QCC Admissions Office. For additional information about International Student regulations, admission, and fees, please visit www.QCC.edu/international-students, emailing international@qcc.mass.edu or visit the QCC Admissions Office on the main campus.

Chapter 74/Career Technical Education Articulation Agreements

QCC has established agreements with local comprehensive and vocational/technical high schools to assist students in making the transition to higher education. Some of these agreements come under the state's Chapter 74 Articulation Agreements or programs. All agreements state the conditions and criteria that must be met by graduating high school students in order to receive college credit.

For more information, students can contact Nicole Fortin at 508.854.2838 or nfortin@qcc.mass.edu.

High School Dual Enrollment Programs and Partnerships

The staff from the Office of High School Dual Enrollment Programs and Partnerships works with school districts throughout Worcester County to provide students with the opportunity to enroll in college classes while still in high school. A variety of options exist for school districts, students and their families. A brief description of current programs follows:

Attend College Early

QCC's Attend College Early (ACE) dual enrollment program is available to local high school students who have received approval from their high school's guidance department. Participation in this program is limited to high school juniors and seniors, age 16 and older at the time of acceptance. The student's course requirements are determined collaboratively by the student, QCC's Dual Enrollment Staff and the appropriate high school guidance counselor. It is the responsibility of the student and parent to consult with their High School's Guidance Office to ensure that the QCC courses meet the requirements for high school graduation. Students must communicate their progress biweekly to both their guidance counselor and assigned QCC point of contact. Tuition and fees apply and are based on QCC's published tuition and fee schedule for each academic year the student is registered. Student eligibility criteria include (subject to change):

- Current Massachusetts High School junior or senior, AND age 16 or older at the time of acceptance.
- Have completed high school English courses with grades of "B" or higher.
- Have an overall 2.7, or higher, grade point average.
- Demonstrated satisfactory disciplinary history.
- Academically prepared to successfully enroll in ENG-101 English Composition and MAT 121 or higher.
- Applications will be accepted beginning April 1, 2025; students will be accepted on a rolling basis. No applications will be accepted after June 1, 2025.
- Student and parent / guardian are required to attend an orientation in order to receive and acknowledge information regarding program expectations.

For more information contact ace@qcc.mass.edu or 508.854.7587

Dual Enrollment Course Offerings

QCC offers high school students the opportunity to enroll in college classes through dual enrollment coursework. Students must receive approval from their high school guidance department to participate in these classes. Opportunities to participate vary term by term. Students, parents and guardians interested in more information are encouraged to contact the Office of High School Dual Enrollment Programs and Partnerships for up to date details, earlycollege@qcc.mass.edu or call 508.854.4352 or 508.854.7418.

Early College Designated Programs

Early College Designated Programs are approved by the Massachusetts Department of Elementary and Secondary Education. QCC's current partners include Worcester Public Schools, Marlborough High School and Southbridge High School. Early College Programs provide students with the opportunity to earn 12 or more college credits while earning a high school diploma. In addition to earning 12 or more college credits, students select a career pathway and enroll in courses that count toward a QCC certificate and / or degree. For additional information, please contact the Office of High School Dual Enrollment Programs and Partnerships, earlycollege@qcc.mass.edu or call 508.854.4352 or 508.854.7418.

Future Focus Program

The Future Focus Program is designed specifically for nontraditional students and adult learners. It provides financial assistance with tuition, fees, textbook costs, and other required materials for college. The Massachusetts Department of Elementary and Secondary Education (MA DESE) funds the program. The program offers a foundation of services within QCC that enable adult learners to transition into and, ultimately, complete postsecondary education.

For more information, contact the Future Focus Program at 508.854.2876 or email Futurefocus@qcc.mass.edu.

Gateway to College

QCC's Gateway to College Program is designed for students who are seeking an alternative environment to complete their high school graduation requirements. While fulfilling high school graduation requirements, students earn college credit that can be used toward a certificate and/or associate degree. With personalized support from a student success coach, Gateway students build a strong sense of belonging to the QCC community and gain the skills needed to achieve postsecondary success. Through their participation in the program, Gateway students overcome obstacles, improve attendance, increase their GPAs, and enroll in college at higher rates than their peers.

For more information, please contact 508.854.7587 or GTC@qcc.mass.edu.

Eligibility criteria:

- Must live in Massachusetts.
- Place into Intermediate Reading/Writing level and Beginning Algebra. Placement is determined by the Gateway Staff.

- Must have reliable transportation arrangements and/or ability to take the WRTA bus.
- Students must attend an information session to receive an application.
    - Information sessions are held regularly throughout the semester.
- The application deadline is July 1, 2025, for fall 2025 enrollment and December 1, 2025, for spring 2026 enrollment.

Readmission to the College

Students who have previously attended QCC and have not attended the College for two consecutive semesters, either due to withdrawal or academic failure, must apply to be readmitted. Students must submit a new application.

Upon academic failure, or withdrawing from a health or high demand program, students are required to meet with their Program Coordinator to establish guidelines for readmission. Students will be considered only once for readmission to all health programs. Specific steps for readmission can be obtained in the QCC Admissions Office or from the appropriate academic department. Students must submit a new application. Depending on the length of time since their last enrolled semester at QCC, they may also need to submit another document proving high school graduation or equivalency.

Program Admissions Requirements

A High School Transcript/Diploma, GED/HiSET Scores, or college transcript from a U.S. institution is required for admission to all programs at QCC. If students want to transfer academic credits or degree equivalency evaluation from a university abroad, they will need an evaluation agency (such as WES or CED) to assess their transcript.

Any applicant who does not meet the minimum program admissions requirements should contact the QCC Admissions Office to schedule an interview with an Admissions Counselor. Upon review of one's academic background and a consultation with the appropriate academic department, the student will be informed if his or her background is equivalent to the program admissions requirements. For additional information and acceptance criteria, contact the QCC Admissions Office.

Technical Performance Standards

In this section, students can review the working conditions and physical demands for specific occupations related to selected QCC programs of study. This information is provided to assist in making college and career decisions. **Note: once admitted to the selected program, students will be required to satisfy the technical performance standards in order to successfully complete the program.**

QCC Program	Occupational Information Network (O*NET) Website
Automotive Technology	Occupation: Automotive Service Technicians & Mechanics | www.onetonline.org/link/summary/49-3023.00
Biotechnology	Occupation: Biological Technicians | www.onetonline.org/link/summary/19-4021.00
Computer Information Systems - Career - Enterprise Information Systems	Occupation: Computer Systems Analysts | www.onetonline.org/link/summary/15-1211.00
	Occupation: Computer Programmers | www.onetonline.org/link/summary/15-1251.00
	Occupation: Web Developers | www.onetonline.org/link/summary/15-1254.00
Computer Information Systems - Health Information Option	Occupation: Medical Records Specialists | www.onetonline.org/link/summary/29-2072.00
	Occupation: Health Information Technologists & Medical Registrars | www.onetonline.org/link/summary/29-9021.00
Computer Information Systems - Transfer Option	Occupation: Computer Programmers | www.onetonline.org/link/summary/15-1251.00
Computer Science Transfer	Occupation: Computer Systems Analysts | www.onetonline.org/link/summary/15-1211.00
	Occupation: Computer Programmers | www.onetonline.org/link/summary/15-1251.00
	Occupation: Software Developers | www.onetonline.org/link/summary/15-1252.00
	Occupation: Software Quality Assurance Analysts & Testers | www.onetonline.org/link/summary/15-1253.00
Computer Systems Engineering Technology - Computer Support Option	Occupation: Computer User Support Specialists | www.onetonline.org/link/summary/15-1232.00
Computer Systems Engineering Technology - Cybersecurity Option	Occupation: Information Security Analysts | www.onetonline.org/link/summary/15-1212.00
Computer Systems Engineering Technology - Enterprise Information Technology (IT) Option	Occupation: Network & Computer Systems Administrators | www.onetonline.org/link/summary/15-1244.00
Computer Systems Engineering Technology - Forensics Option	Occupation: Information Security Analysts | www.onetonline.org/link/summary/15-1212.00
Dental Assisting	Occupation: Dental Assistants | www.onetonline.org/link/summary/31-9091.00
Dental Hygiene	Occupation: Dental Hygienists | www.onetonline.org/link/summary/29-1292.00
Early Childhood Education	Occupation: Childcare Workers | www.onetonline.org/link/summary/39-9011.00
	Occupation: Preschool Teachers, Except Special Education | www.onetonline.org/link/summary/25-2011.00
	Occupation: Education and Childcare Administrators, Preschool and Daycare | www.onetonline.org/link/summary/11-9031.00
Electronics Engineering Technology - Biomedical Instrumentation Option	Occupation: Electrical & Electronic Engineering Technologists & Technicians | www.onetonline.org/link/summary/17-3023.00
	Occupation: Electro-Mechanical & Mechatronics Technologists & Technicians | www.onetonline.org/link/summary/17-3024.00
	Occupation: Medical Equipment Repairers | www.onetonline.org/link/summary/49-9062.00

QCC Program	Occupational Information Network (O*NET) Website
Electronics Engineering Technology - Mechatronics Option	Occupation: Electrical & Electronic Engineering Technologists & Technicians | www.onetonline.org/link/summary/17-3023.00
	Occupation: Electro-Mechanical & Mechatronics Technologists & Technicians | www.onetonline.org/link/summary/17-3024.00
	Occupation: Robotics Technicians | www.onetonline.org/link/summary/17-3024.01
	Occupation: Electrical & Electronics Repairers, Commercial & Industrial Equipment | www.onetonline.org/link/summary/49-2094.00
Electronics Engineering Technology - Photonics Option	Occupation: Electrical & Electronic Engineering Technologists & Technicians | www.onetonline.org/link/summary/17-3023.00
	Occupation: Photonics Technicians | www.onetonline.org/link/summary/17-3029.08
Elementary Education	Occupation: Elementary School Teachers, Except Special Education | www.onetonline.org/link/summary/25-2021.00
EMT-Paramedic	Occupation: Emergency Medical Technicians | www.onetonline.org/link/summary/29-2042.00 Ability to lift and carry, push and/or pull a minimum of 125lbs.
	Occupation: Paramedics | www.onetonline.org/link/summary/29-2043.00 Ability to lift and carry, push and/or pull a minimum of 125lbs.
Energy Utility Technology / Utility Technology	Occupation: Electrical Power-Line Installers & Repairers | www.onetonline.org/link/summary/49-9051.00
Fire Science	Occupation: Firefighters | www.onetonline.org/link/summary/33-2011.00
General Studies - Pre-Pharmacy Option	Occupation: Pharmacy Aides | www.onetonline.org/link/summary/31-9095.00
Heating Ventilation Air Conditioning	Occupation: Heating, Air Conditioning & Refrigeration Mechanics & Installers | www.onetonline.org/link/summary/49-9021.00
Hospitality & Recreation Management - Foodservice Management Option	Occupation: Hospitality & Tourism | www.onetonline.org/find/career?c=020200
Hospitality & Recreation Management - Hospitality Management Option	Occupation: Hospitality & Tourism | www.onetonline.org/find/career?c=020200
Interactive Media	Occupation: Graphic Designers | www.onetonline.org/link/summary/27-1024.00
Manufacturing Technology	Occupation: Industrial Engineering Technologists & Technicians | www.onetonline.org/link/summary/17-3026.00
	Occupation: Computer Numerically Controlled Tool Operators | www.onetonline.org/link/summary/51-9161.00
	Occupation: Computer Numerically Controlled Tool Programmers | www.onetonline.org/link/summary/51-9162.00
Medical Assisting	Occupation: Medical Assistants | www.onetonline.org/link/summary/31-9092.00
Nurse Education	Occupation: Registered Nurses | www.onetonline.org/link/summary/29-1141.00 Ability to lift and carry, push and/or pull a minimum of 50lbs.
Occupational Therapy Assistant	Occupation: Occupational Therapy Assistants | www.onetonline.org/link/summary/31-2011.00
Practical Nursing	Occupation: Licensed Practical & Licensed Vocational Nurses | www.onetonline.org/link/summary/29-2061.00 Ability to lift and carry, push and/or pull a minimum of 50lbs.
Radiologic Technology	Essential Job Function and Technical Standards | www.qcc.edu/sites/default/files/2025-03/Tech-Standards-Rad-Tech.pdf
Respiratory Care	Occupation: Respiratory Therapists | www.onetonline.org/link/summary/29-1126.00
	Occupation: Health Technologists & Technicians, All Other | www.onetonline.org/link/summary/29-2099.00
Surgical Technology	Occupation: Surgical Technologists | www.onetonline.org/link/summary/29-2055.00

Student Services

Student Services is a network of resources, programs and services designed to provide students at Quinsigamond Community College with the necessary support for the teaching and learning process. The following are descriptions of the services available:

Specific Courses and Services for Career and Academic Planning

First Year Experience Course

Students are strongly encouraged to take FYE 101 First Year Experience to assist with career and academic planning (See Course Description section of catalog). All students enrolled in the General Studies program are required to take FYE 101 prior to attaining 20 credits.

Advising Services: Professional Advisor, Faculty Advisor and the Academic Advising Center

Advisors assist students in developing and implementing their career and academic planning goals, including registering for courses. Students are provided contact information for their Academic Advisor by email shortly after the start of each semester. This information is also visible on *The Q* (Student/ Faculty Portal). Students are assigned one of the following as their advisor: a Faculty Advisor, an Academic Advisor, or the Advising Center. Advisor Lists, including faculty office location, phone number, and office hours are in the Welcome Center in the HLC or by going to *The Q.*

Faculty Advisors

Students are encouraged to contact their Faculty Advisor during the semester to discuss topics and questions related to career and academic planning. It is recommended that students make appointments with their Advisor before the course registration period begins for the next semester. Faculty office hours and the contact information are posted outside the faculty office door. If a student's schedule conflicts with faculty office hours, the student can contact the faculty member to arrange another meeting time.

Academic Advising

Welcome Center, HLC, 2nd Floor | 508.854.4308

Students who have Advising Center Advisor listed as their Advisor are encouraged to contact Academic Advising during the semester to discuss topics and questions related to career and academic planning. Students should meet with an Advisor before the course registration period for the next semester begins. The Advising Center uses the Navigate360 platform for advising appointments and students should check their student email accounts for information about scheduling appointments. The Advising Center offers regular drop-in hours and students should check the website for the most up-to-date information.

Career Services & Credit for Prior Learning

Center for Career and Transfer Services,
Room 272A | 508.854.4439 | careerservices@qcc.mass.edu

Career Services

Career Services supports students by providing a combination of in-person and virtual job readiness workshops covering resume and cover letter development, interviewing and negotiation techniques, and workplace etiquette. Career Services offers resume critiques and promotes job opportunities through the online job board, Handshake. Throughout the year, the office organizes various events such as job fairs, guest speakers from local employers, and on-campus recruiting events.

Cooperative Education

Cooperative education (co-op) is an opportunity for students to earn academic credit while gaining valuable workplace experience and is required in many academic programs. Career Services provides students with co-op preparation and assistance securing a position in relevant, industry-specific experiences, applying the knowledge and skills learned in the classroom to a position in their field.

Credit for Prior Learning (CPL)

Credit for Prior Learning (CPL) is credit awarded for skills and knowledge gained outside of a traditional classroom. CPL is a practical and cost-effective way for students to link their life experiences with academic learning and college credit. Work, industry credentials, exams, and military experience may be eligible, allowing you to take fewer classes and earn your degree faster. Contact experience@qcc.mass.edu for more information.

Alternative Learning Options

Directed Study: This is an opportunity for individualized learning about topics not offered as established QCC courses. The nature and scope of the learning experience are determined by the

student, in collaboration with an instructor. These experiences require approval by the appropriate School Dean, and involves individualized study under the supervision of a QCC faculty member. Those enrolling in Directed Study are required to pay full tuition and fees.

Independent Study: This opportunity enables students nearing graduation to study the subject matter of courses listed in the QCC Catalog on an individualized basis. This option is not available if the course is scheduled during the requested semester. To be eligible for Independent Study, students must be enrolled in the academic program requiring the course, and required to meet strict eligibility guidelines. These experiences require approval by the appropriate School Dean, and involves individualized study under the supervision of a QCC faculty member. Those enrolling in Independent Study are required to pay full tuition and fees.

Transfer Services

Center for Career and Transfer Services,
Room 272A | 508.854.4404 | transfer@qcc.mass.edu

Transfer from QCC

Transfer Services offers a variety of resources for students interested in continuing their academic studies beyond QCC.

Transfer Services advises on the most common aspects of the transfer process including:

- Transfer admissions requirements
- Transfer application process
- Transferring with or without an associate degree
- Transfer agreements (MassTransfer and articulation agreements)
- QCC course transferability
- Important QCC courses for transfer
- How to pick colleges and majors

Where do QCC students transfer?

Each year, QCC students successfully transfer to four-year colleges and universities around the state, region, and country. Notable transfer destinations include Northeastern University, Cornell University, and Worcester Polytechnic Institute; along with familiar four-year institutions in Massachusetts and surrounding New England states.

Transfer Agreements

QCC offers graduates a variety of transfer agreements to help them further their studies at many four-year institutions. Whether continuing at a public or private baccalaureate institution, students can use agreements to ensure admission and transfer of QCC credits toward bachelor's degrees. Some partnerships also include financial incentives to minimize the cost of completing degrees. Transfer agreements include Mass Transfer Agreements and Articulation Agreements.

MassTransfer

As a member of the Massachusetts Public Higher Education System, Quinsigamond Community College maintains strong ties with all Massachusetts public four-year universities, and offers the MassTransfer program to support students as they pursue their higher education goals.

MassTransfer provides a number of potential benefits for students including course equivalencies, general education coursework acceptance, pathways ensuring admission and transfer of credit based on associate degree completion, and financial incentives for full-time enrollment and academic achievement. **MassTransfer pathways are available at EVERY State University and UMASS campus**. More information is available at the MassTransfer website: mass.edu/masstransfer.

Articulation Agreements

QCC sponsors articulation agreements with a number of private and out-of-state four-year colleges and universities. These relationships permit students to transfer to a range of academic programs and advance toward their four-year degrees quickly, easily, and affordably. These agreements vary from school to school, and department to department. They may guarantee one or more of the following: acceptance (general or program specific), full transfer of QCC coursework, junior level standing, and access to opportunities for transfer scholarships. Visit the Transfer Services page at the QCC website, www.QCC.edu/transfer for specific information about all MassTransfer and Articulation Agreements.

Special Scholarships for QCC Graduates

Scholarships are available to QCC graduates who transfer to four-year colleges and universities. In most cases, eligible students will have GPAs of 3.0-3.5 or higher at the time of application to the transfer school. Scholarships may require additional steps, including formal application for financial aid and/or completion of a scholarship application. Students should consult with schools of interest to confirm scholarship availability and details on how to apply. Scholarships range from **Massachusetts Public Higher Education System Transfer Scholarships, Local Private College and University Scholarships** to **Community and Professional Association Scholarships**. More information about scholarships and financial aid is available at the Transfer Services page on the QCC website, www.QCC.edu/transfer.

Center for Workforce Development and Continuing Education

25 Federal Street, Worcester MA | 508.751.7900

The Center for Workforce Development and Continuing Education offers a variety of instructor-led and online classes, workshops, certificate programs, licensing and professional development classes and seminars, test prep programs and certification testing that reflect the current needs of employers in numerous industries. Some of our popular courses include: Nurse Assistant, Medical Assistant, Ophthalmic Assistant, Radiographic Techniques & Safeguards for the Dental Assistant, Veterinary Assistant, Sterile Processing Technician, Medical Coding and Billing, Personal Care Assistant, TEAS Review Classes, Microsoft Office, Personal Fitness Trainer, Community, and Workforce Readiness Skills. **The center also works with area employers to ensure they have the skilled workforce they need.** The Center for Workforce Development and Continuing Education is here to serve the community, and we look forward to the opportunity to provide the knowledge and skills that students need. Please call 508.751.7900 to request a catalog or visit www.QCC.edu/WD to download the latest course catalog.

Adult Community Learning Center

25 Federal Street, Worcester MA | 508.751.7926
aclc@qcc.mass.edu

QCC's Adult Community Learning Center offers FREE classes!

- HiSET/GED preparation classes
- ESOL (English for Speakers of Other Languages) classes

The GED/HiSET preparation program not only prepares students to take the GED/HiSET but also helps students in the next step on their path - whether that path involves college, job training, or employment. We provide instruction in all areas of the GED/HiSET - Reading, Writing, Social Studies, Science, and Math. The program consists of three levels in the morning and two levels at night.

We offer six levels of ESOL class. The beginning ESOL class is for students who can read and write the English alphabet and can read and complete simple forms independently, for instance: first name, address, phone number, days of the week, etc. Our beginner students can understand and speak a little bit of English. The students in our advanced classes are writing essays and can read complex texts. Students enrolled in the advanced classes are being prepared for credit bearing college classes, advanced trainings, and professional employment. For more information and to apply, visit www.QCC.edu/ACLC.

Academic Support and Resources

Alden Library

Harrington Learning Center, 3rd Floor | 508.854.4581
www.QCC.edu/library

The Alden Library has 40,000 books print books, 80,000 e-books, 68,000 streaming videos and over 55 databases that provide access to millions of full-text journal articles to support QCC's academic programs. Located on the third floor of the Harrington Learning Center, the library offers 20 workstations, over one hundred loaner laptops and a variety of seating options for both collaborative and individual study. The library's team of reference librarians are eager to help students find relevant, accurate information resources for research papers and other class assignments. At the circulation desk students can access course reserves, check out laptops and other materials, and reserve group study rooms.

Electronic resources—such as e-books and online journal articles—can also be accessed off campus via the Library website. Students can also find assistance via phone, email and chat. Additionally, the library has an information literacy room for hands-on research instruction.

The Alden Library is a member of several resource sharing Networks including HELM (Higher Education Libraries of Massachusetts), Commonwealth Catalog and ARC (Academic Research Consortium of Worcester), which provide QCC students access to more than six million items.

Downtown Library, Room 121D, 25 Federal Street, Worcester MA

www.QCC.edu/library

Students may also utilize our Downtown Library in Room 121 of the Healthcare and Workforce Development Center and Continuing Education building. It features seven workstations and five loaner laptops on which students may access the same range of electronic resources noted above. The Downtown Library's print book collection is tailored to the health sciences. Finally, the library offers two group study rooms, a variety of course reserves and, most importantly, reference librarians who enthusiastically help students with research and other information needs.

To learn more about the QCC libraries, including the many virtual services that we offer, please visit www.QCC.edu/library.

Tutoring Centers

www.QCC.edu/tutoring| TutoringCenters@qcc.mass.edu

QCC Tutoring serves as a place of connection and community for all students. We provide a welcoming, supportive, and inclusive

environment, both on campus and online, that promotes a spirit of active learning and ethical academic pursuit. We recognize that there are multiple ways of knowing and are committed to meeting students where they are, empowering them to achieve greater success at QCC, and preparing them to become independent, self-directed learners who apply knowledge to future learning and career contexts. We work collectively and collaboratively to cultivate self-efficacy and encourage students to leverage academic challenges as an opportunity for growth. Information about hours and locations can be found on each Center's website, accessed through www.qcc.edu/tutoring.

Subject Tutoring Center
Welcome Center, HLC, Room 222 | 508.854.4279
www.QCC.edu/subjecttutoring

The Subject Tutoring Center is a tutoring and student resource center that offers in-person and remote drop-in and appointment-based tutoring for a variety of academic subjects. We promote active, collaborative learning, where students can work with a tutor in either one-on-one or small group sessions to help clarify course concepts and build study skills to foster independent learning. The Center also offers a variety of free study materials, available both in-person and online via the Center Blackboard, to which every student has access. A complete, updated list of current subject areas, tutoring hours, appointment instructions, and all other resources available can always be found on the website. All resources are available for in-person, remote, or online courses.

The Math Center
Welcome Center, HLC, Room 206 | 508.854.7487
www.QCC.edu/math

QCC's mathematics tutoring center is a math-positive place located in 206 HLC. The Math Center provides free, drop-in, one-on-one and small group tutoring for currently enrolled QCC students in credit-bearing math and related courses. The goal of tutoring is to help students strengthen math and study skills by reinforcing classroom and online learning. Tutors can also help students to navigate the course website, e-text, videos and Blackboard. Resources include computers, math software, and current Math Department course textbooks and solution manuals to use in the Math Center.

The Writing Center
Welcome Center, HLC, Room 208 | 508.854.7488
www.QCC.edu/writing

The Writing Center is a tutoring and resource center for writing, as well as skills important to the writing process, including reading comprehension, critical thinking, and planning and organization. The Writing Center offers a variety of services, including individual and group tutoring, writing and grammar workshops, English conversation groups, and writing reference guides and handouts. Tutors work collaboratively with students to improve their skills and help them become more accomplished and confident writers, readers, and college students. Students can work with a tutor on their writing, reading, and study skills for any course. The Writing Center is not an editing or proofreading service.

ThinkingStorm Online Tutoring

ThinkingStorm is an online tutoring service that offers live, on-demand, and appointment-based online tutoring in a variety of subjects. Students can interact live with a tutor, submit a question or problem, or submit an essay for review. Students can access ThinkingStorm through the Institution homepage on Blackboard under Tutoring.

TRIO Student Support Services
Room 170A | 508.854.4458

The TRIO Student Support Services (SSS) FAST FORWARD PROGRAM is a federally-funded program providing support and services to help students achieve academic and personal success in completing their studies at Quinsigamond Community College. TRIO SSS students receive the following services: academic advising and planning; tutoring services; career exploration and guidance; personal counseling; and transfer advising. These support services are offered to 150 students who are economically disadvantaged, first-generation or disabled. Applications are accepted throughout the year; however, acceptance into the program is each Fall semester only. All applicants will be placed on a waiting list and notified when a slot becomes available. To find out if a student meets federal eligibility requirements and apply for program services, please stop by the office or email triosss@qcc.mass.edu.

QCC Mentoring
200A | mentoring@qcc.mass.edu | 508.854.7409
www.QCC.edu/mentoring

Quinsigamond Community College Mentoring connects QCC students with staff, faculty, industry, and community members to create one-on-one mentoring relationships. This unique program provides extensive benefits to students, as well as professional development and networking opportunities for mentors.

When students receive a QCC Mentor, they will gain a trusted guide, a personal and professional resource, a connection to the professional world, and a friend. By participating in the QCC Mentoring program, students will learn ways to succeed at QCC, while building connections in the career path of their choice. This is a chance to build students' personal and professional network and develop lifelong skills that they can take with them wherever they go.

To participate in QCC Mentoring, students must be willing to communicate regularly with their mentor, and attend one in person or phone call meeting with a mentor per month. If a student is interested in joining the program, he or she must fill out an application online.

QCC Community Engagement

Community Engagement fosters and leverages relationships between QCC and community-based organizations and other Greater Worcester agencies and works to develop and sustain strategic partnerships throughout central mass communities. Existing collaborations include Worcester Community Connections Coalition, Latino Education Institute, South East Asian Coalition and African Community Education, among many others.

QCC Community Learning Hubs

Community Learning Hubs provide computers, Wi-Fi and printing for QCC credit and noncredit students who need a quiet space to study near their home. Currently there is a location at: 35 Freedom Way (Great Brook Valley). The hours of operation are Sunday to Thursday from 3-8 p.m. Check the inclement weather updates by calling 508.854.4545.

Academic Support and Student Services

ADA Compliance Officer
Room 421A | 508.854.2791

The ADA Compliance Officer serves as the central intake coordinator for all matters relating to ADA compliance, which protects all students and staff with all disabilities. The Compliance Officer will intake issues of concern via calls, emails and visits while managing the flow of information among the various College offices. Faculty and Staff are also invited to address their accommodations with Human Resources, if needed.

Office of Counseling and Wellness
Room B56A | 508.854.4479

Counselors: Tina Wells, LICSW
Amelia Fazackerley LMHC, MT-BC, MA
Resource Support: Jack Vezeris
Fax: 508.854.4583
Email: counselingandwellnessoffice@qcc.mass.edu

General Office Hours
Monday through Friday: 8:00 a.m. to 4:00 p.m. — by appointment

This Office will be offering a choice of remote video support, as well as in person meetings.

The Office of Counseling and Wellness believes in promoting the emotional health and well-being of the QCC student community. Here at QCC, we recognize each student's individuality, diversity and their inherent ability to make decisions in support of their wellness.

The mission of the office is to help students achieve their personal and academic goals by providing assessment of current concerns, appropriate advocacy/support, information about resources or coping skills/tools and/or transition to local or college-based resources when needed.

The Office of Counseling and Wellness will provide short-term, solution-focused therapy, crisis intervention and stress management support. The services are provided to students at no cost and are confidential.

Staff, classroom and student club-based trainings on a variety of mental health issues are available upon request; faculty and staff are welcome to contact the office with questions.

Student Accessibility Services
Worcester (Room 246A)
Voice: 508.854.4471 | **Fax:** 508.854.6943 | **VP**: 508.502.7647
Email: SAS@qcc.mass.edu
Website: www.QCC.edu/disability-services

General Office Hours
Monday through Thursday 8:00 a.m. to 5:00 p.m.
Friday 8:00 a.m. to 12:00 p.m.

Student Accessibility Services offers a choice of remote video meetings, as well as in-person meetings.

Student Accessibility Services (SAS) collaborates with students, faculty, and staff to create a campus environment that is usable, equitable, sustainable, and inclusive for all members of the College community. In accordance with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act of 1990 and the ADA Amendment Act of 2008, Student Accessibility Services is committed to providing reasonable accommodations to qualified individuals.

SAS acknowledges that classroom and campus accessibility needs are expanding as more classes and campus experiences incorporate online and technological components. The SAS staff are happy to discuss any course or campus barriers that may

be preventing access to education and an equitable campus experience for students.

Students may contact Student Accessibility Services at any point in the year to ask for more information about services, discuss needs with a staff member, or register with the office. Please use the contact information above to learn more about the SAS resources and contact our office.

Veteran Affairs Office / Veteran Center
Room 258A | 508.854.2721

The Veteran Affairs Office will assist students with the preparation, certification and submission of all necessary paperwork required for veteran benefits. Students are encouraged to visit the Office for various College support services.

Our mission is to provide support to assist student veterans and members of the Armed Forces in the adjustment to becoming successful in civilian and college life. We are committed to promoting college spirit, as well as establishing and maintaining fellowship amongst veterans and students on campus.

The College adheres to the Veterans Access, Choice, and Accountability Act of 2014. Visit www.QCC.edu/veterans or contact Veteran Affairs at 508.854.2721 or email veteranaffairs@qcc. mass.edu. The Veteran Center is co-located with the Veteran Affairs Office. The Veterans Access, Choice and Accountability Act of 2014 (codified at 38 U.S.C. 3679) has been amended by Section 1005 of Public Law 116-315, the Johnny Isakson and David P. Roe, M.D., Veterans Health Care and Benefits Improvement Act of 2020, which modifies 38 U.S.C. 3679(c).

The amendment requires that for all courses, semesters, or terms beginning after August 1, 2021, public institutions of higher education must charge qualifying veterans, dependents and eligible individuals tuition and fees at the rate for in-state residents. As amended, 38 U.S.C. 3679(c) requires that the following individuals be charged the in-state resident rate:

- A veteran using educational assistance under either Chapter 30 (Montgomery GI Bill® – Active Duty Program), Chapter 31 (Vocational Rehabilitation) or Chapter 33 (Post-9/11 GI Bill®), of 38 U.S.C. who lives in the state in which the institution is located (regardless of his/her formal state of residence).
- Anyone using transferred Post-9/11 GI Bill® benefits (38 U.S.C. § 3319) who lives in the state in which the institution is located (regardless of his/her formal state of residence).
- Anyone described above while he or she remains continuously enrolled (other than during regularly scheduled breaks between courses, semesters, or terms) at the same institution. The person must be using educational benefits under Chapter 30, Chapter 31 or Chapter 33 of 38 U.S.C.
- Anyone using benefits under the Marine Gunnery Sergeant John David Fry Scholarship (38 U.S.C. § 3311(b) (9)) who lives in the state in which the institution is located (regardless of his/her formal state of residence).
- Anyone using Chapter 35 (Survivors' and Dependents' Educational Assistance Program) benefits who lives in the state in which the institution is located (regardless of their formal state of residence).

In summary, individuals are no longer required to enroll within three years of discharge or release from a period of active duty service or the transferor's discharge or release from active duty service in order to receive the in-state resident tuition rate.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at www.benefits.va.gov/gibill. Reference: https://benefits.va.gov/GIBILL/Trademark_Terms_of_Use.asp.

A Covered Individual is any individual who is entitled to educational assistance under chapter 31, Vocational Rehabilitation and Employment, or chapter 33, Post-9/11 GI Bill® benefits.

Student Life
508.854.4334 | studentlife@qcc.mass.edu

The Office of Student Life & Leadership (OSL) is committed to fostering a sense of unity and belonging within the Quinsigamond Community College student body. We strive to cultivate an inclusive campus environment where every individual is embraced, heard, encouraged, and regarded as a vital part of the Quinsigamond community.

Our vision is to empower all students through purposeful programming that leverages their unique life experiences and acquired knowledge.

Fuller Student Center (West Boylston Campus)

The Fuller Student Center is a student-only building on campus; you only need your Student ID. Don't worry if you haven't got it yet; stop by Fuller to get your Student ID.

There are many ways students can get involved through the Fuller Student Center.

- Learn, join, or start a student club.
- Learn about campus events.
- Hook up a gaming console or laptop, play a round of pool, or just relax.

Student Government Association (SGA)

The Student Government Association (SGA) advocates for student interests in the college. Serving as the student body's voice and working on meaningful projects that improve the student experience. Their responsibilities include working with administrators to create new programs that benefit students and addressing issues in the college, including academics, wellness, and general experience, planning and hosting campus-wide events, workshops, fundraisers, etc., and student clubs/organizations.

Student Clubs and Organizations

Student clubs and organization are designed to add value to life on and off campus. You will find endless opportunities to:

- Make connections and establish friendships.
- Participate in exciting experiences while learning about yourself and the world around you.
- Develop and hone vital leadership skills.
- Transfer classroom theory into practice.
- Build your resume and portfolio.
- Discover your values, potential, and campus spirit.

Find out more information related to our student clubs/organizations, events and more by visiting Wyvern Connect, QCC's student engagement portal at wyvernconnect.qcc.edu.

Important Places and Services

Athletic Center
508.854.4317

The QCC Athletic Center includes a basketball court, two newly updated fitness areas, and locker room facilities with saunas. QCC offers an extensive intramural program that includes Yoga, Circuit Training Classes, Indoor Cycling, Zumba, Boot Camp, Basketball, Indoor Soccer, Volleyball, Flag Football, and Table Tennis. Intercollegiate sports offered at QCC include Men's and Women's basketball, baseball, Men's and Women's soccer, and Women's Volleyball, and Men and Women's E-sports. QCC has a strong tradition of recruiting talented student-athletes.

The baseball team has won the New England Junior College Championship and the Northeast Association World Series and has appeared in several National Junior College Athletic Association (NJCAA) World Series. In 2017 and 2018, the baseball team reached the Region 21 final. Our basketball teams have also achieved much success: Women's Basketball earned 2nd place in both the State and Regional Tournaments in the 2006-2007 season and the Men's Basketball won both the State and Regional Championship, as well as finishing 5th place in the Nation at the NJCAA Tournament for the 2006-2007 season.

Bookstore
"A" Building, Lower Level | 508.854.4237

The Quinsigamond Bookstore offers new and used textbooks, text rental, digital books, supplies, QCC clothing, QCC gifts, online ordering and more! The Bookstore accepts cash, credit and debit cards, gift cards and financial aid. Shop online anytime at www.qccshop.com. Hours may vary. Please check the website for the most current hours.

Cafeteria
"A" Building Lower Level | 508.854.4219

The main cafeteria has partnered with the Worcester Regional Food Hub to offer QCC a taste of local and ethnic cuisine. At the Administration Building and Harrington Learning Center at QCC's 670 West Boylston St., Worcester campus and at QCC's 25 Federal St., Worcester campus there are self-serving/vending machine dining options available.

The cafeteria accepts cash and major credit cards. Please visit the Food Services web page for more information on The Worcester Food Hub, self-serve dining, and catering options being offered.

www.QCC.edu/food

The Children's School: Early Childhood Education Lab School
508.854.4220

The Quinsigamond Community College Children's School is an on-campus child development facility that provides early education and care for preschool children ages 2.9 to 5 years old. We are licensed by the Department of Early Education and Care and accredited by the National Association for the Education of Young Children. We are rated at the highest quality level through the Department of Early Education and Care.

The school provides a rich learning environment for young children and is also a model training site for QCC students enrolled in the Early Childhood Education program. In our work, we foster a climate and culture where all are welcomed, accepted, and valued. Together our programs offer high quality, unique, and relevant opportunities for children, families and students to engage in an environment that promotes competence, confidence and self-respect.

We offer a full-day, year-round program to meet the various needs of students, staff, and families. Children can be enrolled on a full or part-time basis; enrollment applications are accepted on an ongoing basis. State vouchers are accepted and some students may qualify for a financial scholarship. Please call our Main Office at 508.854.4220 or email ChildrensSchool@qcc.mass.edu for more information.

Financial Aid Office
Welcome Center, HLC, 2nd Floor | 508.854.4261

For students who are in need of financial assistance to help offset the cost of their education, several types of financial aid are available at Quinsigamond Community College. Financial aid may be given in the form of grants, loans, tuition waivers, scholarships, or work-study employment.

Harrington Academic Computing Center
Room 379A | 508.854.4370

Computers are available to students for academic projects, papers, research and other assignments.

Campus Police
136 Athletic Center
EMERGENCIES 508.854.4444
NON-EMERGENCIES 508.854.4221

Campus safety at QCC involves the entire community working together in an effort to provide a safe and secure campus environment. The department provides educational and safety programs for the campus community and is proactive in prevention and security. To fulfill this goal, the department seeks community involvement, encourages interactive relations and a combined police and community approach to problem solving. Sworn campus police officers provide 24-hour service to the campus.

Crime Awareness/Clery Report

Quinsigamond Community College's Annual Security Report is available to the College community. This 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 Quinsigamond Community College; and on public property within, or immediately adjacent to and accessible from, the campus. The report also includes institutional policies concerning campus security, such as policies concerning sexual assault, and other matters. A copy of this report can be obtained by contacting the Campus Police or by accessing the following website: www.QCC.edu/clery.

Registrar's Office
Room 152A | 508.854.4257

Students can register for courses, file for graduation, update name and contact information, and review their academic record in the Registrar's Office. These services are also available on *The Q*, at www.QCC.edu.

Student Success Center
Welcome Center | 508.853.2300

The Student Success Center supports students by providing academic advising, career development, access to resources and programming; connecting students to opportunities for learning, development and support beyond the classroom. The Student Success Center is located in the Welcome Center in the Harrington Learning Center.

Business Office
Room B07A | businessoffice@qcc.mass.edu

Students can contact the Business Office with billing or payment questions. (Please see page 29 for billing and payment information.) The Business Office uses the QLess system to see students. Students can log into the Business Office service line by texting the word quinsig to 508.315.6028. Please note – we no longer take credit card payments in the office or over the phone. Students can call 508.854.4560 to make miscellaneous payments in the Business Office such as parking tickets or gym memberships. Students can log into *The Q,* our student and faculty portal, to make one-time payments, to set up an on-line payment plan when available, to order a transcript, and to waive the health insurance fee. Students can email businessoffice@qcc.mass.edu with any questions they may have.

Welcome Center
HLC, 2nd Floor | 508.854.7492

New guests to campus should begin their visit at QCC's Welcome Center, located on the second floor of the Harrington Learning Center at 670 West Boylston Street, Worcester. It serves as a central information hub, gateway and first point of contact to QCC for all prospective students, current students, and community members.

Access and Opportunity
Room 149A | 508.854.7407
accessandopportunity@qcc.mass.edu

The office of Access and Opportunity supports a broad range of services and resources for students, staff, and faculty:

- Foster positive campus culture.
- Programming and Training/Workshops
- Campus Compliance Office: Title IX and Title VI Education
- Partner with Human Resources and Affirmative Action
- Work with Campus Affinity Groups

Health and Wellness
healthandwellness@qcc.mass.edu | 508.854.7572

The Health and Wellness team is made up of registered nurses, who support the QCC community by managing non-health major students' immunization records. The team also supports students virtually when they are ill, by connecting them with resources, checking in, and facilitating communication with faculty. Additionally, each semester the Health and Wellness team provides on-campus health programs on a variety of topics, as well as hosts several vaccine clinics throughout the year.

State Immunization Requirements

The Commonwealth of Massachusetts, General Law105CMR 220.600 requires QCC to collect proof of immunizations from the following students:

1. All full-time students (12 or more credits) under 30 years of age and,
2. All health science students – both full-time and part-time (note that health profession programs will require additional health records and requirements)
3. All students on a student or other visa - both full-time and part-time (including foreign exchange students and those students visiting or attending classes while on academic visitation or exchange program).

All of the student groups noted must submit proof of immunizations for the following: **measles, mumps, rubella (MMR); hepatitis B; varicella (chickenpox); tetanus, diphtheria and pertussis (Tdap); Meningococcal ACWY** is also required for students age 21 or younger.

Please note that positive titers for measles, mumps, rubella, hepatitis B, and varicella will also meet the state requirement. Healthcare students will need to provide records for immunizations/titers/and health documents. These are required before attending clinical. Positive titers are required for healthcare students.

For questions on immunizations please reach out to immunizations@qcc.mass.edu.

EAB Navigate360

EAB Navigate360 is a student success platform designed to empower students' academic journey. It centralizes key information—such as class schedules, campus resources, appointment scheduling, and important deadlines—making it easier to manage the college experience. With seamless communication channels connecting students with faculty and staff, the platform ensures timely support and personalized guidance. The EAB Navigate360 app helps students stay organized and in touch with key offices. Current students can visit qcc.navigate.eab.com.

Tuition and Fees

All Credit Courses (Except as Noted)

Massachusetts Residents	($24 tuition/$199 Educational Services Fee) $223/credit
All other Students	($230 tuition/$199 Educational Services Fee) $429/credit

Required Fees

Student Support Fee		
Fall/Spring	1-8 credits	$345 per semester
Fall/Spring	9+ credits	$455 per semester
Summer	1-8 credits	$175 per semester
Summer	9+ credits	$235 per semester
Intersession	1-8 credits	$120 per semester
Intersession	9+ credits	$150 per semester
Lab Fee		$85 per lab course
Estimated Fall Health Insurance Fee*		$3,573 per academic year
Estimated Spring Health Insurance Fee*		$2,382 per academic year
Allied Health Insurance:		
Health Programs		$20 per academic year
EMT Paramedic Programs		$80 per academic year

Special Fees

Military	$0 per credit
Credentialing Fee	$75 per credit
Challenge Examination Fee	$75 per credit
Portfolio Assessment Fee	$75 per credit

All costs are subject to change without notice.

There are no additional fees associated with the registration of online courses

*The College is mandated by law to provide health insurance and to assess a Health Insurance Fee to all students enrolled in nine or more credits once per academic year in the Fall or Spring only. The Health Insurance Fee **can be waived** if the student has comparable health insurance coverage.

Program Fees

Program of Study / Program Code *Includes all related degree options and/or certificates*	Course (starts with)	Amount Per Semester
Engineering and Technology		
Automotive Technology	AUT	$580
Computer Science Transfer	CSC	$80/credit $800 max
Computer Systems Engineering Technology	CSC/CST	$80/credit $800 max
Electronics Engineering Technology	CSC/ELT/ELM/MNT	$80/credit $800 max
Utility Technology	UTT	$65/credit $650 max
Heating Ventilation Air Conditioning	HVC	$75/credit $750 max
Interactive Media	IMD/IMG	$80/credit $800 max
Manufacturing Technology	MNT	$75/credit $750 max
Healthcare		
Dental Assisting Certificate (DA)	DAS	$1080
Dental Hygiene (DH)	DHY	$2,605
EMT Certificate (EMT)	EMT	$415
EMT Certificate - Direct Entry (EMWF)	EMT	$415
EMT Paramedic Certificate (PC)	MED	$855
Medical Assisting Certificate (ME)	MSS	$785
Nursing Assistant Certificate (NA)	ALH	$785
Nursing Assistant Certificate - Direct Entry (NAWF)	ALH	$635
Nurse Education - Advanced Placement LPN (NUL)	NUR	$1,450
Nurse Education - Advanced Placement Paramedic (NUP)	NUR	$1,450
Nurse Education (NUR)	NUR	$1,450
Occupational Therapy Assistant (OT)	OTA	$1,130
Pharmacy Technician Certificate (PT)	ALH	$430
Pharmacy Technician Certificate - Direct Entry (PTWF)	ALH	$430
Phlebotomy/EKG Technician Certificate (PEKG)	ALH	$710
Phlebotomy/EKG Technician Certificate - Direct Entry (PKWF)	ALH	$710
Practical Nursing Certificate (LP) (LPE)	PNP	$1,385
Radiologic Technology (RT)	RDT	$1,125
Respiratory Care (RS)	RCP	$1,125
Surgical Technology (SUR)	SUR	$775
Other		
Degree / Certificate Program Fee	All others	$165-210 Fall/Spring Only

All costs are subject to change without notice.

Billing and Payment of Tuition and Fees

Students are sent an Enrollment Notification to their QCC student email account when their statement is ready to view on *The Q.* The statement will reflect any estimated Financial Aid award as of the billing date. For aid awarded after the billing date, students should log into *The Q* to view their current statement. If the student is a recipient of any third-party funding (i.e., tuition waiver, military benefit, Uplan, scholarship or private company) please notify the Business Office and submit any required paperwork prior to the start of the semester.

Payment arrangements must be made prior to the bill due date or upon registration after the bill due date. Payment options are detailed in the Enrollment Notification. Please note – we no longer take credit card payments in the office or over the phone. To help students meet their educational expenses, the College offers online payment plan options through a third party for each semester except Intersession. Students who select a payment plan option may select an installment plan that is spread over several months, depending on the length of the semester. Payments are automatically deducted by the payment plan company from a checking or credit card account provided by the student.

To view or pay a bill, log into *The Q:* and on the left on the Financial Services page select View/Pay My Bill, then to the right under My Payment Account select My Account Balances, then select Make A Payment. The first time students use this system they will be asked to create an account. Once that account is created and they select "Make A Payment," they will be routed to our third party payment portal managed by Nelnet. Here they can make one time payments or when available set up a payment plan for an upcoming semester. All costs are subject to change without prior notification. There is a $20.00 charge for any returned payment to QCC.

Other Expenses

Students should anticipate expenses each semester for required textbooks (which are available in the Bookstore) and/or materials for each course. For textbook availability and prices, please visit the bookstore link on *The Q,* the College's student and faculty portal.

Refunds of Tuition and Fees

Students are responsible for the semester charges whether or not they attend. If a student does not plan to attend one or more classes, they must drop those classes within the published add/drop period if they do not wish to be financially responsible for the charges. A student must contact Academic Advising or the Registrar's Office to officially drop any class that they do not plan to attend. When dropping classes please refer to the semester Tuition and Fee Refund Policy for financial penalty available on *The Q* and in writing from the Business Office.

Refund Limitations

- All refunds for financial aid recipients are rated based on withdrawal date.
- Financial Aid recipients are advised to check with the Financial Aid Office (Welcome Center on the 2nd floor of the Harrington Learning Center) prior to withdrawing to determine the impact on their financial aid award.
- An official withdrawal request must be completed online on *The Q* and will be processed by the Registrar's Office.
- Any tuition waivers must be submitted to the Business Office prior to the end of the semester to be considered for a refund or adjustment.
- Mandatory health insurance premiums are not refundable.
- Students will be refunded only that portion of the tuition and fees paid by them; third-party payments will be refunded directly to the paying party.

Return of Federal and State Funds for Students Who Withdraw

If the student withdraws from the College or stops attending classes prior to the 60% point of the semester, financial aid will be pro-rated based on the number of days attended. If financial aid was disbursed before the student withdraws, the student may be required to pay back some of the money, based on a federal determination of his or her eligibility as of the date withdrawn. Additional information is available in the Financial Aid Office.

Tuition Waivers

Various tuition waivers are available to those people who meet the requirements outlined below. Tuition waivers apply only to the cost of tuition; they do not include the cost of the educational service fee, additional fees, textbooks, or supplies. Tuition waivers are not applicable to tutorials, challenge examinations, or any other individualized learning experience.

Veteran Tuition Waivers

Veterans, as defined by MGL Chapter 4, Section 7, may qualify for tuition-free courses, provided the veteran is eligible and has submitted a copy of their DD214 separation papers. There may be other eligibility requirements for this tuition waiver. For further information, please contact the Veteran Affairs Office, Room 258A.

Members of the Armed Forces Tuition Waivers

An active member of the Armed Forces (Army, Navy, Marine Corps, Air Force, or Coast Guard) stationed and residing in the Commonwealth of Massachusetts may qualify for tuition-free courses. For further information, please contact the Veteran Affairs Office, Room 258A.

National Guard Tuition Waivers

Members of the Massachusetts National Guard may qualify for tuition-free courses, provided they meet the eligibility requirements. For further information, please contact the Veteran Affairs Office, Room 258A.

Senior Citizens Tuition Waivers

Senior citizens, age 60 years or older, may qualify for tuition-free courses. For further information, please contact the Financial Aid Office, HLC 2nd Floor.

Massachusetts Rehabilitation Commission and Commission for the Blind Tuition Waivers

MRC and MCB clients may qualify for tuition-free courses consistent with the policies of the Massachusetts Board of Higher Education. For further information, please contact the agencies' offices for details.

Native American Tuition Waivers

Native Americans, as certified by the Bureau of Indian Affairs, may qualify for tuition-free courses provided they meet the eligibility requirements. For further information, please contact the Financial Aid Office, HLC 2nd Floor.

Student Billing: Frequently Asked Questions

Do I need a student ID?

Yes. Once per academic year you will need to update your student ID. Students need a valid student ID for various purposes when on campus including, but not limited to, using the athletic center, using the library, picking up refund checks, making bookstore purchases and returns, receiving a tax waiver in the cafeteria, and participating in student events.

Do I need a parking decal?

Yes. Once per academic year you must update your parking decal. The parking decal allows parking in the designated student parking lots at our main campus on West Boylston Street, as well as QCC's Downtown, Southbridge, and Senior Center locations. There may be additional parking costs for off-site instruction.

What is Tuition?

This amount is set by the Massachusetts Board of Higher Education and is assessed per credit to all students. Tuition is credit-driven based on residency in Massachusetts: In-State or Out-of-State.

What is the Educational Service Fee (ESF)?

This fee is assessed per credit to all students. The ESF helps fund educational related services such as the development of academic curriculum and instructional delivery in all modalities including; on-ground, on-line, blended, hybrid and remote.

What is the Student Support Fee?

This fee is assessed to all students based on full time or part time enrollment status. This fee helps fund essential and mandated student support and services such as infrastructure (technology, energy, and physical plant), accessibility, counseling, tutoring, advising and enrollment services.

What is a Program Fee?

This fee is assessed to students enrolled in a specific program per semester. The fee is set based on the needs of the specific program. To view a list of program fees by program major go to QCC.edu/program-fees.

What is the Lab Fee?

This fee is assessed only to students taking a lab course and is used to support associated costs.

What is the Health Insurance Fee?

The College is mandated by law to provide health insurance and to assess a Health Insurance Fee to all students enrolled in nine or more credits once per academic year in the Fall or Spring only. The Health Insurance Fee **can be waived** if the student has comparable health insurance coverage.

Can I waive any fees?

The Health Insurance Fee is the only fee that can be waived.

If I drop a course will I still be charged or will I get my money back?

Each semester the College has a specific refund policy tied to the semester add/drop dates. The Tuition & Fee Refund Policy

can be found on your billing notification, in the college booklet, on *The Q* and in the Business Office. Please refer to that policy for exact dates and penalties. If you are not attending one or more of your classes you need to drop the class if you do not wish to be financially responsible for the charges. Please contact the Advising Center by email at advising@qcc.mass.edu or by phone at 508.854.4308 to officially drop any class that you do not plan to attend before the end of the published add/drop period. If you are receiving a financial aid award please consult with the Financial Aid Office before dropping as your financial aid eligibility may be affected.

How do I pay my bill?

To VIEW/PAY your bill log into *The Q*. On the Financial Services page to the left select View/Pay My Bill, then to the right under My Payment Account select My Account Balances, then select Make A Payment. The first time you use this system you will be asked to create an account. Once that account is created and you select Make A Payment you will be routed to our third party payment portal managed by Nelnet Campus Commerce (customer service 1.800.609.8056). Here you can make one-time payments or (when available) set up a payment plan for an upcoming semester. If you have questions concerning your bill or payment please contact the Business Office by phone at 508.854.4560 or by email at businessoffice@qcc.mass.edu from your QCC student email account – please include your student ID. Please note the college no longer accepts credit cards in the office or over the phone for student account payments.

Does the College offer payment plans?

The College offers a number of on-line payment plan options each semester (except Intersession). For additional information you can log into *The Q* or email businessoffice@qcc.mass.edu.

How can my parent or guardian gain access to my billing information?

In compliance with the Family Education Rights and Privacy Act (FERPA) and Quinsigamond Community College policy, the Business Office cannot release any information pertaining to a student's record. In order for any information to be released to anyone, other than the student, the student must provide our office with written consent. The student can complete the Authorization to Release Information Form and return directly to the Business Office. We can only accept the FERPA document directly from the student in person or scanned and emailed to our office from the student's email account. This FERPA is for Business Office use only. The student needs to provide a separate FERPA form to the Financial Aid Office.

When will my financial aid refund check be ready?

You'll receive a check for your excess financial aid award after all charges have been paid to the College. Once the funds are available a refund check will be processed and mailed to your address on file by the Business Office. You will receive an email notification to your student email account when the refund check is mailed.

Will there be a fee increase for the Fall semester?

For Massachusetts residents, the combined tuition and education service fee cost is currently $223.00 per credit hour. For Non-Massachusetts residents and international students, the combined tuition and educational service fee cost is currently $429.00 per credit hour; all costs are subject to change without prior notification. Additional fees apply each semester; some vary based on enrollment.

If I withdraw from a course, can I get all my money back?

There is a specific Refund Policy for each semester. For the first eight calendar days of class (or equivalent if in Summer or Intersession), a 100% refund of tuition and fees is granted. The next eight calendar days of classes, a 50% refund of tuition and fees is granted. After the first 16 days of classes (or equivalent if in Summer or Intersession), no refunds of tuition or fees will be granted. Please see semester brochures for exact dates. Students must officially withdraw from the College. Students who are receiving financial aid should consult with the Financial Aid Office before withdrawing. Financial Aid eligibility may be affected.

Fall & Spring Seven Week Terms - refund policy for drop or withdrawal as follows:

- 100% refund - drop through the second class meeting and prior to the third class meeting
- 50% refund - withdrawal through the third class meeting and prior to the fourth class meeting
- 0% refund - withdrawal as of the fourth class meeting

Is any student eligible for Institutional Aid?

The College has set aside a certain amount in operating funds to support our students. To qualify for these funds, students must meet the conditions for need-based Federal and State Financial Aid and complete a FAFSA. This aid helps fill the gap between available Federal and State aid and the cost of attendance. In addition, the institutional advancement group has set aside a certain amount to fund scholarships for students. To qualify for these scholarships, students must meet the specific criteria of each individual scholarship. In most cases, the Financial Aid Office will notify a student if he or she appears eligible for any of these scholarships. For further information, please inquire at the Financial Aid Office (Welcome Center on the 2nd floor of the Harrington Learning Center).

Financial Aid

The goal of the Financial Aid Office is to assure that students do not have financial barriers if they want to earn a college degree or certificate. Our office is committed to helping students receive the financial assistance they need to attend QCC. We offer a wide variety of federal, state and institutional assistance programs.

Who is Eligible for Financial Aid?

Students must meet the following criteria in order to be eligible for financial aid:

- Be admitted to an eligible program. Please note that undeclared majors are not eligible for financial aid.
- For most programs, students should enroll in at least six credits each semester. However, students with very low income may qualify for as little as one class per semester.
- Have a complete financial aid file by responding to all requests for additional information.
- Be a U.S. citizen or eligible non-citizen. Verification may be required. State financial aid may also be available to undocumented students who meet the criteria of "High School Completer" under the Tuition Equity law.
- Not be in default on any educational loan or in repayment of any educational grant.
- For the grant programs, students must not have a previous bachelor degree.
- Be making progress toward a certificate or degree program according to the Standards of Satisfactory Academic Progress.

Applying for Financial Aid

To begin the financial aid application process, a student must complete the Free Application for Federal Student Aid (FAFSA) electronically. FAFSA contributors (student, student's spouse, a biological or adoptive parent, or the parent's spouse) are required to provide their information, signature, and consent and approval to have their federal tax information transferred directly from the IRS into the FAFSA form using an FSA ID. Information on FAFSA contributors and who is required to provide information is available within the online FAFSA application. Be sure to designate Quinsigamond Community College (Federal School Code 002175) in the College release section. Make sure to select the application for the correct academic year.

Allow 3-5 business days for the FAFSA to be processed. Students will receive a FAFSA Submission Summary, which should be reviewed for accuracy.

Students applying under the Massachusetts Tuition Equity law as a High School Completer must first submit the Student Application and Affidavit form to the QCC Admissions Office to establish eligibility for in state tuition. If approved, the student may then complete the Massachusetts Application for State Financial Aid (MASFA) to be considered for state financial aid funds.

If additional documentation is required, students will receive a letter or email to their student email account from the Financial Aid Office. It is important to respond to these requests as quickly as possible.

When Should One Apply?

The priority filing date for the Fall semester is April 1 and Spring semester is October 1. The deadline to apply for MASSGrant is published annually by the MA Office of Student Financial Assistance on their website (https://www.mass.edu/osfa). These priority filing dates assure that students receive the maximum financial aid possible and that funding will be available to pay the bill by the billing due date, assuming all requirements are completed. If a student misses the priority filing date, he or she may still apply for financial aid. Funding is still available.

Students must reapply for financial aid each academic year.

Determining Financial Need

Financial aid from most sources is awarded on the basis of financial need. Once students meet the other eligibility criteria, the information they report on their aid application will be used in federal formulas to calculate their need and eligibility.

Financial need is determined by taking the cost of education (educational expenses, such as tuition, fees, books, supplies, and other related expenses), and subtracting the amount the student and his or her family are expected to pay toward that cost. Detailed information on how the "cost" of education at Quinsigamond Community College is calculated may be obtained at the Financial Aid Office.

Certain federal loan programs not based on financial need are also available. In order to be considered for these programs, students may be required to complete the entire financial aid application process to first determine if they are ineligible for need-based assistance.

Repeated Courses

Students may qualify for financial aid for repeated coursework. For most programs, the Financial Aid Office can count repeated coursework in students' enrollment status for financial aid purposes as long as (1) the student has not yet earned credit for that course, or (2) it is the student's first attempt to retake the course following the student having previously earned credit. In other words, once a student receives a grade in a class (A through D-), he or she can only get financial aid for that class one more time if he or she needs to repeat it.

Some programs at Quinsigamond Community College follow different eligibility rules, and students may not qualify for repeat coursework even under the conditions above. Those programs are: Nurse Education – Advanced Placement LPN and Nurse Education – Advanced Placement Paramedic.

Billing Information for Financial Aid Applicants

Financial aid awards are applied toward a student's bill when an official award offer letter is issued from the College. If students have applied for financial aid, but have not been notified of their eligibility for assistance by the College, they must make payment arrangements with the Business Office or go through Financial Counseling Acknowledgement process.

Students will need to visit *The Q,* QCC's online student portal, to see their financial aid award and/or any missing financial aid documents.

Should Quinsigamond Community College become aware of any misrepresented or omitted information in a financial aid application, any funds awarded to the student will become due immediately and payable to either the College or the Department of Education.

Return of Federal and State Funds for Students Who Withdraw

Title IV funds are awarded to a student under the assumption that the student will attend the College for the entire period for which the assistance is awarded. If students withdraw, drop out, are expelled from the College, or if they otherwise stop attending classes, prior to the 60% point of their payment period (typically a semester), their financial aid will be prorated based on the number of days he or she attended. If financial aid was disbursed to the student prior to withdrawal, he or she may be required to pay back a portion of the money, based on a federal determination of the eligibility as of the date he or she withdraws.

Students enrolled in modular coursework (i.e., coursework that does not span the length of the entire semester) may be considered withdrawn for financial aid purposes even if they have successfully completed another modular course in a given semester. Students enrolled in the Radiologic Technology, Nurse Education – Advanced Placement LPN, or Nurse Education – Advanced Placement Paramedic programs will have a different assessment of their 60% point, as their financial aid award may not be based on a single semester of enrollment. Similarly, students in these programs who are unable to continue in their program from one semester to the next may need to have their eligibility adjusted. Detailed information is available at QCC.edu/financial-aid-scholarships/ReturnofTitleIVFunds. We strongly advise all students to consult with the Financial Aid Office prior to making changes to their enrollment.

Types of Financial Aid Available

The College will inform students in writing by means of a financial aid award offer letter of the amount of their award. The amount of one's award may be adjusted based upon changes in the student's enrollment or other eligibility criteria. Their award may consist of any combination of the federal, state, and institutional programs listed below.

Grant Programs

- **Federal Pell Grant:** This is gift aid awarded by the federal government to students demonstrating substantial financial need. Changes in enrollment status through the add/drop period will result in an adjustment to this award.
- **Federal Supplemental Educational Opportunity Grant:** This is a federally-funded grant program. Recipients are selected by Quinsigamond Community College according to federal regulations that require SEOG be awarded to students with the lowest family contributions and greatest financial need, usually Federal Pell Grant recipients.
- **MA Cash Grant:** This is a state-funded grant program designed to assist needy Massachusetts residents attending public colleges and registered for at least three credits. Eligibility is determined by the College according to state regulations. The Cash Grant cannot exceed the cost of tuition and fees.
- **MASSGrant:** This is a state grant awarded by the Commonwealth of Massachusetts to its residents with exceptionally high financial need. The state Office of Student Financial Assistance notifies residents of their eligibility and the College certifies this eligibility. Funds are not available until this certification is completed. A student must be enrolled for a minimum of 12 credits to receive this grant.

- **MASSGrant Plus:** This is a state-funded grant available to students enrolled in a minimum of six credits each semester who are residents of Massachusetts and have not yet earned a college degree. Students must demonstrate financial need for tuition and fees after accounting for all forms of institutional and public grant aid. A modest book allowance is provided for Pell-eligible students. Deadlines may be applied annually by the Massachusetts Office of Student Financial Assistance or the College, based on the availability of funds. Students must be enrolled in a minimum of 6 credits to receive this grant. The number of semesters a student may receive this grant is limited.
- **MassReconnect:** This is a state-funded last-dollar grant available to students registered in at least six credits each semester who are residents of Massachusetts, 25 years of age or older, and have not earned an associate degree or higher. Students must complete a FAFSA and financial aid file. There are no income requirements for this fund.
- **MA Public Service Grant:** Established to provide educational opportunity to family members in recognition of the hardship that a family experiences upon the loss of a parent and/or spouse who is killed or missing in the line of public service duty in the Commonwealth of Massachusetts. The award value is equal to the College's full-time tuition charge.
- **Paraprofessional Teacher Preparation Grant:** Provides financial assistance to paraprofessionals in a Massachusetts public school who wish to pursue teacher education and become certified to teach full-time in Massachusetts' public schools.

Free Community College

MassReconnect and MassEducate provide last-dollar grants funded by the state to cover the cost of tuition and required fees after other sources of free financial assistance are applied. These programs are available to residents of Massachusetts who are enrolled in at least six credits. There are no income requirements to qualify for assistance with tuition and fees. The number of semesters a student may receive these grants is limited.

- **MassReconnect:** This program is for students who are 25 years of age or older and have not yet earned any college degree. A modest book allowance is also provided.
- **MassEducate:** This program is for students who have not yet earned a bachelor's degree and have not earned more than one associate's degree. A modest book allowance is available based on a student's family income as represented in the Student Aid Index (SAI).

Federal Work-Study Program

The Federal Work-Study Program offers students an opportunity to earn money through on-campus or off-campus employment. Students are placed in a position that will provide them with valuable work experience. The Work-Study Program offers off-campus placements in community service positions at non-profit agencies. It also offers students an opportunity to tutor in area elementary schools with the America Reads and America Counts Programs.

A student's work schedule and hours may vary according to the amount of the Work-Study award. Students are paid hourly, and rates of pay may vary.

Loans

Federal Direct Loan Program: The Direct Loan Program provides low-interest loans to students enrolled for six or more credits per semester. Payments for interest or principal do not begin until six months after the borrower graduates, drops below half-time enrollment, or leaves school. Borrowers are charged a fixed interest rate. A variety of repayment options are offered.

If the student demonstrates financial need, a portion of the loan may be subsidized, which means the Department of Education will pay the interest on the loan during eligible periods. Students who do not demonstrate financial need may qualify for a Direct Unsubsidized Loan. The interest on this loan begins to accrue from the date of disbursement.

The College receives funding for these loans directly from the United States Department of Education, and repayment is made to a loan servicer assigned by the U.S. Department of Education once the loan has been disbursed. There is no separate application. Before receiving any loan funds, first-time borrowers must complete entrance counseling and a Master Promissory Note (MPN) electronically.

Federal Direct PLUS Loans: A Federal Direct PLUS Loan is available to parents of dependent students and is not based upon financial need. The amount of a Federal Direct PLUS Loan may not exceed the cost of education minus any other financial aid. The parents' credit history will be reviewed to establish eligibility. A fixed interest rate will be charged. Ordinarily, repayment begins 60 days after the final loan disbursement; however, a deferment may be available while the student is enrolled in school. Students need to complete a FAFSA even if they are only applying for a PLUS loan.

Tax Credits

The tax code provides a variety of tax incentives for families who are saving for, or already paying, higher education costs or are repaying student loans.

There is an opportunity to claim an American Opportunity Tax Credit and/or Lifetime Learning Credit for the qualified tuition and related expenses of the students in a family (i.e., self, spouse, or an eligible dependent) who are enrolled in eligible educational institutions. Different rules apply to each credit. If an American Opportunity Tax Credit is claimed for a particular student, none of that student's expenses for that year may be applied toward the Lifetime Learning Credit.

Students may be able to claim a tuition deduction of qualified education expenses paid during the year for themselves, their spouse, or their dependent. This deduction can only be claimed if one's filing status is married filing separately or if another person can claim an exemption for them as a dependent on their tax return. The qualified expenses must be for higher education.

Students may be able to deduct interest paid on a qualified student loan. And, if the student loan is canceled or forgiven, the student may not have to include that amount in income. Consult with a qualified tax advisor regarding eligibility.

Tuition Waivers

If a student qualifies for more than one tuition waiver, the total of all waivers received cannot exceed the cost of tuition each semester.

Categorical Tuition Waivers: The Commonwealth of Massachusetts provides tuition waivers to (1) Veterans, (2) Native Americans, (3) Senior Citizens, (4) members of the Armed Forces, and (5) Clients of the Massachusetts Rehabilitation Commission or Commission for the Blind. Eligibility is determined by the College according to state regulations.

City of Worcester Tuition Waiver: The city of Worcester issues up to five 100% tuition waivers per semester, for the Fall and Spring semesters, to employees of the city of Worcester.

DCF Adopted Child Tuition Waiver and Fee Assistance Program: This waiver is designed to lessen the financial burden on adopting parents in the Commonwealth. This Waiver extends eligibility to all children and young adults, age 24 or under, adopted through the Department of Social Services by state employees or eligible Massachusetts residents, regardless of the date of adoption. The program provides a tuition waiver and funding towards required fees for state-supported courses from available state funds. Not all courses at QCC meet the definition of state-supported courses.

DCF Foster Child Tuition Waiver and Fee Assistance Program: This waiver is designed to provide financial support for higher education to foster children in state custody who were neither adopted nor returned home. The program provides a tuition waiver and funding towards required fees for state-supported courses from available state funds. Not all courses at QCC meet the definition of state-supported courses. Eligible students who attend full-time may also wish to apply for the Foster Child Grant, an additional grant resource, by contacting the Massachusetts Office of Student Financial Assistance or their DCF social worker.

Higher Education Employee Tuition Waiver: Employees of institutions of higher education in the state of Massachusetts are eligible for a tuition waiver for themselves, their spouses and their dependent children. Full-time employees may receive a 100% waiver; part time employees receive 50%.

Human Service Provider Tuition Waiver: This waiver is a program of the Massachusetts Council of Human Service Providers Inc. Eligible employees of certain Human Service Providers may receive a 100% tuition waiver by submitting a Certificate of Employee Eligibility for Tuition Remission approved by their Human Resources representative. Qualification of an organization as an Eligible Human Service Provider will be determined on the basis of lists of providers under contract with the Commonwealth that are maintained by the Comptroller of the Commonwealth.

Massachusetts National Guard Tuition Waiver: Certain eligible members of the Massachusetts National Guard may receive a 100% tuition waiver for up to 30 credit hours per school year. A certificate for this waiver must be issued by the member's unit Administration or Education office.

Need Based Tuition Waiver: This waiver is a state-funded program available to needy Massachusetts residents attending public colleges and registered for at least three credits. Eligibility is determined by the College according to state regulations. If students receive any other type of tuition waiver they may not receive this need-based tuition waiver as well. The amount of the waiver cannot exceed the cost of tuition.

Quinsigamond Community College Full-Time Employee Tuition and Fee Waiver: QCC employees, their spouses and their dependents are eligible for a 100% waiver of tuition charges. In addition, employees may receive a 100% waiver of educational fee charges. Spouses and dependents of employees may receive a 50% waiver of educational fee charges.

Stanley Z. Koplik Certificate of Mastery Tuition Waiver: Honors students who are awarded Stanley Z. Koplik Certificate of Mastery Awards by the Department of Education.

September 11, 2001 Tragedy Tuition Waiver: This waiver provides a 100% tuition waiver to children and widowed spouses of Massachusetts residents for any state supported course or program offered by a Massachusetts public college or university.

State Employee Tuition Waiver: Employees of state agencies are eligible for a 100% tuition waiver for themselves and their spouses.

Valedictorian Program Tuition Waiver: Honors students who were designated as valedictorians by a Massachusetts High School.

Scholarships

Please note: All scholarships are subject to available funding.

Amy H. Carberry Endowed Scholarship: Awarded to an exemplary student, preferably a single parent, with demonstrated financial need who is studying the arts or participating in arts activities.

Andreana Grimaldo Women in STEM Scholarship: The Andreana Grimaldo Women in STEM Scholarship provides a scholarship to a deserving student who identifies as female and is passionate in furthering her education in a STEM field. Andreana was her students' biggest cheerleader, and this scholarship will continue her life's mission of supporting and encouraging women to get involved in mathematics and science studies. Awarded to females in STEM programs, with a preference for engineering.

Ann R. Carroll Scholarship: Established by QCC to recognize Ann Carroll's 25 years of distinguished service to the College. Ms. Carroll retired as Vice President of Enrollment and Student Services. Awarded to a student leader involved in QCC Athletics or an approved QCC Student Club or Activity.

Aram and Mary Tashjian Scholarship: Awarded annually in the Fall and Spring to a deserving QCC student in the Human Services program or pursuing Psychology or Social Sciences.

Barbara Olson and Kathy Fournier Memorial Nursing Scholarship: Established in memory of two nurses from Harrington Hospital. The scholarship was developed to assist students pursuing a career in nursing.

Captain James L. McDonald Memorial Scholarship: Awarded to a student in the Fire Science Program who graduated from a Worcester Public High School.

Carmen Tobin Nursing Scholarship: In memory of Carmen Tobin who graduated from the Quinsigamond Community College Nursing Program, this scholarship is funded through the Greater Worcester Community Foundation and is awarded each year to assist students in achieving their Nursing degree.

Carol Lawson Memorial Scholarship: Established in memory of Carol Lawson who served as the Director of the QCC Early Childhood Education Lab School from 1991 to 2000. The award is given each Spring to a student in the Early Childhood Education program.

Cornelius B. and Edna P. Spencer Scholarship: Awarded to a student enrolled in any degree program with a commitment to community involvement and a minimum GPA of 2.5. Preference is given to US citizens, students with greatest financial need and as specified in the scholarship portal.

DCU Last Mile Scholarship: Funded by the Digital Federal Credit Union (DCU), this scholarship is awarded to students with financial barriers that prevent them from completing their final semester to graduate.

The Delta Dental of Massachusetts Scholarship in Honor of Dennis J. Leonard: This scholarship, in honor of Dennis Leonard, longtime President and CEO of Delta Dental of Massachusetts (DDMA), retired in March of 2023, supports DDMA's goal of creating greater opportunities for students to enter the dentistry profession. Preference is given to students with greatest financial need and as specified in the scholarship portal.

Dental Hygiene Scholarships (Alumni and MDHA): Awarded to Dental Hygiene students.

Dr. and Mrs. Michael Theerman Scholarship: Awarded to a student in the health professions with preference of medical assistant/ medical support.

Dr. Gail Carberry Vocational and Technical Scholarship: Funded by the QCC Foundation and the Bay Path Education Foundation, this scholarship is awarded to Bay Path Regional Vocational Technical High School graduates who attend QCC. Apply to the BPBTHS Foundation during senior year.

Dr. Roger S. & Mary E. LaBonte Scholarship: In memory of Anna (Boehnke) LaBonte, a self-educated immigrant to the United States in the 20th Century who was unable to obtain a formal education due to societal limitations of her times, which caused discrimination against many immigrants and citizens. Preference is given to students who are in a healthcare program, with greatest financial need and as specified in the scholarship portal.

The Francis A. and Jacquelyn H. Harrington Foundation Scholarship: Awarded for credit and non-credit coursework for residents in Main South Worcester.

Fuller Foundation Scholarship: The Fuller Foundation has donated funds to assist non-traditional students with high academic achievement and financial need.

Gene Haas Manufacturing Scholarship: Funded by the Gene Haas Foundation and awarded to students in the manufacturing program.

Heiten Auto Tech Scholarship: Awarded to an Automotive Technology student.

Hermann Foundation Scholarship: Awarded to a student with financial need and academic achievement.

Jack and Steven Toney Memorial Scholarship: Established through donations and awarded in memory of Jack Toney and Steven Toney, sons of QCC's former vice president of academic affairs, Pat Toney.

J. Allan Chupka Memorial Scholarship: Established in the memory of J. Allan Chupka, who served as Registrar and later as Chairperson of the Business Department at Quinsigamond Community College. This scholarship is open to all full-time students at Quinsigamond Community College. The award is based on academic achievement and financial need.

Jeanne Remillard Curtis Nursing Scholarship: Awarded to students enrolled in the Nursing Program.

Jessica Simone Memorial Scholarship: Awarded to a student with financial need and a minimum GPA of 3.0. Preference given to single parents.

Kathleen Griffin Jennings Nursing Scholarship: Awarded to a non-traditional nursing student in the Nursing Education program with demonstrated financial need.

Kerri Coleman Basic Needs Scholarship: The Kerri Coleman Basic Needs Scholarship is in memory of Bonnie Coleman's daughter, who passed away during Bonnie's nearly 40 year tenure at Quinsigamond Community College. This is a basic needs scholarship open to all QCC students.

Kodandapani Family Endowment Scholarship: This endowed fund provides scholarships to students in financial need studying at QCC. Preference is given to meritorious students (GPA of 3.2 and above) who are first in their family going to college and in any of the following associate degree programs: Computer Information Technology, Engineering and Engineering Technology, and Healthcare.

Luzviminda Dy Recla Scholarship: Awarded to an Engineering Student with financial need.

Maykel Family Scholarship: Awarded to a Dental Hygiene student.

Olga Lopez-Hill Scholarship: Awarded to a student involved in community service.

Patricia Lamusta Memorial Scholarship: Established in memory of Patricia Lamusta, who served as a secretary in the Registrar's Office at Quinsigamond Community College. Open to students in the Business Administration Career and Administrative Professional degree or Clerical Office certificate programs.

Paul Connell Memorial Scholarship: Awarded in memory of QCC Professor Paul Connell.

Professor Paul Rossman History/Political Science Memorial Award: Awarded to a student who is passionate about Political Science or History and has a minimum GPA of 3.00.

QCC Employee Memorial Scholarship: Funded by donations made in memory of QCC employees.

QCC Foundation Scholarships: The QCC Foundation Scholarship program awards students for academic achievement and considerable financial need. Visit the QCC website to read more and apply.

Quinsigamond Community College Alumni Association Scholarship: Funds are raised through the efforts of QCC alumni to support current students.

Radiologic Technology Scholarship: Awarded to Radiologic Technology students.

Rev. Dr. Martin Luther King, Jr. Scholarship: The Rev. Dr. Martin Luther King, Jr. Scholarship is awarded each Fall to a student who represents the ideals of the Reverend Dr. Martin Luther King, Jr., nominated by members of the QCC community.

RISE Campaign Endowed Scholarship: Funds raised through the RISE (Regional Investment in Service and Education) campaign.

Robert Mortell Memorial Scholarship: Awarded to a student in either the Fire Science, Criminal Justice or Emergency Medical Services programs who have high academic achievement and financial need.

Roland Lajoie Scholarship: Established in memory of faculty member Roland Lajoie. This scholarship is awarded to a student enrolled in a humanities or social sciences academic program. The student must have completed 12 credits, maintained a 3.00 GPA or better and demonstrate financial need.

Ronald E. Josephson '70 Memorial Scholarship: In memory of QCC's dear friend, alumnus, Guardian and colleague Ron Josephson. Awarded to students in the Electronics Technology programs.

Ruth C. Pelkey Memorial Nursing Scholarship: Awarded in the Fall and the Spring of each academic year to a prospective QCC Nursing IV student.

SALMON Health and Retirement Nursing Scholarship: SALMON has partnered with QCC to offer two $5,000 scholarships to current nursing students. Preference is given to current SALMON employees. A commitment for employment with SALMON is required for acceptance of this scholarship.

Santander Scholarship: Awarded to First-generation college students with financial need.

Sharon Kerr Richardson Scholarship: Awarded to a Dental Hygiene student with financial need.

United Parcel Service (UPS) Scholarship: Awarded to students with high academic performance and financial need.

The Weiss-Belding Scholarship in Social Sciences: Established in memory of Meredith Anne Weiss, who served in both administrative rolls and as Social Science faculty at QCC from 1979 to 2020. Awarded to students in the Social Sciences with financial need.

Worcester City Hospital School of Nursing Alumni Scholarship/ Claire E. Hayes RN Scholarship: Awarded to an LPN student with a minimum GPA of 3.00 and a resident of Worcester County. Preference is given to a graduate or relative of a graduate of the Worcester City Hospital School of Nursing.

Worcester City Hospital School of Nursing Alumni/Mary Clifford RN Scholarship: Awarded to an RN student with a minimum GPA of 3.00 and a resident of Worcester County. Preference is given to a graduate or relative of a graduate of the Worcester City Hospital School of Nursing.

Worcester Rotary Club Scholarship: Awarded to non-traditional students.

Working Towards a Bright Future in Honor of Paul J. Brown, Jr Scholarship: Designed to empower individuals, with a preference given to women, by supporting their ability to gain career training and enter the workforce as well as advance along a career pathway. Supports students in the SNAP Path to Work program and Workforce Development students who are dealing with the “cliff effect.”

Satisfactory Academic Progress

Federal regulations require students to maintain satisfactory academic progress toward the completion of their degree or certificate program in order to qualify for financial aid. Financial Aid applicants will be reviewed at the end of each payment period to determine if the standards are met. For most programs, a payment period is a semester. For the Nurse Education – Advanced Placement LPN, and Nurse Education – Advanced Placement Paramedic programs, the payment period may encompass more than one traditional semester. Students in these programs should contact Financial Aid for assistance in determining changes to their status while enrolled in these programs.

Important Definitions

Academic Progress is based on all terms of enrollment. The review will be performed on the student's entire QCC academic transcript, regardless of whether or not financial aid was received or whether the Fresh Start Option was granted.

Attempted Credits:

- All credits in which a student was registered at the end of the add/drop period, including those with grades of "F", "W", "X", "I", "IR", and "WA", including all attempts at repeated courses
- All earned credits (e.g., transfer credits and credits earned through prior learning)

Earned Credits:

- Courses that a student has completed and for which he or she has earned credit
- Repeated courses where credit has been earned may only be counted once
- Transfer credits
- Credits earned through prior learning (e.g., challenge exams, portfolio assessment, or CLEP/Advanced Placement)

Audited (AU) classes are not considered attempted or earned and are not eligible for financial aid.

Criteria

Student progress will be measured based on the total number of attempted credits on the transcript at each review. Student records will be reviewed against all three of the following criteria:

I. Minimum Cumulative Grade Point Average (GPA)

Total Attempted Credits	Cumulative GPA
1 - 15	1.50
16 or more	2.00

II. Minimum Earned Credits (Completion Rate)

Calculated by taking "Total Earned Credits" divided by "Total Attempted Credits".

Total Attempted Credits	Completion Rate
1-15	50%
16 or more	66.67% (two-thirds)

III. Maximum Time Frame

Students must complete their certificate or degree program by attempting no more than 150% of the total credits required for that program. If the student is not enrolled in a program at the time the assessment is completed, a determination will be made using the General Studies program degree requirements. All attempted coursework that has been or could be applied to the student's current major according to the degree audit will be counted toward the maximum timeframe calculation. Up to 30 credits of developmental courses (courses numbered below 100) and all English as a Second Language (ESL) coursework will be excluded from this calculation.

Example: A student is in an associate degree program that requires a total of 62 credits. He has a total of 85 applicable credits attempted at the end of the academic year. He needs 15 more credits to complete the program. The student cannot complete the program within the maximum time frame (62 credits X 150% = 93 credits and he needs 85 + 15 = 100 credits). He is no longer eligible for financial aid funding.

Satisfactory Academic Progress Statuses

Good: The student has met **all three** of the Satisfactory Academic Progress criteria.

Warning: If students do not meet the GPA or Completion Rate standards, they will be placed on Warning for one semester. They are still eligible for financial aid, but if they do not meet the standards during their Warning semester, they will be placed on Suspension. If students meet the Satisfactory Academic Progress standards during their Warning semester, they will return to Good standing.

Suspension: If students do not meet **all** of the Satisfactory Academic Progress criteria following a Warning or Probation semester, they will be placed on Suspension. They will also be suspended if they do not meet the Maximum Time Frame Criteria. While on Suspension, students are not eligible for any form of financial aid, including student loans. If they are academically dismissed from the College, they will be placed on Suspension.

Probation: If students appeal a Suspension and it is approved, they will be placed on Probation for at least one semester, during which time they will be considered for financial aid. Their progress will be reviewed at the end of each Probationary semester. If students meet the standards, they will return to Good standing. If they meet the terms of their academic plan but fail to meet the overall Satisfactory Academic Progress policy criteria, they may remain on Probation as stated in their academic plan. If the standards are not met, they will be placed on Suspension.

Appeal Process

Students may appeal a Suspension, in writing, if they have an extenuating circumstance that prevented them from meeting the Satisfactory Academic Progress criteria. To do this, they must complete the following steps:

1. **Submit the Suspension Appeal Form**, or write a letter, to the Financial Aid Office explaining the circumstances. The appeal must state why the student was unable to meet the standards and what has changed to assure the student's success in the future.
2. **Provide supporting documentation** with the appeal, such as a doctor's note explaining medical issues, letter from an employer regarding required changes to a work schedule, etc.

Regaining Eligibility for Financial Aid Without an Appeal

Students may be reconsidered for funding after they have successfully completed at least one semester without the benefit of financial aid. To return to Good standing, students must again meet all of the criteria described above and notify the Financial Aid Office that they would like to have their eligibility for funds re-evaluated. If they successfully complete at least one semester without the benefit of financial aid but do not meet the criteria, they may submit a complete appeal for consideration.

Students are responsible for notifying the Financial Aid Office if they receive a grade change that results in meeting the standards for Satisfactory Academic Progress.

Academic Information

Quinsigamond Community College (QCC) offers over 100 associate degree and certificate study options in the areas of: Applied Technologies; Business, Financial and Hospitality Management; Computer and Information Technology; Education; Healthcare; Installation, Maintenance and Repair Technology; Liberal Arts and General Studies; Mathematics, Sciences, and Engineering; and Public and Social Services. The College can prepare students for transfer to a bachelor level program at a four-year college or university, or for immediate entry into a career field after graduation. If one enrolls as a full-time student in the day, he or she can expect to complete an associate degree in two years. Most certificate programs can be completed in two semesters or less of full-time study. Opportunities for part-time study exist in both the day and evening, on weekends, and during the Summer. If one enrolls as a part-time student, the length of time it takes to complete the associate degree or certificate program will depend upon his or her course load each term.

At QCC, the academic year consists of a Fall and a Spring semester, each of which is approximately 15 weeks long. Fall classes begin in September and continue through mid-December; Spring classes begin in late January and end in early May. There are two short terms in each semester (Fall and Spring) that are seven weeks long: Fall 1 classes begin in September and end in late October, followed by Fall 2 that ends in December; Spring 1 classes begin in late January and end in early March, followed by Spring 2 that ends in early May. The Summer sessions begin in late May and continue through August.

A student must be enrolled for a minimum of 12 credits each semester to be considered a full-time student; if a student enrolls for fewer than 12 credits, he or she is considered a part-time student. QCC has a maximum credit registration policy. If a student wishes to register for more than 19 credits in any semester, he or she must obtain the prior approval of the Vice President of Academic Affairs.

Any student who has completed fewer than 30 credits of coursework is considered a Freshman; a student who has completed at least 30 credits is considered a Sophomore.

Degree Requirements

The Massachusetts Department of Higher Education has statutory authority to confer the associate degree through the individual community colleges. Upon the recommendation of the faculty, qualified candidates are awarded the degree of Associate in Arts (A.A.), Associate in Science (A.S.), or Associate in Applied Science (A.A.S.) at QCC. The College also awards certificates in various fields.

To qualify for an associate degree or certificate, the student must satisfy the following requirements:

- Apply for, and be admitted to, an associate degree or certificate, program offered by the College;
- Complete the required courses and the specified number of credit hours for the program in which he or she the student is enrolled;
- Maintain a Quality Point Average (QPA) of at least 2.0; and
- Earn a minimum of 25% of credits in residence at QCC in the degree or certificate being conferred;
- Only 25% of credits in certificates with 30 or fewer credits can be from Credit for Prior Learning (CPL);
- CPL and articulated credits from QCC non-credit courses are not considered as credits in residence;
- Satisfy all financial obligations to the College.

Students completing all requirements for a certificate program while enrolled in an associate degree program may apply for that certificate program and also continue in the associate degree program.

Associate degrees and certificates are conferred three times a year - after the Fall and Spring semesters, and after the Summer session. Commencement Exercises are held once a year, at the end of the Spring term. All students who complete associate degree or certificate requirements in the Summer, Fall, or Spring will have their names included in the Commencement Program and will be eligible to participate in the Commencement Ceremony.

Residence Requirement

A minimum of 25% of the credit hours in the degree or certificate being conferred is required to fulfill the College residency requirement. The balance of credits may be drawn from regionally accredited postsecondary institutions and/or credit by examination in applicable situations. Only 25% of credits in certificates with 30 or fewer credits can be from Credit for Prior Learning (CPL). CPL and articulated credits from QCC non-credit courses are not considered as credits in residence.

Credit Hour Definition

The 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.

Earning a Degree in Two Programs

If the student receives an associate degree from QCC and wishes to qualify for an associate degree in another program, he or she must complete all major course requirements in the second program, as well as meet the residence requirement of the College.

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

In order 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 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; therefore, the student may be ineligible for clinical placement, and as a result unable to continue in the program. The College is authorized by the Commonwealth's Criminal History Systems Board, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. The College shall refer to regulations issued by the Commonwealth's Executive Office of Health and Human Services, 101 Code of Massachusetts Regulations 15.00-15.16, as guidance when assessing student CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P. Students should notify the Dean of Students if a change occurs during College enrollment.

Health Program Policy

Policies of QCC health programs are comprehensive, provide for the welfare of faculty and staff, and are consistent with those of the governing organization; however, differences in policies may occur as justified by the goals and outcomes of the specific health program.

Credit for Prior Learning (CPL)

Credit for Prior Learning is a way for students to earn college credit for prior learning acquired through work experience, military experience, industry credentials, and by taking national exams. Credit may be earned in a variety of ways, including credentialing, portfolio assessment, and various competency examinations. For additional information regarding Credit for Prior Learning, contact experience@qcc.mass.edu or visit www.QCC.edu/prior-learning-credit. To start an application for CPL visit https://myexperiencecounts.mass.edu/.

Note: Credentialing, Portfolios and Challenge Exams receive a "P" grade which may not be accepted at other institutions, consult with the institution for their transfer policy.

Credentialing: This is the process of earning credit for structured learning experiences in non-collegiate institutions or through current articulations that QCC has. Accreditation occurs through establishing an equivalency between the non-collegiate course and a QCC course. Some examples include CNA certifications and numerous articulations with the Massachusetts Firefighting Academy. Program restrictions may apply.

BYU Flats: The Brigham Young University (BYU) Foreign Language Achievement Testing Services (FLATS) provides students who receive a passing score, the opportunity to receive up to 12 credit hours in a foreign language. The FLATS are offered in over 50 languages.

Seal of Biliteracy: Students who have earned the State's Seal of Biliteracy or Seal of Biliteracy with Distinction on their high school transcript may receive 9 to12 credits of foreign language credit.

Portfolio Assessment: Based on experience, students may be approved to create a portfolio to document their skills and competencies attained through non-collegiate training and/or work experience. This documentation is reviewed and evaluated by a QCC faculty member who measures demonstrated learning outcomes against established academic standards. Program restrictions may apply.

Advanced Placement (AP): QCC awards credit to students who score three or higher on the Advanced Placement (AP) examinations, administered by the College Board. The Official Grade Report must be provided by the College Board and submitted to the Center for Career and Transfer Services.

Challenge Examinations: These examinations enable students to earn credit for courses listed in the QCC Catalog by taking a test developed and administered by a QCC faculty member. Generally, a student may not request a Challenge Examination when other proficiency examinations, such as the College Level Examination Program (CLEP) or the DANTES Subject Standardized Test (DSST), are available, or to replace a failed course or to raise a low grade. Program restrictions may apply.

College Level Examination Program (CLEP): QCC has standing articulations for most CLEP exams and will award academic credit to students who achieve scores at or above the 50th percentile. CLEP examinations are offered in English, humanities, mathematics, and social science/history. A maximum of 32 credits will be awarded for all of the general exams, if the appropriate score is achieved. Students must provide the official CLEP transcript to the Center for Career and Transfer Services. Program restrictions may apply.

DANTES Subject Standardized Test (DSST): QCC has standing articulations in place for most DSST exams and will award academic credit to students who achieve scores at or above the 50th percentile on the DSST exam, administered through Educational Testing Service (ETS), which covers a wide range of technical, business and academic subjects. Students must provide an official DSST transcript to Center for Career and Transfer Services. Program restrictions apply.

College Credit for Military Coursework, Training and Experience Policy

QCC awards academic credit towards degrees and certificates for a student's previous military training, coursework and experiences, based upon the institution's admission standards, the student's program of study, and consistency with the mission of the Commonwealth's system of higher education through the American Council on Education's (ACE) evaluation of the Joint Service Transcript (JST). Students who attended the Community College of the Air Force should bring official transcripts to the Registrar's Office for evaluation.

Assessment of Student Learning

QCC employs the traditional practice for assessment of student learning wherein the quantity of learning is measured by the number of credits (semester hours) earned, and its quality is recognized by an award of a grade for the learning experience. The design of this College practice shall be, so far as practicable, responsive to the needs of students enrolled in a course or program. The status of the student in a program shall be determined by accumulated course grades earned.

Grading Policy

1. The grading policy shall be in conformity with the College mission of access and quality.
2. Grades shall be awarded only for demonstrated student learning.
3. Program goals shall be achieved through successful completion of established learning outcomes of educational experiences in the program.
4. Learning outcomes of educational experiences shall constitute the basis for assessing student learning.
5. The criteria for assessing learning outcomes shall be as objective as possible.

Grading System

The individual faculty member may determine what numerical equivalent, if any, to assign to the various grade designations. Faculty may use an absolute numerical value or they may grade on the class average. The following table indicates recommended but non-mandatory numerical/letter equivalents for awarding grades. Note: The quality point for each letter grade is College-wide policy, not merely recommended as a guideline:

Academic	Grades	Quality	Points
A	95-100	Outstanding	4.00
A-	90-94		3.70
B+	87-89		3.30
B	83-86	High Quality	3.00
B-	80-82		2.70
C+	77-79		2.30
C	73-76	Average	2.00
C-	70-72		1.70
D+	67-69		1.30
D	63-66		1.00
D-	60-62		0.70
F	Failed		0.00

The status of the student may also be indicated by the following designations which will not be computed in the QPA.

- **"I"** - The student has satisfied the major requirements of the learning experience, as judged by the instructor, and can complete the assigned work by the end of the 12th week of the following full semester.
- **"I/R"** - The student has agreed to repeat the course within the following year. Not computed in the QPA until converted to an academic grade.
- **"AU"** - The student is registered in the learning experience as an audit student. Not computed in the QPA.
- **"W"** - The student has officially withdrawn on his or her own from the learning experience. Not computed in the QPA.
- **"WA"** - The student has been withdrawn administratively for failure to fulfill financial or immunization obligations or for medical or disciplinary circumstances. Not computed in the QPA.
- **"X"** - The student has not officially withdrawn from the learning experience, and the instructor has judged there is insufficient basis for evaluation. The "X" grade is considered an indication of unsatisfactory academic progress for financial aid purposes.
- **"P"** - The student has satisfactorily completed the learning experience with a "C" grade or higher. Not computed in the QPA but computed in credits attempted.
- **"Q"** - The student has registered for a course with a laboratory or clinical component and the grade is reflected in the overall course grade.

Grading Regulations

1. The letter grades "A", "B", "C", "D", and "F" shall be awarded for learning outcomes for an educational experience achieved through alternate delivery systems only if a QCC faculty member is responsible for the entire experience. The letter grade of "P" shall be awarded for acceptable learning outcomes for a prior learning experience.
2. The grade of "I" will be converted to an academic grade by the end of the 12th week of the following full semester. Students who have not completed the course requirements by the end of the 12th week will have the course grade changed to "F".
3. When a grade of "I" is issued, the instructor will indicate on the In Progress/Incomplete Grade form which assignments will remedy the deficiency, or that the course is to be repeated (I/R). This form will be filled out on The Q by the instructor. The Registrar's Office will forward a copy of the from to the student when the grade is updated to an Incomplete (I) or Incomplete Repeat (I/R).
4. When a grade of "I/R" is issued and the course is not repeated successfully within the following year, the grade of "I/R" will be converted to an academic grade of "F".
5. If an instructor wishes to use "P" instead of "A", "B", or "C" as a final grade, he or she must receive written permission from the Vice President of Academic Affairs before the beginning of the semester.
6. Instructors' course requirements, expected learning outcomes, methods of evaluation, and attendance policy will be published in writing and will be submitted to students by the end of the first week, or equivalent, of class.
7. Evaluation of the student learning will be made according to the instructor's stated learning outcomes.
8. Auditors do not receive official grades on examinations or other class assignments, although they may be asked to fulfill all course requirements. No change to or from audit status will be permitted after the first 10 weeks of class (or equivalent class hours).
9. If a course is repeated, only one grade will be used in computation of the QPA. However, both the original and the second grade earned will remain on the student's permanent record.
10. Students may add or drop courses during the Add/Drop Period, in accordance with the established procedure. The Add/Drop Period is posted on the Academic Calendar.
11. A student may withdraw without penalty through the 10th week (or equivalent) of class. Thereafter, if a student withdraws from a course, the instructor may award a "W" if work is passing or an "F" if work is not of passing quality. Students withdrawing from the College are included under this regulation.
12. A student intending to withdraw from a course after the Add/Drop Period must initiate the process before the last day of the term as follows:
    a. After the add/drop period but before the 10th week (or equivalent) of class, the student must complete the online Withdrawal Request Form found on the Registrar's page on *The Q*. The Registrar's Office will process the course withdrawal with a grade of "W" within 24-48 business hours. The student must be logged into *The Q* to submit the form.
    b. After the 10th week (or equivalent) of class, the student must complete the online Withdrawal Request Form found on the Registrar's page on *The Q*. The Registrar's Office

will work with the instructor to determine if the student withdrew while passing or withdrew while failing. A grade "W" or "F" will be assigned. The student must be logged into *The Q* to submit the form.

13. Any student in an educational or vocational training institution who is unable because of his or her religious beliefs to attend class 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 that he or she may have missed because of such absence on any particular day; provided, however, that such a makeup examination or work shall not create an unreasonable burden on such school. The institution, for making available to the said student such opportunity, shall charge no fees of any kind. No adverse or prejudicial effects shall result to the student because of his or her availing himself or herself of the provisions of this section. (Section 2bn, Chapter 151C, Massachusetts General Law).

Academic Dismissal and Probation

All students matriculating in an associate degree or certificate program, other than first semester freshmen (cumulatively enrolled for under 17 credits), must meet the following requirements:

Attempted Credit Hours	Dismissal	Probation
17 to 32	QPA under 1.50	QPA 1.50-1.69
over 32	QPA under 1.70	QPA 1.70-1.89

First semester freshmen (cumulatively enrolled for under 17 credits) who do not meet a minimum QPA of 1.00 will be put on academic probation. Academic probation and dismissal will occur on the basis of the cumulative Grade Point Average (GPA). Only courses in which "W" grades or audits are received will not count in determining full-time and part-time enrolled status. Students who are on probation for two successive semesters are subject to academic dismissal. Academic probation/dismissal will not apply to Intersession and Summer sessions. All dismissals are subject to review by the Vice President of Academic Affairs.

Students who are academically dismissed from the College may qualify for reinstatement by the following methods:

- Attending courses as a non-matriculating student, improving their QPA to the minimal acceptable level, and earning a minimum of six credit hours.
- Remaining away for one year.
- Petitioning the Vice President of Academic Affairs for reinstatement.

Academic Standing

"Satisfactory Academic Standing" and "Satisfactory Academic Progress" are synonymous with meeting the standards outlined in Item 2 of Academic Dismissal and Probation. Students on academic probation for one semester meet minimum requirements for good academic standing and satisfactory progress, but if they are on a dismissal status, they will be deemed as not meeting the minimum requirements.

A QPA of 2.00 is the minimal level for graduating in any associate degree or certificate program.

Appeal of Academic Dismissal

1. Any student who is academically dismissed may appeal his or her case to the Vice President of Academic Affairs.
2. The student is mailed directions along with the dismissal notice instructing him or her to make an appointment to meet with the High Risk Advisor to discuss strategies to raise his or her cumulative average. The student is required to complete an Appeal Form that states the circumstances involved in the dismissal and the recommendations of the High Risk Advisor. The appeal is then forwarded to the Vice President of Academic Affairs for his or her decision.
3. The student is then contacted by the High Risk Advisor who informs him or her of the Vice President's decision. If the appeal is approved, he or she is then asked to come in to register for courses in accordance with the appeal form recommendations.
4. Students reinstated through appeal continue on Academic Probation and are subject to the Dismissal/Probation Policy again at the end of the next semester.

Fresh Start Option

QCC has a "fresh start" option for students who are seeking readmission. Once in a lifetime, if a student returns to QCC, after being away for at least two consecutive years, he or she can elect the "fresh start" option. The QPA will be calculated only from the point the student is readmitted for the purposes of the College's academic standing policy. However, the student's previous academic work will remain on his or her transcript as a matter of record. The student's previous coursework can be applied toward another degree under this policy, but will not be calculated in the QPA. The student must complete a minimum of 15 credits in the new program. The student's official transcript will include a statement explaining this "fresh start" option. For additional information, contact the QCC Registrar's Office.

Petition Process

If the student believes there are unusual or extenuating circumstances which justify an exception from an academic regulation (e.g. graduation course requirement), the student can obtain a Student Petition form from the Registrar's page on The Q. After completing the form, it must be returned by email to the Registrar's Office; the form will be forwarded to Academic Affairs for a final decision on the appeal.

Request to Change Study Option

The student can request to change from one associate degree or certificate program to another by completing a Study Option Change Request. This form is available in the QCC Admissions Office (Welcome Center, HLC, 2nd Floor) or in the QCC Advising Center (Welcome Center in the Harrington Learning Center) at QCC Worcester (Main Campus). In order to be approved to change from one academic program to another, the student must meet the minimum academic admissions requirements for the program he or she is requesting to enter.

Course Changes

Students should have their semester course schedule in final form by the end of the registration period. If the student wishes to make a change in his or her schedule, he or she must contact the QCC Registrar's Office or the QCC Advising Center during the Add/Drop Period. However, it may not be possible to accommodate every request for a course or section change.

Please note that under certain circumstances, course modalities may need to be modified to ensure the safety of our campus community and/or the professor's ability to continue instruction and complete courses and academic semesters.

Repeating a Course

If the student repeats a course, only one grade will be used in the computation of the QPA. However, both the original and the second grade earned will remain on the student's permanent record. It is important to note, however, that the College's standards of satisfactory academic progress for federal financial aid requires that the student complete his or her program within 150% of the credits required for that program. Too many repeat courses will have an impact on this requirement. All courses attempted, including withdrawals, are counted toward the 150% calculation.

Progress Reports

During the eighth week of classes each semester, the student's mid-semester progress grades are available on *The Q*, the College's Student and Faculty Portal. Progress grades are intended only as indicators of student progress in specific courses.

Restricted Courses

To ensure the availability of required courses for students enrolled in specific programs, certain courses may be designated as "restricted".

- Restricted courses will be identified by the Vice President of Academic Affairs or designee.
- Admission will be prioritized according to criteria set by the Vice President of Academic Affairs or designee as follows:
  a. Students enrolled in the program.
  b. Students on the related QCC program waiting list; and other students (with the approval of the Vice President of Academic Affairs or designee).

Sequential Courses

In curricula where sequential courses must be arranged in the order of difficulty, the beginning courses will present a basic knowledge of the discipline, including the philosophy, techniques, and terminology as appropriate; and the contents of the succeeding courses will be based upon that knowledge. A course prerequisite will be established when a body of knowledge or skills level is necessary for a sequential course.

- Any student registered for a course for which he or she does not have the listed prerequisite will be withdrawn from that course.
- The School Dean or a designee will place the incoming student at the appropriate academic level according to his or her demonstrated performance or achievement.
- In sequential courses, where the first semester course is a prerequisite for the second semester course, a student receiving a 12 week "I" must petition the appropriate School Dean for admittance to the sequential course.
- If a student has achieved Advanced Placement (AP) and wishes credit for previously acquired skills in that subject, he or she must apply to Career Services & Credit for Prior Learning (Room 272, Administration Building) at QCC Worcester (Main Campus) for credit prior to completion of the course.

- A matriculating student who has earned credit in a course with a prerequisite may not subsequently enroll in or receive a grade in the prerequisite course.
- The School Dean or designee will annually review course sequencing and prerequisites to assure their continuing validity.

Withdrawal From the College

To officially withdraw from the College, the student must initiate the process by completing the online Withdrawal Request form on *The Q* by selecting the option to withdraw from all enrolled courses for the semester. If the student withdraws after the 10th week or equivalent and before the final evaluation period, he or she will receive grades from his or her instructors in accordance with the College's grading policy.

If the student has to withdraw due to medical reasons, he or she should make a request for information to the Vice President for Enrollment Management, Student Engagement and Community Connections (Room 133, Administration Building) at QCC Worcester (Main Campus). The Vice President will consult with appropriate personnel at the College, as well as the medical services provider of the student. After consultation, he or she will inform the student of the decision. If circumstances warrant, a process for future readmission will also be communicated.

If the student is receiving financial aid, he or she is advised to consult with the QCC Financial Aid Office (Welcome Center on the 2nd floor of the Harrington Learning Center) at QCC Worcester (Main Campus) prior to withdrawal. Financial aid may be reduced and future eligibility could be impacted as a result of withdrawal from the College, or individual course withdrawal.

Student Honors

QCC recognizes the academic achievement of its students each semester. Students who meet the following criteria are eligible for recognition:

- All grades must be "C" or higher. (No grades of "I" or "X" are permitted).
- Semester QPA must be 3.50 or higher, and cumulative QPA must be 2.00 or higher.
- All courses must be college level.

Dean's List: Students who meet the stated criteria and have earned 12 or more credits in a given semester are named to the Dean's List.

Merit List: Students who meet the stated criteria and have earned six or more credits in a given semester, but fewer than 12 credits, are named to the Merit List. Individual honors are noted on the student's transcript each semester.

Phi Theta Kappa (PTK): The mission of PTK is to recognize academic achievement of college students and to provide opportunities for them to grow as scholars and leaders. Its purpose is to recognize and encourage fellowship and scholarship, leadership, and service among two-year college students. Each Spring, a limited number of students who have distinguished themselves at QCC are inducted into membership. QCC's Chapter, Alpha Zeta Theta, invites twice a year – once in the Fall semester and once in the Spring semester. Students who meet the criteria and have earned 12 college credits at QCC, and also have a cumulative GPA of 3.50, will receive this invitation. The Alpha Zeta Theta Chapter is located in the QCC PTK Office, Room B57A, Administration Building on QCC's Worcester (Main Campus).

Who's Who Among Students in American Community and Junior Colleges (Who's Who): This is one of the most highly regarded honors programs in the nation, earning the respect of college faculty and administrators. Recognition as one of the outstanding campus leaders in America is a major achievement. Each year, several QCC students are named to Who's Who.

Graduation Honors: Each May at graduation, QCC honors students for their outstanding academic achievement. Students with a QPA of at least 3.60 prior to graduation qualify for Highest Honors. Students with a QPA of 3.30 or 3.00 prior to graduation qualify for High Honors, or Honors, respectively.

Human Services Honor Society: QCC sponsors a local chapter of the National Organization for Human Services Honor Society, a national honor society in human services for community and junior colleges. The purpose of the Human Services Honor Society is to honor academic excellence; to foster lifelong learning, leadership and development; and to promote excellence in service to humanity.

Psi Beta: The QCC Psychology Department sponsors a local Chapter of Psi Beta, a national honor society in psychology for community colleges. Psi Beta's mission is to encourage professional development and psychological literacy of all students at two-year colleges through promotion and recognition of excellence in scholarship, leadership, research, and community service (Psi Beta, 2019). Our chapter regularly meets along with the Psychology Club and provides a variety of opportunities for engaging with psychology, including conducting original research, presenting at professional conferences, hosting a guest lecture series, community service, and fundraising for various community initiatives. Members of Psi Beta are recognized for

their academic excellence and are eligible to win Psi Beta awards and scholarships. For additional information, contact Dr. Valarie Clemente at vclemente@qcc.mass.edu.

Commonwealth Honors Program

QCC's Commonwealth Honors Program offers highly motivated and academically determined students an opportunity to develop their fullest potential. The Program seeks to awaken and nurture a sense of humane citizenry and community responsibility within its members. The Honors Program at QCC is the ultimate college experience. Honors courses offer the students alternative learning opportunities to enhance critical thinking skills and to better prepare students to continue their studies at colleges and universities throughout Massachusetts and the country.

Honors Program Curriculum of Study

Four honors classes in total (students can take more):

- ENG 102, honors section (strongly recommended)
- IDS 200 Honors Colloquium (required)
- One course from the honors course offerings
- One course - honors section or honors by contract from the student's program of study

Students must obtain a grade of "B" or higher in each honors course taken to satisfy the Honors Program requirements.

Students who complete the Honors Program requirements (four classes in total, one of which must include IDS 200), and graduate with an overall QPA of 3.30 or higher, will graduate as a Commonwealth Honors Scholar, noted on their transcript.

Admission to the Commonwealth Honors Program

To be admitted to QCC's Commonwealth Honors Program, a student must meet at least one of the following criteria:

- Current QCC students: Cumulative GPA of 3.50 (progress or final grades).
- New QCC students: High School GPA of 3.7-4.0 and placement into ENG 101, and a recommended placement of MAT 100.
- Transfer students: In good standing from another Commonwealth Honors Program.

A student who does not meet one of the above automatic admissions criteria may apply to the Honors Program Coordinator, providing other evidence of academic success, including recommendations from high school or college faculty.

To remain in good standing, and for QCC's Honors Program to be recognized as a Commonwealth Honors Program, all students, once accepted into the Honors Program, must maintain a cumulative GPA of no less than 3.30.

The Honors Program at QCC is proud to be approved by the Massachusetts Department of Higher Education as a Commonwealth Honors Program. We are part of an integrated, collaborative system-wide network of honors programs in Massachusetts public higher education.

All potential Honors students must meet with the Honors Program Coordinator. For additional information, contact Professor Jean Kennedy-honors@qcc.mass.edu or 508.854.2744.

Career Exploration

Students can take an online Career Assessment through Career Coach to determine their strengths, then browse through occupations compatible with their interests and assessment results. To access the online assessment and for more information about particular careers and related academic programs at QCC, visit www.QCC.edu/career-assessment.

Academic Programs and Work Areas by School

School of Business, Computing, & Applied Technologies	
Dean: 210A | Box: 47 | Ext: 2798	Admin Assistant: 208A | Box: 47 | Ext: 4597
Automotive Technology	
Business Administration & Related Programs	
Computer Information Systems	
Computer Science	
Computer Systems Engineering Technology	
Dietary Management Certificate	
Electronics Engineering Technology	
Engineering and Biomedical Engineering	
Heating Ventilation Air Conditioning Certificate	
Hospitality & Recreation Management (Includes Culinary Arts Certificate)	
Interactive Media	
Manufacturing Technology	
Utility Technology Certificate	

School of Healthcare	
Dean: 333D / 419A | Box: D-2 /21 | Ext: 7942	Admin Assistant: 321D | Box: D-2 / 21 | Ext: 4268
Dental Assisting (Includes Healthcare - Medical Sales/ Marketing Option)	
Dental Hygiene (Includes Healthcare - Pre-Dental Hygiene Option)	
Fire Science	
Healthcare - Practical Nursing	
Healthcare - Pre-Nursing	
Nurse Education	
Nurse Education - Advanced Placement	
Practical Nursing	
Practical Nursing - Evening	

School of Healthcare	
Assistant Dean: 261D | Box: D-2 /21 | Ext: 4531	Admin Assistant: 321D | Box: D-2 / 21 | Ext: 4268
Computed Tomography Certificate	
Emergency Medical Services and Paramedicine	
First Year Experience (Healthcare Focus)	
Health Certificates	
Healthcare	
Medical Support Specialist (Includes Healthcare - Medical Office Management Option)	
Occupational Therapy	
Public Health (Includes Healthcare - Public Health Option)	
Radiologic Technology	
Respiratory Care	
Surgical Technology	

School of English & Humanities	
Dean: 201A | Box: 36 | Ext: 7515	Admin Assistant: 203A | Box: 36 | Ext: 4369
Deaf Studies (Includes General Studies - Deaf Studies Option)	
Developmental English Work Area	
English Work Area (Includes Liberal Arts - English Option)	
English as a Second Language Work Area	
Humanities Work Area	
Liberal Arts	
Media Communications (Includes Liberal Arts - Media Communications Option)	
Music (Includes Liberal Arts - Music Option)	
Speech Work Area	
Theater (Includes Liberal Arts - Theater Option)	

School of Math, Science, & Engineering	
Dean: 213A | Box: 37 | Ext: 2835	Admin Assistant: 211A | Box: 37 | Ext: 2783
Astronomy Work Area	
Biology (Includes Liberal Arts - Biology Option)	
Biotechnology (Includes General Studies - Biotechnology Option)	
Chemistry (Includes Liberal Arts - Chemistry Option)	
Engineering and Biomedical Engineering	
Environmental Science (Includes Liberal Arts - Environmental Science Option)	
Healthcare Biology Work Area	
Liberal Arts - Mathematics Option	
Mathematics Work Area	
Natural Sciences Work Area	
Physics Work Area	
Pre-Pharmacy (Includes General Studies - Pre-Pharmacy Option)	

School of Public Service, Education & Social Sciences	
Dean: 215A | Box: 40 | Ext: 4324	Admin Assistant: 212A | Box: 40 | Ext: 4307
Criminal Justice	
Direct Support Certificate	
Early Childhood Education	
Elementary Education (Includes General Studies - Elementary Education Transfer Option)	
First Year Experience	
General Studies	
History (Includes Liberal Arts - History Option)	
Human Services	
Psychology Work Area (Includes Liberal Arts - Psychology Option)	
Social Sciences Work Area	
Sociology Work Area (Includes Liberal Arts - Sociology Option)	

Areas of Study

Quinsigamond Community College has nine areas of study. Selecting an area of study helps students choose a major and a degree based on their interests, knowledge, skills, and abilities.

Applied Technologies

Automation Robotics Manufacturing Technology Certificate (ARMTech) — ARM 52
EET - Biomedical Instrumentation Option — EEBI 54
EET - Electronics Technology Certificate — CE 57
EET - Mechatronics Option — EEMO 59
EET - Photonics Certificate — CP 62
EET - Photonics Option — EEPH 64
Manufacturing Technology — MP 67
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The following information applies to page 51 and provides students with an overview of how programs of study are displayed:

"1" Semesters are groupings of courses that generally need to be completed before proceeding to the courses listed in the next Semester. For example, ACC 101 in Semester 1 needs to be completed before enrolling in ACC 102 in Semester 2.

"2" Course Title refers to the official "Title" or the "Name" of each course.

"3" Course # (or Number) refers to the three-letter prefix and accompanying number that reflect how courses are listed in the course schedule booklet, as well as in the College's catalog. In individual program grids, within each semester, course listings are usually first arranged in alphabetical order using the three-letter prefix; within the same alpha listing, courses are then usually listed in ascending numerical order (may vary by program).

"4" Semester Offered refers to the semester in which the course is typically offered. For example, **"F"** refers to the Fall semester, **"S"** refers to the Spring semester, and **"SU"** refers to the Summer session(s).

"5" Credits refers to the actual number of credits associated with each course.

"6" Total (Semester Credits) indicates the total number of credits intended to be taken in a particular semester.

"7" Total Credits Required refers to the total number of credits required to complete the program and for graduation.

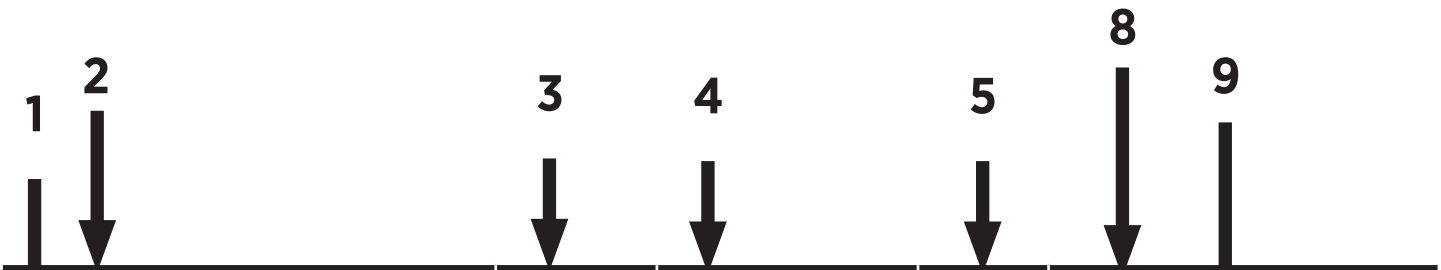
"8" Prerequisites refers to any course(s) that must be completed before enrolling in the course in question. The abbreviation **Coreq (for Corequisite)** indicates specific course(s) that must be taken at the same time as the course in question. Sometimes it is permissible to take a corequisite course in advance of enrolling in the course in question.

"9" Milestones summarizes the academic and career readiness information needed for the program. Certain programs have longer introductory pages that provide additional program information.

Program Code refers to the assigned code or designation that is used to identify each associate degree or certificate program.

In addition to the general admissions requirements, some programs have program-specific admissions requirements; for detailed information on program-specific requirements, see the Program Admissions Requirements section in the informational introduction to the specific program.

For specific admissions requirements to the healthcare programs, see the Program Admissions Requirements section in the informational introduction to the specific healthcare program.



Semester 1

- Apply and get accepted to this program (Program Code: ACC).
- Register for and successfully complete all courses to graduate in three semesters.
- Meet with Academic Advisor to discuss associate degree (Program Code: BB for career goal; or Program Code: BT for transfer goal).

Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Principles of Macroeconomics	ECO 215	F/S/SU	3	Coreq: ENG
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		Total	**12**	

Semester 2

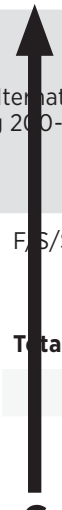
- Apply to associate degree (Program Code: BB for career goal; or Program Code: BT for transfer goal).
- ACC 231 strongly recommended for career goal (Program Code: BB); ECO 216 required for transfer goal (Program Code: BT).
- For the ACC Program Specific Elective, for career goal or transfer goal, choose any one of the following courses not already selected: ACC 211, ACC 225, ACC 231, BSL 101, ECO 216, FIN 111, FIN 221, or FIN 250.
- For the ACC Program Specific Elective (200-level), for career goal or transfer goal, choose any one of the following 200-level courses not already selected: ACC 211, ACC 225, ACC 231, ECO 216, FIN 221, or FIN 250.

Financial Accounting II	ACC 102	F/S/SU	3	ACC 101, CIS 111
Computerized Accounting **OR**	ACC 231	F/S	3	ACC 101, CIS 111
Principles of Microeconomics	ECO 216	F/S/SU		Coreq: ENG 101
ACC Program Specific Elective	---	F/S/SU	3	
ACC Program Specific Elective (200-level)	---	F/S/SU	3-4	
		Total	**12-13**	

Semester 3

- ACC 222 required for transfer goal (Program Code: BT); alternatively, for ACC Program Specific Elective (200-level), for career goal (Program Code: BB), choose any one of the following 200-level courses not already selected: ACC 211, ACC 225, ACC 231, ECO 216, FIN 221, or FIN 250.
- Submit an Intent to Graduate Form, located on *The Q.*

Managerial Accounting **OR**	ACC 222	F/S/SU	3	ACC 102
ACC Program Specific Elective (200-level)	---			
		Total	**3**	
Total Credits Required:			**27-28**	



CERTIFICATE - ARM

Automation Robotics Manufacturing Technology Certificate (ARMTech)

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Manufacturing Technology
- Electronics Engineering Technology - Mechatronics Option

Location

- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The primary goal of the QCC Automation Robotics Manufacturing Technology Certificate (ARMTech) program is to provide a pathway to entry-level positions in local industries that require practical hands-on assembly, troubleshooting and repair skills in electric circuits, mechanical systems, electronics, automated systems, and/or robotics. The secondary goal of the ARMTech Certificate program is to prepare students to continue their education toward an associate degree in order to expand and enhance their career options and earning potential. The QCC ARMTech Certificate program is fully stackable into the QCC Electronics Engineering Technology - Mechatronics Option associate degree program, and partially stackable into the QCC Manufacturing Technology associate degree program; all of the credits earned in the certificate program are part of the Electronics Engineering Technology - Mechatronics Option associate degree program, and most of the credits are part of the Manufacturing Technology associate degree program.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Given schematics, wiring diagrams, mechanical drawings, and/or instructions, build and test electrical, electronic and electronically-controlled systems.
- Use multimeters, oscilloscopes, power supplies, and function generators to analyze and troubleshoot circuits.
- Assemble electrical and electronic systems using proper soldering and wiring techniques.
- Wire, test, program, and troubleshoot basic programmable logic controller systems.
- Program, test, and troubleshoot basic robotic systems.
- Monitor and repair basic mechanical systems; perform preventative maintenance procedures.
- Perform precision measurement and calibration of mechanical systems.
- Build, monitor and troubleshoot pneumatic and hydraulic systems.
- Apply the principles of mathematics to measure, quantify, and analyze electrical and mechanical systems.
- Use a word processor to write reports and create documentation; use a spreadsheet to record, calculate, and display data.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI/SORI, Fingerprinting & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 15.0406.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: electronics@qcc.mass.edu

Course Title	Course #	Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: ARM). • Register for and successfully complete all courses to graduate in two semesters. • Meet with Academic Advisor to discuss associate degree (Program Code: EEMO, MP); or create an account on the QCC job board to search for internships, co-ops and jobs.				
DC and AC Circuits	ELT 103	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Digital Circuits	ELT 121	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Quality	MNT 106	S	3	
Basic Machine Operation	MNT 108	F/S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
		Total	**14**	
Semester 2 • Apply to associate degree (Program Code: EEMO, MP); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
Introduction to Programmable Logic Controllers	ELM 257	F/S	4	ELT 103
Mechatronic Systems	ELM 258	F/S	4	Coreq: ELM 257
Industrial Robotics	ELM 260	F/S	4	ELT 121 or MNT 115
Maintenance and Instrumentation in Manufacturing	MNT 115	S	3	
		Total	**15**	
Total Credits Required			**29**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - EEBI

Electronics Engineering Technology - Biomedical Instrumentation Option

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Electronics Engineering Technology - Photonics Certificate
- Electronics Engineering Technology - Electronics Technology Certificate

Location

- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Electronics Engineering Technology - Biomedical Instrumentation Option prepares students to enter the workforce as an essential member of a medical organization - calibrating, troubleshooting, and maintaining the electronic instrumentation equipment that is vital to today's technology-driven healthcare industry. Graduates may also continue their education toward a bachelor's degree in engineering technology.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Given schematics, wiring diagrams, mechanical drawings, and/or instructions, build and test electronic and electronically-controlled systems.
- Use multimeters, oscilloscopes, power supplies, and function generators to analyze and troubleshoot circuits.
- Apply the concepts and methods of mathematics to the solution of technical problems.
- Apply the concepts of physics to the solution of technical problems.
- Assemble electronic systems using proper soldering and wiring techniques.
- Communicate effectively verbally and in writing.
- Write technical reports using a word processor.
- Collect, sort, and analyze data using a spreadsheet.
- Troubleshoot and configure computer networks.
- Work effectively as a member of a team toward the solution of problems.
- Demonstrate an understanding of human anatomy, especially as it relates to biomedical instrumentation.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required of students enrolled in EET 299. Fingerprinting and drug testing may be required of students enrolled in EET 299.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 15.0303.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: electronics@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: EEBI). • Register for and successfully complete all courses to graduate in four semesters. • Complete ELT 103 and ELT 121. • Complete ENG 101. • MAT 147 and MAT 148 recommended if primary goal is employment; MAT 123 and MAT 124 recommended for transfer.				
Windows Client Operating Systems	CSC 141	F/S/SU	4	
DC and AC Circuits	ELT 103	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Digital Circuits	ELT 121	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition I	ENG 101	F/S/SU	3	Placement into college level English
College Mathematics I: Pre-Calculus **OR**	MAT 123	F/S/SU	3-4	MAT 100 or approp place score
Mathematics for Technicians I	MAT 147	F/SU		MAT 095 with a grade of "C" or higher or QMAT placement score > 21
		Total	**18-19**	
Semester 2 • Meet with Career Services to discuss the co-op process and leads for co-op placements. • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete ELT 104 and ELT 130.				
Networking Technologies	CSC 234	F/S/SU	4	Coreq: CSC 141
Electronic Devices	ELT 104	F/S	4	ELT 103
Embedded Microcontrollers	ELT 130	F/S	4	ELT 103, ELT 121
College Mathematics II: Trigonometry **OR**	MAT 124	F/S/SU	3-4	MAT 123 or approp place score
Mathematics for Technicians II	MAT 148	S/SU		MAT 147
		Total	**15-16**	
Semester 3 • Meet with Program Coordinator to discuss readiness for EET 299. • Students must take ELM 257 as one of the Program Electives in either Semester 3 or Semester 4. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for EET 299). See www.QCC.edu/career-services. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete ENG 102 or ENG 105; ENG 105 recommended if primary goal is employment after graduation.				
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Instrumentation and Control Technology	ELM 251	F/S	4	ELT 104, ELT 121
Composition II **OR**	ENG 102	F/S/SU	3	ENG 101
Technical Writing	ENG 105	F/S		

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Physics I	PHY 101	F/SU	4	MAT 148 or Coreq: MAT 124
ELT or ELM Program Elective	---	F/S/SU	4	
		Total	**15**	
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete EET 299 (with Program Coordinator approval). • Submit an Intent to Graduate Form, located on *The Q.*				
Principles of Human Biology	BIO 100	F/S/SU	4	Placement into college level English
Cooperative Work Experience	EET 299	F/S/SU	3	CPS 298, Approval of Program Coordinator
Mechatronic Systems	ELM 258	F/S	4	Coreq: ELM 257
ELT or ELM Program Elective	---	F/S/SU	4	
Social Science Elective	---	F/S/SU	3	
		Total	**18**	
Total Credits Required:			**66-68**	

For information on electives, see p. 373-374.

CERTIFICATE - CE

Electronics Engineering Technology - Electronics Technology Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Electronics Engineering Technology - Photonics Option
- Electronics Engineering Technology - Mechatronics Option
- Electronics Engineering Technology - Biomedical Instrumentation Option

Location

- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Electronics Technology Certificate prepares students for entry-level positions in the field of electronics. Students also build a foundation of core electronics skills and knowledge that form the basis for further study in electronics, mechatronics, photonics, or biomedical instrumentation.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Given schematics, wiring diagrams, mechanical drawings, and/or instructions, build and test electronic and electronically-controlled systems.
- Use multimeters, oscilloscopes, power supplies, and function generators to analyze and troubleshoot circuits.
- Use algebra to analyze and solve problems involving electrical and electronic circuits.
- Assemble electronic systems using proper soldering and wiring techniques.
- Communicate effectively verbally and in writing.
- Write technical reports using a word processor.
- Collect, sort, and analyze data using a spreadsheet.
- Work effectively as a member of a team toward the solution of problems.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 15.0303.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: electronics@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: CE). • Register for and successfully complete all courses to graduate in two semesters. • Meet with Academic Advisor to discuss associate degree (Program Code: EEBI, EEMO, EEPH); or create an account on the QCC job board to search for internships, co-ops and jobs.				
DC and AC Circuits	ELT 103	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Digital Circuits	ELT 121	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition I	ENG 101	F/S/SU	3	Placement into college level English
College Mathematics I: Pre-Calculus **OR**	MAT 123	F/S/SU	3-4	MAT 100 or approp place score
Mathematics for Technicians I	MAT 147	F/SU		MAT 095 with a grade of "C" or higher or QMAT placement score > 21
		Total	**14-15**	
Semester 2 • Apply to associate degree (Program Code: EEBI, EEMO, EEPH); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
Windows Client Operating Systems	CSC 141	F/S/SU	4	
Electronic Devices	ELT 104	F/S	4	ELT 103
Embedded Microcontrollers	ELT 130	F/S	4	ELT 103, ELT 121
Technical Writing	ENG 105	F/S	3	ENG 101
		Total	**15**	
Total Credits Required:			**29-30**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - EEMO

Electronics Engineering Technology - Mechatronics Option

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Electronics Engineering Technology - Photonics Certificate
- Electronics Engineering Technology - Electronics Technology Certificate
- Automation Robotics Manufacturing Technology Certificate (ARMTech)

Location

- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The goal of the Electronics Engineering Technology - Mechatronics Option is to prepare students for careers as mechatronics technicians. Mechatronics technicians install, maintain, troubleshoot, and repair a wide range of computer-driven automated equipment and/or robotic systems. They must understand basic electronics, mechanics, computer interfacing, and software. These skills are vital to the success of advanced manufacturing.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Given schematics, wiring diagrams, mechanical drawings, and/or instructions, build and test electronic and electronically-controlled systems.
- Use multimeters, oscilloscopes, power supplies, and function generators to analyze and troubleshoot circuits.
- Apply the concepts and methods of mathematics to the solution of technical problems.
- Assemble electronic systems using proper soldering and wiring techniques.
- Communicate effectively verbally and in writing.
- Write technical reports using a word processor.
- Collect, sort, and analyze data using a spreadsheet.
- Monitor and repair basic mechanical systems and perform preventative maintenance procedures.
- Perform precision measurement and calibration of mechanical systems.
- Build, monitor and troubleshoot pneumatic and hydraulic systems.
- Work effectively as a member of a team toward the solution of problems.
- Wire, test, and program basic programmable logic controller systems.
- Troubleshoot and repair basic mechatronic systems.
- Program and troubleshoot basic robotic systems.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required of students enrolled in EET 299. Fingerprinting and drug testing may be required of students enrolled in EET 299.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 15.0407.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: electronics@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: EEMO). • Register for and successfully complete all courses to graduate in four semesters. • Complete ELT 103 and ELT 121. • Complete ENG 101. • MAT 147 and MAT 148 recommended if primary goal is employment; MAT 123 and MAT 124 recommended for transfer.				
DC and AC Circuits	ELT 103	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Digital Circuits	ELT 121	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition I	ENG 101	F/S/SU	3	Placement into college level English
College Mathematics I: Pre-Calculus **OR**	MAT 123	F/S/SU	3-4	MAT 100 or approp place score
Mathematics for Technicians I	MAT 147	F/SU		MAT 095 with a grade of "C" or higher or QMAT placement score > 21
		Total	**14-15**	
Semester 2 • Meet with Career Services to discuss the co-op process and leads for co-op placements. • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete ELT 104. • Complete ENG 102 or ENG 105; ENG 105 recommended if primary goal is employment after graduation.				
Introduction to Programmable Logic Controllers	ELM 257	F/S	4	ELT 103
Electronic Devices	ELT 104	F/S	4	ELT 103
Composition II **OR**	ENG 102	F/S/SU	3	ENG 101
Technical Writing	ENG 105	F/S		
College Mathematics II: Trigonometry **OR**	MAT 124	F/S/SU	3-4	MAT 123 or approp place score
Mathematics for Technicians II	MAT 148	S/SU		MAT 147
Maintenance and Instrumentation in Manufacturing	MNT 115	S	3	
		Total	**17-18**	
Semester 3 • For the Lab Science Elective, PHY 101 recommended for students intending to transfer. • Meet with Program Coordinator to discuss readiness for EET 299. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for EET 299). See www.QCC.edu/career-services. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete ELT 130.				

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Instrumentation and Control Technology	ELM 251	F/S	4	ELT 104, ELT 121
Embedded Microcontrollers **OR**	ELT 130	F/S	3-4	ELT 103, ELT 121
Quality	MNT 106	S		
Basic Machine Operation	MNT 108	F/S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Lab Science Elective	---	F/S/SU	4	
		Total	**14-15**	
Semester 4 • For the Liberal Arts Elective, SPH 101 recommended. • For the Social Science Elective, PSY 118 recommended. • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete EET 299 (with Program Coordinator approval). • Submit an Intent to Graduate Form, located on *The Q.*				
Cooperative Work Experience	EET 299	F/S/SU	3	CPS 298, Approval of Program Coordinator
Mechatronic Systems	ELM 258	F/S	4	Coreq: ELM 257
Industrial Robotics	ELM 260	F/S	4	ELT 121 or MNT 115
Liberal Arts Elective	---	F/S/SU	3-4	
Social Science Elective	---	F/S/SU	3	
		Total	**17-18**	
Total Credits Required:			**62-66**	

CERTIFICATE - CP

Electronics Engineering Technology - Photonics Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Electronics Engineering Technology - Photonics Option
- Electronics Engineering Technology - Mechatronics Option
- Electronics Engineering Technology - Biomedical Instrumentation Option

Location

- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The primary goal of the Photonics Certificate is to provide students an educational pathway to high-wage, high-tech jobs in areas such as manufacturing, telecommunications, medical devices and systems, security systems, clean energy systems, and research throughout Central Massachusetts. A secondary goal is to provide employed individuals with opportunities to upgrade and broaden their skills and knowledge, either to become more effective in their current positions or to open new career paths. Students will also build a foundation of knowledge that forms the basis for further study in electronics and photonics.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Given schematics, wiring diagrams, mechanical drawings, and/or instructions, build and test electronic and electronically-controlled systems.
- Use multimeters, oscilloscopes, power supplies, and function generators to analyze and troubleshoot circuits.
- Use algebra to analyze and solve problems involving electrical and electronic circuits.
- Assemble electronic systems using proper soldering and wiring techniques.
- Analyze problems involving photonics applications, and propose and evaluate solutions.
- Demonstrate an understanding of electro-optical systems, such as lasers.
- Troubleshoot and repair electro-optical and photonic systems.
- Communicate effectively verbally and in writing.
- Write technical reports using a word processor.
- Collect, sort, and analyze data using a spreadsheet.
- Work effectively as a member of a team toward the solution of problems.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 15.0304.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: electronics@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: CP). • Register for and successfully complete all courses to graduate in two semesters. • For students wishing to develop CAD skills, MNT 101 recommended. • Meet with Academic Advisor to discuss associate degree (Program Code: EEBI, EEMO, EEPH); or create an account on the QCC job board to search for internships, co-ops and jobs.				
DC and AC Circuits	ELT 103	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Introduction to Photonics	ELT 120	F	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Digital Circuits	ELT 121	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
College Mathematics I: Pre-Calculus **OR**	MAT 123	F/S/SU	3-4	MAT 100 or approp place score
Mathematics for Technicians I **OR**	MAT 147	F/SU		MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Mechanical CAD I	MNT 101	F/S		
		Total	**15-16**	
Semester 2 • Apply to associate degree (Program Code: EEBI, EEMO, EEPH); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
Electronic Devices	ELT 104	F/S	4	ELT 103
Embedded Microcontrollers	ELT 130	F/S	4	ELT 103, ELT 121
Photonics Technology	ELT 222	S	4	ELT 120
		Total	**12**	
Total Credits Required:			**27-28**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - EEPH

Electronics Engineering Technology - Photonics Option

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Electronics Engineering Technology - Photonics Certificate
- Electronics Engineering Technology - Electronics Technology Certificate

Location

- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The goal of the Electronics Engineering Technology - Photonics Option is to prepare students for careers as photonics technicians and/or electronics technicians with photonics experience. Photonics technicians build, test, troubleshoot, and maintain systems involving lasers, fiber optics, and other electro-optical components. This is an exciting, dynamic career field that is projected to grow steadily as new photonics applications are developed to support manufacturing, telecommunications, medical devices and systems, security systems, clean energy systems, research, etc. Students also build a foundation of knowledge that forms the basis for further study in electronics and photonics.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Given schematics, wiring diagrams, mechanical drawings, and/or instructions, build and test electronic and electronically-controlled systems.
- Use multimeters, oscilloscopes, power supplies, and function generators to analyze and troubleshoot circuits.
- Apply the concepts and methods of mathematics to the solution of technical problems.
- Assemble electronic systems using proper soldering and wiring techniques.
- Analyze problems involving photonics applications, and propose and evaluate solutions.
- Demonstrate an understanding of electro-optical systems, such as lasers.
- Troubleshoot and repair electro-optic and photonic systems.
- Troubleshoot and configure computer networks.
- Communicate effectively verbally and in writing.
- Write technical reports using a word processor.
- Collect, sort, and analyze data using a spreadsheet.
- Work effectively as a member of a team toward the solution of problems.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required of students enrolled in EET 299. Fingerprinting and drug testing may be required of students enrolled in EET 299.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 15.0304.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: electronics@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: EEPH). • Register for and successfully complete all courses to graduate in four semesters. • Complete ELT 103 and ELT 121. • Complete ENG 101. • MAT 147 and MAT 148 recommended if primary goal is employment; MAT 123 and MAT 124 recommended for transfer.				
Windows Client Operating Systems	CSC 141	F/S/SU	4	
DC and AC Circuits	ELT 103	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Digital Circuits	ELT 121	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition I	ENG 101	F/S/SU	3	Placement into college level English
College Mathematics I: Pre-Calculus **OR**	MAT 123	F/S/SU	3-4	MAT 100 or approp place score
Mathematics for Technicians I	MAT 147	F/SU		MAT 095 with a grade of "C" or higher or QMAT placement score > 21
		Total	**18-19**	
Semester 2 • Meet with Career Services to discuss the co-op process and leads for co-op placements. • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete ELT 104 and ELT 130.				
Networking Technologies	CSC 234	F/S/SU	4	Coreq: CSC 141
Electronic Devices	ELT 104	F/S	4	ELT 103
Embedded Microcontrollers	ELT 130	F/S	4	ELT 103, ELT 121
College Mathematics II: Trigonometry **OR**	MAT 124	F/S/SU	3-4	MAT 123 or approp place score
Mathematics for Technicians II	MAT 148	S/SU		MAT 147
		Total	**15-16**	
Semester 3 • Meet with Program Coordinator to discuss readiness for EET 299. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for EET 299). See www.QCC.edu/career-services. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete ENG 102 or ENG 105; ENG 105 recommended if primary goal is employment after graduation.				
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Instrumentation and Control Technology	ELM 251	F/S	4	ELT 104, ELT 121

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Introduction to Photonics	ELT 120	F	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition II **OR**	ENG 102	F/S/SU	3	ENG 101
Technical Writing	ENG 105	F/S		
Lab Science Elective	---	F/S/SU	4	
		Total	**15**	
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete EET 299 (with Program Coordinator approval). • Submit an Intent to Graduate Form, located on *The Q.*				
Cooperative Work Experience	EET 299	F/S/SU	3	CPS 298, Approval of Program Coordinator
Photonics Technology	ELT 222	S	4	ELT 120
ELT or ELM Program Elective	---	F/S/SU	4	
Social Science Elective	---	F/S/SU	3	
		Total	**14**	
Total Credits Required:			**62-64**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - MP

Manufacturing Technology

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Manufacturing Technology Certificate
- Manufacturing Technology - Computer Aided Design Certificate
- Manufacturing Technology - CNC Technologies Certificate

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus); other local locations may be used to enhance the educational experience of the student.
- This program may be completed face-to-face.
- Many of the courses do have Online/Remote access; however, there are many lab activities to be completed on site.

Program Goals

The Manufacturing Technology associate degree program is designed to prepare graduates to enter the field of advanced manufacturing. Students will gain an understanding of materials and manufacturing processes, as well as the quality systems in place in modern industry. Using safe working practices, students will learn to operate and maintain a variety of production equipment. Since there is a strong focus on applied mathematical and scientific knowledge in advanced manufacturing, students will obtain an advanced understanding of electrical, pneumatic, and hydraulic systems. Use of PCs, communication skills, CNC machine tools, and CAD/CAM software will allow successful graduates to enhance their ability to add value to any manufacturing environment. Graduates will be able to apply lean principles and automation techniques to improve process and product efficiency and quality.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Apply mathematical and scientific concepts to solve manufacturing problems.
- Understand the process of product development through design and experimentation.
- Supervise and manage a variety of manufacturing systems.
- Work in multicultural and multidisciplinary teams to assess and improve system performance.
- Practice safe working protocols to nurture ethical responsibilities.
- Communicate technical information both verbally and in written form.
- Use modern tooling, skills, and techniques for effective manufacturing systems practice.
- Understand the behavior of a variety of material properties as they relate to manufacturing processing.
- Apply accurate design methodology and use industry standard CAD/CAM software to improve quality and production.
- Identify problems before they occur and design a solution.
- Understand and manage product variability as defined by quality systems.
- Apply advanced methods of analysis, synthesis, and control of manufacturing systems.
- Safely operate, program, and set up a variety of CNC equipment.
- Measure manufacturing process variables and draw credible technical conclusions.
- Apply lean principles in the operation and development of production systems.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Must be able to lift 50lbs.
- Must have stable muscle control.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

- CORI/SORI checks, fingerprinting, and drug testing may be required of students enrolled in MNT 299.

Additional Cost

See the Program Fees (Page 27).

- Graduates may be required to meet at off-campus locations and are expected to provide their own transportation to these venues. Types of venues used vary each semester, but may include company tours outside of class and/or training at other local educational facilities.
- Students should anticipate additional expenses for professional certification examinations.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- To evaluate technical prior learning credit, students should contact the Center for Career & Transfer Services.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 15.0613.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- The courses in this program are aligned with national standards as set by National Association of Manufacturers (NAM), National Coalition of Certification Centers (NC3), Haas CNC, OSHA, and Fanuc Robotics.
- During the course of this program, students will be required to take industry prescribed certifications. See program grid for details.

Certifications:

- Haas CNC Operator Certification: https://learn.haascnc.com.
- Occupational Safety and Health Administration (OSHA 30): www.osha.com.
- Certified Education Robot Training (FANUC CERT) - Handling Tool Operations and Programming: http://robot.fanucamerica.com.
- Certified SolidWorks Associate (CSWA): www.solidworks.com/sw/support/796_ENU_HTML.htm?pid=446.
- National Coalition of Certification Centers (NC3) Precision Measuring Certification: https://nc3.net/wp-content/uploads/2019/01/Precision-Measuring-Instruments.pdf.
- Society of Manufacturing Engineers (SME) Lean Bronze Certification: www.sme.org/training/lean-certification/lean-bronze-certification/.

Program Email: manufacturing@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: MP). • Register for and successfully complete all courses to graduate in four semesters. • Complete MAT 123 and MAT 124 for transfer goal; Complete MAT 147 and MAT 148 for employment goal. • Complete MNT 100 and MNT 108 (both courses include certification exams). • Complete MNT 101.				
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
College Mathematics I: Pre-Calculus **OR**	MAT 123	F/S/SU	3-4	MAT 100 or approp place score
Mathematics for Technicians I	MAT 147	F/SU		MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Manufacturing Safety	MNT 100	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Mechanical CAD I	MNT 101	F/S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Basic Machine Operation	MNT 108	F/S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
		Total	**15-16**	
Semester 2 • Meet with Career Services to discuss the co-op process and leads for co-op placements. • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete ENG 101, MNT 106 and MNT 115.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
College Mathematics II: Trigonometry **OR**	MAT 124	F/S/SU	3-4	MAT 123 or approp place score
Mathematics for Technicians II	MAT 148	S/SU		MAT 147
Quality	MNT 106	S	3	
Manufacturing Materials and Processes	MNT 110	S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Maintenance and Instrumentation in Manufacturing	MNT 115	S	3	
		Total	**15-16**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 3 • If choosing MNT 299 (Semester 4), meet with Program Coordinator to discuss readiness for MNT 299. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for MNT 299). See www.QCC.edu/career-services. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete MNT 103 and MNT 210 (both courses include certification exams). • Complete PHY 101.				
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Industrial Robotics	ELM 260	F/S	4	ELT 121 or MNT 115
Composition II **OR**	ENG 102	F/S/SU	3	ENG 101
Technical Writing	ENG 105	F/S		
Solid Modeling	MNT 103	F/S	3	ERG 101 or MNT 101
CNC Programming	MNT 210	F	4	Coreq: MNT 101, MNT 108
Physics I	PHY 101	F/SU	4	MAT 148 or Coreq: MAT 124
		Total	**18**	
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete MNT 215. • Complete MNT 216, which offers SME CMfgT exam; or complete MNT 299 (with Program Coordinator approval), which introduces students to employers; or complete Program Elective (must choose from ACC, BUS, HUM, LOG, MGT, SOC, or MAT 122, or any MAT 200-level course), which provides an alternative professional option. • Complete MNT 218 (includes certification exam). • Submit an Intent to Graduate Form, located on *The Q.*				
Computer-Aided Manufacturing	MNT 215	S	4	MNT 101, MNT 210
Manufacturing Capstone Project **OR**	MNT 216	S	3-4	MNT 102 or MNT 103, MNT 210
Cooperative Work Experience **OR**	MNT 299	F/S/SU		CPS 298, Approval of Program Coordinator
Program Elective	---			
Lean Manufacturing and Six Sigma	MNT 218	S	3	MNT 106
Physics II	PHY 102	S/SU	4	PHY 101
		Total	**14-15**	
Total Credits Required:			**62-65**	

For information on electives, see p. 373-374.

CERTIFICATE - CNC

Manufacturing Technology - CNC Technologies Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Manufacturing Technology

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.
- Many of the courses do have Online/Remote access; however, there are many lab activities to be completed on site.

Program Goals

The CNC Technologies Certificate is designed to prepare graduates to enter the field of advanced manufacturing specifically as a Computer Numerical Control (CNC) operator/programmer. Students will gain an understanding of CAD/CAM systems and the conventions of blueprint reading, safety, metrology, quality, and machine operations. Using safe working practices, students will learn to operate, set up, and program Haas CNC equipment along with other production machines. Graduates will be able to apply sound mathematical principles to solve manufacturing problems.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Apply mathematical and scientific concepts to solve manufacturing problems.
- Supervise and manage a variety of manufacturing systems.
- Practice safe working protocols to nurture ethical responsibilities.
- Communicate technical information both verbally and in written form.
- Use modern tooling, skills, and techniques for effective manufacturing systems practice.
- Apply accurate design methodology and use industry standard CAD/CAM software to improve quality and production.
- Identify problems before they occur and design a solution.
- Understand and manage product variability as defined by quality systems.
- Apply advanced methods of analysis, synthesis, and control of manufacturing systems.
- Safely operate, program, and set up a variety of CNC equipment.
- Measure manufacturing process variables and draw credible technical conclusions.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Must be able to lift 50lbs.
- Must have stable muscle control.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Lab fees will be charged for specific courses.
- Books and online LMS charges may apply to specific courses.
- Examination fees for third-party certification exams.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- To evaluate technical prior learning credit, students should contact the Center for Career & Transfer Services.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 48.0510.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

- The courses in this certificate can be transferred to the associate degree in Manufacturing Technology; upon graduation, they can be transferred to Fitchburg State University.

Additional Information

- This certificate is designed for full-time enrollment.
- The courses in this program are aligned with national standards as set by the National Association of Manufacturers (NAM).

Certifications:

- Haas CNC Operator Certification: https://learn.haascnc.com.
- Occupational Safety and Health Administration (OSHA 30): www.osha.com.
- National Coalition of Certification Centers (NC3) Precision Measuring Certification: https://nc3.net/wp-content/uploads/2019/01/Precision-Measuring-Instruments.pdf.

Program Email: manufacturing@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: CNC). • Register for and successfully complete all courses to graduate in two semesters; Students must register for MNT 101 and MNT 108 to be accepted into MNT 210. • Meet with Career Services to discuss the co-op process and leads for co-op placements. • Meet with Program Coordinator to discuss readiness for MNT 299. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for MNT 299). See www.QCC.edu/career-services. • Meet with Academic Advisor to discuss associate degree (Program Code: MP); or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete MNT 100, MNT 108, and MNT 210 (these courses include certification exams).				
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Manufacturing Safety	MNT 100	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Mechanical CAD I	MNT 101	F/S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Basic Machine Operation	MNT 108	F/S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
CNC Programming	MNT 210	F	4	Coreq: MNT 101, MNT 108
		Total	**13**	
Semester 2 • Apply to associate degree (Program Code: MP); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete MNT 215 (includes certification exam). • Submit an Intent to Graduate Form, located on *The Q.*				
Quality	MNT 106	S	3	
Manufacturing Materials and Processes	MNT 110	S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Computer-Aided Manufacturing	MNT 215	S	4	MNT 101, MNT 210
Cooperative Work Experience	MNT 299	F/S/SU	3	CPS 298, Approval of Program Coordinator
		Total	**13**	
Total Credits Required:			**26**	

For information on electives, see p. 373-374.

CERTIFICATE - CAD

Manufacturing Technology - Computer Aided Design Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Manufacturing Technology

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Computer Aided Design Certificate is intended to prepare successful graduates to apply technical knowledge and skills to develop working engineering drawings and in support of mechanical and industrial engineers and related professionals. Students gain knowledge in manufacturing materials and processes, mechanical drafting, electro-mechanical drafting, basic metallurgy, geometric dimensioning and tolerancing, blueprint reading, and technical communication. Upon completion, the student will be able to use a variety of industry standard CAD programs and apply quality practices to perform as a CAD technician.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Understand the power and effectiveness of modern CAD software.
- Apply mathematical and scientific concepts to solve design problems.
- Understand the principles of product development through design.
- Communicate technical information both verbally and in written form.
- Understand the behavior of a variety of material properties as they relate to manufacturing processing.
- Apply accurate design methodology and use industry standard CAD software to improve quality and production.
- Understand and manage product variability as defined by quality systems.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for professional certification examinations.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- To evaluate technical prior learning credit, students should contact the Center for Career & Transfer Services.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 15.1302.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- If successful graduates wish to continue their education, the courses required for the Computer Aided Design Certificate apply to the Manufacturing Technology associate degree.

Certifications:

- Certified SolidWorks Associate (CSWA): www.solidworks.com/sw/support/796_ENU_HTML.htm?pid=446.
- National Coalition of Certification Centers (NC3) Precision Measuring Certification: https://nc3.net/wp-content/uploads/2019/01/Precision-Measuring-Instruments.pdf.

Program Email: manufacturing@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: CAD). • Register for and successfully complete all courses to graduate in three semesters. • Meet with Academic Advisor to discuss associate degree (Program Code: MP); or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete MNT 101. • For the Elective, choose from the following course designations: ACC, BUS, CHM, ELT, HUM, IMD, IMG, LOG, MAT, MGT, PSY, SCI, SOC, or SPN.				
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Mechanical CAD I	MNT 101	F/S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Elective	---	F/S/SU	3	
		Total	**12**	
Semester 2 • Apply to associate degree (Program Code: MP); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete MNT 103 (includes certification exam). • Submit an Intent to Graduate Form, located on *The Q.*				
College Algebra	MAT 100	F/S/SU	3	QMAT placement score > 32 or Coreq: MAT 097
Solid Modeling	MNT 103	F/S	3	ERG 101 or MNT 101
Quality	MNT 106	S	3	
Manufacturing Materials and Processes	MNT 110	S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
		Total	**12**	
Semester 3 • MNT 104 is a project-based course that runs through Summer I and II. • Students can participate in the May Commencement Ceremony only if registered for MNT 104.				
Engineering Design	MNT 104	SU	4	MNT 103
		Total	**4**	
Total Credits Required:			**28**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - MPQ

Manufacturing Technology - Quality Control Option

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Manufacturing Technology Certificate
- Manufacturing Technology - Computer Aided Design Certificate
- Manufacturing Technology - CNC Technologies Certificate

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus); other local locations may be used to enhance the educational experience of the student.
- This program may be completed face-to-face.
- Many of the courses do have Online/Remote access; however, there are many lab activities to be completed on site.

Program Goals

The Manufacturing Technology - Quality Control Option associate degree program will focus on quality control (QC) and operations positions to enhance the graduate's capability in this role. The program is designed to provide a blend of mathematical, computer, and hands-on skills required in the industry while providing an opportunity for continuing education through transfer to four-year schools.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Define general terminology, concepts, and skills used in quality control (QC).
- Use a variety of precision instruments to determine product acceptance and/or performance.
- Interpret and compare data with respect to statistics and quality control.
- Apply knowledge of inspection techniques and mathematics to solve quality control problems.
- Demonstrate an ability to use computational methods for statistical process control (SPC) and data management.
- Categorize quality control definitions and identify appropriate standards.
- Maintain and troubleshoot quality control standards to support production compliance.
- Work in teams to discuss and articulate theories.
- Research relevant information for verbal and written concept proposals.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Must be able to lift 50lbs.
- Must have stable muscle control.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

- CORI/SORI checks, fingerprinting, and drug testing may be required of students enrolled in MNT 299.

Additional Cost

See the Program Fees (Page 27).

- Graduates may be required to meet at off-campus locations and are expected to provide their own transportation to these venues. Types of venues used vary each semester, but may include company tours outside of class and/or training at other local educational facilities.
- Students should anticipate additional expenses for professional certification examinations.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- To evaluate technical prior learning credit, students should contact the Center for Career & Transfer Services.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: MPQ). • Register for and successfully complete all courses to graduate in four semesters. • Complete MNT 101. • Complete MNT 108 (includes certification exam).				
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Composition I	ENG 101	F/S/SU	3	Placement into college level English
College Algebra	MAT 100	F/S/SU	3	QMAT placement score > 32 or Coreq: MAT 097
Mechanical CAD I	MNT 101	F/S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Basic Machine Operation	MNT 108	F/S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
		Total	**15**	
Semester 2 • Meet with Career Services to discuss the co-op process and leads for co-op placements. • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete MNT 103 and MNT 106.				
College Mathematics I: Pre-Calculus	MAT 123	F/S/SU	3	MAT 100 or approp place score
Solid Modeling	MNT 103	F/S	3	ERG 101 or MNT 101
Quality	MNT 106	S	3	
Manufacturing Materials and Processes	MNT 110	S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Maintenance and Instrumentation in Manufacturing	MNT 115	S	3	
		Total	**15**	
Semester 3 • Meet with Program Coordinator to discuss readiness for MNT 299. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for MNT 299). See www.QCC.edu/career-services. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete MNT 100 (includes certification exam). • Complete MNT 210. • For the Program Electives (Semesters 3 and 4), for an alternative professional option, choose from ACC, BUS, ELT, HUM, LOG, MGT, MNT, SOC, or any MAT 200-level course.				
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
Manufacturing Safety	MNT 100	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
CNC Programming	MNT 210	F	4	Coreq: MNT 101, MNT 108
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Program Elective	---	F/S/SU	3	
		Total	**16**	
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete MNT 216, which offers SME CMfgT exam. • Complete MNT 299 (with Program Coordinator approval), which introduces students to employers. • Submit an Intent to Graduate Form, located on *The Q.*				
Manufacturing Capstone Project	MNT 216	S	4	MNT 102 or MNT 103, MNT 210
Lean Manufacturing and Six Sigma	MNT 218	S	3	MNT 106
Cooperative Work Experience	MNT 299	F/S/SU	3	CPS 298, Approval of Program Coordinator
Program Elective	---	F/S/SU	3	
Science Elective	---	F/S/SU	3-4	
		Total	**16-17**	
Total Credits Required:			**62-63**	

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 15.0702.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- The courses in this program are aligned with national standards as set by National Association of Manufacturers (NAM) and Manufacturing Skills Standards Council (MSSC).
- During the course of this program, students will be required to take industry prescribed certifications. See program grid for details.

Certifications:

- Occupational Safety and Health Administration (OSHA 30): www.osha.com.
- Certified SolidWorks Associate (CSWA): www.solidworks.com/sw/support/796_ENU_HTML.htm?pid=446.
- National Coalition of Certification Centers (NC3) Precision Measuring Certification: https://nc3.net/wp-content/uploads/2019/01/Precision-Measuring-Instruments.pdf.
- Society of Manufacturing Engineers (SME) Lean Bronze Certification: www.sme.org/training/lean-certification/lean-bronze-certification/.

Program Email: manufacturing@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - MPC

Manufacturing Technology Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Manufacturing Technology

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.
- Many of the courses do have Online/Remote access; however, there are many lab activities to be completed on site.

Program Goals

The Manufacturing Technology Certificate is designed to introduce the principles of engineering and manufacturing. The program prepares students to apply basic engineering principles and technical skills to the identification and resolution of production problems in the manufacture of products. The student will gain basic knowledge of material properties and identify a variety of production processes to assist in a production environment. Along with enhanced computer skills, the student will be able to communicate effectively in a manufacturing environment and use industry standard software to operate as an entry-level manufacturing/engineering technician.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Apply mathematical and scientific concepts to solve manufacturing problems.
- Practice safe working protocols to nurture ethical responsibilities.
- Communicate technical information both verbally and in written form.
- Use modern tooling, skills, and techniques for effective manufacturing systems practice.
- Understand the behavior of a variety of material properties as they relate to manufacturing processing.
- Apply accurate design methodology and use industry standard CAD software to improve quality and production.
- Identify problems before they occur and design a solution.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Must be able to lift 50lbs.
- Must have stable muscle control.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for professional certification examinations.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- To evaluate technical prior learning credit, students should contact the Center for Career & Transfer Services.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 15.0613.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- The Quinsigamond Community College Manufacturing Technology Certificate is endorsed by the Manufacturing Institute, a non-partisan affiliate of the National Association

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: MPC). • Register for and successfully complete all courses to graduate in two semesters. • Meet with Academic Advisor to discuss associate degree (Program Code: MP); or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete MNT 100 and MNT 108 (both courses include certification exams).				
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Manufacturing Safety	MNT 100	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Mechanical CAD I	MNT 101	F/S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Basic Machine Operation	MNT 108	F/S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
		Total	**12**	
Semester 2 • Apply to associate degree (Program Code: MP); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
College Algebra **OR**	MAT 100	F/S/SU	3-4	QMAT placement score > 32 or Coreq: MAT 097
Mathematics for Technicians I	MAT 147	F/SU		MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Quality	MNT 106	S	3	
Manufacturing Materials and Processes	MNT 110	S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Maintenance and Instrumentation in Manufacturing	MNT 115	S	3	
		Total	**12-13**	
Total Credits Required:			**24-25**	

of Manufacturers (NAM). The Manufacturing Institute launched the Skills Certification System to address the skills gap challenge and to promote a renaissance of manufacturing education across the country. For additional information, visit the Manufacturing Institute at www.themanufacturinginstitute.org/ or the Skills Certification System at www.themanufacturinginstitute.org/workers/skills-certifications/.

- If successful graduates wish to continue their education, the courses required for the Manufacturing Technology Certificate apply to the Manufacturing Technology associate degree.
- The courses in this program are aligned with national standards as set by the National Association of Manufacturers (NAM) and Manufacturing Skills Standards Council (MSSC).

Certifications:

- Haas CNC Operator Certification: https://learn.haascnc.com.
- Occupational Safety and Health Administration (OSHA 30): www.osha.com.
- National Coalition of Certification Centers (NC3) Precision Measuring Certification: https://nc3.net/wp-content/uploads/2019/01/Precision-Measuring-Instruments.pdf.

Program Email: manufacturing@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - ACC

Accounting Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Business Administration Career
- Business Administration Transfer

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Accounting Certificate focuses on the accounting skills and knowledge needed in business. Upon graduation, students will be prepared for entry-level accounting jobs in a variety of business settings or may move seamlessly into the Business Administration Career or Business Administration Transfer associate degree programs.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Analyze, calculate, interpret, and report financial information accurately and in a timely manner.
- Demonstrate proficiency in both manual and automated accounting systems.
- Apply accounting principles which relate to accounting support functions.
- Demonstrate a grasp of the complexities of ethical issues in business and in particular the practice of accounting.
- Use the Microsoft Office Suite® and computerized accounting software effectively.
- Communicate effectively using written, oral, and non-verbal techniques, including the use of appropriate technology in the gathering and presentation of information.
- Understand the overall performance of the economy, including economic growth, employment, inflation, fiscal policies, and global economic interactions.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 52.0302.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: businessadmin@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: ACC). • Register for and successfully complete all courses to graduate in three semesters. • Meet with Academic Advisor to discuss associate degree (Program Code: BB for career goal; or Program Code: BT for transfer goal).				
Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Principles of Macroeconomics	ECO 215	F/S/SU	3	Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		Total	**12**	
Semester 2 (Spring) • Apply to associate degree (Program Code: BB for career goal; or Program Code: BT for transfer goal). • ACC 231 strongly recommended for career goal (Program Code: BB); ECO 216 required for transfer goal (Program Code: BT). • For the ACC Program Specific Elective, for career goal or transfer goal, choose any one of the following courses not already selected: ACC 211, ACC 225, ACC 231, BSL 101, ECO 216, FIN 111, FIN 221, or FIN 250. • For the ACC Program Specific Elective (200-level), for career goal or transfer goal, choose any one of the following 200-level courses not already selected: ACC 211, ACC 225, ACC 231, ECO 216, FIN 221, or FIN 250.				
Financial Accounting II	ACC 102	F/S/SU	3	ACC 101, CIS 111
Computerized Accounting **OR**	ACC 231	F/S	3	ACC 101, CIS 111
Principles of Microeconomics	ECO 216	F/S/SU		Coreq: ENG 101
ACC Program Specific Elective	---	F/S/SU	3	
ACC Program Specific Elective (200-level)	---	F/S/SU	3-4	
		Total	**12-13**	
Semester 3 (Summer) • ACC 222 required for transfer goal (Program Code: BT); alternatively, for ACC Program Specific Elective (200-level), for career goal (Program Code: BB), choose any one of the following 200-level courses not already selected: ACC 211, ACC 225, ACC 231, ECO 216, FIN 221, or FIN 250. • Submit an Intent to Graduate Form, located on *The Q.*				
Managerial Accounting **OR**	ACC 222			ACC 102
ACC Program Specific Elective (200-level)	---	F/S/SU	3	
		Total	**3**	
Total Credits Required:			**27-28**	

For information on electives, see p. 373-374.

CERTIFICATE - APC

Administrative Professional Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Business Administration Career - Administrative Professional Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- Some courses may be completed at QCC Southbridge.
- This program may be completed face-to-face.

Program Goals

The Administrative Professional Certificate focuses on developing the clerical skills, knowledge, and abilities necessary to work in a business office setting. Upon graduation, students will be prepared for entry-level positions as administrative assistants or may move seamlessly into the Business Administration Career - Administrative Professional Option associate degree program.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate keyboarding speed and accuracy, with a minimum touch keyboarding rate of 30-35 words per minute on a three-minute timed writing, with at least 90% accuracy.
- Demonstrate computer literacy and conduct research from a variety of sources.
- Communicate clearly and effectively; create a portfolio of business communications using a variety of software applications.
- Meet the challenging role of the administrative professional by adapting to the technological changes in the global economy and the diverse workplace.
- Understand records management, appointment scheduling, and business etiquette, and develop excellent customer service skills.
- Complete a 150-hour structured learning experience in which students apply skills and knowledge learned in the classroom to a work experience.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

- Prospective students should note that CORI/SORI checks, fingerprinting, and drug testing may be required by an internship host employer in order to complete BUS 298.

Additional Cost

See the Program Fees (Page 27).

- Students enrolled in BUS 298 may incur an additional expense for professional liability insurance.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 52.0408.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: businessadmin@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: APC). • Register for and successfully complete all courses to graduate in two semesters. • Meet with Career Services to discuss the internship process and leads for internship placements. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for BUS 298). See www.QCC.edu/career-services. • Meet with Academic Advisor to discuss associate degree (Program Code: BBAP); or create an account on the QCC job board to search for internships, co-ops and jobs.				
Keyboarding Applications	BSS 101	F/S/SU	3	Placement into college level English
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Human Relations in Organizations	PSY 158	F/S/SU	3	Placement into college level English
		Total	**12**	
Semester 2 • Apply to associate degree (Program Code: BBAP); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English
Integrated Communications for Business	BUS 201	F/S/SU	3	CIS 111, Placement into college level English
Business Administration Capstone **OR**	BUS 250	F/S	3	CIS 111, Coreq: ACC 101 or CIS 212
Career Strategies & Internship Experience	BUS 298			CIS 111, CPS 298, Coreq: ACC 101 or CIS 212
Advanced Microcomputer Applications	CIS 112	F/S/SU	3	CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**15**	
Total Credits Required:			**27**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - BB

Business Administration Career

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Business Administration Certificate
- Entrepreneurship and Small Business Management Certificate
- Logistics/Supply Chain Management Certificate
- Accounting Certificate

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- Some courses may be completed at QCC Southbridge.
- This program may be completed face-to-face.

Program Goals

The Business Administration Career associate degree program prepares students to successfully enter the workforce upon graduation. The program provides a skills-based curriculum that equips graduates with the knowledge and background needed for a rewarding career in business and industry.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate an understanding of the practice of business, including management, marketing, and accounting; demonstrate the application of this knowledge in a business setting.
- Think, speak, and write critically; articulate and explain a variety of business concepts, and apply these concepts to solve common business problems.
- Communicate clearly and effectively; create a portfolio of business communications using a variety of software applications.
- Demonstrate computer literacy and conduct research using a variety of sources.
- Understand the key actions taken to effectively and efficiently utilize company resources to achieve goals.
- Develop a global/multicultural perspective when analyzing and planning in business.
- Demonstrate knowledge of business ethics and how businesses integrate social responsibility into their ongoing operations.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

- Prospective students should note that CORI/SORI checks, fingerprinting, and drug testing may be required by an internship host employer in order to complete BUS 298.

Additional Cost

See the Program Fees (Page 27).

- Students enrolled in BUS 298 may incur an additional expense for professional liability insurance.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 52.0101.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: businessadmin@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: BB). • Register for and successfully complete all courses to graduate in four semesters. • Complete ENG 101 and the Mathematics Elective (MAT 103 or MAT 122 recommended; MAT 122 strongly recommended if considering transfer).				
Introduction to Microcomputer Applications **OR**	CIS 111	F/S/SU	3	
Advanced Microcomputer Applications	CIS 112			CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Principles of Macroeconomics	ECO 215	F/S/SU	3	Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Business	MGT 101	F/S/SU	3	Placement into college level English
Mathematics Elective	---	F/S/SU	3	
		Total	**15**	
Semester 2 • If choosing BUS 298 (Semester 4), meet with Career Services to discuss the internship process and leads for internship placements.				
Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English
Business Law I **OR**	BSL 101	F/S/SU	3	
E-Business Law & Ethics	BSL 103	F/S		Coreq: CIS 111
Composition II	ENG 102	F/S/SU	3	ENG 101
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Elective	---	F/S/SU	3	
		Total	**15**	
Semester 3 • If choosing BUS 298 (Semester 4), contact Career Services to complete all requirements of CPS 298 (required prior to registration for BUS 298). See www.QCC.edu/career-services. • If considering transfer, meet with Academic Advisor to discuss associate degree (Program Code: BT); or create an account on the QCC job board to search for internships, co-ops and jobs.				
Financial Accounting II	ACC 102	F/S/SU	3	ACC 101, CIS 111
Integrated Communications for Business	BUS 201	F/S/SU	3	CIS 111, Placement into college level English
Business Elective	---	F/S/SU	3	
Humanities Elective	---	F/S/SU	3	
Social Science Elective	---	F/S/SU	3	
		Total	**15**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 • Apply to associate degree (Program Code: BT); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
Business Administration Capstone **OR**	BUS 250			CIS 111, Coreq: ACC 101 or CIS 212
Career Strategies & Internship Experience	BUS 298	F/S	3	CIS 111, CPS 298, Coreq: ACC 101 or CIS 212
Elective	---	F/S/SU	3	
Business Elective	---	F/S/SU	3	
Humanities Elective	---	F/S/SU	3	
Science Elective or Lab Science Elective	---	F/S/SU	3-4	
		Total	**15-16**	
Total Credits Required:			**60-61**	

ASSOCIATE IN SCIENCE - BBAP

Business Administration Career - Administrative Professional Option

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Administrative Professional Certificate
- Medical Office Certificate

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Business Administration Career - Administrative Professional Option prepares graduates for immediate entry into the workforce as administrative professionals in a business or medical setting. Prospective students may choose to specialize by completing either the Administrative Professional Certificate or Medical Office Certificate programs first; all courses in the certificates apply to the associate degree program. Graduates of the Business Administration Career - Administrative Professional Option are highly-trained and workforce-ready.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate keyboarding speed and accuracy, with a minimum touch keyboarding rate of 30-35 words per minute on a three-minute timed writing, with at least 90% accuracy.
- Demonstrate computer literacy and conduct research from a variety of sources.
- Communicate clearly and effectively; create a portfolio of business communications using a variety of software applications.
- Meet the challenging role of the administrative professional by adapting to the technological changes in the global economy and the diverse workplace.
- Demonstrate the skills needed to develop ideas and make decisions based on ethics, appropriate research, analysis, and critical thinking.
- Understand records management, appointment scheduling, and business etiquette, and develop excellent customer service skills.
- Complete a 150-hour structured learning experience in which students apply skills and knowledge from the classroom to a work experience.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

- Prospective students should note that CORI/SORI checks, fingerprinting, and drug testing may be required by an internship host employer in order to complete BUS 298.

Additional Cost

See the Program Fees (Page 27).

- Students enrolled in BUS 298 may incur an additional expense for professional liability insurance.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 52.0402.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: businessadmin@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: BBAP). • Register for and successfully complete all courses to graduate in four semesters. • Complete ENG 101.				
Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English
Medical Law and Ethics **OR**	ALH 106	F/S		Placement into college level English
Business Law I **OR**	BSL 101	F/S/SU	3	
E-Business Law & Ethics	BSL 103	F/S		Coreq: CIS 111
Keyboarding Applications	BSS 101	F/S/SU	3	Placement into college level English
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		Total	**15**	
Semester 2 • Meet with Career Services to discuss the internship process and leads for internship placements. • For the Elective, ALH 102 strongly recommended. • Complete MAT 103.				
Financial Accounting II	ACC 102	F/S/SU	3	ACC 101, CIS 111
Advanced Microcomputer Applications	CIS 112	F/S/SU	3	CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition II	ENG 102	F/S/SU	3	ENG 101
Mathematics for Business	MAT 103	S	3	MAT 095 with a grade of "C" or higher or equivalent placement measures
Elective	---	F/S/SU	3	
		Total	**15**	
Semester 3 • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for BUS 298). See www.QCC.edu/career-services. • Create an account on the QCC job board to search for internships, co-ops and jobs.				
Medical/Dental Billing and Insurance **OR**	BSS 112	F/S	3	ALH 102
Business Elective	---	F/S/SU		
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Elective	---	F/S/SU	3	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Liberal Arts Elective	---	F/S/SU	3	
Science Elective or Lab Science Elective	---	F/S/SU	3-4	
		Total	**15-16**	
Semester 4 • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
Integrated Communications for Business	BUS 201	F/S/SU	3	CIS 111, Placement into college level English
Business Administration Capstone **OR**	BUS 250	F/S	3	CIS 111, Coreq: ACC 101 or CIS 212
Career Strategies & Internship Experience	BUS 298			CIS 111, CPS 298, Coreq: ACC 101 or CIS 212
Electronic Health Records **OR**	CIS 212	F/S	3	ALH 102, CIS 111
Database Management Application Development	CIS 243	S		CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Human Relations in Organizations	PSY 158	F/S/SU	3	Placement into college level English
Social Science Elective	---	F/S/SU	3	
		Total	**15**	
Total Credits Required:			**60-61**	

For information on electives, see p. 373-374.

CERTIFICATE - BAC

Business Administration Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Business Administration Career

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- Some courses may be completed at QCC Southbridge.
- This program may be completed face-to-face.

Program Goals

The Business Administration Certificate focuses on general business and prepares students for entry-level positions within various types of organizations. Upon graduation, students will be prepared for entry-level jobs in a variety of business settings or may move seamlessly into the Business Administration Career associate degree program.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Identify basic principles used in the business world today.
- Apply basic business concepts to a variety of business situations.
- Understand the mathematical functions and basic accounting practices necessary to conduct business operations.
- Communicate clearly and effectively; create a portfolio of business communications using a variety of software applications.
- Demonstrate knowledge of business ethics and how businesses integrate social responsibility into their ongoing operations.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 52.0101.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: businessadmin@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: BAC). • Register for and successfully complete all courses to graduate in two semesters. • For the Mathematics Elective, MAT 103 or MAT 122 recommended if pursuing associate degree (Program Code: BB). • Meet with Academic Advisor to discuss associate degree (Program Code: BB); or create an account on the QCC job board to search for internships, co-ops and jobs.				
Introduction to Microcomputer Applications **OR**	CIS 111			
Advanced Microcomputer Applications	CIS 112	F/S/SU	3	CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Business	MGT 101	F/S/SU	3	Placement into college level English
Human Relations in Organizations	PSY 158	F/S/SU	3	Placement into college level English
Mathematics Elective	---	F/S/SU	3	
		Total	**15**	
Semester 2 • Apply to associate degree (Program Code: BB); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English
Business Law I **OR**	BSL 101	F/S/SU	3	
E-Business Law & Ethics	BSL 103	F/S		Coreq: CIS 111
Integrated Communications for Business	BUS 201	F/S/SU	3	CIS 111, Placement into college level English
Business Elective	---	F/S/SU	3	
		Total	**12**	
Total Credits Required:			**27**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - BT

Business Administration Transfer

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- Some courses may be completed at QCC Southbridge.
- This program may be completed face-to-face.

Program Goals

The Business Administration Transfer associate degree program prepares students for transfer to four-year colleges and universities, upon completion of the associate degree. Graduates from the Business Administration Transfer program, with a GPA of 2.50 or higher, are guaranteed admission to all Massachusetts state universities and to the University of Massachusetts, including the Isenberg School of Management (requires a 3.00 GPA), under the MassTransfer Program. There are several transfer agreements with private four-year colleges.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate an understanding of the practice of business, including management, marketing, and accounting; demonstrate the application of this knowledge in a business setting.
- Transfer to a business administration bachelor's degree program.
- Communicate effectively using written, oral, and non-verbal techniques, including the use of technology in gathering and presenting information.
- Use critical thinking skills to appraise and evaluate business practices, including the use of quantitative and qualitative techniques.
- Recognize the presence of various cultures in the business world, and comprehend the need to have a global perspective when analyzing and planning in a business environment.
- Demonstrate knowledge of the concept of ethics and how businesses integrate social responsibility into their ongoing operations.
- Comprehend the rapid change taking place in the business environment, and demonstrate an ability to engage in ongoing professional development.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 52.0201.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: businessadmin@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: BT). • Register for and successfully complete all courses to graduate in four semesters. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete ENG 101. • Complete MAT 123 or MAT 231.				
Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English
Introduction to Microcomputer Applications **OR**	CIS 111			
Advanced Microcomputer Applications	CIS 112	F/S/SU	3	CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Principles of Macroeconomics	ECO 215	F/S/SU	3	Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
College Mathematics I: Pre-Calculus **OR**	MAT 123	F/S/SU	3	MAT 100 or approp place score
Applied Calculus	MAT 231	S		MAT 123 or approp place score
		Total	**15**	
Semester 2 • Meet with Academic Advisor to choose Program Electives (Semesters 3 and 4); must be selected from ACC, BSL, FIN, MGT, or MRK course designations. • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events.				
Financial Accounting II	ACC 102	F/S/SU	3	ACC 101, CIS 111
Principles of Microeconomics	ECO 216	F/S/SU	3	Coreq: ENG 101
Composition II	ENG 102	F/S/SU	3	ENG 101
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
Humanities Elective	---	F/S/SU	3	
		Total	**15**	
Semester 3 • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Students in the Commonwealth Commitment program should choose MRK 201 as the Program Elective.				
Managerial Accounting	ACC 222	F/S/SU	3	ACC 102
Principles of Management	MGT 211	F/S/SU	3	Placement into college level English
Humanities Elective	---	F/S/SU	3	
Lab Science Elective	---	F/S/SU	4	
Program Elective	---	F/S/SU	3	
		Total	**16**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q.*				
Elective	---	F/S/SU	3	
Humanities Elective	---	F/S/SU	3	
Program Elective	---	F/S/SU	3	
Science Elective or Lab Science Elective	---	F/S/SU	3-4	
Social Science Elective	---	F/S/SU	3	
		Total	**15-16**	
Total Credits Required:			**61-62**	

CERTIFICATE - CAC

Culinary Arts Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Hospitality and Recreation Management - Foodservice Management Option

Location

- HRM and CUL courses are offered at QCC at the Worcester Senior Center.
- This program may be completed face-to-face.

Program Goals

The QCC Culinary Arts Certificate program is designed to provide a career step for graduates of QCC's workforce culinary basics program by allowing graduates to enter directly into a culinary career, or to seamlessly continue toward an associate degree in Foodservice Management. This program will produce graduates with a clearly-defined personal set of ethics to support the burgeoning and innovative culinary industry of Central Massachusetts. Graduates will have the ability to incorporate local and sustainable practice or products into a foodservice operation.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Engage in a professional, ethical manner.
- Perform in a commercial kitchen (equipment operation, knife skills, culinary vocabulary).
- Utilize core knowledge of flavor profiles, staple ingredients, and basic food chemistry.
- Appropriately identify, store, and prepare food inventory.
- Select the proper cooking principle for meat, grains, vegetables, and cultural foods.
- Bake classic and contemporary breads and pastries.
- Select and prepare foods that are appropriate for special diets.
- Prepare food that is nutritionally and visually appealing.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required for students working at the Diner. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- Students who graduated from area hospitality or culinary high school programs may have articulated credit.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 12.0503.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: hrm@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: CAC). • Apply for prior credit articulated from technical high school program. • Register for and successfully complete all courses to graduate in three semesters. • Complete HRM 100.				
Today's Culinary Professional	HRM 100	SU/IN	1	
		Total	**1**	
Semester 2 • Meet with Academic Advisor to discuss associate degree (Program Code: HRFO); or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete HRM 111 (4 credits); or complete CUL 111 (2 credits) and CUL 112 (2 credits).				
Trawl to Table	CUL 141	F	1	
Basic Foods: Mise En Place	HRM 110	F/S	3	
Basic Foods: Basic Boucher & Patissier **OR**	HRM 111	F/S	4	Coreq: HRM 110
Introduction to Meats **AND**	CUL 111			Coreq: HRM 110 or HRM 115
Introduction to Poultry & Seafood	CUL 112			
Sanitation Certification	HRM 115	F/S/SU	1	
Hotel/Restaurant Management Cooperative Education Practicum	HRM 298	F/S/SU	1-2	Approval of Program Coordinator
Culinary Elective	---	F/S	1	
		Total	**11-12**	
Semester 3 • Apply to associate degree (Program Code: HRFO); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete HRM 112 (4 credits); or complete CUL 113 (2 credits) and CUL 114 (2 credits). • Submit an Intent to Graduate Form, located on *The Q.*				
Farm to Table	CUL 142	S	1	
Basic Foods: Garde-Manager & Saucier **OR**	HRM 112	F/S	4	Coreq: HRM 110
Introduction to Vegetables, Fruits & Grains **AND**	CUL 113			Coreq: HRM 110 or HRM 115
Introduction to Dairy, Salads & Sandwiches	CUL 114			
Basic Foods: Principles of Baking	HRM 113	F/S	3	
Hotel/Restaurant Management Cooperative Education Practicum	HRM 298	F/S/SU	1-2	Approval of Program Coordinator
Culinary Elective	---	F/S	1	
Culinary Elective	---	F/S	1	
Hotel/Restaurant Management Elective or Culinary Elective	---	F/S/SU	3	
		Total	**14-15**	
Total Credits Required:			**26-28**	

For information on electives, see p. 373-374.

CERTIFICATE - DMC

Dietary Management Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Hospitality and Recreation Management - Hospitality Management Option
- Hospitality and Recreation Management - Foodservice Management Option

Location

- HRM and CUL courses are offered at QCC at the Worcester Senior Center.
- This program may be completed face-to-face; selected courses may also be available online.
- Students may be required to travel to alternate locations to complete laboratory and field experience requirements in HRM courses.

Program Goals

The QCC Dietary Management Certificate program includes academic coursework and 150 hours of practical field experience that prepares students for entry-level foodservice managerial positions in schools, hospitals, long-term care facilities, assistive living centers, and correctional facilities, as well as for certification and/or continuing education. The QCC Dietary Management Certificate is approved by the Association of Nutrition & Foodservice Professionals (ANFP). Students are eligible for the ANFP Pre-Professional membership; graduates of the program are eligible to apply for the Certified Dietary Manager (CDM) Credentialing Exam under the ANFP Pathway I, administered by the Certifying Board for Dietary Managers (CBDM) and ANFP Professional membership.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Manage and evaluate functional systems in dietary foodservice operations.
- Integrate human, financial, and equipment resources into foodservice operations.
- Demonstrate professional ethics and work effectiveness within a team.
- Manage and evaluate interpersonal relationships.
- Plan and prepare a menu that is nutritionally sound.

Note: Students completing the pathways (education plus experience) are eligible to apply for the Certified Dietary Manager (CDM) Credentialing Exam under Pathway I, administered by the Certifying Board for Dietary Managers (CBDM).

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required for all Dietary Management students. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Students who successfully complete HRM 111 and HRM 112 may sit for the National Restaurant Association Cooking Certificate. Additional fees may be assessed for this examination.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 52.0904.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Students completing the pathways (education plus experience) are eligible to take the Certified Dietary Manager (CDM) Credentialing Exam under Pathway I, administered by the Certifying Board for Dietary Managers (CBDM). For more information, visit www.cbdmonline.org.
- This program includes 150 hours of field experience coordinated by a registered dietitian; of the 150 hours, 25 hours are spent directly working with a dietitian and 25 hours are spent directly working with a CDM, DTR, or RD.

Program Email: hrm@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: DMC). • Register for and successfully complete all courses to graduate in two semesters. • Meet with Program Coordinator to discuss pathway to ANFP certification and to plan supervised field experience. • Meet with Career Services to discuss the co-op process and leads for co-op placements. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for HRM 299). See www.QCC.edu/career-services. • Meet with Academic Advisor to discuss associate degree (Program Code: HRFO, HRHO); or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete HRM 112 (4 credits); or complete CUL 113 (2 credits) and CUL 114 (2 credits).				
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Basic Foods: Mise En Place	HRM 110	F/S	3	
Basic Foods: Garde-Manager & Saucier **OR**	HRM 112	F/S	4	Coreq: HRM 110
Introduction to Vegetables, Fruits & Grains **AND**	CUL 113			Coreq: HRM 110 or HRM 115
Introduction to Dairy, Salads & Sandwiches	CUL 114			
Sanitation Certification	HRM 115	F/S/SU	1	
Food and Beverage Cost Control	HRM 131	F/S	3	
Contract Foodservice Management	HRM 215	F/S	3	Coreq: HRM 110 or HRM 115
		Total	**14**	
Semester 2 • Schedule exam prep course; meet with Program Coordinator to schedule exam. • Apply to associate degree (Program Code: HRFO, HRHO); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete HRM 111 (4 credits); or complete CUL 111 (2 credits) and CUL 112 (2 credits). • Complete HRM 298 (2 credits); or complete HRM 299 (2 credits). • Submit an Intent to Graduate Form, located on *The Q.*				
Basic Foods: Basic Boucher & Patissier **OR**	HRM 111	F/S	4	Coreq: HRM 110
Introduction to Meats **AND**	CUL 111			Coreq: HRM 110 or HRM 115
Introduction to Poultry & Seafood	CUL 112			
Nutrition for Dietary and Foodservice Professionals	HRM 217	F/S	3	Coreq: CUL 111 or CUL 112 or CUL 113 or CUL 114 or HRM 110
Hospitality Law and Ethics	HRM 221	F/S	3	
Management in the Hospitality Industry	HRM 235	S	3	
Hotel/Restaurant Management Cooperative Education Practicum **OR**	HRM 298	F/S/SU	2	Approval of Program Coordinator
Cooperative Work Experience	HRM 299			CPS 298, Approval of Program Coordinator
		Total	**15**	
Total Credits Required:			**29**	

For information on electives, see p. 373-374.

CERTIFICATE - ENS

Entrepreneurship and Small Business Management Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Business Administration Career

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Entrepreneurship and Small Business Management Certificate focuses on the skills and knowledge needed to create or manage a small business.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Understand the actions taken to acquire and retain customers; produce goods and services; and measure/track financial performance.
- Understand the leadership skills and personal characteristics needed to succeed in starting and managing a small business.
- Research, develop, and implement a business plan.
- Analyze financial statements to determine strengths or weaknesses of an existing business.
- Understand the basic principles of small business marketing.
- Demonstrate proficiency in computer applications.
- Communicate effectively using written, oral, and non-verbal techniques, including the use of appropriate technology in the gathering and presentation of information.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 52.0703.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: businessadmin@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: ENS). • Register for and successfully complete all courses to graduate in two semesters. • Meet with Academic Advisor to discuss associate degree (Program Code: BB); or create an account on the QCC job board to search for internships, co-ops and jobs.				
Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Personal Financial Planning	FIN 111	F/S	3	Placement into college level English
Entrepreneurship and Small Business Management	MGT 216	F/S	3	Placement into college level English
		Total	**15**	
Semester 2 • Apply to associate degree (Program Code: BB); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
Computerized Accounting	ACC 231	F/S	3	ACC 101, CIS 111
Principles of Microeconomics	ECO 216	F/S/SU	3	Coreq: ENG 101
Principles of Marketing	MRK 201	F/S/SU	3	Placement into college level English
Humanities Elective	---	F/S/SU	3	
		Total	**12**	
Total Credits Required:			**27**	

For information on electives, see p. 373-374.

CERTIFICATE - FM

Foodservice Management Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Hospitality and Recreation Management - Hospitality Management Option
- Hospitality and Recreation Management - Foodservice Management Option

Location

- HRM and CUL courses are offered at QCC at the Worcester Senior Center.
- This program may be completed face-to-face.

Program Goals

A graduate of the QCC Foodservice Management Certificate program will have knowledge and skills necessary for entry-level management in both front-of-the-house and back-of-the-house operations. This program is a proud partner with the National Restaurant Association and the CHRIE serve success program. Students can earn simultaneous credentialing with these programs.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Manage and evaluate functional systems in foodservice operations.
- Integrate human, financial, and equipment resources into foodservice operations.
- Demonstrate professional ethics and work effectiveness within a team.
- Manage and evaluate interpersonal relationships.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required for students working at the Diner. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Students who successfully complete HRM 111 and HRM 112 will sit for the National Restaurant Association Cooking Certificate. Additional fees may be assessed for this examination.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- Students who graduated from area hospitality or culinary high school programs may have articulated credit.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 52.0905.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- All courses in the certificate program apply to the associate degree.

Program Email: hrm@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: FM). • Apply for prior credit articulated from technical high school program. • Register for and successfully complete all courses to graduate in two semesters. • Meet with Academic Advisor to discuss associate degree (Program Code: HRFO, HRHO); or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete HRM 110. • Complete HRM 111 (4 credits); or complete CUL 111 (2 credits) and CUL 112 (2 credits).				
Introduction to Hotel/Restaurant Management	HRM 101	F/S	3	
Basic Foods: Mise En Place	HRM 110	F/S	3	
Basic Foods: Basic Boucher & Patissier **OR**	HRM 111	F/S	4	Coreq: HRM 110
Introduction to Meats **AND**	CUL 111			Coreq: HRM 110 or HRM 115
Introduction to Poultry & Seafood	CUL 112			
Sanitation Certification	HRM 115	F/S/SU	1	
Hospitality Law and Ethics	HRM 221	F/S	3	
		Total	**14**	
Semester 2 • Apply to associate degree (Program Code: HRFO, HRHO); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete HRM 112 (4 credits); or complete CUL 113 (2 credits) and CUL 114 (2 credits). • Submit an Intent to Graduate Form, located on *The Q.*				
Basic Foods: Garde-Manager & Saucier **OR**	HRM 112	F/S	4	Coreq: HRM 110
Introduction to Vegetables, Fruits & Grains **AND**	CUL 113			Coreq: HRM 110 or HRM 115
Introduction to Dairy, Salads & Sandwiches	CUL 114			
Food and Beverage Cost Control	HRM 131	F/S	3	
Business Elective	---	F/S/SU	3	
Hotel/Restaurant Management Elective or Culinary Elective	---	F/S/SU	3	
		Total	**13**	
Total Credits Required:			**27**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - HRFO

Hospitality and Recreation Management - Foodservice Management Option

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Hospitality Management Certificate
- Foodservice Management Certificate
- Culinary Arts Certificate
- Dietary Management Certificate

Location

- This program may be completed 50% or more online.
- HRM and CUL courses are offered at QCC at the Worcester Senior Center; other courses may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The goal of the Hospitality and Recreation Management program is to integrate business academics in an entrepreneurial, experiential setting, providing graduates of the Hospitality and Recreation Management - Foodservice Management Option the confidence, knowledge, and skills to successfully advance the area's Hospitality and Recreation Industry.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate and develop leadership skills through group cooperation.
- Demonstrate and develop technical skills through practical "real life" experience in the industry.
- Recognize the importance of quality and ethics in interpersonal relationships.
- Demonstrate improved ability to exercise judgment and critically analyze problems.
- Demonstrate professional written, oral, and non-verbal communication skills.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required for students working at the Diner. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Students who successfully complete HRM 111 and HRM 112 will sit for the National Restaurant Association Cooking Certificate. Additional fees may be assessed for this examination.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- Students who graduated from area hospitality or culinary high school programs may have articulated credit.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 52.0905.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- All courses in the certificate program apply to the associate degree.
- All HRM courses follow a block scheduling, meeting once per week for convenient scheduling.
- HRM and CUL courses meet at QCC at the Worcester Senior Center.

Program Email: hrm@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: HRFO). • Apply for prior credit articulated from technical high school program. • Register for and successfully complete all courses to graduate in four semesters. • Complete ENG 101 and HRM 110. • Complete HRM 111 (4 credits); or complete CUL 111 (2 credits) and CUL 112 (2 credits).				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Hotel/Restaurant Management	HRM 101	F/S	3	
Basic Foods: Mise En Place	HRM 110	F/S	3	
Basic Foods: Basic Boucher & Patissier **OR**	HRM 111	F/S	4	Coreq: HRM 110
Introduction to Meats **AND**	CUL 111			Coreq: HRM 110 or HRM 115
Introduction to Poultry & Seafood	CUL 112			
Sanitation Certification	HRM 115	F/S/SU	1	
Hospitality Law and Ethics	HRM 221	F/S	3	
		Total	**17**	
Semester 2 • Meet with Career Services to discuss the co-op process and leads for co-op placements. • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete HRM 112 (4 credits); or complete CUL 113 (2 credits) and CUL 114 (2 credits).				
Composition II	ENG 102	F/S/SU	3	ENG 101
Basic Foods: Garde-Manager & Saucier **OR**	HRM 112	F/S	4	Coreq: HRM 110
Introduction to Vegetables, Fruits & Grains **AND**	CUL 113			Coreq: HRM 110 or HRM 115
Introduction to Dairy, Salads & Sandwiches	CUL 114			
Food and Beverage Cost Control	HRM 131	F/S	3	
Dining Room and Banquet Management	HRM 218	S	3	
Hotel/Restaurant Management Elective or Culinary Elective	---	F/S/SU	3	
		Total	**16**	

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 3 • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for HRM 299). See www.QCC.edu/career-services. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs.				
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Nutrition for Foodservice Management **OR**	HRM 216	F/S	3	Coreq: CUL 111 or CUL 112 or CUL 113 or CUL 114 or HRM 110
Nutrition for Dietary and Foodservice Professionals	HRM 217			
Psychology of Interpersonal Relations **OR**	PSY 118	F	3	Placement into college level English
Human Relations in Organizations	PSY 158	F/S/SU		
Liberal Arts Elective	---	F/S/SU	3	
Mathematics Elective or Science Elective	---	F/S/SU	3-4	
Multiple Perspectives Elective	---	F/S/SU	3	
		Total	**15-16**	
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete HRM 298 (2 credits); or complete HRM 299 (2-6 credits). • Submit an Intent to Graduate Form, located on *The Q.*				
Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English
Hotel/Restaurant Management Cooperative Education Practicum **OR**	HRM 298	F/S/SU	2-6	Approval of Program Coordinator
Cooperative Work Experience	HRM 299			CPS 298, Approval of Program Coordinator
Business Elective	---	F/S/SU	3	
Hotel/Restaurant Management Elective or Culinary Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
		Total	**14-18**	
Total Credits Required:			**62-67**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - HRHO

Hospitality and Recreation Management - Hospitality Management Option

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Foodservice Management Certificate
- Culinary Arts Certificate
- Dietary Management Certificate
- Hospitality Management Certificate

Location

- This program may be completed 50% or more online.
- HRM and CUL courses are offered at QCC at the Worcester Senior Center; other courses may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The goal of the Hospitality and Recreation Management program is to integrate business academics in an entrepreneurial, experiential setting, providing graduates of the Hospitality and Recreation Management - Hospitality Management Option the confidence, knowledge, and skills to successfully advance the area's Hospitality and Recreation Industry.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate and develop leadership skills through group cooperation.
- Demonstrate and develop technical skills through practical "real life" experience in the industry.
- Recognize the importance of quality and ethics in interpersonal relationships.
- Demonstrate improved ability to exercise judgment and critically analyze problems.
- Demonstrate professional written, oral, and non-verbal communication skills.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required for students working at the Diner. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- Students who graduated from area hospitality or culinary high school programs may have articulated credit.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 52.0901.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- All courses in the certificate program apply to the associate degree.
- HRM courses may be used as Business Electives.

Program Email: hrm@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: HRHO). • Apply for prior credit articulated from technical high school program. • Register for and successfully complete all courses to graduate in four semesters. • Complete ENG 101.				
Introduction to Microcomputer Applications **OR**	CIS 111	F/S/SU	3	
Business Elective	---			
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Hotel/Restaurant Management	HRM 101	F/S	3	
Front Office Operations	HRM 135	F	3	
Hospitality Law and Ethics	HRM 221	F/S	3	
		Total	**15**	
Semester 2 • Meet with Career Services to discuss the co-op process and leads for co-op placements. • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer.				
Composition II	ENG 102	F/S/SU	3	ENG 101
Front Office Management	HRM 136	S	3	
Bar and Beverage Management	HRM 139	S	3	
Management in the Hospitality Industry	HRM 235	S	3	
Hotel/Restaurant Management Elective or Culinary Elective	---	F/S/SU	3	
		Total	**15**	
Semester 3 • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for HRM 299). See www.QCC.edu/career-services. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs.				
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Hotel Meetings: Sales and Operations	HRM 232	F	3	
Destination Marketing and Management	HRM 236	F	3	
Psychology of Interpersonal Relations **OR**	PSY 118	F	3	Placement into college level English
Human Relations in Organizations	PSY 158	F/S/SU		

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Mathematics Elective or Science Elective	---	F/S/SU	3-4	
Multiple Perspectives Elective	---	F/S/SU	3	
		Total	**15-16**	
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English
Cooperative Work Experience	HRM 299	F/S/SU	2-6	CPS 298, Approval of Program Coordinator
Business Elective	---	F/S/SU	3	
Hotel/Restaurant Management Elective or Culinary Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
		Total	**17-21**	
Total Credits Required:			**62-67**	

For information on electives, see p. 373-374.

CERTIFICATE - HO

Hospitality Management Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Hospitality and Recreation Management - Hospitality Management Option
- Hospitality and Recreation Management - Foodservice Management Option

Location

- This program may be completed 50% or more online.
- HRM and CUL courses are offered at QCC at the Worcester Senior Center; other courses may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Hospitality Management Certificate is designed for individuals with industry experience who desire to advance into management positions. The curriculum is designed to build upon an individual's industry experience and knowledge of operations and job responsibilities.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Manage and evaluate functional systems in hospitality operations.
- Integrate human, financial, and equipment resources into hospitality operations.
- Demonstrate professional ethics and work effectiveness within a team.
- Manage and evaluate interpersonal relationships.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required for students working at the Diner. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- Students who graduated from area hospitality or culinary high school programs may have articulated credit.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 52.0904.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- All courses in the certificate program apply to the associate degree.
- HRM courses may be used as Business Electives.

Program Email: hrm@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: HO). • Apply for prior credit articulated from technical high school program. • Register for and successfully complete all courses to graduate in two semesters. • Meet with Career Services to discuss the co-op process and leads for co-op placements. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for HRM 299). See www.QCC.edu/career-services. • Meet with Academic Advisor to discuss associate degree (Program Code: HRFO, HRHO); or create an account on the QCC job board to search for internships, co-ops and jobs.				
Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English
Introduction to Microcomputer Applications **OR**	CIS 111	F/S/SU	3	
Business Elective	---			
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Hospitality Accounting and Revenue Management	HRM 201	F/S	3	
Hospitality Law and Ethics	HRM 221	F/S	3	
		Total	**12**	
Semester 2 • Apply to associate degree (Program Code: HRFO, HRHO); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
Front Office Management	HRM 136	S	3	
Management in the Hospitality Industry	HRM 235	S	3	
Cooperative Work Experience	HRM 299	F/S/SU	2-6	CPS 298, Approval of Program Coordinator
Psychology of Interpersonal Relations **OR**	PSY 118	F	3	Placement into college level English
Human Relations in Organizations	PSY 158	F/S/SU		
Business Elective	---	F/S/SU	3	
		Total	**14-18**	
Total Credits Required:			**26-30**	

For information on electives, see p. 373-374.

CERTIFICATE - LOGC

Logistics/Supply Chain Management Certificate

This program is not accepting applications for the 2025-2026 academic year.

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Business Administration Career

Location

- This program may be completed 80% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Logistics/Supply Chain Management Certificate prepares students for entry-level positions in the fields of transportation, distribution/warehousing, and purchasing. Students will gain an understanding of logistics and supply chain management, as well as the communication, analytical, and managerial skills necessary to be successful in a variety of business environments. Students also build a foundation of core supply chain management knowledge that can form the basis for further study in this field. Students may elect to participate in a Co-op Experience to further enhance education gained in the classroom.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Understand the key functional areas of logistics, including transportation, distribution, warehousing, inventory management, and purchasing, and how they interact within the overall supply chain.
- Demonstrate a basic understanding of financial accounting and its relationship to supply chain activities of a firm.
- Create effective business communications, including letters, proposals, e-mails, etc., as well as prepare and deliver impactful oral presentations.
- Apply hands-on experience in word processing, spreadsheet analysis, and database management to the logistics and supply chain activities of a business.
- Use statistics, including measures of central tendency and measures of dispersion, to analyze the efficiency of logistics operations.
- Lead group activities, organize discussions, and apply interpersonal skills to a variety of business situations.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

- Prospective students should note that CORI/SORI checks, fingerprinting, and drug testing may be required by an internship host employer in order to complete BUS 298 (if choosing BUS 298 as a Program Elective).

Additional Cost

See the Program Fees (Page 27).

- Students enrolled in BUS 298 may incur an additional expense for professional liability insurance.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 52.0203.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: businessadmin@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: LOGC). • Register for and successfully complete all courses to graduate in two semesters. • If choosing BUS 298 for one of the Program Electives (Semester 2), meet with Career Services to discuss the internship process and leads for internship placements. • If choosing BUS 298 for one of the Program Electives (Semester 2), contact Career Services to complete all requirements of CPS 298 (required prior to registration for BUS 298). See www.QCC.edu/career-services. • Meet with Academic Advisor to discuss associate degree (Program Code: BB); or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete prerequisite(s) for MAT 122.				
Financial Accounting I **OR**	ACC 101	F/S/SU	3	Placement into college level English
Principles of Macroeconomics	ECO 215			Coreq: ENG 101
Introduction to Microcomputer Applications **OR**	CIS 111			
Advanced Microcomputer Applications	CIS 112	F/S/SU	3	CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Business Logistics	LOG 105	F	3	Placement into college level English
Principles of Management	MGT 211	F/S/SU	3	Placement into college level English
		Total	**15**	
Semester 2 • For the Program Electives, choose: BUS 298, LOG 106, LOG 107, LOG 208, or MNT 100 (see individual course descriptions for semester offerings and prerequisites). • Apply to associate degree (Program Code: BB); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
Integrated Communications for Business	BUS 201	F/S/SU	3	CIS 111, Placement into college level English
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
Program Elective	---	F/S/SU	3	
Program Elective	---	F/S/SU	3	
		Total	**12**	
Total Credits Required:			**27**	

For information on electives, see p. 373-374.

CERTIFICATE - MSBB

Medical Office Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Business Administration Career - Administrative Professional Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Medical Office Certificate focuses on the clerical skills and specialized knowledge needed in a medical or dental office setting. Upon graduation, students will be prepared for entry-level positions as medical administrative assistants/receptionists or may move seamlessly into the Business Administration Career - Administrative Professional Option associate degree program.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate keyboarding speed and accuracy, with a minimum touch keyboarding rate of 30-35 words per minute on a three-minute timed writing, with at least 90% accuracy.
- Communicate clearly and effectively.
- Understand the coding systems and recordkeeping programs used in medical facilities.
- Learn how the various components of the patient billing system relate to the accounting system in a medical office.
- Recognize the legal, ethical, and bioethical issues encountered in a medical office and deal with those issues in an informed, legal, and sensitive manner.
- Produce accurate medical transcriptions in a timely manner, using appropriate medical terminology.
- Understand records management, appointment scheduling, and business etiquette, and develop excellent customer service skills.
- Complete a 150- to 225-hour structured learning experience in which students apply skills and knowledge learned in the classroom to a work experience.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

- Prospective students should note that CORI/SORI checks, fingerprinting, and drug testing may be required by an internship host employer in order to complete BUS 298.

Additional Cost

See the Program Fees (Page 27).

- Students enrolled in BUS 298 may incur an additional expense for professional liability insurance.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0716.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: businessadmin@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: MSBB). • Register for and successfully complete all courses to graduate in two semesters. • Meet with Career Services to discuss the internship process and leads for internship placements. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for BUS 298). See www.QCC.edu/career-services. • Meet with Academic Advisor to discuss associate degree (Program Code: BBAP); or create an account on the QCC job board to search for internships, co-ops and jobs.				
Introduction to Medical Terminology	ALH 102	F/S/SU	3	Placement into college level English
Medical Law and Ethics	ALH 106	F/S	3	Placement into college level English
Keyboarding Applications	BSS 101	F/S/SU	3	Placement into college level English
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		Total	**15**	
Semester 2 • Apply to associate degree (Program Code: BBAP); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
Medical/Dental Billing and Insurance	BSS 112	F/S	3	ALH 102
Integrated Communications for Business	BUS 201	F/S/SU	3	CIS 111, Placement into college level English
Business Administration Capstone **OR**	BUS 250			CIS 111, Coreq: ACC 101 or CIS 212
Career Strategies & Internship Experience	BUS 298	F/S	3	CIS 111, CPS 298, Coreq: ACC 101 or CIS 212
Electronic Health Records	CIS 212	F/S	3	ALH 102, CIS 111
		Total	**12**	
Total Credits Required:			**27**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - CIES

Computer Information Systems - Career - Enterprise Information Systems

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Computer Information Systems - Web Applications Certificate
- Computer Information Systems - Database Certificate

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Computer Information Systems - Career - Enterprise Information Systems program is a career-based program which will prepare the student to work in a business information systems environment. The curriculum provides hands-on experience in application software, web development platforms, program development languages, and database design methodologies. The primary focus of this program is application software development in a business environment. This program will prepare the student to perform in an entry-level role as a web developer, entry-level database support specialist, and programmer in a business information environment. The Cooperative Work Experience is a requirement in this program and provides an opportunity for the student to apply classroom knowledge to practical work experience, such as:

- Analyze existing information systems (either computer or non-computer systems).
- Design, write, test/debug, and implement detailed programs using several different languages.
- Work with database applications to create, retrieve, update, and delete records.
- Create static and dynamic web pages by integrating database applications.
- Write detailed documentation for new or existing computer information systems.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Analyze and design information systems and database applications utilizing the Microsoft software frameworks to construct professional information systems applications for web and database environments.
- Develop advanced programming, data, dataset, and file techniques.
- Apply the SDLC - including project management concepts to typical business applications.
- Code intermediate and advanced SQL and PL/SQL programs for the solution of business applications.
- Design, organize, and maintain a Relational Database Management System (RDMS) per industry Database System Development Life Cycle (DSDLC) standards.
- Implement a design solution to solve business Information Systems (IS) problems using state-of-the-art programming techniques and application software.
- Develop advanced client-server side web applications.
- Troubleshoot information systems to resolve user problems.
- Apply end user basic software to develop word processing documents, spreadsheets, and presentations.
- Communicate professionally and effectively by writing detailed documentation for a new or existing information system.
- Exhibit professional, legal, and ethical behavior.
- Identify essential business techniques, including communications, math, and writing.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- English: Placement into college level English.

CORI, SORI, Finger Printing & Drug Testing

Prospective students should note that, as a condition of cooperative education employment, Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks, fingerprinting, and drug testing may be required.

Additional Cost

See the Program Fees (Page 27).

- Students must have access to a PC or laptop using Windows environment.
- Students enrolled in CIS 299 may incur an additional expense for professional liability insurance.
- Students enrolled in CIS 229, CIS 232, and CIS 246 will be required to bring their own laptop to class.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: CIES). • Register for and successfully complete all courses to graduate in five semesters. • Contact Program Coordinator for laptop requirements. • Complete CIS 105 or CIS 111. • Complete CIS 121, CIS 134, ENG 101, and MAT 122.				
Introduction to Information Technology **OR**	CIS 105	F/S	3	
Introduction to Microcomputer Applications	CIS 111	F/S/SU		
Introduction to Programming with C++	CIS 121	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Web Page Development I	CIS 134	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
		Total	**15**	
Semester 2 • Meet with Career Services to discuss the co-op process and leads for co-op placements. • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete CIS 223 and ENG 102.				
Management of Data Analytics	CIS 206	S	3	CIS 105 or CIS 111 or CIS 243, MAT 122
.NET Programming I	CIS 223	S	3	CIS 105 or CIS 111, CIS 121 or CSC 108
SQL Programming	CIS 228	S	3	CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Web Page Development II	CIS 234	S	3	CIS 121 or CSC 108, CIS 134
Database Management Application Development	CIS 243	S	3	CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition II	ENG 102	F/S/SU	3	ENG 101
		Total	**18**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 3 (Summer)				
Introduction to Data Communication & Networks **OR**	CIS 141	S/SU	3-4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Networking Technologies	CSC 234	F/S/SU		Coreq: CSC 141
Liberal Arts Elective	---	F/S/SU	3	
		Total	**6-7**	
Semester 4 • Meet with Program Coordinator to discuss readiness for CIS 299. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for CIS 299). See www.QCC.edu/career-services. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete CIS 232 and CIS 241.				
.NET Programming II	CIS 232	F	3	CIS 223
Systems Analysis & Design	CIS 241	F	3	CIS 121 or CIS 223 or CIS 226 or CIS 230 or CSC 108
Pre Cooperative Education Seminar	CPS 298	F/S	0	
CIS Elective (200-level)	---	F/S/SU	3	
CIS Elective (200-level)	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
		Total	**15**	
Semester 5 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
.NET Programming III	CIS 246	S	3	CIS 134, CIS 232
Quality Assurance Foundations	CIS 251	S	1	CIS 121 or CSC 108 or CSC 201
Information Architecture/User Interface Foundations	CIS 252	S	1	CIS 121 or CSC 108, CIS 134
Security Techniques in Programming	CIS 253	S	1	CIS 121 or CSC 108, CIS 134
Cooperative Work Experience	CIS 299	S	3	CIS 241, CPS 298, Approval of Program Coordinator

Course Title	Course #	Semester Offered	Credits	Prerequisites
Technical and Workplace Writing	ENG 205	F/S/SU	3	ENG 102, Computer Literacy
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**15**	
Total Credits Required:			**69-70**	
Suggested CIS Electives Course Sequence				
Semester	**Database Focus**		**Programming Focus**	**Web Design Focus**
4	CIS 229 and CIS 244		CIS 225 and CIS 226 or CIS 229	CIS 226 and CIS 230

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.0103.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Some courses may utilize a virtual laboratory; contact the Program Coordinator for minimum hardware and software requirements.

Program Email: cis@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - DS

Computer Information Systems - Data Science Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Computer Information Systems - Career - Enterprise Information Systems

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Data Science Certificate is designed to provide the students with basic knowledge and skills necessary to pursue internship or junior data practitioner jobs in the field of Data Science. This certificate is ideal for adult students re-entering college or for students who are currently in the workforce and want to update their skill sets. The curriculum may be completed in one academic year, depending on the student's background in computer applications. The curriculum is designed to gain knowledge in the topic of database design, and programming languages specifically used in the field of Data Science. This certificate is for anyone who wants to work in the field of Data Science.

- Work with database applications to create, retrieve, update, and delete records.
- Using Python, and R and R Studio to display large amount of data in an easily readable graphing format.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Use a general-purpose computational environment to analyze data.
- Scrape, process, cleanse, and wrangle data from various sources, including relational databases.
- Design accurate, clear, and appropriate data graphics using R, R Studio, and Python.
- Communicate the results of an analysis in a correct and comprehensible manner by selecting appropriate data visualizations.
- Assess the ethical implications to society of data-based research, analysis, and technology in an informed manner.
- Acquire basic programming, data, and database techniques to design and code complex queries.
- Apply database management application development techniques to basic business applications.
- Code intermediate and advanced SQL scripts, Python and R programming to gather and manipulate data for the solution of business applications.
- Apply end user basic software to develop word processing documents, spreadsheets, databases and presentations.
- Locate databases sources, and convert the data into readable and analyzable formats.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Students must have access to a PC or laptop using Windows environment.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 30.7001

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: DS). • Register for and successfully complete all courses to graduate in two semesters. • Complete CIS 111 and CIS 121.				
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Introduction to Programming with C++	CIS 121	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Introduction to Programming Using Python	CSC 101	F/S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
		Total	**12**	
Semester 2 • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Advanced Microcomputer Applications	CIS 112	F/S/SU	3	CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Management of Data Analytics	CIS 206	F	3	CIS 105 or CIS 111 or CIS 243, MAT 122
.NET Programming I	CIS 223	S	3	CIS 105 or CIS 111, CIS 121 or CSC 108
SQL Programming	CIS 228	S	3	CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Database Management Concepts	CIS 244	S	3	CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
		Total	**15**	
Total Credits Required:			**27**	

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Some courses may utilize a virtual laboratory; contact the Program Coordinator for minimum hardware and software requirements.

Program Email: cis@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - DB

Computer Information Systems - Database Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Computer Information Systems - Career - Enterprise Information Systems

Location

- This program may be completed 80% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Database Certificate is designed to provide the student with the basic knowledge and skills necessary for career opportunities in entry-level database design, management, or administration. This certificate is ideal for adult students re-entering college or for students who are currently in the workforce and want to update their skill sets. The curriculum may be completed in one academic year, depending on the student's background in computer applications. Courses in general computer applications and basic programming are combined with basic database development tools and approaches through the use of Relational Database Management Systems (RDBMS) and SQL. At the completion of this certificate, students will be able to manipulate data in complex RDBMS structures. This certificate is for anyone who wants to understand basic database design and implementation technologies in today's workplace.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Apply database management application development techniques to basic business applications.
- Code intermediate and advanced SQL and PL/SQL programs for the solution of business applications.
- Apply end user basic software to develop word processing documents, spreadsheets, and presentations.
- Design Relational Database Management System (RDMS) per industry Database System Development Life Cycle (DSDLC) standards.
- Demonstrate knowledge of fundamental business methods, including communications, math, and writing.
- Demonstrate personal productivity with Information Systems (IS) technology.
- Develop basic programming, data, and database techniques.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Students must have access to a PC or laptop using Windows environment.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.0802.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Some courses may utilize a virtual laboratory; contact the Program Coordinator for minimum hardware and software requirements.

Program Email: cis@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: DB). • Register for and successfully complete all courses to graduate in two semesters. • Complete CIS 105, CIS 111, and CIS 121.				
Introduction to Information Technology	CIS 105	F/S	3	
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Introduction to Programming with C++	CIS 121	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**12**	
Semester 2 • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Introduction to Data Communication & Networks **OR**	CIS 141	S/SU	3-4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Networking Technologies	CSC 234	F/S/SU		Coreq: CSC 141
.NET Programming I	CIS 223	S	3	CIS 105 or CIS 111, CIS 121 or CSC 108
SQL Programming	CIS 228	S	3	CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Database Management Application Development	CIS 243	S	3	CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Database Management Concepts	CIS 244	S	3	CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
		Total	**15-16**	
Total Credits Required:			**27-28**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - CIHI

Computer Information Systems - Health Information Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Computer Information Systems - Health Information Option will prepare students to work in various health-related industries, such as hospitals, clinics, insurance, etc. The program curriculum provides hands-on computer experience in spreadsheet, web development, data communication, database development and management, basic programming, and systems analysis and design. Additional courses include medical law and ethics, medical coding, medical billing and insurance, and electronic health records. The Cooperative Work Experience is a requirement in this program and provides an opportunity for students to apply classroom knowledge to practical work experience. Career opportunities for the Health Information Option may include positions as medical records and health information technicians and entry-level database support specialists.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Analyze and design information systems and database applications utilizing the Microsoft software frameworks to construct professional information systems applications for web and database environments.
- Develop programming, data, and database techniques.
- Code intermediate SQL programs for the solution of business applications.
- Design, organize, and maintain a Relational Database Management System (RDMS) per industry Database System Development Life Cycle (DSDLC) standards.
- Apply end user basic software to develop word processing documents, spreadsheets, and presentations.
- Demonstrate the use and operate an EHR (Electronic Health Records) software package.
- Explain the basic components and emerging principles and concepts that impact the health industry, such as HIPAA requirements, patient confidentiality, a team-based approach, and workflow processes in a health care setting.
- Evaluate and apply the merits, risks, and social concerns of activities in the field of healthcare.
- Explain relevant local, state, and federal laws and regulations that impact the health industry.
- Identify essential business techniques, including communications, math, and writing.
- Use standard documentation procedures to collect and communicate appropriate health information within legal and regulatory requirements.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Prospective students should note that, as a condition of cooperative education employment, Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks, fingerprinting, and drug testing may be required.

Additional Cost

See the Program Fees (Page 27).

- Students must have access to a PC or laptop using Windows environment.
- Students enrolled in CIS 299 may incur an additional expense for professional liability insurance.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0707.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: CIHI). • Register for and successfully complete all courses to graduate in five semesters. • Complete ALH 102, CIS 111, ENG 101, and MAT 100.				
Introduction to Medical Terminology	ALH 102	F/S/SU	3	Placement into college level English
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Composition I	ENG 101	F/S/SU	3	Placement into college level English
College Algebra	MAT 100	F/S/SU	3	QMAT placement score > 32 or Coreq: MAT 097
Liberal Arts Elective	---	F/S/SU	3	
		Total	**15**	
Semester 2 • Meet with Career Services to discuss the co-op process and leads for co-op placements. • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete CIS 121 and ENG 102.				
Medical Law and Ethics	ALH 106	F/S	3	Placement into college level English
Introduction to Programming with C++	CIS 121	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Web Page Development I	CIS 134	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Introduction to Data Communication & Networks **OR**	CIS 141	S/SU	3-4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Networking Technologies	CSC 234	F/S/SU		Coreq: CSC 141
Composition II	ENG 102	F/S/SU	3	ENG 101
		Total	**15-16**	
Semester 3 (Summer)				
Principles of Human Biology	BIO 100	F/S/SU	4	Placement into college level English
Liberal Arts Elective	---	F/S/SU	3	
		Total	**7**	
Semester 4 • Meet with Program Coordinator to discuss readiness for CIS 299. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for CIS 299). See www.QCC.edu/career-services. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete CIS 241.				

Course Title	Course #	Semester Offered	Credits	Prerequisites
Medical/Dental Billing and Insurance	BSS 112	F/S	3	ALH 102
Advanced Microcomputer Applications	CIS 112	F/S/SU	3	CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Electronic Health Records	CIS 212	F/S	3	ALH 102, CIS 111
Systems Analysis & Design	CIS 241	F	3	CIS 121 or CIS 223 or CIS 226 or CIS 230 or CSC 108
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
		Total	**15**	
Semester 5 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
SQL Programming	CIS 228	S	3	CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Database Management Application Development	CIS 243	S	3	CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Database Management Concepts	CIS 244	S	3	CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Cooperative Work Experience	CIS 299	S	3	CIS 241, CPS 298, Approval of Program Coordinator
Technical and Workplace Writing	ENG 205	F/S/SU	3	ENG 102, Computer Literacy
		Total	**15**	
Total Credits Required:			**67-68**	

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Some courses may utilize a virtual laboratory; contact the Program Coordinator for minimum hardware and software requirements.

Program Email: cis@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - CITR

Computer Information Systems - Transfer Option

Location

- This program may be completed 80% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Computer Information Systems - Transfer Option is designed to prepare students for transfer to four-year institutions where they can complete the bachelor's degree, preparing the students for professional careers in the rapidly-changing field of computer information systems. Students develop good communication skills and the ability for teamwork and leadership roles in their professional careers. Graduates from the Transfer Option, with a GPA of 2.50 or higher, are guaranteed admission to all Massachusetts state universities and to the University of Massachusetts under the MassTransfer Program.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Analyze and design information systems and database applications solutions to achieve business/organizational goals.
- Implement a designed solution to solve business Information Systems (IS) problems using state-of-the-art programming techniques and application software.
- Apply end user basic software to develop word processing documents, spreadsheets, and presentations.
- Apply knowledge to computing and mathematics appropriate to the discipline.
- Think critically and apply the scientific method.
- Present technical solutions effectively.
- Exhibit professional, legal, and ethical behavior.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- English: Placement into college level English.

CORI, SORI, Finger Printing & Drug Testing

Prospective students should note that, as a condition of cooperative education employment, Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks, fingerprinting, and drug testing may be required.

Additional Cost

See the Program Fees (Page 27).

- Students must have access to a PC or laptop using Windows environment.
- Students enrolled in CIS 232 will be required to bring their own laptop to class.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.0101.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Some courses may utilize a virtual laboratory; contact the Program Coordinator for minimum hardware and software requirements.

Program Email: cis@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: CITR). • Register for and successfully complete all courses to graduate in five semesters. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete CIS 111, CIS 121, ENG 101, and MAT 100.				
Introduction to Information Technology	CIS 105	F/S	3	
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Introduction to Programming with C++	CIS 121	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Composition I	ENG 101	F/S/SU	3	Placement into college level English
College Algebra	MAT 100	F/S/SU	3	QMAT placement score > 32 or Coreq: MAT 097
		Total	**15**	
Semester 2 • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete CIS 223, ENG 102, and MAT 123.				
Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English
.NET Programming I	CIS 223	S	3	CIS 105 or CIS 111, CIS 121 or CSC 108
Principles of Macroeconomics	ECO 215	F/S/SU	3	Coreq: ENG 101
Composition II	ENG 102	F/S/SU	3	ENG 101
College Mathematics I: Pre-Calculus	MAT 123	F/S/SU	3	MAT 100 or approp place score
		Total	**15**	
Semester 3 (Summer) • Complete MAT 124.				
College Mathematics II: Trigonometry	MAT 124	F/S/SU	3	MAT 123 or approp place score
Humanities Elective	---	F/S/SU	3	
		Total	**6**	
Semester 4 • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Complete PHY 101.				
Web Page Development I	CIS 134	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Introduction to Java	CIS 226	F	3	CIS 121 or CSC 108

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
.NET Programming II	CIS 232	F	3	CIS 223
Discrete Mathematics	MAT 125	F/S	3	MAT 123 or approp place score
Physics I	PHY 101	F/SU	4	MAT 148 or Coreq: MAT 124
		Total	**16**	
Semester 5 • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				
Principles of Microeconomics	ECO 216	F/S/SU	3	Coreq: ENG 101
Physics II	PHY 102	S/SU	4	PHY 101
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Humanities Elective	---	F/S/SU	3	
Social Science Elective	---	F/S/SU	3	
		Total	**16**	
Total Credits Required:			**68**	

For information on electives, see p. 373-374.

CERTIFICATE - CWA

Computer Information Systems - Web Applications Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Computer Information Systems - Career - Enterprise Information Systems

Location

- This program may be completed 80% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Web Applications Certificate is designed to provide the student with the basic knowledge and skills necessary for career opportunities as an entry-level web developer or web administrator. This certificate is ideal for adult students re-entering college or for students who are currently in the workforce and want to update their skill sets. The curriculum may be completed in one academic year, depending on the student's background in computer applications. Courses in general computer applications and basic programming are combined with basic web development tools and approaches through the use of HTML structures, Javascript, and CGI. At the completion of this certificate, students will be able to manage complex web applications in today's rapidly-changing Internet world. This certificate is for anyone who wants to understand today's web applications, development, and technology.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Develop basic programming, data, and database techniques.
- Apply end user basic software to develop word processing documents, spreadsheets, and presentations.
- Develop intermediate client side web applications.
- Demonstrate personal productivity with Information Systems (IS) technology.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Students must have access to a PC or laptop using Windows environment.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.0801.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Some courses may utilize a virtual laboratory; contact the Program Coordinator for minimum hardware and software requirements.

Program Email: cis@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: CWA). • Register for and successfully complete all courses to graduate in two semesters. • Complete CIS 105, CIS 111, CIS 121, and CIS 134.				
Introduction to Information Technology	CIS 105	F/S	3	
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Introduction to Programming with C++	CIS 121	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Web Page Development I	CIS 134	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
		Total	**12**	
Semester 2 • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Introduction to Data Communication & Networks **OR**	CIS 141	S/SU	3-4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Networking Technologies	CSC 234	F/S/SU		Coreq: CSC 141
.NET Programming I	CIS 223	S	3	CIS 105 or CIS 111, CIS 121 or CSC 108
SQL Programming	CIS 228	S	3	CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Web Page Development II	CIS 234	S	3	CIS 121 or CSC 108, CIS 134
Database Management Concepts	CIS 244	S	3	CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
		Total	**15-16**	
Total Credits Required:			**27-28**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - CS

Computer Science Transfer

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Note: Students taking any Computer Science courses online are required to take proctored exams at QCC Worcester (Main Campus) or at a location approved by the instructor.

Program Goals

The Computer Science Transfer associate degree program is designed to prepare students for transfer to four-year institutions where they can complete the bachelor's degree, leading to careers in computer science, software engineering, and systems analysis.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Apply knowledge of computing and mathematics appropriate to the discipline.
- Think critically and apply the scientific method.
- Analyze a problem and design an appropriate algorithmic solution.
- Design, implement, and evaluate an appropriate and secure computer-based system, process, component, or program to satisfy required specifications.
- Read and interpret technical information, as well as listen effectively to, communicate orally with, and write clearly for a wide range of audiences.
- Function effectively as a member of a team to accomplish common goals.
- Engage in continuous learning, as well as research and assess new ideas and information to provide the capabilities for life-long learning.
- Exhibit professional, legal, and ethical behavior.

Note: Student learning outcomes for this program align with recommendations for transfer programs as defined by the Committee for Computing Education in Community Colleges (CCECC) of the Association for Computing Machinery (ACM).

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- English: Placement into college level English.
- Mathematics: MAT 100 with a grade of "C" or higher or appropriate placement score.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- The Computer Science Transfer program utilizes a virtual laboratory. Students enrolled in all CSC courses required in this program will be required to bring their own PC/Windows laptop to class.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.0701.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: CS). • Register for and successfully complete all courses to graduate in four semesters. • Contact Program Coordinator for laptop requirements or see www.QCC.edu/academics/computer-and-information-technology/computer-science-transfer. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete CSC 108 or ROS 108. • Complete ENG 101 and MAT 233.				
Computer Science I **OR**	CSC 108	F/S/SU	4	CSC 101 or prior AP Computer Science A (CSA) Exam with a score of "3" or higher, Placement into college level English, MAT 100 or appropriate placement score
Introduction to Robotics	ROS 108			
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Calculus I	MAT 233	F/S/SU	4	MAT 124 or approp place score
Lab Science Elective	---	F/S/SU	4	
		Total	**15**	
Semester 2 • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete CSC 109 or ROS 109. • Complete MAT 234.				
Computer Science II **OR**	CSC 109	F/S/SU	4	CSC 108 with a grade of "C" or higher
Intermediate Robotics	ROS 109			ROS 108 with a grade of "C" or higher
Composition II	ENG 102	F/S/SU	3	ENG 101
Calculus II	MAT 234	F/S/SU	4	MAT 233
Lab Science Elective	---	F/S/SU	4	
		Total	**15**	
Semester 3 • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Complete CSC 211, MAT 125, and MAT 237.				
Programming with Data Structures	CSC 211	F/SU	4	CIS 225 or CSC 109 with a grade of "C" or higher or ROS 109 with a grade of "C" or higher
Discrete Mathematics	MAT 125	F/S	3	MAT 123 or approp place score
Probability & Statistics for Engineers and Scientists	MAT 237	F/S/SU	3	MAT 234
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Humanities Elective	---	F/S/SU	3	
		Total	**16**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 • CSC 212 is a Capstone course. Students will complete a project of their choice or instructor-assigned project. • Continue with/complete the transfer application process. • Complete CSC 208 and CSC 212. • Submit an Intent to Graduate Form, located on *The Q*.				
Introduction to Architecture and Assembly Language	CSC 208	S/SU	4	CSC 109 with a grade of "C" or higher or ROS 109 with a grade of "C" or higher
Introduction to Software Engineering	CSC 212	F/S	4	CSC 109 with a grade of "C" or higher or ROS 109 with a grade of "C" or higher
Social Science Elective	---	F/S/SU	3	
Social Science Elective	---	F/S/SU	3	
		Total	**14**	
Total Credits Required:			**60**	

Additional Information

- Student learning outcomes for this program align with recommendations for transfer programs as defined by the Committee for Computing Education in Community Colleges (CCECC) of the Association for Computing Machinery (ACM).
- Students in the Computer Science Transfer program must:
    - Understand the basic principles of the scientific method.
    - Use effective communication skills in documenting programming projects.
- Online coursework is typically not eligible for transfer credit at Worcester Polytechnic Institute (WPI). Students are advised to consult with their transfer institution(s) of choice for similar policies.

Minimum Requirements for Laptop Hardware:

- Processor: Dual/Quad core Intel or AMD processor
- Memory: 8.0GB Memory
- Hard Drive: 500 GB Hard Drive
- Microsoft Windows 10 Installed
- CD/DVD: 24X DVD-RW/DVD
- Network: Wired or Wireless (802.11 a/g/n)
- Web Cam + Mic + Speaker (Recommend Microsoft Lifecam Studio)

Software:

- Microsoft Windows 10
- Open Office
- MSOffice 2016 Professional Edition (Service Pack 1) * Optional Purchase1 or Office 365
    - .PDF Add-on for MSOffice 2010 * Free Download from Microsoft
- Acrobat Reader, Flash, Shockwave
- Antivirus Software (Norton or McAfee)
- Quicktime
- Computrace (Recommended: Once registered, Computrace Professional offers a monetary guarantee up to $1,000.00 if a stolen computer is reported but not recovered - For more info see http://www.absolute.com/products)
- Internet Explorer, Mozilla Firefox, Google chrome
- Latest Java JDK and Netbeans (Free online)

Program Email: compsci@qcc.mass.edu

CERTIFICATE - CF

Computer Systems Engineering Technology - Computer Forensics Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Computer Systems Engineering Technology - Forensics Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Computer Forensics Certificate prepares graduates to work in the information technology and criminal justice fields as computer and digital forensics investigators. According to the Occupational Outlook Handbook, 2016-2017 Edition, employment of computer forensics specialists is expected to increase by 18% from 2014 to 2024.[1] Competition will be high for these positions, requiring advanced technical and investigative skills and knowledge. Demand for these workers will result from the increased use of digital devices by individuals and businesses, as well as the increase in criminal activity on the Internet, such as identity theft, electronic harassment, illegal obtainment of copyrighted materials, and malware activities. Computer forensics, also called cyber forensics, "is the application of investigation and analysis techniques to gather and preserve evidence from a particular computing device in a way that is suitable for presentation in a court of law. The goal of computer forensics is to perform a structured investigation while maintaining a documented chain of evidence to find out exactly what happened on a computing device and who was responsible for it."[2]

1www.bls.gov/ooh/

2https://searchsecurity.techtarget.com/definition/computer-forensics

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate the application of information technology to common business functions, including the implementation and use of basic end user software.
- Understand the common processes and procedures used to conduct criminal and noncriminal investigations of activities involving evidence with digital media, including the laws that apply to these processes.
- Perform support and maintenance of computer hardware.
- Analyze and apply operating systems concepts to implement and support multiple industry standard operating systems in enterprise networking environments.
- Apply networking concepts to design, implement, and maintain LANs and WANs to support modern implementations, including internetworking and data convergence.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Students who pursue any of the industry certifications will incur additional expenses for testing fees.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.1003.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: CF). • Register for and successfully complete all courses to graduate in two semesters. • Meet with Academic Advisor about co-enrolling in CSET associate degree.				
Introduction to Criminal Justice	CRJ 101	F/S/SU	3	Placement into college level English
Windows Client Operating Systems	CSC 141	F/S/SU	4	
Computer Hardware and Support	CSC 233	F/S	4	Coreq: CSC 141
Networking Technologies	CSC 234	F/S/SU	4	Coreq: CSC 141
		Total	**15**	
Semester 2 • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board and to review industry certification requirements and opportunities. • Submit an Intent to Graduate Form, located on *The Q*.				
Criminal Investigation	CRJ 207	F	3	ENG 101
Evidence & Court Procedure	CRJ 211	F/S/SU	3	ENG 101
Computer Forensics	CST 206	F/S	3	CSC 141
UNIX Operating Systems I	CST 245	F/S/SU	4	Coreq: CSC 141
		Total	**13**	
Total Credits Required:			**28**	

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- The Computer Forensics Certificate offers extensive coursework, lecturing on theoretical information technology design, principles, and approaches and supplementing the lecture with practical hands-on application in QCC's state-of-the-art CSET labs.
- The Computer Forensics Certificate offers courses that teach material from several industry standard certifications including:
  - Computing Technology Industry Association (CompTIA):
    - A+ - CSC 233
    - Network+ - CSC 234
    - Linux+ - CST 245
  - Microsoft's 365 Certified Associate in the following topics:
    - Windows Desktop - CSC 141

Program Email: cset@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - SECS

Computer Systems Engineering Technology - Computer Support Option

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Computer Systems Engineering Technology - Personal Computer Specialist Certificate
- Computer Systems Engineering Technology - Help Desk Technician Certificate

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Computer Systems Engineering Technology - Computer Support Option is designed to meet the demand of computer support middle skills in business and industry, while focusing on the technical and human aspect of providing computer support. This program pulls from multiple areas of computer-related programming at QCC and is stackable from the QCC Personal Computer Specialist Certificate.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Know fundamental business methods, including communications, math, and writing.
- Utilize end user basic software to develop word processing documents, spreadsheets, and presentations.
- Analyze and apply security in computer and networking infrastructures while detecting any legal and ethical breaches.
- Analyze and apply operating systems concepts to implement and support multiple industry standard operating systems in enterprise networking environments.
- Apply networking concepts to design, implement, and maintain LANs and WANs to support modern implementations, including internetworking and data convergence.
- Design and implement basic and advanced routing utilizing the TCP/IP and other common networking protocols and utilities.
- Design and develop scripts and/or programs to enhance business processes.
- Develop documentation appropriate to clearly communicate computer and network specification, configuration, and/or processes.
- Troubleshoot computer networking infrastructures to resolve user problems.
- Demonstrate computer support specialist skills in a business environment through cooperative education and seminars or service learning experience.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required. Fingerprinting and drug testing may be required.

Additional Cost

See the Program Fees (Page 27).

- Students who pursue any of the industry certifications will incur additional expenses for testing fees.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.1006.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: SECS). • Register for and successfully complete all courses to graduate in four semesters. • Meet with Academic Advisor about co-enrolling in CSET certificate. • Complete CSC 141, CSC 234, ENG 101, and the Mathematics Elective.				
Windows Client Operating Systems	CSC 141	F/S/SU	4	
Networking Technologies	CSC 234	F/S/SU	4	Coreq: CSC 141
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Mathematics Elective	---	F/S/SU	3	
		Total	**17**	
Semester 2 • Meet with Career Services to discuss the co-op process and leads for co-op placements. • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete CIS 111 and ENG 102.				
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
IT Help Desk Concepts	CSC 105	F/S	2	
Computer Hardware and Support	CSC 233	F/S	4	Coreq: CSC 141
Windows Server Operating Systems	CSC 241	F/S	3	CSC 141
Composition II	ENG 102	F/S/SU	3	ENG 101
		Total	**15**	
Semester 3 • Meet with Program Coordinator to discuss readiness for CST 299. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for CST 299). See www.QCC.edu/career-services. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs.				
Advanced Microcomputer Applications	CIS 112	F/S/SU	3	CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Introduction to Programming with C++ **OR**	CIS 121	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Introduction to Programming Using Python **OR**	CSC 101			MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Systems Programming and Scripting	CSC 201			CSC 141, Coreq: CST 245

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Internetworking Principles and Protocols	CST 231	F/S	3	Coreq: CSC 234
UNIX Operating Systems I	CST 245	F/S/SU	4	Coreq: CSC 141
Social Science Elective	---	F/S/SU	3	
		Total	**16**	
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board and to review industry certification requirements and opportunities. • Submit an Intent to Graduate Form, located on *The Q.*				
Mobile Operating Systems	CSC 140	F/S	3	
IT Security Foundations	CST 205	S/SU	3	Placement into college level English
Cooperative Work Experience & Seminar	CST 299	F/S/SU	3	CPS 298, Approval of Program Coordinator
Technical and Workplace Writing	ENG 205	F/S/SU	3	ENG 102, Computer Literacy
Liberal Arts Elective	---	F/S/SU	3	
		Total	**15**	
Total Credits Required:			**63**	

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- The Computer Support Option offers extensive coursework, lecturing on theoretical information technology design, principles, and approaches and supplementing the lecture with practical hands-on application in QCC's state-of-the-art CSET labs.
- The Computer Support Option offers courses that teach material from several industry standard certifications including:
  - Computing Technology Industry Association (CompTIA):
    - A+ - CSC 233
    - Network+ - CSC 234
    - Linux+ - CST 245
    - Security+ - CST 205
  - Microsoft's 365 Certified Associate and Microsoft Certified Windows Server Hybrid Associate in the following topics:
    - Windows Desktop - CSC 141
    - Windows Server - CSC 241

Program Email: cset@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - CBS

Computer Systems Engineering Technology - Cyber Security Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Computer Systems Engineering Technology - Forensics Option
- Computer Systems Engineering Technology - Enterprise Information Technology (IT) Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Cyber Security Certificate is designed to prepare graduates to work in the information technology field as computer support specialists with an emphasis in cyber security. According to the Occupational Outlook Handbook, 2016-2017 Edition, employment of computer support specialists is expected to increase by 18% from 2014 to 2024, which is much faster than the average for all occupations.[1] Demand for these workers will result as organizations and individuals continue to adopt the newest forms of technology. As technology becomes more complex and widespread, support specialists will be needed in greater numbers to implement technology solutions and resolve the technical problems that arise. Businesses, especially, will demand greater levels of support, as information technology has become essential in the business environment. "We lead Internet-connected, digital lives. From our desks and homes to on the go, we work, learn, and play online. Even when we are not directly connected to the Internet, our critical infrastructure - the vast, worldwide connection of computers, data, and websites supporting our everyday lives through financial transactions, transportation systems, healthcare records, emergency response systems, personal communications and more - impacts everyone. Cybersecurity is the mechanism that maximizes our ability to grow commerce, communications, community, and content in a connected world."[2]

1www.bls.gov/ooh/

2https://www.staysafeonline.org/aboutus

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate the application of information technology to common business functions, including the implementation and use of basic end user software.
- Analyze and apply operating systems concepts to implement and support multiple industry standard operating systems in enterprise networking environments.
- Apply networking concepts to design, implement, and maintain LANs and WANs to support modern implementations, including internetworking and data convergence.
- Design and implement basic and advanced routing utilizing the TCP/IP and other common networking protocols and utilities.
- Analyze and apply security in computer and networking infrastructures while detecting any legal and ethical breaches.
- Troubleshoot computer networking infrastructures to resolve user problems.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Students who pursue any of the industry certifications will incur additional expenses for testing fees.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: CBS). • Register for and successfully complete all courses to graduate in two semesters. • Meet with Academic Advisor about co-enrolling in CSET associate degree.				
E-Business Law & Ethics	BSL 103	F/S	3	Coreq: CIS 111
Windows Client Operating Systems	CSC 141	F/S/SU	4	
Networking Technologies	CSC 234	F/S/SU	4	Coreq: CSC 141
UNIX Operating Systems I	CST 245	F/S/SU	4	Coreq: CSC 141
		Total	**15**	
Semester 2 • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board and to review industry certification requirements and opportunities. • Submit an Intent to Graduate Form, located on *The Q*.				
IT Security Foundations	CST 205	S/SU	3	Placement into college level English
Computer Forensics	CST 206	F/S	3	CSC 141
Enterprise IT Systems Security	CST 208	S	3	CSC 141
Internetworking Principles and Protocols	CST 231	F/S	3	Coreq: CSC 234
		Total	**12**	
Total Credits Required:			**27**	

program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.1003.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- The Cyber Security Certificate offers extensive coursework, lecturing on theoretical information technology design, principles, and approaches and supplementing the lecture with practical hands-on application in QCC's state-of-the-art CSET labs.
- The Cyber Security Certificate offers courses that teach material from several industry standard certifications including:
  - Computing Technology Industry Association (CompTIA):
    - Network+ - CSC 234
    - Linux+ - CST 245
    - Security+ - CST 205
  - Microsoft's 365 Certified Associate and Microsoft Certified Windows Server Hybrid Associate in the following topics:
    - Windows Desktop - CSC 141
    - Windows Server - CSC 241
  - International Information System Security Certification Consortium (ISC)[2]:
    - Certified Information Systems Security Professional (CISSP) - CST 208

Program Email: cset@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - SECY

Computer Systems Engineering Technology - Cybersecurity Option

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Computer Systems Engineering Technology - Cyber Security Certificate

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Computer Systems Engineering Technology - Cybersecurity Option is designed to meet the demand of cybersecurity professional skills in business and industry, while focusing on the technical and human aspect of cybersecurity. This program meets the National Institute of Standards and Technology's National Initiative for Cybersecurity Education framework (including knowledge, skills, and abilities).

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Know fundamental business methods, including communications, math, and writing.
- Understand the common processes and procedures used to conduct criminal and noncriminal investigations of activities involving evidence with digital media, including the laws that apply to these processes.
- Analyze and apply security in computer and networking infrastructures, while detecting any legal and ethical breaches.
- Analyze and apply operating systems concepts to implement and support multiple industry standard operating systems in enterprise networking environments.
- Design fault tolerance and data recovery methods to minimize risk in the business environment.
- Apply networking concepts to design, implement, and maintain LANs and WANs to support modern implementations, including internetworking and data convergence.
- Design and implement basic and advanced routing utilizing the TCP/IP and other common networking protocols and utilities.
- Define and manage network services for effective network performance.
- Develop documentation appropriate to clearly communicate computer and network security specification, configuration, and/or processes.
- Troubleshoot computer networking infrastructures to resolve user problems.
- Demonstrate the implementation of digital forensics techniques and processes in a business and/or law enforcement environment through cooperative education and seminars or service learning experience.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required. Fingerprinting and drug testing may be required.

Additional Cost

See the Program Fees (Page 27).

- Students who pursue any of the industry certifications will incur additional expenses for testing fees.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.1003.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: SECY). • Register for and successfully complete all courses to graduate in four semesters. • Meet with Academic Advisor about co-enrolling in CSET certificate. • Complete CSC 141, CSC 234, ENG 101, and the Mathematics Elective.				
Windows Client Operating Systems	CSC 141	F/S/SU	4	
Networking Technologies	CSC 234	F/S/SU	4	Coreq: CSC 141
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Mathematics Elective	---	F/S/SU	3	
		Total	**17**	
Semester 2 • Meet with Career Services to discuss the co-op process and leads for co-op placements. • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete CSC 241, CST 205, and ENG 102.				
Computer Hardware and Support	CSC 233	F/S	4	Coreq: CSC 141
Windows Server Operating Systems	CSC 241	F/S	3	CSC 141
IT Security Foundations	CST 205	S/SU	3	Placement into college level English
Enterprise IT Systems Security	CST 208	S	3	CSC 141
Composition II	ENG 102	F/S/SU	3	ENG 101
		Total	**16**	
Semester 3 • Meet with Program Coordinator to discuss readiness for CST 299. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for CST 299). See www.QCC.edu/career-services. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete CIS 121 or CSC 101 or CSC 201. • Complete CST 231.				
Introduction to Programming with C++ **OR**	CIS 121	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Introduction to Programming Using Python **OR**	CSC 101			MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Systems Programming and Scripting	CSC 201			CSC 141, Coreq: CST 245
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Computer Forensics	CST 206	F/S	3	CSC 141

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Advanced Topics in Security	CST 211	F/S	3	CST 205
Internetworking Principles and Protocols	CST 231	F/S	3	Coreq: CSC 234
UNIX Operating Systems I	CST 245	F/S/SU	4	Coreq: CSC 141
Technical and Workplace Writing	ENG 205	F/S/SU	3	ENG 102, Computer Literacy
		Total	**19**	
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board and to review industry certification requirements and opportunities. • Complete CST 209 and CST 240. • Submit an Intent to Graduate Form, located on *The Q.*				
Ethical Hacking	CST 209	S	3	CSC 201, CST 205
Routing Technologies	CST 240	S	3	Coreq: CST 231
Cooperative Work Experience & Seminar	CST 299	F/S/SU	3	CPS 298, Approval of Program Coordinator
Liberal Arts Elective	---	F/S/SU	3	
Social Science Elective	---	F/S/SU	3	
		Total	**15**	
Total Credits Required:			**67**	

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- The Cybersecurity Option offers extensive coursework, lecturing on theoretical information technology design, principles, and approaches and supplementing the lecture with practical hands-on application in QCC's state-of-the-art CSET labs.
- The Cybersecurity Option offers courses that teach material from several industry standard certifications including:
    - Computing Technology Industry Association (CompTIA):
        - A+ - CSC 233
        - Network+ - CSC 234
        - Linux+ - CST 245
        - Security+ - CST 205
    - Microsoft's 365 Certified Associate and Microsoft Certified Windows Server Hybrid Associate in the following topics:
        - Windows Desktop - CSC 141
        - Windows Server - CSC 241
    - Cisco's Certified:
        - Network Administrator (CCNA) - CST 240
    - International Information System Security Certification Consortium (ISC)^2:
        - Certified Information Systems Security Professional - CST 208
    - EC-Council:
        - EC-Council's Certified Ethical Hacker - CST 209

Program Email: cset@qcc.mass.edu

ASSOCIATE IN SCIENCE - SEIT

Computer Systems Engineering Technology - Enterprise Information Technology (IT) Option

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Computer Systems Engineering Technology - Personal Computer Specialist Certificate
- Computer Systems Engineering Technology - Network Technician Certificate
- Computer Systems Engineering Technology - Help Desk Technician Certificate
- Computer Systems Engineering Technology - Network Associate Certificate
- Computer Systems Engineering Technology - Cyber Security Certificate

Location

- This program may be completed 80% or more online
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Computer Systems Engineering Technology (CSET) program offers various associate degree and certificate options that allow students to specialize in specific areas of interest. The mission of the Computer Systems Engineering Technology - Enterprise Information Technology (IT) Option is to prepare students for a broad range of career opportunities in the Information Technology (IT) field. Graduates are prepared to work in virtually any business or organization that utilizes computers and computer networks. This is accomplished by adhering to industry standards developed to measure and promote the competency of IT professionals.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Know fundamental business methods, including communications, math, and writing.
- Demonstrate the application of information technology to common business functions, including the implementation and use of basic end user software.
- Demonstrate the fundamentals of telecommunications in a modern business environment, including management of voice, call centers, and Voice Over IP.
- Perform support and maintenance of computer hardware.
- Analyze and apply operating systems concepts to implement and support multiple industry standard operating systems in enterprise networking environments.
- Apply an understanding of basic programming structures and algorithms.
- Apply networking concepts to design, implement, and maintain LANs and WANs to support modern implementations, including internetworking and data convergence.
- Design and implement basic and advanced routing utilizing the TCP/IP and other common networking protocols and utilities.
- Analyze and apply security in computer and networking infrastructures while detecting any legal and ethical breaches.
- Define and manage network services for effective network performance.
- Design data storage solutions that meet the enterprises' varied needs, including fault tolerance and disaster recovery.
- Deploy and manage common third-party applications to support business needs.
- Demonstrate the management of IT infrastructures and projects.
- Develop documentation appropriate to clearly communicate computer network specification, configuration, and/or processes.
- Troubleshoot computer networking infrastructures to resolve user problems.
- Demonstrate the implementation of IT in a business environment through cooperative education and seminars or service learning experience.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required. Fingerprinting and drug testing may be required.

Additional Cost

See the Program Fees (Page 27).

- Students who pursue any of the industry certifications will incur additional expenses for testing fees.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: SEIT). • Register for and successfully complete all courses to graduate in four semesters. • Meet with Academic Advisor about co-enrolling in CSET certificate. • Complete CSC 141, CSC 234, ENG 101, and the Mathematics Elective.				
IT Help Desk Concepts	CSC 105	F/S	2	
Windows Client Operating Systems	CSC 141	F/S/SU	4	
Networking Technologies	CSC 234	F/S/SU	4	Coreq: CSC 141
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Mathematics Elective	---	F/S/SU	3	
		Total	**19**	
Semester 2 • Meet with Career Services to discuss the co-op process and leads for co-op placements. • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete CSC 241 and ENG 102.				
Storage Technologies	CSC 210	S/SU	3	Placement into college level English
Computer Hardware and Support	CSC 233	F/S	4	Coreq: CSC 141
Windows Server Operating Systems	CSC 241	F/S	3	CSC 141
IT Security Foundations	CST 205	S/SU	3	Placement into college level English
Composition II	ENG 102	F/S/SU	3	ENG 101
Project Management	MGT 205	F/S	3	ENG 101
		Total	**19**	
Semester 3 • For the Technology Career Elective, choose one technical course from CIS, CSC, CST, ELM, ELT, IMD, or IMG course designations. • Meet with Program Coordinator to discuss readiness for CST 299. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for CST 299). See www.QCC.edu/career-services. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete CST 231.				
Introduction to Programming with C++ **OR**	CIS 121	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Introduction to Programming Using Python **OR**	CSC 101			MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Systems Programming and Scripting	CSC 201			CSC 141, Coreq: CST 245
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Internetworking Principles and Protocols	CST 231	F/S	3	Coreq: CSC 234

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Network Infrastructure Management	CST 235	S	3	CSC 234, Coreq: CST 231
UNIX Operating Systems I	CST 245	F/S/SU	4	Coreq: CSC 141
Liberal Arts Elective	---	F/S/SU	3	
Technology Career Elective	---	S/SU	3	
		Total	**19**	
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board and to review industry certification requirements and opportunities. • Complete CST 238 and CST 240. • Submit an Intent to Graduate Form, located on *The Q*.				
Telecommunications in Business	CST 207	F/S	3	Placement into college level English
Enterprise Application Infrastructure	CST 238	S/SU	3	Coreq: CSC 241
Routing Technologies	CST 240	S	3	Coreq: CST 231
Cooperative Work Experience & Seminar	CST 299	F/S/SU	3	CPS 298, Approval of Program Coordinator
Liberal Arts Elective	---	F/S/SU	3	
Social Science Elective	---	F/S/SU	3	
		Total	**18**	
Total Credits Required:			**75**	

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 15.1201.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- The Enterprise Information Technology (IT) Option offers extensive coursework, lecturing on theoretical information technology design, principles, and approaches and supplementing the lecture with practical hands-on application in QCC's state-of-the-art CSET labs.
- The Enterprise Information Technology (IT) Option offers courses that teach material from several industry standard certifications including:
  - Computing Technology Industry Association (CompTIA):
    - A+ - CSC 233, CST 207
    - Network+ - CSC 234
    - Linux+ - CST 245
    - Security+ - CST 205
  - Microsoft's 365 Certified Associate and Microsoft Certified Windows Server Hybrid Associate in the following topics:
    - Windows Desktop - CSC 141
    - Windows Server - CSC 241
  - Cisco's Certified:
    - Network Administrator (CCNA) - CST 240
  - Storage Networking Industry Association and Dell:
    - SNIA Certified Storage Professional and Dell Associate - Information Storage and Management - CSC 210

Program Email: cset@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - SEF

Computer Systems Engineering Technology - Forensics Option

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Computer Systems Engineering Technology - Cyber Security Certificate
- Computer Systems Engineering Technology - Computer Forensics Certificate

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Computer Systems Engineering Technology - Forensics Option provides an in-depth insight into criminal justice and information technology for analysis of digital information commonly used in criminal investigations. This program is intended as a transfer pathway to multiple four-year institutions.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Know fundamental business methods, including communications, math, and writing.
- Demonstrate the application of information technology to common business functions, including the implementation and use of basic end user software.
- Understand the common processes and procedures used to conduct criminal and noncriminal investigations of activities involving evidence with digital media, including the laws that apply to these processes.
- Perform support and maintenance of computer hardware.
- Analyze and apply operating systems concepts to implement and support multiple industry standard operating systems in enterprise networking environments.
- Apply networking concepts to design, implement, and maintain LANs and WANs to support modern implementations, including internetworking and data convergence.
- Design and implement basic and advanced routing utilizing the TCP/IP and other common networking protocols and utilities.
- Analyze and apply security in computer and networking infrastructures while detecting any legal and ethical breaches.
- Define and manage network services for effective network performance.
- Develop documentation appropriate to clearly communicate computer network specification, configuration, and/or processes.
- Troubleshoot computer networking infrastructures to resolve user problems.
- Demonstrate the implementation of digital forensics techniques and processes in a business and/or law enforcement environment through cooperative education and seminars or service learning experience.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required. Fingerprinting and drug testing may be required.

Additional Cost

See the Program Fees (Page 27).

- Students who pursue any of the industry certifications will incur additional expenses for testing fees.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.1003.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: SEF). • Register for and successfully complete all courses to graduate in four semesters. • Meet with Academic Advisor about co-enrolling in CSET certificate. • Complete CSC 141, ENG 101, and the Mathematics Elective.				
E-Business Law & Ethics	BSL 103	F/S	3	Coreq: CIS 111
Introduction to Criminal Justice	CRJ 101	F/S/SU	3	Placement into college level English
Windows Client Operating Systems	CSC 141	F/S/SU	4	
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Mathematics Elective	---	F/S/SU	3	
		Total	**16**	
Semester 2 • Meet with Career Services to discuss the co-op process and leads for co-op placements. • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete CSC 234 and ENG 102.				
Criminal Investigation	CRJ 207	F	3	ENG 101
Networking Technologies	CSC 234	F/S/SU	4	Coreq: CSC 141
Windows Server Operating Systems	CSC 241	F/S	3	CSC 141
Composition II	ENG 102	F/S/SU	3	ENG 101
Social Science Elective	---	F/S/SU	3	
		Total	**16**	
Semester 3 • Meet with Program Coordinator to discuss readiness for CST 299. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for CST 299). See www.QCC.edu/career-services. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete CST 231.				
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Evidence & Court Procedure	CRJ 211	F/S/SU	3	ENG 101
Internetworking Principles and Protocols	CST 231	F/S	3	Coreq: CSC 234
UNIX Operating Systems I	CST 245	F/S/SU	4	Coreq: CSC 141
Liberal Arts Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
		Total	**16**	

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board and to review industry certification requirements and opportunities. • Complete CST 205 and CST 206. • Complete CST 299 (with Program Coordinator approval). • Submit an Intent to Graduate Form, located on *The Q*.				
Computer Hardware and Support	CSC 233	F/S	4	Coreq: CSC 141
IT Security Foundations	CST 205	S/SU	3	Placement into college level English
Computer Forensics	CST 206	F/S	3	CSC 141
Cooperative Work Experience & Seminar	CST 299	F/S/SU	3	CPS 298, Approval of Program Coordinator
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**16**	
Total Credits Required:			**64**	

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- The Forensics Option offers extensive coursework, lecturing on theoretical information technology design, principles, and approaches and supplementing the lecture with practical hands-on application in QCC's state-of-the-art CSET labs.
- The Forensics Option offers courses that teach material from several industry standard certifications including:
  - Computing Technology Industry Association (CompTIA):
    - A+ - CSC 233
    - Network+ - CSC 234
    - Linux+ - CST 245
    - Security+ - CST 205
  - Microsoft's 365 Certified Associate in the following topics:
    - Windows Desktop - CSC 141
  - Cisco's Certified:
    - Network Administrator (CCNA) - CST 240

Program Email: cset@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - HDTC

Computer Systems Engineering Technology - Help Desk Technician Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Computer Systems Engineering Technology - Enterprise Information Technology (IT) Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- Some courses may be completed at QCC Southbridge.
- This program may be completed face-to-face.

Program Goals

The Help Desk Technician Certificate prepares graduates to work in the information technology field as an entry-level computer support specialist, such as a help desk technician or desktop specialist. According to the Occupational Outlook Handbook, 2016-2017 Edition, employment of computer support specialists and/or help desk technicians is expected to increase by 12% from 2014 to 2024.[1] Demand for these workers will result from the increased use of IT and digital communications technology at home and in the business environment. Computer support specialists or help desk technicians "provide help and advice to people and organizations using computer software or equipment. Some, called computer network support specialists [technical support specialists], support information technology (IT) employees within their organization. Others, called computer user support specialists [help-desk technicians], assist non-IT users who are having computer problems."[1]

1www.bls.gov/ooh/computer-and-information-technology/computer-support-specialists.htm

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate the application of information technology to common business functions, including the implementation and use of basic end user software.
- Analyze and apply operating systems concepts to implement and support multiple industry standard operating systems in enterprise networking environments.
- Perform support and maintenance of computer hardware.
- Troubleshoot computer infrastructures to resolve user problems.
- Provide problem resolution services to customers using IT.
- Implement basic Local Area Network (LAN) solutions utilizing TCP/IP networking protocols and utilities.
- Troubleshoot computer networking infrastructures to resolve user problems.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required. Fingerprinting and drug testing may be required.

Additional Cost

See the Program Fees (Page 27).

- Students who pursue any of the industry certifications will incur additional expenses for testing fees.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.1006.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: HDTC). • Register for and successfully complete all courses to graduate in one semester. • Meet with Academic Advisor about co-enrolling in CSET associate degree. • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board and to review industry certification requirements and opportunities. • Submit an Intent to Graduate Form, located on *The Q*.				
IT Help Desk Concepts	CSC 105	F/S	2	
Mobile Operating Systems	CSC 140	F/S	3	
Windows Client Operating Systems	CSC 141	F/S/SU	4	
Computer Hardware and Support	CSC 233	F/S	4	Coreq: CSC 141
Networking Technologies	CSC 234	F/S/SU	4	Coreq: CSC 141
Total Credits Required:			**17**	

regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- The Help Desk Technician Certificate offers extensive coursework, lecturing on theoretical information technology design, principles, and approaches and supplementing the lecture with practical hands-on application in QCC's state-of-the-art CSET labs.
- The Help Desk Technician Certificate offers courses that teach material from several industry standard certifications including:
  - Computing Technology Industry Association (CompTIA):
    - Network+ - CSC 234
    - Linux+ - CST 245
  - Microsoft's 365 Certified Associate in the following topics:
    - Windows Desktop - CSC 141

Program Email: cset@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - NAC

Computer Systems Engineering Technology - Network Associate Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Computer Systems Engineering Technology - Enterprise Information Technology (IT) Option

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Network Associate Certificate prepares graduates to work in the information technology field as an entry-level network specialist, such as a network administrator or network associate. According to the Occupational Outlook Handbook, 2016-2017 Edition, employment of network systems and data communications analysts is expected to increase by 8% from 2014 to 2024, which is average for all occupations.[1] Demand for these workers will result from the increased use of IT and digital communications technology at home and in the business environment. A network associate has "the ability to install, configure, operate, and troubleshoot medium-size route and switched networks", including implementation and verification of connections to remote sites in a WAN.[2]

1www.bls.gov/ooh/

2www.cisco.com/c/en/us/training-events/training-certifications/certifications/associate/ccna-routing-switching.html

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate the application of information technology to common business functions, including the implementation and use of basic end user software.
- Demonstrate the fundamentals of telecommunications in a modern business environment, including management of voice, call centers, and Voice Over IP.
- Analyze and apply operating systems concepts to implement and support multiple industry standard operating systems in enterprise networking environments.
- Apply networking concepts to design, implement, and maintain LANs and WANs to support modern implementations, including internetworking and data convergence.
- Design and implement basic and advanced routing utilizing the TCP/IP and other common networking protocols and utilities.
- Define and manage network services for effective network performance.
- Design data storage solutions that meet the enterprises' varied needs, including fault tolerance and disaster recovery.
- Troubleshoot computer networking infrastructures to resolve user problems.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required. Fingerprinting and drug testing may be required.

Additional Cost

See the Program Fees (Page 27).

- Students who pursue any of the industry certifications will incur additional expenses for testing fees.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: NAC). • Register for and successfully complete all courses to graduate in two semesters. • Meet with Academic Advisor about co-enrolling in CSET associate degree.				
Windows Client Operating Systems	CSC 141	F/S/SU	4	
Networking Technologies	CSC 234	F/S/SU	4	Coreq: CSC 141
Telecommunications in Business	CST 207	F/S	3	Placement into college level English
UNIX Operating Systems I	CST 245	F/S/SU	4	Coreq: CSC 141
		Total	**15**	
Semester 2 • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board and to review industry certification requirements and opportunities. • Submit an Intent to Graduate Form, located on *The Q*.				
Storage Technologies	CSC 210	S/SU	3	Placement into college level English
Internetworking Principles and Protocols	CST 231	F/S	3	Coreq: CSC 234
Network Infrastructure Management	CST 235	S	3	CSC 234, Coreq: CST 231
Routing Technologies	CST 240	S	3	Coreq: CST 231
Unified Communications	CST 253	S	1	CSC 141, CSC 234, Coreq: CST 231
		Total	**13**	
Total Credits Required:			**28**	

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.0901.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- The Network Associate Certificate offers extensive coursework, lecturing on theoretical information technology design, principles, and approaches and supplementing the lecture with practical hands-on application in QCC's state-of-the-art CSET labs.
- The Network Associate Certificate offers courses that teach material from several industry standard certifications including:
  - Computing Technology Industry Association (CompTIA):
    - Network+ - CSC 234
    - Linux+ - CST 245
  - Microsoft's 365 Certified Associate in the following topics:
    - Windows Desktop - CSC 141
  - Cisco's Certified:
    - Network Administrator (CCNA) - CST 240
  - Storage Networking Industry Association and Dell:
    - SNIA Certified Storage Professional and Dell Associate - Information Storage and Management - CSC 210

Program Email: cset@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - NTC

Computer Systems Engineering Technology - Network Technician Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Computer Systems Engineering Technology - Enterprise Information Technology (IT) Option

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Network Technician Certificate prepares graduates to work in the information technology field as an entry-level network specialist, such as a network technician. According to the Occupational Outlook Handbook, 2016-2017 Edition, employment of network systems and data communications analysts is expected to increase by 12% from 2014 to 2024, which is average for all occupations.[1] Demand for these workers will result from the increased use of IT and digital communications technology at home and in the business environment. A network technician has "the ability to install, operate, and troubleshoot a small enterprise branch network, including basic network security."[2]

1www.bls.gov/ooh/

2www.cisco.com/c/en/us/training-events/training-certifications/certifications/entry/ccent.html

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate the fundamentals of telecommunications in a modern business environment, including management of voice, call centers, and Voice Over IP.
- Analyze and apply operating systems concepts to implement and support multiple industry standard operating systems in enterprise networking environments.
- Implement basic Local Area Network (LAN) solutions utilizing TCP/IP networking protocols and utilities.
- Manage network services for effective network performance.
- Implement data storage solutions that meet the enterprises' varied needs, including fault tolerance and disaster recovery.
- Troubleshoot computer networking infrastructures to resolve user problems.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks may be required. Fingerprinting and drug testing may be required.

Additional Cost

See the Program Fees (Page 27).

- Students who pursue any of the industry certifications will incur additional expenses for testing fees.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.0901.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: NTC). • Register for and successfully complete all courses to graduate in one semester. This program can be completed in Fall or Spring, except CSC 210 (Spring or Summer only). • Meet with Academic Advisor about co-enrolling in CSET associate degree. • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board and to review industry certification requirements and opportunities. • Submit an Intent to Graduate Form, located on *The Q*.				
Windows Client Operating Systems	CSC 141	F/S/SU	4	
Storage Technologies	CSC 210	S/SU	3	Placement into college level English
Networking Technologies	CSC 234	F/S/SU	4	Coreq: CSC 141
Telecommunications in Business	CST 207	F/S	3	Placement into college level English
Internetworking Principles and Protocols	CST 231	F/S	3	Coreq: CSC 234
Total Credits Required:			**17**	

Additional Information

- The Network Technician Certificate offers extensive coursework, lecturing on theoretical information technology design, principles, and approaches and supplementing the lecture with practical hands-on application in QCC's state-of-the-art CSET labs.
- The Network Technician Certificate offers courses that teach material from several industry standard certifications including:
    - Computing Technology Industry Association (CompTIA):
        - Network+ - CSC 234
        - Linux+ - CST 245
    - Microsoft's 365 Certified Associate in the following topics:
        - Windows Desktop - CSC 141

Program Email: cset@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - PCS

Computer Systems Engineering Technology - Personal Computer Specialist Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Computer Systems Engineering Technology - Enterprise Information Technology (IT) Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Personal Computer Specialist Certificate prepares graduates to work in the information technology field as computer support specialists with an emphasis on personal computer/desktop management and support. According to the Occupational Outlook Handbook, 2016-2017 Edition, employment of computer support specialists is expected to increase by 12% from 2014 to 2024, which is faster than the average for all occupations.[1] Demand for these workers will result from the increased use of IT and digital communications technology by individuals and organizations. As technology becomes more complex and prevalent, a greater level of support will become essential to users and their employers. A personal computer specialist has "responsibility for analyzing, managing, supervising, or performing work necessary to plan, design, develop, acquire, document, test, implement, integrate, maintain, or modify systems for solving problems or accomplishing work processes by using computers" in a desktop or personal computer environment.[2]

1www.bls.gov/ooh/

2https://archive.opm.gov/fedclass/gs0334.pdf

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Know fundamental business methods, including communications, math, and writing.
- Demonstrate the application of information technology to common business functions, including the implementation and use of basic end user software.
- Perform support and maintenance of computer hardware.
- Analyze and apply operating systems concepts to implement and support multiple industry standard operating systems in enterprise networking environments.
- Apply an understanding of basic programming structures and algorithms.
- Deploy and manage common third-party applications to support business needs.
- Troubleshoot computer resources to resolve user problems.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Students who pursue any of the industry certifications will incur additional expenses for testing fees.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.1006.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: PCS). • Register for and successfully complete all courses to graduate in two semesters. • Meet with Academic Advisor about co-enrolling in CSET associate degree.				
Introduction to Information Technology	CIS 105	F/S	3	
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
IT Help Desk Concepts	CSC 105	F/S	2	
Mobile Operating Systems	CSC 140	F/S	3	
Windows Client Operating Systems	CSC 141	F/S/SU	4	
		Total	**15**	
Semester 2 • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board and to review industry certification requirements and opportunities. • Submit an Intent to Graduate Form, located on *The Q*.				
Advanced Microcomputer Applications	CIS 112	F/S/SU	3	CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Systems Programming and Scripting	CSC 201	F/S	3	CSC 141, Coreq: CST 245
Computer Hardware and Support	CSC 233	F/S	4	Coreq: CSC 141
UNIX Operating Systems I	CST 245	F/S/SU	4	Coreq: CSC 141
		Total	**14**	
Total Credits Required:			**29**	

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- The Personal Computer Specialist Certificate offers extensive coursework, lecturing on theoretical information technology design, principles, and approaches and supplementing the lecture with practical hands-on application in QCC's state-of-the-art CSET labs.
- The Personal Computer Specialist Certificate offers courses that teach material from several industry standard certifications including:
  - Computing Technology Industry Association (CompTIA):
    - A+ - CSC 233
    - Linux+ - CST 245
  - Microsoft's 365 Certified Associate in the following topics:
    - Windows Desktop - CSC 141

Program Email: cset@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - IMDD

Interactive Media - Digital Design Option

Location

- This program may be completed 80% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Interactive Media - Digital Design Option is a multi-faceted computer-based program designated for students seeking a computer interface design career in digital media in the global marketplace. Students produce designs, symbols, typography, illustrations, photography, video, multimedia, motion graphics, sound, and animation for use in print, web, social media, and interactive media.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Achieve computer interface design competencies to communicate original artistic expression for promotion and sales of products for newspapers, magazines, web publications, multimedia and video content providers, ad agencies, and manufacturers.
- Achieve computer interface design competencies to communicate original artistic expression in electronic and digital design technologies for career opportunities in the industry.
- Achieve computer interface design competencies to communicate original artistic expression in electronic and digital design technologies for career opportunities in the print and prepress industry.
- Achieve computer interface design competencies to communicate original artistic expression in electronic and digital design technologies for career opportunities in Internet publishing industries as content providers using multimedia, video, and animation.
- Produce a print, PDF, web/e-publishing presence, and interactive social media portfolio of student work for presentation to future employers or for transfer to institutions of higher learning.
- Transfer to bachelor's degree programs at colleges and universities with related fields of study.
- Provide a progressive framework of courses to meet general education core curriculum goals for measurable proficiencies in: Information Literacy, Quantitative Reasoning, Scientific Reasoning, Technical Literacy, Aesthetics, Multiple Perspectives, Ethics, Impact of Technology, and Civic Literacy.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

- The Interactive Media - Digital Design Option is a first-come, first-served program that offers in person classes that run Monday through Thursday, 8:00 a.m. to 7:00 p.m., so plan accordingly. A majority of classes are offered online as well, with a few that take place in person.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Students are encouraged to purchase a computer with related software.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 11.0803.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Register for and successfully complete all courses to graduate in four semesters. • Complete ENG 101.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Digital Design Concepts I	IMD 114	F/SU	3	Placement into college level English
Graphic Design I	IMD 121	F	3	Placement into college level English
Digital Imaging and Media	IMD 154	F/SU	3	Placement into college level English
Digital Photography	IMD 161	F	3	Placement into college level English
		Total	**15**	
Semester 2 (Spring) • For the Art Theory Electives (Semesters 2 and 3), choose: ART 101, ART 111, ART 112, ART 121, or ART 211. • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer.				
Composition II	ENG 102	F/S/SU	3	ENG 101
UI/UX Design Fundamentals	IMD 105	F/S	3	Placement into college level English
Digital Design Concepts II	IMD 115	S/SU	3	IMD 114
Graphic Design II	IMD 122	S	3	IMD 121
Digital Illustration and Animation	IMD 155	S/SU	3	IMD 154
Art Theory Elective	---	F/S/SU	3	
		Total	**18**	
Semester 3 (Fall) • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete prerequisite(s) for the Mathematics Elective or Science Elective.				
Publication Design	IMD 222	F	3	IMD 115, IMD 122
Digital Video Fundamentals	IMD 263	F	3	
Typography	IMD 271	F	3	IMD 115, IMD 121
Motion Graphics	IMD 275	F	3	IMD 154, IMD 155
Art Theory Elective	---	F/S/SU	3	
		Total	**15**	
Semester 4 (Spring) • For the IMD Strategic Elective, choose: CIS 121, CIS 134, COM 100, CSC 101, HUM 232, IMD 106, IMG 100, IMG 272, MGT 216, MRK 201, or MRK 241. • The Liberal Arts Elective cannot be an ART course. • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Interactive Media Processes Portfolio	IMD 286	S	4	IMD 275

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
IMD Strategic Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
Mathematics Elective or Science Elective	---	F/S/SU	3	
		Total	**16**	
Total Credits Required:			**64**	

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: interactivemedia@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - IMGD

Interactive Media - Game Design Option

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Interactive Media - Game Design Option is a multi-faceted computer-based program designated for students seeking a game design career in the global marketplace. Game Design Option majors map out and develop the gameplay that defines a player's unique game experience. It is a complex science that combines artistic talent with high mathematics and computer programming ability. Students develop an extensive game design portfolio of individual and collaborative work using state-of-the-art technology resources.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate the skills necessary to compete for entry-level positions in the game industry: game-play tester, conceptual artist, texture artist, 3D modeler, and graphical user interface designer.
- Demonstrate the skills necessary upon graduation to transfer into a bachelor's degree program in game design.
- Understand and apply theories of graphical environment design, character design, animation, and interface design to the development of interactive media and game design.
- Design and create 2D and 3D graphical environments for game design and create prototypes of computer games for a variety of environments.
- Develop skills in operating computer game development tools and assessing their advantages and disadvantages while understanding the ethical, legal, and professional responsibilities of a game design professional.
- Use theoretical concepts and perspectives to explain and evaluate the development of games in various settings and apply principles of game design and group work to project work.
- Learn to use professional-level application software for game design.
- Critically evaluate various approaches to game design and identify the elements that are likely to make for effective games and author game design documents.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

- The Interactive Media - Game Design Option is a first-come, first-served program that offers in person classes that run Monday through Thursday, 8:00 a.m. to 7:00 p.m., so plan accordingly. Some classes are offered online, with the majority taking place in person.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- English: Placement into college level English.
- Mathematics: MAT 100 with a grade of "C" or higher or appropriate placement score.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Students are encouraged to purchase a computer with related software.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 50.0411.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: interactivemedia@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Register for and successfully complete all courses to graduate in four semesters. • Complete ENG 101.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Digital Design Concepts I	IMD 114	F/SU	3	Placement into college level English
Digital Imaging and Media	IMD 154	F/SU	3	Placement into college level English
Drawing the Human Form	IMG 100	F/S	3	Placement into college level English
Fundamentals of Game Design and Development	IMG 101	F	3	Placement into college level English
		Total	**15**	
Semester 2 (Spring) • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer.				
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Composition II	ENG 102	F/S/SU	3	ENG 101
Digital Design Concepts II	IMD 115	S/SU	3	IMD 114
Digital Illustration and Animation	IMD 155	S/SU	3	IMD 154
Introduction to Game Design	IMG 102	S/SU	3	Placement into college level English
		Total	**15**	
Semester 3 (Fall) • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs.				
Introduction to Programming with C++	CIS 121	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21, Coreq: CIS 105 or CIS 111
Motion Graphics	IMD 275	F	3	IMD 154, IMD 155
Intermediate Game Design	IMG 203	F	3	IMD 155, IMG 100, IMG 101, IMG 102
3D Modeling for Game Design	IMG 272	F	3	Placement into college level English
College Mathematics I: Pre-Calculus	MAT 123	F/S/SU	3	MAT 100 or approp place score
		Total	**15**	
Semester 4 (Spring) • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Interactive Game Design Portfolio	IMG 288	S	4	IMG 203, IMG 272

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
College Mathematics II: Trigonometry	MAT 124	F/S/SU	3	MAT 123 or approp place score
Liberal Arts Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
Science Elective or Lab Science Elective	---	F/S/SU	3-4	
		Total	**16-17**	
Total Credits Required:			**61-62**	

ASSOCIATE IN ARTS - EC

Early Childhood Education

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- Some courses may be completed at QCC Southbridge.
- This program may be completed face-to-face.

Program Goals

The Early Childhood Education associate degree program prepares students for responsible positions in the field of early education and care or for careers in other child-related areas. Graduates will be qualified for career opportunities in early education and care as a lead teacher and, depending upon experience, as an assistant director or a director in a variety of early education programs. Students are also prepared for transfer to a four-year institution.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Describe young children's characteristics and needs and the multiple influences on development and learning.
- Apply knowledge of development to create healthy, respectful, supportive, and challenging learning environments.
- Demonstrate knowledge and understanding of family and community characteristics and describe methods for involving families and communities in their children's development and learning.
- Demonstrate knowledge of and practice meaningful observation, documentation, and assessment of young children that support individual learning and growth.
- Employ positive guidance strategies that are developmentally appropriate.
- Integrate content knowledge with other disciplines to support the development, implementation, and evaluation of curriculum that promotes positive outcomes for children.
- Engage in continuous, collaborative learning to inform practice.
- Value ethical standards and professional guidelines.
- Demonstrate informed advocacy for children and the profession.
- Identify and utilize professional resources.
- Demonstrate ability to write and speak effectively.
- Demonstrate knowledge and appreciation of diverse cultures.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), Department of Children & Families (DCF) background checks and/or fingerprinting are required for certain mandatory courses. Drug testing is not required. Depending on the contents of these criminal background check(s), a student's participation in an academic program that involves working with children, the disabled, or the elderly, or which includes an observation, practicum, or field placement, may not be allowed, and therefore may impact a student's ability to complete program requirements. For more information, visit the CORI/SORI page.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- Students with certifications or graduates of technical high school programs may be eligible to earn credit for prior learning.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 13.1209.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: EC). • Register for and successfully complete all courses to graduate in four semesters. • For the Lab Science Electives (Semesters 1 and 2), students must take 4-credit lab science courses. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete ENG 101 and MAT 111.				
Introduction to Early Childhood Education	ECE 101	F/S/SU	3	Placement into college level English
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Mathematics for Educators I	MAT 111	F/S/SU	3	QMAT placement score > 32 or Coreq: MAT 054
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
Lab Science Elective	---	F/S/SU	4	
		Total	**16**	
Semester 2 • ECE courses must be passed with a grade of "C" or higher. ECE courses can only be taken twice. Students who do not meet this standard will not be able to continue in the program and should change their major. • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events.				
Growth & Development of the Young Child	ECE 102	F/S/SU	3	Placement into college level English
Family Issues & Dynamics	ECE 112	F/S/SU	3	Placement into college level English
Composition II	ENG 102	F/S/SU	3	ENG 101
Humanities Elective	---	F/S/SU	3	
Lab Science Elective	---	F/S/SU	4	
		Total	**16**	
Semester 3 • For the History Elective, choose: HST 104, HST 105, HST 106, HST 115, or HST 116. • Complete the CLST portion of the MTEL (recommended). A review class is offered through the QCC Center for Workforce Development and Continuing Education. • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Confirm that MassTransfer 34-credit general education transfer block can be completed.				
Curriculum for Young Children I	ECE 231	F	3	ECE 101, ECE 102 or PSY 123, ENG 101, Coreq: ECE 251, ECE 253
Integrating Theory and Practice I: Guidance of Young Children	ECE 251	F	3	ECE 101, ECE 102 or PSY 123, ECE 112, ENG 101, Coreq: ECE 231, ECE 253
Supervised Student Participation I	ECE 253	F	4	ECE 101, ECE 102 or PSY 123, ECE 112, ENG 101, Coreq: ECE 231, ECE 251

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Children's Literature	ENG 200	F/S/SU	3	ENG 102
History Elective	---	F/S/SU	3	
		Total	**16**	
Semester 4 • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				
Curriculum for Young Children II	ECE 232	S	3	ECE 231, ECE 251, ECE 253, ENG 101, Coreq: ECE 252, ECE 254
Integrating Theory and Practice II: Observing, Recording and Authentic Assessment	ECE 252	S	3	ECE 251, Coreq: ECE 232, ECE 254
Supervised Student Participation II	ECE 254	S	4	ECE 231, ECE 251, ECE 253, ENG 101, Coreq: ECE 232, ECE 252
ECE Elective	---	F/S/SU	3	
Humanities Elective	---	F/S/SU	3	
Social Science Elective	---	F/S/SU	3	
		Total	**19**	
Total Credits Required:			**67**	

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Students must pass all ECE courses with a grade of "C" or higher.
- Students cannot take any ECE course more than twice.
- Student teaching may be completed at the student's work site; this is determined at the discretion of the ECE Program Coordinator.
- Students will be required to complete two semesters of field placement in a community-based setting.

Program Email: earlychildhood@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN ARTS - ECBA

Early Childhood Education - Birth through Eight Years Old Option (Evening Only)

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Early Childhood Education Birth through Eight Years Old Certificate (Evening Only)
- Early Childhood Education Certificate

Location

- This program may be completed 80% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- Some courses may be completed at QCC Southbridge.
- This program may be completed face-to-face.

Program Goals

The Early Childhood Education - Birth through Eight Years Old Option prepares students for responsible positions in the field of early education and care or for careers in other child-related areas. Graduates will be qualified for career opportunities in early education and care as a lead teacher and, depending upon experience, as an assistant director or a director in a variety of early education programs. Students are also prepared for transfer to a four-year institution.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Describe children's developmental characteristics and needs and the multiple influences on development and learning.
- Apply knowledge of development to support healthy, respectful, supportive, and challenging learning environments.
- Demonstrate knowledge and understanding of family and community characteristics and describe methods for involving families and communities in their children's development and learning.
- Employ positive guidance strategies that are developmentally appropriate.
- Integrate content knowledge with other disciplines to support the development, implementation, and evaluation of curriculum that promotes positive outcomes for children.
- Demonstrate knowledge and appreciation of diverse cultures.
- Engage in continuous, collaborative learning to inform practice.
- Value ethical standards and professional guidelines.
- Demonstrate informed advocacy for children and the profession.
- Identify and utilize professional resources.
- Demonstrate ability to write and speak effectively.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Students must have a letter verifying employment in an ECE program.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), Department of Children & Families (DCF) background checks and/or fingerprinting are required for certain mandatory courses. Drug testing is not required. Depending on the contents of these criminal background check(s), a student's participation in an academic program that involves working with children, the disabled, or the elderly, or which includes an observation, practicum, or field placement, may not be allowed, and therefore may impact a student's ability to complete program requirements. For more information, visit the CORI/SORI page.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: ECBA). • Register for and successfully complete all courses to graduate in four semesters. • Meet with ECE Evening Coordinator to discuss eligibility and requirements of program. • For the Lab Science Electives (Semesters 1 and 2), students must take 4-credit lab science courses. • Complete ENG 101 and MAT 111.				
Introduction to Early Childhood Education	ECE 101	F/S/SU	3	Placement into college level English
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Mathematics for Educators I	MAT 111	F/S/SU	3	QMAT placement score > 32 or Coreq: MAT 054
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
Lab Science Elective	---	F/S/SU	4	
		Total	**16**	
Semester 2 (Spring) • ECE courses must be passed with a grade of "C" or higher. ECE courses can only be taken twice. Students who do not meet this standard will not be able to continue in the program and should change their major.				
Growth & Development of the Young Child	ECE 102	F/S/SU	3	Placement into college level English
Family Issues & Dynamics	ECE 112	F/S/SU	3	Placement into college level English
Composition II	ENG 102	F/S/SU	3	ENG 101
Humanities Elective	---	F/S/SU	3	
Lab Science Elective	---	F/S/SU	4	
		Total	**16**	
Semester 3 (Fall) • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Confirm that MassTransfer 34-credit general education transfer block can be completed. • Students seeking EEC Infant Toddler Lead Teacher License should take ECE 221. • For the History Elective, choose: HST 104, HST 105, HST 106, HST 115, or HST 116.				
Infant & Toddler Curriculum and Development **OR**	ECE 221	F/S	3	ECE 102
Young Children with Special Needs	ECE 242			ECE 102 or PSY 123, Placement into college level English
Children's Literature	ENG 200	F/S/SU	3	ENG 102
ECE Elective	---	F/S/SU	3	
History Elective	---	F/S/SU	3	
Social Science Elective	---	F/S/SU	3	
		Total	**15**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 (Spring) • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				
Using Observation for Authentic Assessment of Young Children	ECE 250	S	3	ECE 101, ECE 102, ECE 112
Guiding Young Children's Behavior	ECE 255	F/S	3	ECE 102
Early Childhood Curriculum	ECE 258	S	3	ECE 102
Seminar and Field Experience: Classroom Teaching in Early Education and Care	ECE 259	S	3	ECE 102, ENG 102
Humanities Elective	---	F/S/SU	3	
		Total	**15**	
Total Credits Required:			**62**	

- Students with certifications or graduates of technical high school programs may be eligible to earn credit for prior learning.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 13.1210.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Students must pass all ECE courses with a grade of "C" or higher.
- Students cannot take any ECE course more than twice.

Program Email: earlychildhood@qcc.mass.edu

CERTIFICATE - ECFC

Early Childhood Education Foundational Certificate

Location

- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Early Childhood Education Foundational Certificate provides students with foundational knowledge for all early educators. This program aligns with the MA Department of Early Education and Care (EEC) requirements, contains foundational courses required as part of the Early Childhood Education MA transfer pathways, and contains an experiential learning component. This certificate was intentionally designed to align with the current certification requirements, and to fit within the new credentialing system, considering both current and future needs of the early education workforce.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Explain and demonstrate an understanding of how cultural, economic, political, and historical factors influence theories of child development.
- Use knowledge of physical, cognitive, social, and emotional development to practice assessment of children from birth to age eight (8).
- Explain the main theories, models, job roles, and responsibilities in early childhood education for creating safe and inclusive learning environments.
- Follow ethical, legal, and practical considerations for supporting children with diverse needs and backgrounds in an unbiased way.
- Implement developmentally appropriate curriculum plans that align with ECE guidelines and support child development across domains.
- Demonstrate positive and supportive interactions with children, families, and colleagues.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), Department of Children & Families (DCF) background checks and/or fingerprinting are required for certain mandatory courses. Drug testing is not required. Depending on the contents of these criminal background check(s), a student's participation in an academic program that involves working with children, the disabled, or the elderly, or which includes an observation, practicum, or field placement, may not be allowed, and therefore may impact a student's ability to complete program requirements. For more information, visit the CORI/SORI page.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- Students with certifications or graduates of technical high school programs may be eligible to earn credit for prior learning.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 13.1210.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Students must pass all ECE courses with a grade of "C" or higher.
- Students cannot take any ECE course more than twice.
- Many of the required courses can be applied to the associate degree option(s).

Program Email: earlychildhood@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: ECFC). • Register for and successfully complete all courses to graduate in two semesters. • Meet with ECE Advisor to discuss requirements of program. • Take College Placement Test for English, as needed.				
Introduction to Early Childhood Education	ECE 101	F/S/SU	3	Placement into college level English
Growth & Development of the Young Child	ECE 102	F/S/SU	3	Placement into college level English
Introduction to Student Teaching Practicum	ECE 150	F/S/SU	4	Coreq: ECE 102
		Total	**10**	
Semester 2 (Spring) • Meet with ECE Advisor to register and discuss entry into degree program. • Submit an Intent to Graduate Form, located on *The Q*.				
Infant & Toddler Curriculum and Development **OR**	ECE 221	F/S	3	ECE 102
Early Childhood Curriculum	ECE 258	S		
Guiding Young Children's Behavior	ECE 255	F/S	3	ECE 102
		Total	**6**	
Total Credits Required:			**16**	

For information on electives, see p. 373-374.

ASSOCIATE IN ARTS - GSEE

General Studies - Elementary Education Transfer Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The General Studies - Elementary Education Transfer Option meets the standards of MassTransfer and prepares students for transfer to undergraduate elementary education programs at Massachusetts public higher education institutions. The program includes broad-based general education courses, as well as courses that are more closely aligned to children and teaching. The goal is to provide students with a clear path to a degree at a four-year university.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate mastery of number sense and numeration, patterns and functions, geometry and measurement, and data analysis.
- Apply the concepts and methods of understanding of human development from conception to adolescence.
- Apply the concepts and methods of understanding children's literature.
- Apply the concepts and methods of teaching and learning at the elementary level.
- Achieve awareness of historical, philosophical, and pedagogical perspectives in elementary education.
- Write and speak clearly.
- Locate, evaluate, and apply reliable and appropriate information.
- Relate scientific methods of inquiry to the acquisition of knowledge.
- Demonstrate knowledge and appreciation of diverse cultures, personal perspectives/anti-bias, culturally-responsive practices, and family and community involvement.
- Demonstrate an understanding of the educational considerations, including adaptations, accommodations, modifications, and supports for students with varying exceptionalities.
- Achieve awareness of the educational issues, policies, and law as they relate to children with differing abilities.
- Demonstrate an understanding of evidence-based practices for the explicit and systematic instruction of foundational reading skills in the areas of phonological and phonemic awareness, phonics, fluency, vocabulary, and comprehension.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), Department of Children & Families (DCF) background checks and/or fingerprinting are required for certain mandatory courses. Depending on the contents of these criminal background check(s), a student's participation in an academic program that involves working with children, the disabled, or the elderly, or which includes an observation, practicum, or field placement, may not be allowed, and therefore may impact a student's ability to complete program requirements. For more information, visit the CORI/SORI page.

Additional Cost

See the Program Fees (Page 27).

- Required: Fingerprinting through IdentoGo.
- Optional: Take a preparation class for the Massachusetts Tests for Educator Licensure (MTEL).
- Recommended: Take the Communication and Literacy Skills Test (CLST) or one of the DESE-approved alternative MTEL assessments.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: GSEE). • Register for and successfully complete all courses to graduate in four semesters. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Upon transfer, Elementary Education graduates are required to have a minor or second academic major, in addition to the Elementary Education major. The requirements of each institution vary. Students should intentionally select Electives to maximize transfer of credit. • Complete EDU 101; complete 24 hours of pre-practicum beyond classroom time. • Complete ENG 101 and MAT 111.				
Elementary Education: Teaching and Learning	EDU 101	F	3	Placement into college level English
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Mathematics for Educators I	MAT 111	F/S/SU	3	QMAT placement score > 32 or Coreq: MAT 054
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**15**	
Semester 2 • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete EDU 103; complete 24 hours of pre-practicum beyond classroom time.				
Foundations of Multicultural Education & Diversity	EDU 103	S	3	EDU 101, ENG 101
Composition II	ENG 102	F/S/SU	3	ENG 101
Mathematics for Educators II	MAT 112	F/S/SU	3	MAT 111
Child Development	PSY 123	F/S/SU	3	PSY 101
Liberal Arts Elective	---	F/S/SU	3	
		Total	**15**	
Semester 3 • For the History Elective, choose: HST 104, HST 105, HST 106, HST 115, or HST 116. • Recommended: Take the CLST or one of the DESE-approved alternative MTEL assessments. Students are strongly advised to take one of the approved assessments after completing ENG 102. A review class is offered through the QCC Center for Workforce Development and Continuing Education. • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Confirm that MassTransfer 34-credit general education transfer block can be completed. • Complete EDU 202; complete 24 hours of pre-practicum beyond classroom time.				
Children with Exceptionalities	EDU 202	F	3	EDU 103, PSY 123
Children's Literature	ENG 200	F/S/SU	3	ENG 102
Integrated Science: Earth and Space	SCI 105	F/S/SU	4	Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
History Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
		Total	**16**	
Semester 4 • Continue with/complete the transfer application process. • Complete EDU 204; complete 24 hours of pre-practicum beyond classroom time. • Submit an Intent to Graduate Form, located on *The Q*.				
Foundations of Reading	EDU 204	S	3	EDU 202
Integrated Science: The Living World	SCI 106	F/S/SU	4	Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures
Humanities Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
		Total	**16**	
Total Credits Required:			**62**	

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 13.1202.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Massachusetts four-year colleges and universities require elementary education students to complete a minor or second academic major. Specific requirements vary depending on the institution to which students transfer. To maximize transfer of credits, students should intentionally select Electives based on their planned second major or minor.
- EDU courses require a minimum passing grade of "C" or higher.
- EDU courses cannot be taken more than twice.
- For each EDU course, students must complete 24 hours of pre-practicum.
- Pre-practicum may be completed at the student's work site.

Program Email: malmeida@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - EEC

Leadership in Early Education and Care Certificate (Evening Only)

This program is not accepting applications for the 2025-2026 academic year.

Location

- This program may be completed less than 50% online.
- This program may be completed at QCC Worcester (Main Campus).
- Some courses may be completed at QCC Southbridge.
- This program may be completed face-to-face.

Program Goals

The Leadership in Early Education and Care Certificate provides students who are already working in early childhood centers as directors, supervisors, or aspiring to a leadership role, with the skills required for creating and sustaining healthy working relationships leading to quality programs for young children and their families.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate knowledge of child and adult development, personality typologies, dispositions, and learning styles as they relate to self and others.
- Demonstrate communication skills supportive of collaboration in a school setting and with families.
- Document reflective thinking necessary for self-growth and professional development.
- Demonstrate ability to advocate on behalf of young children, their families, and the early childhood community.
- Reflect critically on early childhood educational leadership competencies.
- Demonstrate ethical leadership skills in early childhood education settings.
- Engage in continuous, collaborative learning to inform practice.
- Value ethical standards and professional guidelines.
- Identify and utilize professional resources.
- Demonstrate ability to write and speak effectively.
- Demonstrate knowledge and appreciation of diverse cultures.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Students must have an associate degree to complete this certificate.
- Students must supply verification of employment within the Early Education field.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), Department of Children & Families (DCF) background checks and/or fingerprinting are required for certain mandatory courses. Drug testing is not required. Depending on the contents of these criminal background check(s), a student's participation in an academic program that involves working with children, the disabled, or the elderly, or which includes an observation, practicum, or field placement, may not be allowed, and therefore may impact a student's ability to complete program requirements. For more information, visit the CORI/SORI page.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- Students with certifications or over five years of major-related work experience may be eligible to earn credit for prior learning. To apply, students must complete a profile at https://myexperiencecounts.mass.edu/.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 13.1209.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: EEC). • Register for and successfully complete all courses to graduate in two semesters.				
Supervision, Coaching and Mentoring in Early Childhood Settings	ECE 238	F/S	3	ENG 101
Administration in Early Education and Care	ECE 243	F	3	ECE 102 or PSY 123
		Total	**6**	
Semester 2 • Submit an Intent to Graduate Form, located on *The Q*.				
Communication for Collaboration	ECE 244	F	3	ECE 102 or PSY 123
Advocacy and Ethics for Social Justice in Early Care and Education	ECE 245	S	3	ECE 102 or PSY 123
Seminar and Field Experience: Leadership in Early Education and Care	ECE 246	S	3	ECE 102 or PSY 123
		Total	**9**	
Total Credits Required:			**15**	

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Students must pass all ECE courses with a grade of "C" or higher.
- Students cannot take any ECE course more than twice.

Program Email: earlychildhood@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - CTC

Computed Tomography Certificate

Location

- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- This program will require students to travel to clinical sites within the Worcester County area.

Program Goals

The Computer Tomography Certificate program includes the following Program Goals:

- Provide the 16 hours of didactic work required to take the Certification exam from ARRT.
- Provide the clinical experience to complete all competencies required for the ARRT exam.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- List the generations of CT Scanners.
- Apply digital imaging principles to CT protocols.
- Employ knowledge of sectional anatomy.
- Perform venipuncture and insertion of IV catheters.
- Complete 16 hours of required didactic work.
- Participate in clinical time in order to complete all required competencies.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Current American Registry of Radiologic Technologists (ARRT) Certification in Radiography, Radiation Therapy, Nuclear Medicine or the Nuclear Medicine Technology Certification Board (NMTCB).
- Current license by the State of Massachusetts Radiation Control Program, Department of Public Health.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks and drug testing are required in the program, either annually or every semester. Fingerprinting may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

Additional Cost

See the Program Fees (Page 27).

- Students enrolled in RDT courses are subject to expenses for uniforms and transportation to clinical sites and clinical parking fees.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Radiologic Technology program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
    - Phone: 508.854.4471
    - Email: SAS@qcc.mass.edu
    - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
    - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Spring) • Register for and successfully complete all courses to graduate in two semesters. • Meet with Career Services to credential 10 RDT credits for current ARRT Certification in Radiography and current license by the State of Massachusetts Radiation Control Program, Department of Public Health; or complete RDT 232 (3 credits), RDT 252 (4 credits), and RDT 254 (3 credits) with grades of "C" or higher. • Complete RDT 260 with a grade of "C" or higher, if it has been 24 months or more since completion of the course.				
ARRT Certification in Radiography and current license by the State of Massachusetts Radiation Control Program, Department of Public Health (credentialed for 10 RDT credits) **OR**	---	S	10	
Medical Radiography Clinic IV **AND**	RDT 232			RDT 231
Radiology Seminar **AND**	RDT 252			BIO 112, RDT 231, RDT 240
Radiologic Pharmacology and Pathology	RDT 254			BIO 112, RDT 231, RDT 240
CT & Cross-Section Anatomy	RDT 260	S	2	ARRT Certification in Radiography and current license by the State of Massachusetts Radiation Control Program, Department of Public Health; or BIO 112 and RDT 231 and RDT 240
		Total	**12**	
Semester 2 (Summer I & II) • Ensure all Healthcare Compliance requirements are met prior to Semester 2. • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete RDT 290 with a grade of "C" or higher. • Submit an Intent to Graduate Form, located on *The Q.*				
Computed Tomography Clinical	RDT 290	SU	3	ARRT Certification in Radiography and current license by the State of Massachusetts Radiation Control Program, Department of Public Health and RDT 260; or RDT 232 and RDT 252 and RDT 254 and RDT 260
		Total	**3**	
Total Credits Required:			**15**	

Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0911.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: radiologictechnology@qcc.mass.edu

Accreditation

The Quinsigamond Community College Radiologic Technology program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), which can be contacted at: Joint Review Committee on Education in Radiologic Technology | 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182 | 312.704.5300 | www.jrcert.org.

For information on electives, see p. 373-374.

CERTIFICATE - DA

Dental Assisting Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Dental Hygiene
- Healthcare - Pre-Dental Hygiene Option
- Healthcare - Medical Sales/Marketing Option
- Healthcare - Medical Office Management Option
- Healthcare

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus) along with 416 hours at dental offices within Worcester County.
- This program may be completed face-to-face.

Program Goals

The QCC Dental Assisting Certificate program includes the following Program Goals:

- To provide a Dental Assisting curriculum that is high quality, student centered, accessible and affordable to obtain entry-level employment as an integral member of the dental health team within six months of graduation, or enroll in an advanced education program.
- To competently and ethically perform chairside dental assisting and related office and laboratory procedures under the direction and supervision of the dentist within the guidelines of the Massachusetts Dental Practice Act and the Dental Profession.
- To demonstrate the appropriate level of knowledge needed to perform dental assisting functions by successfully challenging the Dental Assisting National Board Certified Dental Assistant examination.
- To conduct ongoing review of program goals and curriculum to ensure that the program continues to meet the needs of external organizations, the dental community, and students.
- To provide students with skills to communicate professionally with patients, and to be competent to communicate professionally, along with the skills to collaborate effectively with employers and other health care professionals.
- To engage in intellectual and professional growth, and appreciate the need for life-long learning activities to meet the changing needs and demands of the profession and the community by maintaining a Massachusetts Dental Assisting License, CDA status, and actively participating in the local and/or national level of the American Dental Assisting Association.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Apply CDC, HIPAA, OSHA guidelines to their everyday use in a dental setting (community or private).
- Uphold professionalism, ethics, and integrity while providing daily tasks as a dental assistant.
- Explain any dental procedure or material in layman's terms to a patient, or professional nomenclature to the healthcare community.
- Attend local or national meetings of ADAA.
- Apply knowledge of the Massachusetts State Delegable duties for a Dental Assistant.
- Demonstrate all modalities of dental assisting.
- Be competent in the use of technology as a learning resource and for information management.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.
- English: Placement into college level English.

Program Retention / Progression Requirements:
To be eligible to continue in the program, students must:

- Achieve a grade of "C" or higher in all program courses designated by DAS.
- Achieve a grade of "C" or higher in BIO 100, DHY 125, DHY 131, DHY 241, and ENG 101.
- Maintain documentation of current Healthcare Provider Level BLS/CPR Certification.
- Maintain documentation of immunization currency and satisfactory health status.
- Maintain documentation of annual TB testing.
- Maintain documentation of health insurance.
- Be aware that they may be exposed to bloodborne pathogens. Bloodborne Pathogens means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV). United States Department of Labor, OSHA, September 5, 2019 (www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030).

Program Readmission Requirements:
There is a one-time readmission policy for the program.

- Readmission is not guaranteed and is always based upon space availability.

- Students who did not earn a grade of "C" or higher in BIO 100, DHY 125, DHY 131, DHY 241, ENG 101, or any program courses designated by DAS need to re-apply to the program through the Admissions Office. Students need to meet the current admission requirements. Students should contact the Program Coordinator as soon as they receive the notification of being placed on the waitlist (by April 15) to discuss readmission.
- Students who did not earn a grade of "C" or higher in any other DAS course should contact the Program Coordinator by April 15 to discuss readmission.
- Students who have been dismissed or administratively withdrawn from a program within the School of Healthcare at Quinsigamond Community College for reasons of "clinically unsafe practice/behavior" or who violate the College's Student Code of Conduct or Policy on Affirmative Action are not eligible for admission/readmission to any Healthcare program.

Program Graduation Requirements:
Students must satisfy all course and program requirements, including regulations related to attendance and conduct, in order to be eligible for graduation.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for uniforms/clinical wear, textbooks, licensing examinations, and required skills remediation.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Dental Assisting program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0601.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- It is suggested that students take BIO 100 and ENG 101 prior to entering the program.
- Students will need to provide their own transportation to dental offices within Worcester County.

Dental Assisting "Bridge" to Dental Hygiene:

Graduates of the QCC Dental Assisting Certificate programs (Program Code: DA, DAWO) may transfer into the QCC Dental Hygiene - Associate in Science program (Program Code: DH) if they meet the current program admissions requirements for the Dental Hygiene program.

- Subject to space availability, up to two seats in the Dental Hygiene freshman class will be reserved for currently-enrolled QCC dental assistants scheduled to graduate in May who have met all the admission criteria for the Dental Hygiene program. Students must bridge directly from the Dental Assisting program to the Dental Hygiene program. "Bridge" selection applications may be obtained from the

Dental Assisting Program Coordinator. Decisions will be made by April 15 each year and pending final grades at the end of the semester.

- Dental Assisting graduates may be eligible to by-pass the Dental Hygiene waitlist if the following criteria are met:
  - Minimum Grade Point Average (GPA) of 3.30 overall at the end of Spring semester
  - Minimum grade of "B" in all QCC DHY courses and obtain a minimum grade of "73" on the final exams/exit exams for DHY bridge courses (DHY 125, DHY 131, DHY 241), in order to qualify for the "bridge" from the Dental Assisting to Dental Hygiene program.
  - Minimum grade of "A-" in the DAS 151, DAS 153, and DAS 155 courses.
  - Two recommendations from QCC DHY core course faculty, of which one is from a full-time faculty member.
  - BIO 111, CHM 101, and ENG 101 must be completed before submitting the application. BIO 112 and ENG 102 must be taken in Summer I. BIO 232 and DHY 125 must be taken in Summer II.
  - Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
  - Students must have passed DANB CDA exam, with proof of the official certificate from DANB.
  - Students will need to audit DHY 241. This will entail attending all DHY 241 lab sessions. Attending lectures is optional.
  - All bridge students who have taken DHY 131, and passed with a "B" or higher within one year of entering the Dental Hygiene program, will be required to demonstrate competency the Summer before entering or re-entering the program. This will be scheduled for three hours in July/August. If students fail the competency exam, they will be required to enroll in or audit DHY 131L.
  - Students who have taken DHY 131 prior to one year will be required to retake the course.
  - In addition, students will also be required to demonstrate competency the following December/January before treating patients. There is no fee for this competency evaluation. If students do not demonstrate competency, they will be required to participate in remediation prior to exposing radiographs on patients. The competency will consist of:
    - Review of QCC Dental Hygiene program radiograph exposure protocols, forms, and documentation.
    - Review of exposing film-based intra-oral radiographs and darkroom procedures.
    - Review and exposure of various radiographic techniques and modalities on manikins.

Notice of Opportunity to File Complaints:
The Commission on Dental Accreditation will review complaints that relate to a program's compliance with the accreditation standards. The Commission is interested in the sustained quality and continued improvement of dental and dental-related education programs; however, the Commission does not intervene on behalf of individuals or act as a court of appeal for treatment received by patients or individuals in matters of admission, appointment, promotion or dismissal of faculty, staff or students. A copy of the appropriate accreditation standards and/or the Commission's policy and procedure for submission of complaints may be obtained by contacting the Commission at: Commission on Dental Accreditation | 211 East Chicago Avenue, Chicago, IL 60611 | 800.621.8099, ext. 4653.

Program Email: dentalassisting@qcc.mass.edu

Accreditation

The Quinsigamond Community College Dental Assisting program is accredited by the Commission on Dental Accreditation (CODA), which was established in 1975 and is nationally recognized by the United States Department of Education as the sole agency to accredit dental and dental-related education programs conducted at the post-secondary level. CODA can be contacted at: Commission on Dental Accreditation | 211 East Chicago Avenue, Chicago, IL 60611 | 800.621.8099 | 312.440.4653 | www.ada.org/en/coda. The Dental Assisting program was last granted continuing accreditation without reporting requirements in 2021, and the next re-accreditation visit is scheduled for 2028.

Statistics

Program Outcomes:
Program outcomes are defined as performance indicators that reflect the extent to which the purposes of the program are achieved and by which program effectiveness is documented. Program outcomes are measurable, consumer-oriented indexes designed to evaluate the degree to which the program is achieving its mission and goals. Examples include, but are not limited to, program completion rates, licensure/certification examination pass rates, and job placement rates.

Program Statistics:
Students Challenging the DANB (Dental Assisting National Board) CDA (Certified Dental Assistant):

- 2016: 100%
- 2017: 100%
- 2018: 100%
- 2019: 100%
- 2020: 100%
- 2021: 100%
- 2022: 100%
- 2023: 86%
- 2024: 100%

DANB CDA Pass Rates:

- 2016: 100%
- 2017: 64%
- 2018: 100%
- 2019: 90%
- 2020: 33%
- 2021: 67%
- 2022: 75%
- 2023: RHS: 37% | ICE: 25%
- 2024: RHS: 100% | ICE: 90% | GC 40%

Graduates Obtaining Jobs or Further Education:

- 2016: 100%
- 2017: 100%
- 2018: 100%
- 2019: 100%
- 2020: 100%
- 2021: 100%
- 2022: 100%
- 2023: Pending
- 2024: 100%

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Summer I & II) • Apply and get accepted to this program (Program Code: DA). • Register for and successfully complete all courses to graduate in four semesters. • Contact Career Services (www.QCC.edu/APexams) to receive credit for High School (HS) Advanced Placement (AP) Exams. QCC School Code: 3714. • Complete BIO 100 or BIO 111 and BIO 112 (Summer I) with grades of "C" or higher. • Complete DHY 125 (Summer II) with a grade of "C" or higher. • Complete ENG 101; or AP English/Language and Composition, with AP Exam grade of "3" or higher, to count as ENG 101. • Complete all program admissions requirements for DH program, if applying to "Bridge" Semester 4.				
Principles of Human Biology **OR**	BIO 100	F/S/SU	4	Placement into college level English
Anatomy & Physiology II	BIO 112			BIO 111
Dental Anatomy (Summer II)	DHY 125	SU	1	DA or DH students only, BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, Placement into college level English
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		Total	**8**	
Semester 2 (Fall) • Meet with Academic Advisor to discuss associate degree (e.g., Program Code: DH, HCDH, etc.); or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete all DAS and DHY courses each semester with grades of "C" or higher.				
Clinical Science I	DAS 101	F	3	DA students only, BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101, Coreq: DAS 102, DAS 151, DHY 131, DHY 241
Dental Sciences	DAS 102	F	3	DA students only, BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101, Coreq: DAS 101, DAS 151, DHY 131, DHY 241
Dental Assisting I	DAS 151	F	4	DA students only, BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101, Coreq: DAS 101, DAS 102, DHY 131, DHY 241
Dental Radiology	DHY 131	F	3	BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101
Dental Materials	DHY 241	F	2	BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, DHY 125 with a grade of "C" or higher
		Total	**15**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 3 (Intersession)				
Dental Assisting Clinical Practicum	DAS 153	IN	2	DAS 101 and DAS 102 and DAS 151 and DHY 125 and DHY 131 and DHY 241 with grades of "C" or higher
		Total	**2**	
Semester 4 (Spring) • Submit a "Bridge to DH" application, or apply to associate degree (e.g., Program Code: HCDH, etc.); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Clinical Science II	DAS 105	S	4	DAS 153 with a grade of "C" or higher, Coreq: DAS 111, DAS 124, DAS 155
Practice Management	DAS 111	S	3	DAS 153 with a grade of "C" or higher, Coreq: DAS 105, DAS 124, DAS 155
Introduction to Oral Pathology	DAS 124	S	1	DAS 153 with a grade of "C" or higher, Coreq: DAS 105, DAS 111, DAS 155
Dental Assisting II	DAS 155	S	6	DAS 153 with a grade of "C" or higher, Coreq: DAS 105, DAS 111, DAS 124
		Total	**14**	
Total Credits Required:			**39**	

CERTIFICATE - DAWO

Dental Assisting Certificate - Weekend Option

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Dental Hygiene
- Healthcare - Pre-Dental Hygiene Option
- Healthcare - Medical Sales/Marketing Option
- Healthcare - Medical Office Management Option
- Healthcare

Location

- This program may be completed 50% or more online.
- This program may be completed online, with labs, clinics, and externships completed face-to-face.
- Externships (416 hours) will be offered during the weekdays in Worcester County.

Program Goals

The QCC Dental Assisting Certificate - Weekend Option program includes the following Program Goals:

- To provide a Dental Assisting curriculum that is high quality, student centered, accessible and affordable to obtain entry-level employment as an integral member of the dental health team within six months of graduation, or enroll in an advanced education program.
- To competently and ethically perform chairside dental assisting and related office and laboratory procedures under the direction and supervision of the dentist within the guidelines of the Massachusetts Dental Practice Act and the Dental Profession.
- To demonstrate the appropriate level of knowledge needed to perform dental assisting functions by successfully challenging the Dental Assisting National Board Certified Dental Assistant examination.
- To conduct ongoing review of program goals and curriculum to ensure that the program continues to meet the needs of external organizations, the dental community, and students.
- To provide students with skills to communicate professionally with patients, and to be competent to communicate professionally, along with the skills to collaborate effectively with employers and other health care professionals.
- To engage in intellectual and professional growth, and appreciate the need for life-long learning activities to meet the changing needs and demands of the profession and the community by maintaining a Massachusetts Dental Assisting License, CDA status, and actively participating in the local and/or national level of the American Dental Assisting Association.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Apply CDC, HIPAA, OSHA guidelines to their everyday use in a dental setting (community or private).
- Uphold professionalism, ethics, and integrity while providing daily tasks as a dental assistant.
- Explain any dental procedure or material in layman's terms to a patient, or professional nomenclature to the healthcare community.
- Attend local or national meetings of ADAA.
- Apply knowledge of the Massachusetts State Delegable duties for a Dental Assistant.
- Demonstrate all modalities of dental assisting.
- Be competent in the use of technology as a learning resource and for information management.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.
- English: Placement into college level English.

Program Retention / Progression Requirements:
To be eligible to continue in the program, students must:

- Achieve a grade of "C" or higher in all program courses designated by DAS.
- Achieve a grade of "C" or higher in BIO 100, DHY 125, DHY 131, DHY 241, and ENG 101.
- Maintain documentation of current Healthcare Provider Level BLS/CPR Certification.
- Maintain documentation of immunization currency and satisfactory health status.
- Maintain documentation of annual TB testing.
- Maintain documentation of health insurance.
- Be aware that they may be exposed to bloodborne pathogens. Bloodborne Pathogens means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV). United States Department of Labor, OSHA, September

5, 2019 (www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030).

Program Readmission Requirements:
There is a one-time readmission policy for the program.

- Readmission is not guaranteed and is always based upon space availability.
- Students who did not earn a grade of "C" or higher in BIO 100, DHY 125, DHY 131, DHY 241, ENG 101, or any program courses designated by DAS need to re-apply to the program through the Admissions Office. Students need to meet the current admission requirements. Students should contact the Program Coordinator as soon as they receive the notification of being placed on the waitlist (by April 15) to discuss readmission.
- Students who did not earn a grade of "C" or higher in any other DAS course should contact the Program Coordinator by April 15 to discuss readmission.
- Students who have been dismissed or administratively withdrawn from a program within the School of Healthcare at Quinsigamond Community College for reasons of "clinically unsafe practice/behavior" or who violate the College's Student Code of Conduct or Policy on Affirmative Action are not eligible for admission/readmission to any Healthcare program.

Program Graduation Requirements:
Students must satisfy all course and program requirements, including regulations related to attendance and conduct, in order to be eligible for graduation.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for uniforms/clinical wear, textbooks, licensing examinations, and required skills remediation.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Dental Assisting program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

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Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0601.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- It is suggested that students take BIO 100 and ENG 101 prior to entering the program.
- Students will need to provide their own transportation to dental offices within Worcester County.

Dental Assisting "Bridge" to Dental Hygiene:

Graduates of the QCC Dental Assisting Certificate programs (Program Code: DA, DAWO) may transfer into the QCC Dental Hygiene - Associate in Science program (Program Code: DH) if they meet the current program admissions requirements for the Dental Hygiene program.

- Subject to space availability, up to two seats in the Dental Hygiene freshman class will be reserved for currently-enrolled QCC dental assistants scheduled to graduate in May who have met all the admission criteria for the Dental Hygiene program. Students must bridge directly from the Dental Assisting program to the Dental Hygiene program. "Bridge" selection applications may be obtained from the Dental Assisting Program Coordinator. Decisions will be made by April 15 each year and pending final grades at the end of the semester.
- Dental Assisting graduates may be eligible to by-pass the Dental Hygiene waitlist if the following criteria are met:
  - Minimum Grade Point Average (GPA) of 3.30 overall at the end of Spring semester.
  - Minimum grade of "B" in all QCC DHY courses and obtain a minimum grade of "73" on the final exams/exit exams for DHY bridge courses (DHY 125, DHY 131, DHY 241), in order to qualify for the "bridge" from the Dental Assisting to Dental Hygiene program.
  - Minimum grade of "A-" in the DAS 151, DAS 153, and DAS 155 courses.
  - Two recommendations from QCC DHY core course faculty, of which one is from a full-time faculty member.
  - BIO 111, CHM 101, and ENG 101 must be completed before submitting the application. BIO 112 and ENG 102 must be taken in Summer I. BIO 232 and DHY 125 must be taken in Summer II.
  - Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
  - Students must have passed DANB CDA exam, with proof of the official certificate from DANB.
  - Students will need to audit DHY 241. This will entail attending all DHY 241 lab sessions. Attending lectures is optional.
  - All bridge students who have taken DHY 131, and passed with a "B" or higher within one year of entering the Dental Hygiene program, will be required to demonstrate competency the Summer before entering or re-entering the program. This will be scheduled for three hours in July/August. If students fail the competency exam, they will be required to enroll in or audit DHY 131L.
  - Students who have taken DHY 131 prior to one year will be required to retake the course.
  - In addition, students will also be required to demonstrate competency the following December/January before treating patients. There is no fee for this competency evaluation. If students do not demonstrate competency, they will be required to participate in remediation prior to exposing radiographs on patients. The competency will consist of:
    - Review of QCC Dental Hygiene program radiograph exposure protocols, forms, and documentation.
    - Review of exposing film-based intra-oral radiographs and darkroom procedures.
    - Review and exposure of various radiographic techniques and modalities on manikins.

Notice of Opportunity to File Complaints:
The Commission on Dental Accreditation will review complaints that relate to a program's compliance with the accreditation standards. The Commission is interested in the sustained quality and continued improvement of dental and dental-related education programs; however, the Commission does not intervene on behalf of individuals or act as a court of appeal for treatment received by patients or individuals in matters of admission, appointment, promotion or dismissal of faculty, staff or students. A copy of the appropriate accreditation standards and/or the Commission's policy and procedure for submission of complaints may be obtained by contacting the Commission at: Commission on Dental Accreditation | 211 East Chicago Avenue, Chicago, IL 60611 | 800.621.8099, ext. 4653.

Program Email: dentalassisting@qcc.mass.edu

Accreditation

The Quinsigamond Community College Dental Assisting program is accredited by the Commission on Dental Accreditation (CODA), which was established in 1975 and is nationally recognized by the United States Department of Education as the sole agency to accredit dental and dental-related education programs conducted at the post-secondary level. CODA can be contacted at: Commission on Dental Accreditation | 211 East Chicago Avenue, Chicago, IL 60611 | 800.621.8099 | 312.440.4653 | www.ada.org/en/coda. The Dental Assisting program was last granted continuing accreditation without reporting requirements in 2021, and the next re-accreditation visit is scheduled for 2028.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Summer I & II) • Apply and get accepted to this program (Program Code: DAWO). • Register for and successfully complete all courses to graduate in four semesters. • Contact Career Services (www.QCC.edu/APexams) to receive credit for High School (HS) Advanced Placement (AP) Exams. QCC School Code: 3714. • Complete BIO 100 or BIO 111 and BIO 112 (Summer I) with grades of "C" or higher. • Complete DHY 125 (Summer II) with a grade of "C" or higher. • Complete ENG 101; or AP English/Language and Composition, with AP Exam grade of "3" or higher, to count as ENG 101. • Complete all program admissions requirements for DH program, if applying to "Bridge" Semester 4.				
Principles of Human Biology **OR**	BIO 100	F/S/SU	4	Placement into college level English
Anatomy & Physiology II	BIO 112			BIO 111
Dental Anatomy (Summer II)	DHY 125	SU	1	DA or DH students only, BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, Placement into college level English
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		Total	**8**	
Semester 2 (Fall) • Meet with Academic Advisor to discuss associate degree (e.g., Program Code: DH, HCDH, etc.); or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete all DAS and DHY courses each semester with grades of "C" or higher.				
Clinical Science I	DAS 101	F	3	DA students only, BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101, Coreq: DAS 102, DAS 151, DHY 131, DHY 241
Dental Sciences	DAS 102	F	3	DA students only, BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101, Coreq: DAS 101, DAS 151, DHY 131, DHY 241
Dental Assisting I	DAS 151	F	4	DA students only, BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101, Coreq: DAS 101, DAS 102, DHY 131, DHY 241
Dental Radiology	DHY 131	F	3	BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101
Dental Materials	DHY 241	F	2	BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, DHY 125 with a grade of "C" or higher
		Total	**15**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 3 (Intersession)				
Dental Assisting Clinical Practicum	DAS 153	IN	2	DAS 101 and DAS 102 and DAS 151 and DHY 125 and DHY 131 and DHY 241 with grades of "C" or higher
		Total	**2**	
Semester 4 (Spring) • Submit a "Bridge to DH" application, or apply to associate degree (e.g., Program Code: HCDH, etc.); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Clinical Science II	DAS 105	S	4	DAS 153 with a grade of "C" or higher, Coreq: DAS 111, DAS 124, DAS 155
Practice Management	DAS 111	S	3	DAS 153 with a grade of "C" or higher, Coreq: DAS 105, DAS 124, DAS 155
Introduction to Oral Pathology	DAS 124	S	1	DAS 153 with a grade of "C" or higher, Coreq: DAS 105, DAS 111, DAS 155
Dental Assisting II	DAS 155	S	6	DAS 153 with a grade of "C" or higher, Coreq: DAS 105, DAS 111, DAS 124
		Total	**14**	
Total Credits Required:			**39**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - DH

Dental Hygiene

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.
- Service learning rotations are required at off-campus sites.

Program Goals

The QCC Dental Hygiene associate degree program includes the following Program Goals:

- To graduate students who have the potential for achieving the stated program competencies.
- To provide a curriculum that will prepare students to meet the stated program competencies with the knowledge and skills required to provide comprehensive dental hygiene services based on current standards of care.
- To prepare each graduate to assume responsibility for ethical dental hygiene care in accordance with the laws of the Commonwealth of Massachusetts.
- To graduate students who value the importance of being affiliated with the American Dental Hygienists' Association.
- To develop and provide ongoing continuing education programs for dental professionals.
- To provide quality comprehensive dental hygiene care within the parameters of the educational requirements of the program.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Be competent in providing the Dental Hygiene Process of Care to a diverse population, including the child, adolescent, adult, geriatric, medically compromised and special needs patients with all classifications of periodontal disease.
- Be competent in interprofessional and interpersonal communication skills to effectively interact with diverse population groups and other members of the healthcare team.
- Be competent in assessing, analyzing data, planning, implementing, and evaluating community-based oral health programs, including health promotion and disease prevention activities.
- Be competent in applying legal and regulatory concepts to the provision and/or support of oral healthcare services.
- Be competent in the application of the principles of ethical reasoning, ethical decision-making, and professional responsibility as they pertain to academic environment, research, patient care, and patient management.
- Be competent in the use of technology as a learning resource and for information management.
- Be competent in the utilization of current scientific literature and research by evaluating the research as a basis for life-long learning, evidence-based practice, and as a foundation for adapting to changes in healthcare.
- Be competent in the management of comprehensive patient care utilizing critical thinking and problem-solving skills, and in applying self-assessment skills in preparation for life-long learning.
- Be competent in representing and supporting the profession through community service and affiliations with professional organizations.
- Be competent in providing appropriate support measures for medical emergencies that may be encountered in dental hygiene practice.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.
- Submit the Dental Hygiene Observation/Work Experience Form by completing one of the following options:
  - Observe/shadow in a dental office: Two hours must be spent observing dental hygiene procedures and two hours spent between observing the dental assistant/dental procedures and front desk operations in a dental office. It is the responsibility of the student to make arrangements with a dental office to complete this portion of the application process.
  - Observe a QCC Dental Hygiene Simulation Lab: The student must attend a clinical simulation laboratory class for three hours.
  - Work experience in a dental office: The employer can sign, validating work experience in a dental office.
  - Graduate from the QCC Dental Assisting Program within the last two years.

- English: Placement into college level English.
- Mathematics: Placement into a college level mathematics course (MAT 095 with a grade of "C" or higher or QMAT placement score > 21 or appropriate multiple measures).
- Biology: Minimum grade of "B" in high school biology or "B" or higher in college level biology course (BIO 101 recommended). Required grade must be earned within two attempts of taking and completing the course. Qualifying biology course must be taken within five years of application.
- TEAS Admission Requirement: Applicants must have taken the TEAS within the last five years of applying to the program.
  - A qualifying composite score must be achieved in no more than three attempts within a rolling three-year period (scores from multiple tests cannot be combined).
  - To meet the TEAS admission requirement, applicants must achieve one of the following:
    - A composite TEAS score of 65% or higher **OR**
    - A composite TEAS score between 61% and 64%, with the following minimum GPA requirements (see table below):

TEAS Score	Overall QCC College Biology GPA (4 credit minimum)	Overall QCC College GPA (15 credit minimum)
64	3.0 or higher	3.0 or higher
63	3.1 or higher	3.1 or higher
62	3.2 or higher	3.2 or higher
61	3.3 or higher	3.3 or higher

Program Retention / Progression Requirements:
To be eligible to continue in the program, students must:

- Achieve a grade of "C" or higher in all program courses designated by DHY; students who have received a grade below a "C" in any DHY course are required to repeat the course and obtain a grade of "C" or higher by the end of the semester in which they are required or required as a prerequisite.
- Achieve a grade of "C" or higher in BIO 111, BIO 112, BIO 232, and CHM 101; students who have received a grade below a "C" in BIO 111, BIO 112, BIO 232, and CHM 101 are required to repeat the course and obtain a grade of "C" or higher by the end of the semester in which they are required or required as a prerequisite.
- Maintain documentation of current Healthcare Provider Level BLS/CPR Certification.
- Maintain documentation of immunization currency and satisfactory health status.
- Maintain documentation of annual TB testing.
- Maintain documentation of health insurance.
- Maintain an active membership in the professional organization (ADHA) throughout the duration of their program enrollment.
- Be aware that there may be a risk of exposure to bloodborne pathogens. Bloodborne pathogens are infectious microorganisms in human blood that can cause disease in humans. These pathogens include, but are not limited to, hepatitis B (HBV), hepatitis C (HCV), and human immunodeficiency virus (HIV). Needlesticks and other sharps-related injuries may expose workers to bloodborne pathogens. Workers in many occupations, including first responders, housekeeping personnel in some industries, nurses and other healthcare personnel, all may be at risk for exposure to bloodborne pathogens (www.osha.gov/bloodborne-pathogens).

Program Readmission Requirements:
There is a one-time readmission policy for the program.

- Readmission is not guaranteed and is always based upon space availability.
- All DHY courses must be retaken if re-entering the program after a period of one year.
- Students who did not earn a grade of "C" or higher in DHY 111, DHY 121, DHY 123, DHY 125, and/or DHY 131 need to re-apply to the program through the Admissions Office. Students need to meet the current admission requirements. Students should contact the Program Coordinator as soon as they receive the notification of being placed on the waitlist (by April 15) to discuss readmission.
- Students who did not earn a grade of "C" or higher in any other DHY course should contact the Program Coordinator by April 15 to discuss readmission.
- Students who have been dismissed or administratively withdrawn from a program within the School of Healthcare at Quinsigamond Community College for reasons of "clinically unsafe practice/behavior" or who violate the College's Student Code of Conduct or Policy on Affirmative Action are not eligible for admission/readmission to any Healthcare program.

Program Graduation Requirements:
Students must satisfy all course and program requirements, including regulations related to attendance and conduct, in order to be eligible for graduation.

- In particular, all clinical and program requirements, including regulations for attendance and conduct, must be satisfied in order to continue in the program and to be eligible for program certification for participation in licensure examinations.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a

clinical/field rotation, which could result in dismissal from the program.

- A positive CORI/SORI may impact qualifications to obtain a license to practice dental hygiene in certain states.

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for uniforms/clinical wear, textbooks, required academic or skills remediation, membership in the Dental Hygiene Professional Association, Regional and National Board exams.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- In addition to the technical standards outlined on the Technical Performance Standards page, all students must be able to reach the patient from a sitting or standing position in order to accomplish the skills necessary for this profession.
- The QCC Dental Hygiene program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
    - Phone: 508.854.4471
    - Email: SAS@qcc.mass.edu
    - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
    - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- Dental Hygiene (DHY) courses are not eligible for credit for prior learning.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0602.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Accepted applicants must:
    - Have satisfactory physical examinations.
    - Provide documentation of immunization currency as required by the Massachusetts Department of Public Health.
    - Meet tuberculosis requirements before entering the program.
    - Maintain health insurance throughout the duration of their program enrollment.
- Students who do not have completed health files submitted to the Health Compliance Office and approved by June 30 of the respective year will be removed from their dental hygiene courses and will have to file for readmission to the next available year.
- Clinical rotations may be required during Summer sessions or Winter/Intersession. Clinical rotations may be required off-campus throughout the duration of the program. Students are responsible for their own transportation.
- Clinic rotations begin the first week of January for the Spring semester.
- Although every effort will be made to schedule patients for students, ultimately, students are responsible for supplying their own patients to meet their clinical requirements.
- All students, faculty, and staff involved directly in providing patient care must have current certification in Basic Life Support at the American Heart Association's Health Care Provider Level. Incoming students will be required to complete this certification as part of their coursework during the first semester.

- Dental hygienists must be licensed by the state in which the student practices. Licensure in Massachusetts requires that applicants pass the National Board Dental Hygiene Examination, the Commission on Dental Competency Assessments (CDCA) Examination, and the Board of Registration in Dentistry Ethics and Jurisprudence Examination. A Social Security Number is mandatory for dental hygiene licensure in the state of Massachusetts.

Dental Assisting "Bridge" to Dental Hygiene:
Graduates of the QCC Dental Assisting Certificate programs (Program Code: DA, DAWO) may transfer into the QCC Dental Hygiene - Associate in Science program (Program Code: DH) if they meet the current program admissions requirements for the Dental Hygiene program.

- Subject to space availability, up to two seats in the Dental Hygiene freshman class will be reserved for currently-enrolled QCC dental assistants scheduled to graduate in May who have met all the admission criteria for the Dental Hygiene program. Students must bridge directly from the Dental Assisting program to the Dental Hygiene program. "Bridge" selection applications may be obtained from the Dental Assisting Program Coordinator. Decisions will be made by April 15 each year and pending final grades at the end of the semester.
- Dental Assisting graduates may be eligible to by-pass the Dental Hygiene waitlist if the following criteria are met:
  - Minimum Grade Point Average (GPA) of 3.30 overall at the end of Spring semester.
  - Minimum grade of "B" in all QCC DHY courses and obtain a minimum grade of "73" on the final exams/ exit exams for DHY bridge courses (DHY 125, DHY 131, DHY 241), in order to qualify for the "bridge" from the Dental Assisting to Dental Hygiene program.
  - Minimum grade of "A-" in the DAS 151, DAS 153, and DAS 155 courses.
  - Two recommendations from QCC DHY core course faculty, of which one is from a full-time faculty member.
  - BIO 111, CHM 101, and ENG 101 must be completed before submitting the application. BIO 112 and ENG 102 must be taken in Summer I. BIO 232 and DHY 125 must be taken in Summer II.
  - Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
  - Students must have passed DANB CDA exam, with proof of the official certificate from DANB.
  - Students will need to audit DHY 241. This will entail attending all DHY 241 lab sessions. Attending lectures is optional.
  - All bridge students who have taken DHY 131, and passed with a "B" or higher within one year of entering the Dental Hygiene program, will be required to demonstrate competency the Summer before entering or re-entering the program. This will be scheduled for three hours in July/August. If students fail the competency exam, they will be required to enroll in or audit DHY 131L.
  - Students who have taken DHY 131 prior to one year will be required to retake the course.
  - In addition, students will also be required to demonstrate competency the following December/ January before treating patients. There is no fee for this competency evaluation. If students do not demonstrate competency, they will be required to participate in remediation prior to exposing radiographs on patients. The competency will consist of:
    - Review of QCC Dental Hygiene program radiograph exposure protocols, forms, and documentation.
    - Review of exposing film-based intra-oral radiographs and darkroom procedures.
    - Review and exposure of various radiographic techniques and modalities on manikins.

Notice of Opportunity to File Complaints:
The Commission on Dental Accreditation will review complaints that relate to a program's compliance with the accreditation standards. The Commission is interested in the sustained quality and continued improvement of dental and dental-related education programs; however, the Commission does not intervene on behalf of individuals or act as a court of appeal for individuals in matters of admission, appointment, promotion or dismissal of faculty, staff or students. A copy of the appropriate accreditation standards and/or the Commission's policy and procedure for submission of complaints may be obtained by contacting the Commission at: Commission on Dental Accreditation | 211 East Chicago Avenue, Chicago, IL 60611 | 800.621.8099, ext. 2719. A copy of the accreditation standards are also on file with and may be obtained through the administrative assistant for the QCC Dental programs.

Program Email: dentalhygiene@qcc.mass.edu

Accreditation

The Quinsigamond Community College Dental Hygiene program is accredited by the Commission on Dental Accreditation (CODA), which was established in 1975 and is a specialized accrediting body that is nationally recognized by the United States Department of Education as the sole agency to accredit dental and dental-related education programs conducted at the post-secondary level. CODA can be contacted at: Commission on Dental Accreditation | 211 East Chicago Avenue, Chicago,

IL 60611 | 800.621.8099 | 312.440.4653 | www.ada.org/en/coda. The Dental Hygiene program was last granted continuing accreditation without reporting requirements in 2021, and the next re-accreditation visit is scheduled for 2028.

Statistics

Program Outcomes:
Program outcomes are defined as performance indicators that reflect the extent to which the purposes of the program are achieved and by which program effectiveness is documented. Program outcomes are measurable, consumer-oriented indexes designed to evaluate the degree to which the program is achieving its mission and goals. Examples include, but are not limited to, program completion rates, licensure/certification examination pass rates, and job placement rates.

Program Statistics:
National Board Dental Hygiene Examination (NBDHE) Licensure Overall Pass Rates:

- 2020: 100%
- 2021: 100%
- 2022: 100%
- 2023: 100%
- 2024: 100%

ADEX Dental Examination Administered by CDCA - Computer Simulated Clinical Examination (CSCE OSCE) Licensure Overall Pass Rates:

- 2020: 100%
- 2021: 100%
- 2022: 100%
- 2023: 100%
- 2024: 100%

ADEX Dental Examination Administered by CDCA - Manikin Treatment Clinical Examination (MTCE) Overall Licensure Pass Rates:

- 2020: 100%
- 2021: 100%
- 2022: 100%
- 2023: 100%
- 2024: 100%

Graduates Obtaining Jobs - Percentage of graduates who responded to the Alumni Survey reporting employment within six months of graduation:

- 2018: 100%
- 2019: 100%
- 2020: 100%
- 2021: 100%
- 2022: 100%
- 2023: 100%

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Spring) • Register for and successfully complete all courses to graduate in nine semesters. • Complete BIO 111 and CHM 101 with grades of "C" or higher.				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Introduction to the Chemistry of Living Systems	CHM 101	F/S/SU	4	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		Total	**11**	
Semester 2 (Summer I) • Complete BIO 112 with a grade of "C" or higher.				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Composition II	ENG 102	F/S/SU	3	ENG 101
		Total	**7**	
Semester 3 (Summer II) • Complete BIO 232 with a grade of "C" or higher. • Complete all DHY courses each semester with grades of "C" or higher.				
Medical Microbiology	BIO 232	F/S/SU	4	BIO 112 or CHM 105 or CHM 123
Dental Anatomy	DHY 125	SU	1	DA or DH students only, BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, Placement into college level English
		Total	**5**	
Semester 4 (Fall)				
Dental Hygiene Process I	DHY 111	F	4	BIO 232 and CHM 101 and DHY 125 with grades of "C" or higher, ENG 102
Anatomy of the Head & Neck	DHY 121	F	2	BIO 112 and CHM 101 and DHY 125 with grades of "C" or higher, ENG 101
Oral Histology & Embryology	DHY 123	F	2	BIO 112 and CHM 101 and DHY 125 with grades of "C" or higher, ENG 101
Dental Radiology	DHY 131	F	3	BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**14**	
Semester 5 (Intersession)				
Practice Management for the Dental Hygienist	DHY 116	IN	1	DHY 111 and DHY 121 and DHY 123 and DHY 131 with grades of "C" or higher, PSY 101
		Total	**1**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 6 (Spring)				
Dental Hygiene Process II	DHY 112	S	5	BIO 232 and DHY 116 with grades of "C" or higher
Periodontology	DHY 124	S	2	DHY 116 with a grade of "C" or higher
Oral Pathology	DHY 126	S	2	DHY 116 with a grade of "C" or higher
Local Anesthesia for the Dental Hygienist	DHY 150	S	2	DHY 116 with a grade of "C" or higher
Nutrition in Oral and Systemic Health	DHY 250	S	2	DHY 116 with a grade of "C" or higher
		Total	**13**	
Semester 7 (Summer)				
Dental Hygiene Process Summer Clinic	DHY 113	SU	1	BIO 232 and DHY 112 and DHY 124 and DHY 126 and DHY 150 and DHY 250 with grades of "C" or higher
		Total	**1**	
Semester 8 (Fall) • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board.				
Health Promotion	DHY 201	F	2	DHY 113 with a grade of "C" or higher
Dental Hygiene Process III	DHY 211	F	5	DHY 113 with a grade of "C" or higher
Dental Pharmacology	DHY 231	F	2	DHY 113 with a grade of "C" or higher
Dental Materials	DHY 241	F	2	BIO 100 or BIO 111 and BIO 112 with grades of "C" or higher, DHY 125 with a grade of "C" or higher
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
		Total	**14**	
Semester 9 (Spring) • For the Liberal Arts Elective, SPH 101 suggested if considering transfer to bachelor's degree program. • Register for National and Regional Board Exams early in the semester. • Submit an Intent to Graduate Form, located on *The Q*.				
Dental Ethics, Jurisprudence & Professional Issues	DHY 202	S	2	DHY 201 and DHY 211 and DHY 231 and DHY 241 with grades of "C" or higher
Dental Hygiene Process IV	DHY 212	S	6	DHY 201 and DHY 211 and DHY 231 and DHY 241 with grades of "C" or higher
Dental Public Health	DHY 243	S	2	DHY 201 and DHY 211 and DHY 231 and DHY 241 with grades of "C" or higher
Liberal Arts Elective	---	F/S/SU	3	
		Total	**13**	
Total Credits Required:			**79**	

CERTIFICATE - EMWF

Emergency Medical Technician - Direct Entry Certificate

Location

- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- This program may be completed face-to-face.

Program Goals

This program prepares the student, upon successful completion of the Massachusetts EMT-Basic exam, to practice at the EMT-Basic level; it provides supervised classroom and laboratory training. Students in this program will be required to complete approximately 160 hours of intensive lecture and laboratory materials. Upon successful completion of the didactic and lab components of this program, the student will be eligible to take the certification examination for EMT-Basic of the Massachusetts Office of Emergency Medical Services.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- List key developments in the history of EMS, the five types of services that provide emergency care, and discuss the role of the National Scope of Practice and the National EMS Education Standards as they relate to the levels of EMS education.
- Understand the body's topographic anatomy, including the anatomic position and the planes of the body, and the major structures of the respiratory system.
- Explain how pharmacology relates to emergency medical technician clinical practice, and describe the regulatory measures affecting medications administered in the pre-hospital setting.
- Describe how to determine the mechanism of injury or nature of illness at an emergency and the importance of differentiating trauma patients from medical patients; discuss some of the possible hazards that may be present at an emergency scene, ways to recognize them, and the precautions to protect personal safety.
- Define the term trauma and explain its relationship to energy, kinetics, and biomechanics.
- Discuss the importance of the American Heart Association's five links of the Chain of Survival to a successful code; describe how progressive communities can improve survival of pre-hospital cardiac arrest patients.
- Understand the normal changes that occur in the various body systems during pregnancy and the process of childbirth.
- Summarize the medical equipment, safety equipment, and operations equipment carried on an ambulance; provide examples of some high-risk situations and hazards that may affect the safety of the ambulance and its passengers during both pre-transport and transport.
- Perform CPR (Cardiopulmonary Resuscitation) as instructed in the program.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are required in the program, either annually or every semester. An issue with CORI/SORI could result in dismissal from the program.

Additional Cost

See the Program Fees (Page 27).

- Didactic and lab uniforms: approximately $25.00; NREMT computerized exam: $160.00; NREMT psychomotor exam: $175.00; MA certification: $150.00.
- CPR Certification Card: $10.00.
- Personal stethoscope suggested: approximately $45.00.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Emergency Medical Services/ Paramedicine program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: EMWF). • Register for and successfully complete EMT 101 to graduate in one semester. • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Basic Emergency Medical Technology	EMT 101	F/S/SU	7	
Total Credits Required:			**7**	

Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.

- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0904.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- This is a great opportunity for students to gain entry-level employment in the healthcare field prior to matriculating into a selective program.

Program Email: emt@qcc.mass.edu

Accreditation

The Quinsigamond Community College Emergency Medical Services/Paramedicine program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), which can be contacted at: Commission on Accreditation of Allied Health Education Programs | 727.210.2350 | www.caahep.org. The Emergency Medical Services/Paramedic program was last granted continuing accreditation upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP), which can be contacted at: Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions | 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75088 | 214.703.8445 | www.coaemsp.org.

For information on electives, see p. 373-374.

CERTIFICATE - PC

EMT Paramedic Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Paramedic Technology

Location

- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- This program will require students to travel to clinical sites and field sites within the Worcester County area.

Program Goals

The goal of the EMT Paramedic Certificate is to prepare competent entry-level emergency medical technician-paramedics to serve in career and volunteer positions throughout the Commonwealth and neighboring regions.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Comprehend, apply, and evaluate the didactic, lab, clinical, and field information relative to the graduate's role as an entry-level paramedic, and to display behaviors consistent with the professional and employer expectations within the Commonwealth.
- Demonstrate technical proficiency in all skills necessary to fulfill the role of entry-level paramedic within the Commonwealth, including, but not limited to:
    - Administer advanced life support care to sick and injured persons from pre-term through geriatric patients.
    - Assess the nature and extent of illness or injury to establish and prioritize medical procedures to be followed, or assess the need for additional assistance.
    - Restore and stabilize heart rhythm on pulseless, non-breathing patients, using defibrillator, cardioversion, or external pacemaker.
    - Monitor cardiac patients using electrocardiograph.
    - Initiate intravenous fluids to administer medication, or to replace fluids to the body.
    - Perform endotracheal intubation, or other advanced airway techniques, to maintain the patient's airway and to ventilate the patient.
    - Administer injections of medications.
    - Record patient vital signs, including blood pressure, pulse rate, respiratory rate, skin color, texture and temperature, pupil response to light, capillary refill time, blood glucose reading, pulse oximetry and capnography.
    - Extricate entrapped victims.
    - Observe, record, and report any changes in patient condition to the physician.
    - Operate and maintain control of the emergency response vehicle.
    - Function in the role of team leader for additional personnel involved in any emergency scene.
    - Communicate effectively to additional personnel at scene or to hospital personnel via radio/ telephone systems.
- At the completion of didactic, clinical and field practicum, the paramedic student is prepared to sit for the National Registry of Emergency Medical Technicians Psychomotor and Computerized Examinations.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Current EMT-B certification in good standing.
- One year of EMT-B certification as verified by letter from employer or equivalent number of patient contacts.

Program Retention / Progression Requirements:
To be eligible to continue in the program, students must:

- Achieve a grade of "C" or higher in all program courses designated by MED.
- Maintain documentation of current American Heart Association Healthcare Provider Level BLS/CPR Certification.
- Maintain documentation of immunization currency and satisfactory health status.
- Maintain documentation of annual TB testing.
- Maintain documentation of health insurance.
- Maintain an active Massachusetts OEMS certification for EMT, or National Registry of EMT's registration throughout the duration of their program enrollment.
- Be aware that they may be exposed to airborne and bloodborne pathogens. Airborne and Bloodborne Pathogens means pathogenic microorganisms that are present in human blood and normal atmospheric conditions that can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus

(HIV), influenza, SARS, SARS-CoV-2 (COVID-19), or other potentially serious infectious diseases. United States Department of Labor, OSHA, September 5, 2019 (www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030).

Program Readmission Requirements:
There is a one-time readmission policy for the program.

- Readmission is not guaranteed and is always based upon space availability.
- Students who did not earn a grade of "C" or higher in MED 110, MED 120, and MED 130 need to re-apply to the program through the Admissions Office. Students need to meet the current admission requirements. Students should contact the Program Coordinator as soon as they receive the notification of being placed on the waitlist (by April 15) to discuss readmission.
- Students who did not earn a grade of "C" or higher in any other MED course should contact the Program Coordinator by April 15 to discuss readmission.
- Students who have been dismissed or administratively withdrawn from a program within the School of Healthcare at Quinsigamond Community College for reasons of "clinically unsafe practice/behavior" or who violate the College's Student Code of Conduct or Policy on Affirmative Action are not eligible for admission/readmission to any Healthcare program.

Program Graduation Requirements:
Students must satisfy all course and program requirements, including regulations related to attendance and conduct, in order to be eligible for graduation.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

Additional Cost

See the Program Fees (Page 27).

- Cost for NREMT Paramedic Computerized Exam: $125.00. Psychomotor costs vary by site: approximately $180.00. Uniforms for clinical and field practicum vary per semester by student agreement. Estimated current cost: $200.00.
- Additional cost applies to become certified as a Massachusetts paramedic, once nationally registered: $150.00.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Emergency Medical Services/Paramedicine program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
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Transfer Articulations & Opportunities

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Program Email: emt@qcc.mass.edu

Accreditation

The Quinsigamond Community College Emergency Medical Services/Paramedicine program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), which can be contacted at: Commission on Accreditation of Allied Health Education Programs | 727.210.2350 | www.caahep.org. The Emergency Medical Services/Paramedic program was last granted continuing accreditation upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP), which can be contacted at: Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions | 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75088 | 214.703.8445 | www.coaemsp.org.

Statistics

Program Outcomes:

Program outcomes are defined as performance indicators that reflect the extent to which the purposes of the program are achieved and by which program effectiveness is documented. Program outcomes are measurable, consumer-oriented indexes designed to evaluate the degree to which the program is achieving its mission and goals. Examples include, but are not limited to, program completion rates, licensure/certification examination pass rates, and job placement rates.

Program Statistics:
Program Completion / Retention:

- Expected Level of Achievement developed by QCC Paramedic Faculty (and reported to the Committee on Accreditation for the EMS Professions [CoAEMSP] accrediting body) are that 75% of students complete the program.
    - 2023 graduation cohort: 87.5% have graduated from the Paramedic program

Paramedic Certification Passing Rate:

- Expected Level of Achievement developed by QCC Paramedic Faculty (and reported to the Committee on Accreditation for the EMS Professions [CoAEMSP] accrediting body) are that 75% of test takers will successfully complete the National EMT-Paramedic Exam.
    - 2023 graduation cohort: 85.7% have passed national exam

Graduates Obtaining Jobs:

- Expected Level of Achievement developed by QCC Paramedic Faculty (and reported to the Committee on Accreditation for the EMS Professions [CoAEMSP] accrediting body) are that 75% of graduates seeking employment are employed within one year of graduation.
    - 2023 graduation cohort: 100% of graduates have obtained employment

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: PC). • Register for and successfully complete all courses to graduate in four semesters. • Complete all MED courses each semester with grades of "C" or higher.				
Introduction to Paramedicine	MED 110	F	4	Coreq: MED 120, MED 130
Pharmacology, Patient Assessment and Human Systems	MED 120	F	4	Coreq: MED 110, MED 130
Special Patient Populations for Paramedicine	MED 130	F	4	Coreq: MED 110, MED 120
		Total	**12**	
Semester 2 (Spring) • Meet with Academic Advisor to discuss associate degree (Program Code: EM); or create an account on the QCC job board to search for internships, co-ops and jobs.				
Advanced Paramedicine	MED 150	S	4	MED 110, MED 120, MED 130, Coreq: MED 160, MED 170, MED 180, MED 190
Cardiology and Advanced Cardiac Life Support	MED 160	S	4	MED 110, MED 120, MED 130, Coreq: MED 150, MED 170, MED 180, MED 190
Trauma	MED 170	S	3	MED 110, MED 120, MED 130, Coreq: MED 150, MED 160, MED 180, MED 190
Neonatal and Pediatric Emergencies	MED 180	S	2	MED 110, MED 120, MED 130, Coreq: MED 150, MED 160, MED 170, MED 190
Topics In Paramedicine	MED 190	S	3	MED 110, MED 120, MED 130, Coreq: MED 150, MED 160, MED 170, MED 180
		Total	**16**	
Semester 3 (Fall) • Apply to associate degree (Program Code: EM); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board.				
Clinical Internship for the Paramedic	MED 210	F	7	MED 150, MED 160, MED 170, MED 180, MED 190
		Total	**7**	
Semester 4 (Spring) • Submit an Intent to Graduate Form, located on *The Q*.				
Field Internship for the Paramedic	MED 220	S	5	MED 210
		Total	**5**	
Total Credits Required:			**40**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - HLC

Healthcare

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- Some courses may be completed at QCC Southbridge.
- This program may be completed face-to-face.

Program Goals

The Healthcare associate degree program offers students the opportunity to prepare for QCC's healthcare programs. Students will also be well-prepared to transfer to a bachelor institution in science-based programs.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Employ effective communication skills within the context of the healthcare environment.
- Apply the principles of biological sciences to a variety of healthcare professions.
- Demonstrate an understanding of medical terminology and pharmacology for health professions.
- Explain the socio-economic, behavioral, biological, environmental, and other factors that impact human health and contribute to health disparities.
- Define a career goal and outline the academic process required to reach that goal.
- Explain the factors that influence health and disease.
- Explain social and psychological factors that influence human behavior.
- Demonstrate quantitative reasoning skills, particularly as they apply to the health care setting.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Healthcare program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
    - Phone: 508.854.4471
    - Email: SAS@qcc.mass.edu
    - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
    - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: HLC). • Contact Career Services (www.QCC.edu/APexams) to receive credit for High School (HS) Advanced Placement (AP) Exams. QCC School Code: 3714. • Complete BIO 101; or AP Biology, with AP Exam grade of "3" or higher, to count as BIO 107, then petition for BIO 107 to count as BIO 101. • Complete ENG 101; or AP English/Language and Composition, with AP Exam grade of "3" or higher, to count as ENG 101. • Complete FYE 102. • Complete PSY 101; or AP Psychology, with AP Exam grade of "3" or higher, to count as PSY 101. • Complete prerequisite(s) for MAT 122.				
Introduction to Medical Terminology	ALH 102	F/S/SU	3	Placement into college level English
General Biology: Core Concepts	BIO 101	F/S/SU	4	Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Healthcare First Year Experience	FYE 102	F/S/SU	3	
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**16**	
Semester 2 • Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed. • Meet with Program Coordinator of desired QCC healthcare field (e.g., Dental Hygiene, etc.); or if considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete ENG 102; or AP English/Literature and Composition, with AP Exam grade of "3" or higher, to count as ENG 102.				
Introduction to Pharmacology for Allied Health Professionals	ALH 103	F/S/SU	3	Placement into college level English
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Composition II	ENG 102	F/S/SU	3	ENG 101
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**16**	
Semester 3 • Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process.				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
Healthcare Elective	---	F/S/SU	3	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Healthcare Elective	---	F/S/SU	3	
Humanities Elective	---	F/S/SU	3	
		Total	**16**	

Semester 4

- Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed.
- Apply to desired QCC healthcare field associate degree; or continue with/complete the transfer application process.
- Submit an Intent to Graduate Form, located on *The Q*.

Healthcare Elective	---	F/S/SU	3	
Healthcare Elective	---	F/S/SU	3	
History Elective	---	F/S/SU	3	
Humanities Elective (200-level)	---	F/S/SU	3	
		Total	**12**	
Total Credits Required:			**60**	

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0000.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: abooth@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - HCMO

Healthcare - Medical Office Management Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus) with extern hours at dental offices within Worcester County.
- This program may be completed face-to-face.

Program Goals

The Healthcare - Medical Office Management Option prepares graduates to oversee the business operations of a dental/medical office practice. A successful dental/medical office manager enjoys working with computers, managing multiple administrative tasks, and/or supervising people.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Obtain employment as an integral member of the dental/medical health team after graduation.
- Demonstrate an understanding of the management of a dental/medical office practice.
- Oversee the business operations of a dental/medical office practice.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Healthcare - Medical Office Management Option program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0705.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: medicalsupport@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: HCMO). • Contact Career Services (www.QCC.edu/APexams) to receive credit for High School (HS) Advanced Placement (AP) Exams. QCC School Code: 3714. • Complete BIO 101; or AP Biology, with AP Exam grade of "3" or higher, to count as BIO 107, then petition for BIO 107 to count as BIO 101. • Complete ENG 101; or AP English/Language and Composition, with AP Exam grade of "3" or higher, to count as ENG 101. • Complete FYE 102. • Complete PSY 101; or AP Psychology, with AP Exam grade of "3" or higher, to count as PSY 101.				
Introduction to Medical Terminology	ALH 102	F/S/SU	3	Placement into college level English
General Biology: Core Concepts	BIO 101	F/S/SU	4	Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Healthcare First Year Experience	FYE 102	F/S/SU	3	
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**16**	
Semester 2 (Spring) • Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed. • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete ENG 102; or AP English/Literature and Composition, with AP Exam grade of "3" or higher, to count as ENG 102.				
Anatomy & Physiology I **OR**	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Healthcare Elective	---			
Medical/Dental Billing and Insurance	BSS 112	F/S	3	ALH 102
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Composition II	ENG 102	F/S/SU	3	ENG 101
		Total	**13**	
Semester 3 (Fall) • Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed. • Consider taking Humanities Elective to complete MassTransfer block. • Meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete CPS 298.				
Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English
Medical Law and Ethics	ALH 106	F/S	3	Placement into college level English

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Principles of Human Biology **OR**	BIO 100	F/S/SU	4	Placement into college level English
Anatomy & Physiology II	BIO 112			BIO 111
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Human Relations in Organizations	PSY 158	F/S/SU	3	Placement into college level English
Healthcare Elective or Humanities Elective	---	F/S/SU	3	
		Total	**16**	

Semester 4 (Spring)

- Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed.
- Consider taking Humanities, Mathematics, and Social Science Electives to complete MassTransfer block.
- Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board.
- Submit an Intent to Graduate Form, located on *The Q*.

Cooperative Work Experience	ALH 299	F/S/SU	3	ACC 101 or MRK 201, ALH 106, BSS 112 or MRK 221, CPS 298
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Healthcare Elective or Humanities Elective	---	F/S/SU	3	
Healthcare Elective or Mathematics Elective	---	F/S/SU	3	
Healthcare Elective or Social Science Elective	---	F/S/SU	3	
		Total	**15**	
Total Credits Required:			**60**	

ASSOCIATE IN SCIENCE - HCSM

Healthcare - Medical Sales/Marketing Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus) with extern hours at dental offices within Worcester County.
- This program may be completed face-to-face.

Program Goals

The Healthcare - Medical Sales/Marketing Option prepares graduates to work as sales representatives or product managers for a dental/medical products company. For individuals who are outgoing, enjoy meeting people, and like to travel, this option will provide them with the professional skills they need to be successful in marketing or sales.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Obtain entry-level employment as an integral member of the dental/medical sales team after graduation.
- Demonstrate and market specific products to dental/medical professionals.
- Communicate effectively in the dental/medical sales field.
- Demonstrate the knowledge, skills, and tools necessary to be a successful medical sales professional.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Healthcare - Medical Sales/Marketing Option program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0699.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: deanofhealthcare@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: HCSM). • Contact Career Services (www.QCC.edu/APexams) to receive credit for High School (HS) Advanced Placement (AP) Exams. QCC School Code: 3714. • Complete BIO 101; or AP Biology, with AP Exam grade of "3" or higher, to count as BIO 107, then petition for BIO 107 to count as BIO 101. • Complete ENG 101; or AP English/Language and Composition, with AP Exam grade of "3" or higher, to count as ENG 101. • Complete FYE 102. • Complete PSY 101; or AP Psychology, with AP Exam grade of "3" or higher, to count as PSY 101.				
Introduction to Medical Terminology	ALH 102	F/S/SU	3	Placement into college level English
General Biology: Core Concepts	BIO 101	F/S/SU	4	Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Healthcare First Year Experience	FYE 102	F/S/SU	3	
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**16**	
Semester 2 (Spring) • Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed. • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete ENG 102; or AP English/Literature and Composition, with AP Exam grade of "3" or higher, to count as ENG 102.				
Anatomy & Physiology I **OR**	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Healthcare Elective	---			
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Composition II	ENG 102	F/S/SU	3	ENG 101
Principles of Marketing	MRK 201	F/S/SU	3	Placement into college level English
Mathematics Elective	---	F/S/SU	3	
		Total	**16**	
Semester 3 (Fall) • Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed. • Consider taking Humanities Elective to complete MassTransfer block. • Meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete CPS 298.				
Medical Law and Ethics	ALH 106	F/S	3	Placement into college level English

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Principles of Human Biology **OR**	BIO 100	F/S/SU	4	Placement into college level English
Anatomy & Physiology II	BIO 112			BIO 111
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Sales & Sales Management	MRK 221	S	3	Placement into college level English
Healthcare Elective or Humanities Elective	---	F/S/SU	3	
		Total	**13**	

Semester 4 (Spring)

- Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed.
- Consider taking Humanities and Social Science Electives to complete MassTransfer block.
- Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board.
- Submit an Intent to Graduate Form, located on *The Q*.

Cooperative Work Experience	ALH 299	F/S/SU	3	ACC 101 or MRK 201, ALH 106, BSS 112 or MRK 221, CPS 298
Human Relations in Organizations	PSY 158	F/S/SU	3	Placement into college level English
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Healthcare Elective or Humanities Elective	---	F/S/SU	3	
Healthcare Elective or Social Science Elective	---	F/S/SU	3	
		Total	**15**	
Total Credits Required:			**60**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - HCPN

Healthcare - Practical Nursing

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Healthcare - Practical Nursing program offers certified LPNs the opportunity to prepare for QCC's nursing programs. Students will also be well-prepared to attend our nurse education program and transfer to a bachelor institution in science-based nursing program. This program educates individuals to work in various aspects of healthcare, including hospitals and other healthcare facilities.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Apply the nursing process to the patient-centered care of culturally diverse clients, throughout the life span, who have actual, common, well-defined, or potential, health-deviation requisites.
- Use therapeutic communication effectively with clients, families, and members of the collaborative healthcare team.
- Illustrate use of relevant technology for patient-centered care and documentation.
- Implement goal-directed teaching plans to assist clients in resolving self-care deficits.
- Safely manage the nursing care of clients with actual or potential common, well-defined health deviation requisites, in a variety of structured settings, in accordance with ethical, legal and professional standards.
- Demonstrate professional attributes of a Practical Nurse in the provision of safe, effective patient-centered care.
- Demonstrate appropriate critical thinking skills including written, verbal, and non-verbal communication.
- Have an understanding of the biological sciences relative to the healthcare professions.
- Strengthen the development of their general education skills with courses in English, mathematics, and humanities.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Current Licensed Practical Nurse (LPN) credential (current LPN certification from any state).

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Practical Nursing program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
    - Phone: 508.854.4471
    - Email: SAS@qcc.mass.edu
    - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
    - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: HCPN). • Meet with Career Services to credential up to 18 Healthcare Elective credits for current LPN certification. • Apply and get accepted to a QCC nurse education program (e.g., Program Code: NUR, NUL, etc.) as these high demand programs have waitlists; or if considering transfer (LPN to BSN), meet with a Transfer Services Advisor. See www.QCC.edu/transfer.				
Upon successful completion of LP certificate, LPE certificate, or state Licensed Practical Nursing exam, 18 credits credentialed (18 credits can be transferred from regionally accredited college)	Transfer Courses: PNP 235 PNP 240 (or any combination of PNP courses)		18	
		Total	**18**	
Semester 2 (Spring) • Contact Career Services (www.QCC.edu/APexams) to receive credit for High School (HS) Advanced Placement (AP) Exams. QCC School Code: 3714. • Monitor status on waitlist for selected QCC nurse education program. • Complete BIO 111 with a grade of "C" or higher. • Complete ENG 101; or AP English/Language and Composition, with AP Exam grade of "3" or higher, to count as ENG 101. • Complete PSY 101; or AP Psychology, with AP Exam grade of "3" or higher, to count as PSY 101.				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**13**	
Semester 3 (Fall) • Monitor status on waitlist for selected QCC nurse education program; or if considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete BIO 112 with a grade of "C" or higher. • Complete ENG 102; or AP English/Literature and Composition, with AP Exam grade of "3" or higher, to count as ENG 102.				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Composition II	ENG 102	F/S/SU	3	ENG 101

Course Title	Course #	Semester Offered	Credits	Prerequisites
Survey of Life Span Development	PSY 121	F/S/SU	3	PSY 101
History Elective	---	F/S/SU	3	
Humanities Elective	---	F/S/SU	3	
		Total	**16**	
Semester 4 (Spring) • Monitor status on waitlist for selected QCC nurse education program; or continue with/complete the transfer application process for LPN to BSN; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete BIO 232 with a grade of "C" or higher. • Submit an Intent to Graduate Form, located on *The Q.*				
Medical Microbiology	BIO 232	F/S/SU	4	BIO 112 or CHM 105 or CHM 123
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
Humanities Elective	---	F/S/SU	3	
Humanities Elective	---	F/S/SU	3	
		Total	**13**	
Total Credits Required:			**60**	

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.3901.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: nurseeducation@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - HCDH

Healthcare - Pre-Dental Hygiene Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Healthcare - Pre-Dental Hygiene Option prepares its graduates with a strong science background and is a good choice if the ultimate goal is to transfer into the Dental Hygiene program or into a bachelor's degree program. This program does not require Dental Assisting National Board (DANB), Certified Dental Assistant (CDA) status. Pre-Dental Hygiene is not a requirement for admission into the Dental Hygiene program.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Meet the requirements to apply for the Dental Hygiene program.
- Transfer to a bachelor's degree program in the health field.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Healthcare - Pre-Dental Hygiene Option program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0699.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: dentalhygiene@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: HCDH). • Contact Career Services (www.QCC.edu/APexams) to receive credit for High School (HS) Advanced Placement (AP) Exams. QCC School Code: 3714. • Complete BIO 101; or AP Biology, with AP Exam grade of "3" or higher, to count as BIO 107, then petition for BIO 107 to count as BIO 101. • Complete ENG 101; or AP English/Language and Composition, with AP Exam grade of "3" or higher, to count as ENG 101. • Complete FYE 102 or attend a Health Information Session (https://theq.qcc.edu/ICS/Admissions/Health_Information_Sessions.jnz). • Complete PSY 101; or AP Psychology, with AP Exam grade of "3" or higher, to count as PSY 101.				
Introduction to Medical Terminology	ALH 102	F/S/SU	3	Placement into college level English
General Biology: Core Concepts	BIO 101	F/S/SU	4	Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Healthcare First Year Experience	FYE 102	F/S/SU	3	
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**16**	

Semester 2 (Spring)
• Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed.
• If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events.
• Complete ENG 102; or AP English/Literature and Composition, with AP Exam grade of "3" or higher, to count as ENG 102.
• For students pursuing a Dental Hygiene major:
  • Meet with Dental Hygiene Program Coordinator to discuss associate degree (Program Code: DH).
  • Plan to take the TEAS test.
  • Plan to complete the Dental Hygiene Observation/Work Experience Form.
  • Students who have not taken FYE 102 should plan to attend the Health Information Session.
  • If all admissions criteria for acceptance into the Dental Hygiene major is complete, submit a "Change of Major" form to Advising Center.				

Introduction to Pharmacology for Allied Health Professionals	ALH 103	F/S/SU	3	Placement into college level English
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Introduction to the Chemistry of Living Systems	CHM 101	F/S/SU	4	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition II	ENG 102	F/S/SU	3	ENG 101
		Total	**14**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 3 (Fall) • Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process.				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Healthcare Elective	---	F/S/SU	3	
Healthcare Elective	---	F/S/SU	3	
Humanities Elective	---	F/S/SU	3	
		Total	**16**	
Semester 4 (Spring) • Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed. • Consider taking Humanities, Mathematics, and Social Science Electives to complete MassTransfer block. • Apply to associate degree (Program Code: DH); or continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				
Medical Microbiology	BIO 232	F/S/SU	4	BIO 112 or CHM 105 or CHM 123
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
Healthcare Elective or Humanities Elective	---	F/S/SU	3	
Healthcare Elective or Mathematics Elective	---	F/S/SU	3	
Healthcare Elective or Social Science Elective	---	F/S/SU	3	
		Total	**16**	
Total Credits Required:			**62**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - HCNU

Healthcare - Pre-Nursing Option

Location

- This program may be completed 80% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Healthcare - Pre-Nursing Option offers students the opportunity to prepare for QCC's nursing programs. Students will also be well-prepared to attend our nurse education program and transfer up to 90 credits to several bachelor institutions in science-based nursing programs. This program also educates individuals to work in various aspects of healthcare, including hospitals and other healthcare facilities.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate appropriate critical thinking skills including written, verbal, and non-verbal communication.
- Function effectively as an entry-level nursing assistant.
- Follow safety and infection control procedures for protection of patients/residents, self, and others.
- Apply specialized job skills and abilities that may be required in the sub-acute care, long-term care, individual's home, and hospital settings.
- Recognize and report changes and abnormalities to the licensed healthcare providers.
- Provide respectful care to patients/residents by complying with patient rights and respecting diversity.
- Utilize effective communication techniques with patients and members of the interdisciplinary healthcare team.
- Have an understanding of the biological sciences relative to the healthcare professions.
- Strengthen the development of their general education skills with courses in English, mathematics, and humanities.
- Have an understanding of medical terminology for health professions.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Healthcare - Pre-Nursing Option program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
    - Phone: 508.854.4471
    - Email: SAS@qcc.mass.edu
    - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: HCNU). • Contact Career Services (www.QCC.edu/APexams) to receive credit for High School (HS) Advanced Placement (AP) Exams. QCC School Code: 3714. • Complete BIO 101; or AP Biology, with AP Exam grade of "3" or higher, to count as BIO 107, then petition for BIO 107 to count as BIO 101. • Complete ENG 101; or AP English/Language and Composition, with AP Exam grade of "3" or higher, to count as ENG 101. • Complete PSY 101; or AP Psychology, with AP Exam grade of "3" or higher, to count as PSY 101.				
Principles of Human Biology **OR**	BIO 100			Placement into college level English
General Biology: Core Concepts **OR**	BIO 101	F/S/SU	3-4	Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures
Introduction to Public Health	PHA 101			Placement into college level English
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Healthcare First Year Experience	FYE 102	F/S/SU	3	
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**12-13**	
Semester 2 • Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed. • Apply and get accepted to a QCC nurse education program (e.g., Program Code: NUR, etc.) as these high demand programs have waitlists. • Take ALH 132 after ALH 131 in same semester, in addition to ALH 102 (note that Clinical Affiliate Health/Immunization requirements needed for ALH 131).				
Introduction to Medical Terminology	ALH 102	F/S/SU	3	Placement into college level English
Introductory Nursing Assistant	ALH 131	F/S/SU	5	Placement into college level English
Advanced Nursing Assistant	ALH 132	F/S/SU	2	ALH 131, Certificate of Completion from a state-approved nursing assistant training program or current C.N.A. Certificate
		Total	**10**	
Semester 3 • Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed. • Monitor status on waitlist for selected QCC nurse education program. • Complete ENG 102; or AP English/Literature and Composition, with AP Exam grade of "3" or higher, to count as ENG 102.				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Composition II	ENG 102	F/S/SU	3	ENG 101

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
Humanities Elective	---	F/S/SU	3	
		Total	**13**	
Semester 4 • Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed. • Monitor status on waitlist for selected QCC nurse education program. • Complete prerequisite(s) for MAT 122.				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Survey of Life Span Development	PSY 121	F/S/SU	3	PSY 101
History Elective	---	F/S/SU	3	
Philosophy Elective	---	F/S/SU	3	
		Total	**13**	
Semester 5 • Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed. • Monitor status on waitlist for selected QCC nurse education program. • Submit an Intent to Graduate Form, located on *The Q.*				
Medical Microbiology	BIO 232	F/S/SU	4	BIO 112 or CHM 105 or CHM 123
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
Introduction to Global Health	PHA 102	F/S/SU	3	Placement into college level English
Humanities Elective	---	F/S/SU	3	
		Total	**13**	
Total Credits Required:			**61-62**	

- Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.3902.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: nurseeducation@qcc.mass.edu

ASSOCIATE IN SCIENCE - HCPL

Healthcare - Public Health Option

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Public Health Certificate

Location

- This program may be completed 80% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- Some classes may be offered at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- Some courses may be completed at QCC Southbridge.
- This program may be completed face-to-face.

Program Goals

The Healthcare - Public Health Option prepares students for a career as a public health worker and/or prepares students with the first two years of a strong academic foundation required for transfer to a four-year bachelor's degree program in public health or related field.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Identify the roles and responsibilities of the public health worker.
- Identify the multiple ways public health affects daily living.
- Explain relationships between the social and behavioral sciences and public health.
- Implement strategies that promote behavior change.
- Understand safe practices as it relates to the public health role.
- Understand the similarities and differences in public and global health including demographic measures of health status and burden of disease.
- Understand the impact of the environment and communicable diseases on the health of populations.
- Describe the basis of chronic diseases on morbidity or mortality and approaches to prevention, early detection, and disease management.
- Understand the historical roots of epidemiological thinking and their contribution to the evolution of the scientific method.
- Describe the basic epidemiologic study designs that are used to test hypotheses, identify associations, and establish causation.
- Apply broad-based skills needed for problem solving in the many areas of public health.
- Participate in a co-operative experience directly related to public health.
- Demonstrate proficiency in the public and/or private sectors of public health.
- Develop multidisciplinary and collaborative strategies for solving health-related problems.
- Participate in a leadership role in health promotion and disease prevention.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Public Health program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: HCPL). • Register for and successfully complete all courses to graduate in six semesters. • Complete BIO 111 and ENG 101. • Complete prerequisite(s) for CHM 101.				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Survey of Personal Health	PHA 100	F/S	3	Placement into college level English
Introduction to Public Health	PHA 101	F/S/SU	3	Placement into college level English
		Total	**13**	
Semester 2 • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer.				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Introduction to the Chemistry of Living Systems	CHM 101	F/S/SU	4	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Introduction to Global Health	PHA 102	F/S/SU	3	Placement into college level English
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**14**	
Semester 3 (Summer) • Complete prerequisite(s) for MAT 122.				
Medical Microbiology	BIO 232	F/S/SU	4	BIO 112 or CHM 105 or CHM 123
Humanities Elective	---	F/S/SU	3	
		Total	**7**	
Semester 4 • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs.				
Composition II	ENG 102	F/S/SU	3	ENG 101
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**12**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 5 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete CPS 298.				
Nutrition	BIO 241	F/S/SU	3	BIO 101 or BIO 107 or CHM 101
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Public Health Epidemiology	PHA 103	F	3	CHM 101, MAT 122, PHA 100, PHA 101, PHA 102
United States Government	PSC 201	F/S/SU	3	ENG 101
Humanities Elective (200-level)	---	F/S/SU	3	
		Total	**12**	
Semester 6 (Summer) • Submit an Intent to Graduate Form, located on *The Q*.				
Cooperative Work Experience	PHA 299	S	3	BIO 241, CPS 298, PHA 103, PSC 201
		Total	**3**	
Total Credits Required:			**61**	

Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.

- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.2208.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: publichealth@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - ME

Medical Assisting Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Medical Support Specialist - Medical Assisting Option

Location

- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- This program will require students to travel to clinical sites within the Worcester County area.

Program Goals

The goal of the Medical Assisting Certificate is to prepare medical assistants who are competent in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to enter the profession.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate proficiency in performing entry-level clinical and administrative procedures of the medical assistant profession.
- Achieve employment as an entry-level medical assistant.
- Demonstrate appropriate critical thinking skills, including written, verbal, and non-verbal communication.
- Work effectively as part of a team.
- Recognize the importance of continued professional development.
- Apply principles of teaching and learning into the delivery of care to patients and families.
- Effectively communicate with patients.
- Discuss the responsibilities and scope of practice for Medical Assistants.
- Show proficiency in the use of technology in the delivery of patient care.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.

Program Retention / Progression Requirements:
To be eligible to continue in the program, students must:

- Achieve a grade of "C" or higher in all program courses designated by MSS.
- Maintain documentation of current Healthcare Provider Level BLS/CPR Certification.
- Maintain documentation of immunization currency and satisfactory health status.
- Maintain documentation of annual TB testing.
- Maintain documentation of health insurance.
- Be aware of the occupational risks associated with Medical Assisting, including:
  - Exposure to bloodborne pathogens. Bloodborne Pathogens means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV). United States Department of Labor, OSHA, September 5, 2019 (www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030).
  - Exposure to infectious diseases.
  - Sharps injuries.
  - Exposure to chemicals and drugs.
  - Ergonomic hazards (lower back pain) from lifting, sitting, and repetitive tasks.
  - Latex allergies.
  - Stress.

Program Readmission Requirements:
There is a one-time readmission policy for the program.

- Readmission is not guaranteed and is always based upon space availability.
- Students who did not earn a grade of "C" or higher in MSS 111 and MSS 112 need to re-apply to the program through the Admissions Office. Students need to meet the current admission requirements. Students should contact the Program Coordinator as soon as they receive the notification of being placed on the waitlist (by April 15) to discuss readmission.
- Students who did not earn a grade of "C" or higher in any other MSS course should contact the Program Coordinator by April 15 to discuss readmission.
- Students who have been dismissed or administratively withdrawn from a program within the School of Healthcare at Quinsigamond Community College for reasons of "clinically unsafe practice/behavior" or who violate the College's Student Code of Conduct or Policy on Affirmative Action are not eligible for admission/readmission to any Healthcare program.

Program Graduation Requirements:
Students must satisfy all course and program requirements, including regulations related to attendance and conduct, in order to be eligible for graduation.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for uniforms/clinical wear, textbooks, licensing exams, and parking fees at clinical sites.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Medical Assisting program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0801.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Students who are interested in exploring an apprenticeship program as part of their degree or certificate pathway should email adp@qcc.mass.edu.

Program Email: medicalsupport@qcc.mass.edu

Accreditation

The Quinsigamond Community College Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), which can be contacted at: Commission on Accreditation of Allied Health Education Programs | 727.210.2350 | www.caahep.org. The Medical Assisting program was last granted continuing accreditation upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: ME). • Register as soon as possible each semester for all Medical Assisting courses, which are first come, first served and fill before most courses. • Meet with Academic Advisor to discuss associate degree (Program Code: MSMA); or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete MSS 111 and MSS 112 with grades of "C" or higher.				
Medical Assisting Fundamentals	MSS 111	F	5	
Medical Assisting Clinical Fundamentals	MSS 112	F	5	
		Total	**10**	
Semester 2 (Spring) • Apply to associate degree (Program Code: MSMA); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete MSS 121 and MSS 122 with grades of "C" or higher. • Submit an Intent to Graduate Form, located on *The Q*.				
Medical Assisting Advanced Administration	MSS 121	S	5	MSS 111
Medical Assisting Advanced Clinical Procedures	MSS 122	S	5	MSS 112
		Total	**10**	
Semester 3 (Summer) • Complete MSS 199 with a grade of "C" or higher.				
Medical Assisting Fieldwork	MSS 199	SU	2	MSS 121, MSS 122
		Total	**2**	
Total Credits Required:			**22**	

Statistics

Program Outcomes:
Program outcomes are defined as performance indicators that reflect the extent to which the purposes of the program are achieved and by which program effectiveness is documented. Program outcomes are measurable, consumer-oriented indexes designed to evaluate the degree to which the program is achieving its mission and goals. Examples include, but are not limited to, program completion rates, licensure/certification examination pass rates, and job placement rates.

Program Statistics:

Retention:

- The cumulative percentage for Retention is 72.58% for years 2018-2022.

Exam Passage:

- The cumulative percentage for Exam Passage is 62.86% for years 2018-2022.

Job Placement:

- The cumulative percentage for Job Placement is 64.00% for years 2018-2022.

Note: These outcomes are from the 2023 Annual Report Form.

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - MSMA

Medical Support Specialist - Medical Assisting Option

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Medical Assisting Certificate

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).

Program Goals

The goal of the Medical Support Specialist - Medical Assisting Option is to prepare credentialed Certified Medical Assistants (CMAs) to transfer into a nursing program either at QCC or at a four-year institution. This program has been designed to provide college credit for students who have successfully completed QCC's Medical Assisting Certificate program or who have obtained and hold a current CMA credential.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Have an understanding of the biological sciences relative to the healthcare profession.
- Strengthen the development of their general education skills with courses in English, psychology, sociology, mathematics, and the humanities.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Current Certified Medical Assistant (CMA) through the American Association of Medical Assistants (AAMA); or current Registered Medical Assistant (RMA) through American Medical Technologists (AMT); or graduated from a regionally accredited medical assisting certificate program.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Medical Assisting program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0716.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: medicalsupport@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: MSMA). • Meet with Career Services to credential 22 credits for CMA or RMA. • Contact Career Services (www.QCC.edu/APexams) to receive credit for High School (HS) Advanced Placement (AP) Exams. QCC School Code: 3714.				
Upon successful completion of Certified Medical Assistant (CMA) through American Association of Medical Assistants (AAMA) or Registered Medical Assistant (RMA) through American Medical Technologists (AMT), 22 credits credentialed (22 credits can be transferred from regionally accredited college)	Transfer Courses: MSS 111 MSS 112 MSS 121 MSS 122 MSS 199		22	
		Total	**22**	
Semester 2 (Spring) • Meet with Program Coordinator of desired QCC healthcare field (e.g., Nurse Education, etc.); or if considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete ENG 101; or AP English/Language and Composition, with AP Exam grade of "3" or higher, to count as ENG 101. • Complete PSY 101; or AP Psychology, with AP Exam grade of "3" or higher, to count as PSY 101.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Healthcare First Year Experience	FYE 102	F/S/SU	3	
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**12**	
Semester 3 (Fall) • Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process. • Complete ENG 102; or AP English/Literature and Composition, with AP Exam grade of "3" or higher, to count as ENG 102.				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Composition II	ENG 102	F/S/SU	3	ENG 101
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
Humanities Elective	---	F/S/SU	3	
		Total	**13**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 (Spring) • Follow Academic Plan from FYE 102; adjust with Academic Advisor, as needed. • Apply to desired QCC healthcare field associate degree; or continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
History Elective	---	F/S/SU	3	
Humanities Elective	---	F/S/SU	3	
Humanities Elective	---	F/S/SU	3	
		Total	**13**	
Total Credits Required:			**60**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - NUR

Nurse Education

Location

- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- This program will require students to travel to clinical sites within the Worcester County area and surrounding counties.

Program Goals

The Nurse Education program prepares students for a career as a registered nurse (RN). Graduates of the program assume responsibilities related to direct patient care in a variety of settings, including, but not limited to, hospitals, clinics, extended care facilities, home and community health agencies. Upon successful completion of the Nurse Education associate degree program, students are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). The program will also prepare students for further study at four-year colleges and universities.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Use the nursing process and other theoretical concepts in the comprehensive planning and delivering of nursing care to patients* throughout the life cycle.
- Collaborate to effectively communicate with patients and inter-professional teams verbally, in writing, and electronically to achieve quality patient care outcomes.
- Assume the role of the nurse in ways that reflect integrity, responsibility, ethical practice, and an evolving identity as a professional nurse committed to evidence-based practice, caring, patient advocacy, and safe quality care for diverse patients in various settings.
- Make judgments in nursing practice, based on evidence, that integrate nursing science in the provision of safe, quality care and promote the health of patients.
- Employ relationship-centered interventions that are caring, compassionate, nurturing, protective, therapeutic, and respectful of human differences.
- Manage patient care through planning, organizing, directing, and delegating with an emphasis on system effectiveness to provide quality healthcare and a safe environment for patients and workers.
- Advocate for patients and oneself to retain or develop new pathways which encompass one's uniqueness, dignity, diversity, and freedom toward a holistic well-being.
- Participate in a spirit of inquiry to help promote and maintain health and reduce risks for patients by challenging the status quo, questioning underlying assumptions, and offering new insights to improve quality of care.

*Patients (clients) are defined as the individual, family, or group, including significant others and population.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.
- Biology: Minimum grade of "B" in high school biology or "B" or higher in any college level biology course (BIO 101 recommended). Required grade must be earned within two attempts of taking and completing the course. Qualifying biology course must be taken within five years of application.
- TEAS Admission Requirement: Applicants must have taken the TEAS within the last five years of applying to the program.
  - A qualifying composite score must be achieved in no more than three attempts within a rolling three-year period (scores from multiple tests cannot be combined).
  - To meet the TEAS admission requirement, applicants must achieve one of the following:
    - A composite TEAS score of 65% or higher **OR**
    - A composite TEAS score between 61% and 64%, with the following minimum GPA requirements (see table below):

TEAS Score	Overall QCC College Biology GPA (4 credit minimum)	Overall QCC College GPA (15 credit minimum)
64	3.0 or higher	3.0 or higher
63	3.1 or higher	3.1 or higher
62	3.2 or higher	3.2 or higher
61	3.3 or higher	3.3 or higher

Program Retention / Progression Requirements:
To be eligible to continue in the program, students must:

- Achieve a grade of "C+" or higher in all program courses designated by NUR.
- Achieve a grade of "C" or higher in BIO 111, BIO 112, and

BIO 232; students who have received a grade below a "C" in BIO 111, BIO 112, or BIO 232 are required to repeat the course and obtain a grade of "C" or higher by the end of the semester in which they are required.

- Demonstrate satisfactory performance in the nursing laboratory and in the clinical settings.

Program Readmission Requirements:
There is a one-time readmission policy for the program.

- Readmission is not guaranteed and is always based upon space availability; review the readmission policy outlined in the QCC Nursing Student Handbook and the "Readmission for Health Programs" policy in the College Procedures section of the QCC Student Handbook.
- Students who have been dismissed or administratively withdrawn from a program within the School of Healthcare at Quinsigamond Community College for reasons of "clinically unsafe practice/behavior" or who violate the College's Student Code of Conduct or Policy on Affirmative Action are not eligible for admission/readmission to any Healthcare program.

Program Graduation Requirements:
Students must satisfy all course and program requirements, including regulations related to attendance and conduct, in order to be eligible for graduation.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

- Applicants should understand that the Massachusetts Board of Registration in Nursing (MABORN) reserves the right to refuse an applicant the privilege of sitting for the NCLEX examination based on a Good Moral Character Licensure requirement.
- The Massachusetts Board of Registration in Nursing (MABORN) requires all candidates for licensure to disclose any incidents with Child Protective Services. These may affect a candidate's ability to sit for the NCLEX examination and obtain licensure.
- More information is available from the Massachusetts Board of Registration in Nursing (MABORN).

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for professional uniforms and equipment, standardized testing, CPR-BLS certification, health immunizations, and physical exams. Also, there may be additional costs associated with the purchase of textbooks, clinical site parking, licensing examinations applications, and any required skills for remediation.
- Computer (not chromebook) with mouse, web cam, microphone, and Internet access and additional lab supplies.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Nurse Education program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.3801.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

- Transfer Policy for the QCC Nurse Education programs:
  - Students interested in transferring to QCC nursing programs can find more information on the Admissions webpage at www.QCC.edu/admissions.
  - A student may seek a transfer of credit from another approved institution, provided that a passing grade has been earned in all previous nursing courses and the completed course work is comparable to the course(s) offered at QCC.
  - Transfer credit will be considered for NUR 106 and NUR 107 only if the student has not been away from the program for more than one year and meets the current admissions requirements of the QCC nursing program.
  - Interested students should send official transcripts to the QCC Registrar's Office and apply with the Admissions Office to qualify for the nursing program.
  - Once qualified, the student can request consideration for transfer of nursing course credit by submitting prior course syllabi, lab competency documentation, and other relevant documentation to the Program Coordinator.
  - See the QCC Catalog for additional information.
  - Transfer is not guaranteed.

Additional Information

- This program prepares students for further study at four-year colleges and universities, as well as providing a broad background for employment in healthcare facilities.
- Courses in both Nurse Education and Liberal Arts are required in the program curriculum. Nursing courses include clinical experiences in area hospitals, rehabilitation, long-term care and community agencies, as well as classroom study and laboratory practice on campus.
- All students accepted in the NUR program must obtain/maintain a current American Heart Association or American Red Cross Basic Life Support (BLS) certification. Documentation of required immunity, satisfactory health status, and clinical standard compliance is required prior to beginning of clinical experiences.
- Students who do not have completed health files (including titres and immunizations) submitted to and cleared by program orientation date will be removed from their nursing courses and will have to file for readmission to the next available semester.
- NUR 206 is currently being offered in a hybrid format.
- A Social Security Number is mandatory for NCLEX Application (Licensure).
- All clinical experiences are under the supervision of QCC Nurse Education faculty, and entrance into most clinical agencies will require the wearing of a standardized school uniform.
- Students may be required to wear masks, goggles, faceshields, gloves, and/or gowns during lab/clinical.
- Additional requirements for students participating in clinical placement include, but are not limited to:
  - Complete the Health Screening form and submit it to Castle Branch by identified due date.
  - May be required to receive the COVID-19 vaccine in compliance with the most stringent requirement of clinical agencies.
  - Receive annual influenza vaccine.
  - Complete tuberculosis screening.
  - Submit a titer following the completion of the Hepatitis B series of immunizations to document immunity.
  - Create an account and complete the student orientation on Massachusetts Centralized Clinical Placement website (www.mass.edu/mcncps/orientation/welcome.asp). Assign a clinical site and print a ticket to clinical for each clinical term.

Program Email: nurseeducation@qcc.mass.edu

Accreditation

The Quinsigamond Community College Nurse Education program is approved by the Massachusetts Board of Registration in Nursing (MABORN), and accredited by the Accreditation Commission for Education in Nursing, Inc. (ACEN). MABORN can be contacted at: Massachusetts Board of Registration in Nursing | 250 Washington Street, Boston, MA 02108 | 800.414.0168 | www.mass.gov/orgs/board-of-registration-in-nursing. ACEN can be contacted at: Accreditation Commission for Education in Nursing, Inc. | 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326 | 404.975.5000 | www.acenursing.org. The Nurse Education program was granted continuing accreditation by the ACEN Board of Commissioners, and the next evaluation visit has been scheduled for Spring 2029.

Statistics

Program Outcomes:
Program outcomes are defined as performance indicators that reflect the extent to which the purposes of the program are achieved and by which program effectiveness is documented. Program outcomes are measurable, consumer-oriented indexes designed to evaluate the degree to which the program is achieving its mission and goals. Examples include, but are not limited to, program completion rates, licensure/certification examination pass rates, and job placement rates.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Summer I or II) • Register for and successfully complete all courses to graduate in five semesters. • Complete BIO 111 with a grade of "C" or higher. • Complete ENG 101.				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		Total	**7**	
Semester 2 • Complete BIO 112 with a grade of "C" or higher. • Complete NUR 106 and NUR 107 with grades of "C+" or higher.				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Introduction to Nursing Concepts & Health Care	NUR 106	F/S	1	BIO 111 with a grade of "C" or higher, ENG 101, Coreq: BIO 112, NUR 107, PSY 101
Fundamentals of Nursing	NUR 107	F/S	8	BIO 111 with a grade of "C" or higher, ENG 101, Coreq: BIO 112, NUR 106, PSY 101
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**16**	
Semester 3 • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete BIO 232 with a grade of "C" or higher. • Complete NUR 108 with a grade of "C+" or higher.				
Medical Microbiology	BIO 232	F/S/SU	4	BIO 112 or CHM 105 or CHM 123
Medical Surgical Nursing I/ Maternal Newborn	NUR 108	F/S	9	BIO 112 with a grade of "C" or higher, NUR 101 or NUR 106 and NUR 107 with grades of "C+" or higher, Coreq: BIO 232, PSY 121
Survey of Life Span Development	PSY 121	F/S/SU	3	PSY 101
		Total	**16**	
Semester 4 • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete NUR 204 with a grade of "C+" or higher.				
Composition II	ENG 102	F/S/SU	3	ENG 101
Medical Surgical Nursing II/ Pediatric	NUR 204	F/S/SU	9	BIO 232 with a grade of "C" or higher, NUR 108 with a grade of "C+" or higher, PSY 121, Coreq: ENG 102, any HST, SOC 101 or SOC 111

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Introductory Sociology (Principles) **OR**	SOC 101	F/S/SU	3	Placement into college level English
Social Problems & Social Change	SOC 111			
History Elective	---	F/S/SU	3	
		Total	**18**	
Semester 5 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete NUR 205 and NUR 206 with grades of "C+" or higher. • Submit an Intent to Graduate Form, located on *The Q*.				
Advanced Medical Surgical Nursing III/Mental Health	NUR 205	F/S	9	ENG 102, any HST, NUR 204 with a grade of "C+" or higher, SOC 101 or SOC 111, Coreq: NUR 206, Humanities Elective
Advanced Nursing Concepts & Transition to Practice	NUR 206	F/S	2	NUR 204 with a grade of "C+" or higher, Coreq: NUR 205
Humanities Elective	---	F/S/SU	3	
		Total	**14**	
Total Credits Required:			**71**	

Program Statistics:
Aggregate Program Completion:

- Expected Level of Achievement developed by QCC AD Faculty (and reported to ACEN accrediting body) are that 70% of students will complete the program within 150% of stated program length, beginning with enrollment in first NUR course.
  - 2021-2022: 76%
  - 2022-2023: 75%
  - 2023-2024: 72%
- Revised Expected Level of Achievement developed by QCC AD Faculty (and reported to ACEN accrediting body) are that 50% of students will complete the program within 100% of stated program length, beginning with enrollment in first NUR course.
  - 2021-2022: 52%
  - 2022-2023: 64%
  - 2023-2024: 61%

Aggregate NCLEX Licensure Pass Rates:

- Expected Level of Achievement developed by QCC AD Faculty (and reported to ACEN accrediting body) are that 80% of first-time test takers will successfully complete the NCLEX-RN licensure exam as reported to NCSBN annually during the same 12 month period.
  - 2021: National Results = 82% | QCC Results = 81%
  - 2022: National Results = 78% | QCC Results = 74%
  - 2023: National Results = 89% | QCC Results = 85%

Number of Graduates by Class:

- 2021-2022
  - December 2021: 55 | May 2022: 45
- 2022-2023
  - December 2022: 41 | May 2023: 41
- 2023-2024
  - December 2023: 40 | May 2024: 23

Aggregate Graduate Satisfaction (as answered on Graduate Survey 2023):

- Question asked - "The attainment of end of program student learning outcomes prepared me to enter the workforce as an entry-level RN."
  - 81% of the graduates agreed/strongly agreed with the above statement

ASSOCIATE IN SCIENCE - NUL

Nurse Education - Advanced Placement LPN

Location

- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- This program will require students to travel to clinical sites within the Worcester County area and surrounding counties.

Program Goals

The Nurse Education - Advanced Placement LPN program is for licensed practical nurses (LPNs) seeking advanced placement into the evening associate degree program to prepare the LPN for a career as a registered nurse (RN). Graduates of the program assume responsibilities related to direct patient care in a variety of settings, including, but not limited to, hospitals, clinics, extended care facilities, home and community health agencies. Upon successful completion of the Nurse Education - Advanced Placement LPN associate degree program, students are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). The program also prepares students for further study at four-year colleges and universities.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Use the nursing process and other theoretical concepts in the comprehensive planning and delivering of nursing care to patients* throughout the life cycle.
- Collaborate to effectively communicate with patients and inter-professional teams verbally, in writing, and electronically to achieve quality patient care outcomes.
- Assume the role of the nurse in ways that reflect integrity, responsibility, ethical practice, and an evolving identity as a professional nurse committed to evidence-based practice, caring, patient advocacy, and safe quality care for diverse patients in various settings.
- Make judgments in nursing practice, based on evidence, that integrate nursing science in the provision of safe, quality care and promote the health of patients.
- Employ relationship-centered interventions that are caring, compassionate, nurturing, protective, therapeutic, and respectful of human differences.
- Manage patient care through planning, organizing, directing, and delegating with an emphasis on system effectiveness to provide quality healthcare and a safe environment for patients and workers.
- Advocate for patients and oneself to retain or develop new pathways which encompass one's uniqueness, dignity, diversity, and freedom toward a holistic well-being.
- Participate in a spirit of inquiry to help promote and maintain health and reduce risks for patients by challenging the status quo, questioning underlying assumptions, and offering new insights to improve quality of care.

*Patients (clients) are defined as the individual, family, or group, including significant others and population.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Hold a current license to practice as a Licensed Practical Nurse (LPN) in good standing.
- Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.
- Biology: Minimum grade of "B" in high school biology or "B" or higher in any college level biology course (BIO 101 recommended). Required grade must be earned within two attempts of taking and completing the course. Qualifying biology course must be taken within five years of application.
- TEAS Admission Requirement: Applicants must have taken the TEAS within the last five years of applying to the program.
  - A qualifying composite score must be achieved in no more than three attempts within a rolling three-year period (scores from multiple tests cannot be combined).
  - To meet the TEAS admission requirement, applicants must achieve one of the following:
    - A composite TEAS score of 65% or higher **OR**
    - A composite TEAS score between 61% and 64%, with the following minimum GPA requirements (see table below):

TEAS Score	Overall QCC College Biology GPA (4 credit minimum)	Overall QCC College GPA (15 credit minimum)
64	3.0 or higher	3.0 or higher
63	3.1 or higher	3.1 or higher
62	3.2 or higher	3.2 or higher
61	3.3 or higher	3.3 or higher

Program Retention / Progression Requirements:
To be eligible to continue in the program, students must:

- Achieve a grade of "C+" or higher in all program courses designated by NUR.
- Achieve a grade of "C" or higher in BIO 111, BIO 112, and BIO 232; students who have received a grade below a "C" in BIO 111, BIO 112, or BIO 232 are required to repeat the course and obtain a grade of "C" or higher by the end of the semester in which they are required or required as a prerequisite.
- Demonstrate satisfactory performance in the nursing laboratory and in the clinical settings.

Program Readmission Requirements:
There is a one-time readmission policy for the program.

- Readmission is not guaranteed and is always based upon space availability; review the readmission policy outlined in the QCC Nursing Student Handbook and the "Readmission for Health Programs" policy in the College Procedures section of the QCC Student Handbook.
- Students who have been dismissed or administratively withdrawn from a program within the School of Healthcare at Quinsigamond Community College for reasons of "clinically unsafe practice/behavior" or who violate the College's Student Code of Conduct or Policy on Affirmative Action are not eligible for admission/readmission to any Healthcare program.

Program Graduation Requirements:
Students must satisfy all course and program requirements, including regulations related to attendance and conduct, in order to be eligible for graduation.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

- Applicants should understand that the Massachusetts Board of Registration in Nursing (MABORN) reserves the right to refuse an applicant the privilege of sitting for the NCLEX examination based on a Good Moral Character Licensure requirement.
- The Massachusetts Board of Registration in Nursing (MABORN) requires all candidates for licensure to disclose any incidents with Child Protective Services. These may affect a candidate's ability to sit for the NCLEX examination and obtain licensure.
- More information is available from the Massachusetts Board of Registration in Nursing (MABORN).

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for professional uniforms and equipment, standardized testing, CPR-BLS certification, health immunizations, and physical exams. Also, there may be additional costs associated with the purchase of textbooks, clinical site parking, licensing examinations applications, and any required skills for remediation.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Nurse Education program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.3801.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

- Transfer Policy for the QCC Nurse Education programs:
  - Students interested in transferring to QCC nursing programs can find more information on the Admissions webpage at www.QCC.edu/admissions.
  - A student may seek a transfer of credit from another approved institution, provided that a passing grade has been earned in all previous nursing courses and the completed course work is comparable to the course(s) offered at QCC.
  - Transfer credit will be considered for NUR 106 and NUR 107 only if the student has not been away from the program for more than one year and meets the current admissions requirements of the QCC nursing program.
  - Interested students should send official transcripts to the QCC Registrar's Office and apply with the Admissions Office to qualify for the nursing program.
  - Once qualified, the student can request consideration for transfer of nursing course credit by submitting prior course syllabi, lab competency documentation, and other relevant documentation to the Program Coordinator.
  - See the QCC Catalog for additional information.
  - Transfer is not guaranteed.

Additional Information

- This program prepares students for further study at four-year colleges and universities, as well as providing a broad background for employment in healthcare facilities.
- This program is a rigorous 14-month program.
- Courses in both Nurse Education and Liberal Arts are required in the program curriculum. Nursing courses include clinical experiences in area hospitals, rehabilitation, long-term care and community agencies, as well as classroom study and laboratory practice on campus.
- All students accepted in the NUL program must obtain/maintain a current American Heart Association or American Red Cross Basic Life Support (BLS) certification. Documentation of required immunity, satisfactory health status, and clinical standard compliance is required prior to beginning of clinical experiences.
- Students who do not have completed health files (including titres and immunizations) submitted to and cleared by program orientation date will be removed from their nursing courses and will have to file for readmission to the next available semester.
- A Social Security Number is mandatory for NCLEX Application (Licensure).
- Graduates from the current QCC Practical Nursing program may apply for a seat in the Advanced Placement program.
- A student seeking readmission from the NUL to NUR program must first apply for readmission (see QCC Student Handbook), as this is dependent upon space availability (and other criteria).
- All clinical experiences are under the supervision of QCC Nurse Education faculty, and entrance into most clinical agencies will require the wearing of a standardized school uniform.
- Students may be required to wear masks, goggles, faceshields, gloves, and/or gowns during lab/clinical.
- Some clinical experiences will be held during the daytime.
- Additional requirements for students participating in clinical placement include, but are not limited to:
  - Complete the Health Screening form and submit it to Castle Branch by identified due date.
  - May be required to receive the COVID-19 vaccine in compliance with the most stringent requirement of clinical agencies.
  - Receive annual influenza vaccine.
  - Complete tuberculosis screening.
  - Submit a titer following the completion of the Hepatitis B series of immunizations to document immunity.
  - Create an account and complete the student orientation on Massachusetts Centralized Clinical Placement website (www.mass.edu/mcncps/orientation/welcome.asp). Assign a clinical site and print a ticket to clinical for each clinical term.

Program Email: nurseeducation@qcc.mass.edu

Accreditation

The Quinsigamond Community College Nurse Education program is approved by the Massachusetts Board of Registration in Nursing (MABORN), and accredited by the Accreditation Commission for Education in Nursing, Inc. (ACEN). MABORN can be contacted at: Massachusetts Board of Registration in Nursing | 250 Washington Street, Boston, MA 02108 | 800.414.0168 | www.mass.gov/orgs/board-of-registration-in-nursing. ACEN can be contacted at: Accreditation Commission for Education in Nursing, Inc. | 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326 | 404.975.5000 | www.acenursing.org. The Nurse Education program was granted continuing accreditation by the ACEN Board of Commissioners, and the next evaluation visit has been scheduled for Spring 2029.

Statistics:

Program Outcomes:
Program outcomes are defined as performance indicators that reflect the extent to which the purposes of the program are achieved and by which program effectiveness is documented. Program outcomes are measurable, consumer-oriented indexes designed to evaluate the degree to which the program is achieving its mission and goals. Examples include, but are not limited to, program completion rates, licensure/certification examination pass rates, and job placement rates.

Program Statistics:
Aggregate Program Completion:

- Expected Level of Achievement developed by QCC AD Faculty (and reported to ACEN accrediting body) are that 70% of students will complete the program within 150% of stated program length, beginning with enrollment in first NUR course.
  - 2021-2022: 76%
  - 2022-2023: 75%

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Summer I) • Register for and successfully complete all courses to graduate in six semesters. • Complete BIO 111 with a grade of "C" or higher.				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		Total	**7**	
Semester 2 (Summer II) • Complete BIO 112 with a grade of "C" or higher.				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**7**	
Semester 3 (Fall) • Meet with Career Services to credential eight nurse education credits for current LPN License. NUR 101 (1 credit) and credentialed credits (8 credits) equivalent to NUR 106 and NUR 107 (9 credits total). • Complete NUR 101 with a grade of "C+" or higher.				
Advanced Placement Nursing I (October-December)	NUR 101	F	1	BIO 112 with a grade of "C" or higher, NUR 100 with a grade of "C+" or higher or Admission to Nurse Education - Advanced Placement LPN (NUL) Program, PSY 101
Upon successful completion of NUR 101 (with a grade of "C+" or higher) and current license as a Practical Nurse, eight credits credentialed	NUR 888	F	8	
		Total	**9**	
Semester 4 (Spring) • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete BIO 232 with a grade of "C" or higher. • Complete NUR 108 with a grade of "C+" or higher.				
Medical Microbiology	BIO 232	F/S/SU	4	BIO 112 or CHM 105 or CHM 123
Medical Surgical Nursing I/Maternal Newborn (January-April)	NUR 108	F/S	9	BIO 112 with a grade of "C" or higher, NUR 101 or NUR 106 and NUR 107 with grades of "C+" or higher, Coreq: BIO 232, PSY 121
Survey of Life Span Development	PSY 121	F/S/SU	3	PSY 101
		Total	**16**	
Semester 5 (Summer I & II) • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete NUR 204 with a grade of "C+" or higher.				

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Composition II	ENG 102	F/S/SU	3	ENG 101
Medical Surgical Nursing II/ Pediatric (May-July)	NUR 204	F/S/SU	9	BIO 232 with a grade of "C" or higher, NUR 108 with a grade of "C+" or higher, PSY 121, Coreq: ENG 102, any HST, SOC 101 or SOC 111
Introductory Sociology (Principles) **OR**	SOC 101	F/S/SU	3	Placement into college level English
Social Problems & Social Change	SOC 111			
History Elective	---	F/S/SU	3	
		Total	**18**	
Semester 6 (Fall) • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete NUR 205 and NUR 206 with grades of "C+" or higher. • Submit an Intent to Graduate Form, located on *The Q*.				
Advanced Medical Surgical Nursing III/Mental Health	NUR 205	F/S	9	ENG 102, any HST, NUR 204 with a grade of "C+" or higher, SOC 101 or SOC 111, Coreq: NUR 206, Humanities Elective
Advanced Nursing Concepts & Transition to Practice	NUR 206	F/S	2	NUR 204 with a grade of "C+" or higher, Coreq: NUR 205
Humanities Elective	---	F/S/SU	3	
		Total	**14**	
Total Credits Required:			**71**	

- 2023-2024: 72%

- Revised Expected Level of Achievement developed by QCC AD Faculty (and reported to ACEN accrediting body) are that 50% of students will complete the program within 100% of stated program length, beginning with enrollment in first NUR course.
  - 2021-2022: 52%
  - 2022-2023: 64%
  - 2023-2024: 61%

Aggregate NCLEX Licensure Pass Rates:

- Expected Level of Achievement developed by QCC AD Faculty (and reported to ACEN accrediting body) are that 80% of first-time test takers will successfully complete the NCLEX-RN licensure exam as reported to NCSBN annually during the same 12 month period.
  - 2021: National Results = 82% | QCC Results = 81%
  - 2022: National Results = 78% | QCC Results = 89%
  - 2023: National Results = 89% | QCC Results = 85%

Number of Graduates by Class:

- December 2021: 60
- December 2022: 51
- December 2023: 69

Aggregate Graduate Satisfaction (as answered on Graduate Survey 2023):

- Question asked - "The attainment of end of program student learning outcomes prepared me to enter the workforce as an entry-level RN."
  - 81% of the graduates agreed/strongly agreed with the above statement

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - NUP

Nurse Education - Advanced Placement Paramedic

Location

- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- This program will require students to travel to clinical sites within the Worcester County area and surrounding counties.

Program Goals

The Nurse Education - Advanced Placement Paramedic program is for paramedics seeking advanced placement into the evening associate degree program to prepare the paramedic for a career as a registered nurse (RN). Graduates of the program assume responsibilities related to direct patient care in a variety of settings, including, but not limited to, hospitals, clinics, extended care facilities, home and community health agencies. Upon successful completion of the Nurse Education - Advanced Placement Paramedic associate degree program, students are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). The program also prepares students for further study at four-year colleges and universities.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Use the nursing process and other theoretical concepts in the comprehensive planning and delivering of nursing care to patients* throughout the life cycle.
- Collaborate to effectively communicate with patients and inter-professional teams verbally, in writing, and electronically to achieve quality patient care outcomes.
- Assume the role of the nurse in ways that reflect integrity, responsibility, ethical practice, and an evolving identity as a professional nurse committed to evidence-based practice, caring, patient advocacy, and safe quality care for diverse patients in various settings.
- Make judgments in nursing practice, based on evidence, that integrate nursing science in the provision of safe, quality care and promote the health of patients.
- Employ relationship-centered interventions that are caring, compassionate, nurturing, protective, therapeutic, and respectful of human differences.
- Manage patient care through planning, organizing, directing, and delegating with an emphasis on system effectiveness to provide quality healthcare and a safe environment for patients and workers.
- Advocate for patients and oneself to retain or develop new pathways which encompass one's uniqueness, dignity, diversity, and freedom toward a holistic well-being.
- Participate in a spirit of inquiry to help promote and maintain health and reduce risks for patients by challenging the status quo, questioning underlying assumptions, and offering new insights to improve quality of care.

*Patients (clients) are defined as the individual, family, or group, including significant others and population.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Current Certification in Massachusetts as a Paramedic or current Certification from the National Registry of Emergency Medical Technicians (NREMT) in good standing.
- Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.
- Biology: Minimum grade of "B" in high school biology or "B" or higher in any college level biology course (BIO 101 recommended). Required grade must be earned within two attempts of taking and completing the course. Qualifying biology course must be taken within five years of application.
- TEAS Admission Requirement: Applicants must have taken the TEAS within the last five years of applying to the program.
  - A qualifying composite score must be achieved in no more than three attempts within a rolling three-year period (scores from multiple tests cannot be combined).
  - To meet the TEAS admission requirement, applicants must achieve one of the following:
    - A composite TEAS score of 65% or higher **OR**
    - A composite TEAS score between 61% and 64%, with the following minimum GPA requirements (see table below):

TEAS Score	Overall QCC College Biology GPA (4 credit minimum)	Overall QCC College GPA (15 credit minimum)
64	3.0 or higher	3.0 or higher
63	3.1 or higher	3.1 or higher
62	3.2 or higher	3.2 or higher
61	3.3 or higher	3.3 or higher

Program Retention / Progression Requirements:
To be eligible to continue in the program, students must:

- Achieve a grade of "C+" or higher in all program courses designated by NUR.
- Achieve a grade of "C" or higher in BIO 111, BIO 112, and BIO 232; students who have received a grade below a "C" in BIO 111, BIO 112, or BIO 232 are required to repeat the course and obtain a grade of "C" or higher by the end of the semester in which they are required or required as a prerequisite.
- Demonstrate satisfactory performance in the nursing laboratory and in the clinical settings.

Program Readmission Requirements:
There is a one-time readmission policy for the program.

- Readmission is not guaranteed and is always based upon space availability; review the readmission policy outlined in the QCC Nursing Student Handbook and the "Readmission for Health Programs" policy in the College Procedures section of the QCC Student Handbook.
- Students who have been dismissed or administratively withdrawn from a program within the School of Healthcare at Quinsigamond Community College for reasons of "clinically unsafe practice/behavior" or who violate the College's Student Code of Conduct or Policy on Affirmative Action are not eligible for admission/readmission to any Healthcare program.

Program Graduation Requirements:
Students must satisfy all course and program requirements, including regulations related to attendance and conduct, in order to be eligible for graduation.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

- Applicants should understand that the Massachusetts Board of Registration in Nursing (MABORN) reserves the right to refuse an applicant the privilege of sitting for the NCLEX examination based on a Good Moral Character Licensure requirement.
- The Massachusetts Board of Registration in Nursing (MABORN) requires all candidates for licensure to disclose any incidents with Child Protective Services. These may affect a candidate's ability to sit for the NCLEX examination and obtain licensure.
- More information is available from the Massachusetts Board of Registration in Nursing (MABORN).

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for professional uniforms and equipment, standardized testing, CPR-BLS certification, health immunizations, and physical exams. Also, there may be additional costs associated with the purchase of textbooks, clinical site parking, licensing examinations applications, and any required skills for remediation.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Nurse Education program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
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  - Email: SAS@qcc.mass.edu
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  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.3801.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information

regarding transfer opportunities is available at www.QCC.edu/transfer.

- Transfer Policy for the QCC Nurse Education programs:
  - Students interested in transferring to QCC nursing programs can find more information on the Admissions webpage at www.QCC.edu/admissions.
  - A student may seek a transfer of credit from another approved institution, provided that a passing grade has been earned in all previous nursing courses and the completed course work is comparable to the course(s) offered at QCC.
  - Transfer credit will be considered for NUR 106 and NUR 107 only if the student has not been away from the program for more than one year and meets the current admissions requirements of the QCC nursing program.
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  - Once qualified, the student can request consideration for transfer of nursing course credit by submitting prior course syllabi, lab competency documentation, and other relevant documentation to the Program Coordinator.
  - See the QCC Catalog for additional information.
  - Transfer is not guaranteed.

Additional Information

- This program prepares students for further study at four-year colleges and universities, as well as providing a broad background for employment in healthcare facilities.
- This program is a rigorous 16-month program.
- Courses in both Nurse Education and Liberal Arts are required in the program curriculum. Nursing courses include clinical experiences in area hospitals, rehabilitation, long-term care and community agencies, as well as classroom study and laboratory practice on campus.
- All students accepted in the NUP program must obtain/maintain a current American Heart Association or American Red Cross Basic Life Support (BLS) certification. Documentation of required immunity, satisfactory health status, and clinical standard compliance is required prior to beginning of clinical experiences.
- Students who do not have completed health files (including titres and immunizations) submitted to and cleared by program orientation date will be removed from their nursing courses and will have to file for readmission to the next available semester.
- A Social Security Number is mandatory for NCLEX Application (Licensure).
- A student seeking readmission from the NUP to NUR program must first apply for readmission (see QCC Student Handbook), as this is dependent upon space availability (and other criteria).
- All clinical experiences are under the supervision of QCC Nurse Education faculty, and entrance into most clinical agencies will require the wearing of a standardized school uniform.
- Students may be required to wear masks, goggles, faceshields, gloves, and/or gowns during lab/clinical.
- Some clinical experiences will be held during the daytime.
- Additional requirements for students participating in clinical placement include, but are not limited to:
  - Complete the Health Screening form and submit it to Castle Branch by identified due date.
  - May be required to receive the COVID-19 vaccine in compliance with the most stringent requirement of clinical agencies.
  - Receive annual influenza vaccine.
  - Complete tuberculosis screening.
  - Submit a titer following the completion of the Hepatitis B series of immunizations to document immunity.
  - Create an account and complete the student orientation on Massachusetts Centralized Clinical Placement website (www.mass.edu/mcncps/orientation/welcome.asp). Assign a clinical site and print a ticket to clinical for each clinical term.

Program Email: nurseeducation@qcc.mass.edu

Accreditation

The Quinsigamond Community College Nurse Education program is approved by the Massachusetts Board of Registration in Nursing (MABORN), and accredited by the Accreditation Commission for Education in Nursing, Inc. (ACEN). MABORN can be contacted at: Massachusetts Board of Registration in Nursing | 250 Washington Street, Boston, MA 02108 | 800.414.0168 | www.mass.gov/orgs/board-of-registration-in-nursing. ACEN can be contacted at: Accreditation Commission for Education in Nursing, Inc. | 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326 | 404.975.5000 | www.acenursing.org. The Nurse Education program was granted continuing accreditation by the ACEN Board of Commissioners, and the next evaluation visit has been scheduled for Spring 2029.

Statistics:

Program Outcomes:
Program outcomes are defined as performance indicators that reflect the extent to which the purposes of the program are achieved and by which program effectiveness is documented. Program outcomes are measurable, consumer-oriented indexes designed to evaluate the degree to which the program is achieving its mission and goals. Examples include, but are not limited to, program completion rates, licensure/certification examination pass rates, and job placement rates.

Program Statistics:
Aggregate Program Completion:

- Expected Level of Achievement developed by QCC AD Faculty (and reported to ACEN accrediting body) are that 70% of students will complete the program within 150% of stated program length, beginning with enrollment in first NUR course.
  - 2021-2022: 76%

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Summer I) • Register for and successfully complete all courses to graduate in six semesters. • Complete BIO 111 with a grade of "C" or higher.				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		Total	**7**	
Semester 2 (Summer II) • Complete BIO 112 with a grade of "C" or higher.				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**7**	
Semester 3 (Fall) • Meet with Career Services to credential seven nurse education credits for current paramedic certification (State or National Paramedic). NUR 100 (1 credit), NUR 101 (1 credit), and credentialed credits (7 credits) equivalent to NUR 106 and NUR 107 (9 credits total). • Complete NUR 100 and NUR 101 with grades of "C+" or higher.				
Paramedic to ADN Bridge (October-November)	NUR 100	F	1	BIO 111 and BIO 112 with grades of "C" or higher, ENG 101, PSY 101
Advanced Placement Nursing I (November-December)	NUR 101	F	1	BIO 112 with a grade of "C" or higher, NUR 100 with a grade of "C+" or higher or Admission to Nurse Education - Advanced Placement LPN (NUL) Program, PSY 101
Upon successful completion of NUR 100 and NUR 101 (with grades of "C+" or higher) and successful completion of state or national Paramedic exam, seven credits credentialed	NUR 888	F	7	
		Total	**9**	
Semester 4 (Spring) • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete BIO 232 with a grade of "C" or higher. • Complete NUR 108 with a grade of "C+" or higher.				
Medical Microbiology	BIO 232	F/S/SU	4	BIO 112 or CHM 105 or CHM 123
Medical Surgical Nursing I/ Maternal Newborn (January-April)	NUR 108	F/S	9	BIO 112 with a grade of "C" or higher, NUR 101 or NUR 106 and NUR 107 with grades of "C+" or higher, Coreq: BIO 232, PSY 121
Survey of Life Span Development	PSY 121	F/S/SU	3	PSY 101
		Total	**16**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 5 (Summer I & II) • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete NUR 204 with a grade of "C+" or higher.				
Composition II	ENG 102	F/S/SU	3	ENG 101
Medical Surgical Nursing II/ Pediatric (May-July)	NUR 204	F/S/SU	9	BIO 232 with a grade of "C" or higher, NUR 108 with a grade of "C+" or higher, PSY 121, Coreq: ENG 102, any HST, SOC 101 or SOC 111
Introductory Sociology (Principles) **OR**	SOC 101	F/S/SU	3	Placement into college level English
Social Problems & Social Change	SOC 111			
History Elective	---	F/S/SU	3	
		Total	**18**	
Semester 6 (Fall) • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete NUR 205 and NUR 206 with grades of "C+" or higher. • Submit an Intent to Graduate Form, located on *The Q*.				
Advanced Medical Surgical Nursing III/Mental Health	NUR 205	F/S	9	ENG 102, any HST, NUR 204 with a grade of "C+" or higher, SOC 101 or SOC 111, Coreq: NUR 206, Humanities Elective
Advanced Nursing Concepts & Transition to Practice	NUR 206	F/S	2	NUR 204 with a grade of "C+" or higher, Coreq: NUR 205
Humanities Elective	---	F/S/SU	3	
		Total	**14**	
Total Credits Required:			**71**	

- 2022-2023: 75%
- 2023-2024: 72%

- Revised Expected Level of Achievement developed by QCC AD Faculty (and reported to ACEN accrediting body) are that 50% of students will complete the program within 100% of stated program length, beginning with enrollment in first NUR course.
  - 2021-2022: 52%
  - 2022-2023: 64%
  - 2023-2024: 61%

Aggregate NCLEX Licensure Pass Rates:

- Expected Level of Achievement developed by QCC AD Faculty (and reported to ACEN accrediting body) are that 80% of first-time test takers will successfully complete the NCLEX-RN licensure exam as reported to NCSBN annually during the same 12 month period.
  - 2021: National Results = 82% | QCC Results = 81%
  - 2022: National Results = 78% | QCC Results = 89%
  - 2023: National Results = 89% | QCC Results = 85%

Number of Graduates by Class:

- December 2021: 60
- December 2022: 51
- December 2023: 69

Aggregate Graduate Satisfaction (as answered on Graduate Survey 2023):

- Question asked - "The attainment of end of program student learning outcomes prepared me to enter the workforce as an entry-level RN."
  - 81% of the graduates agreed/strongly agreed with the above statement

CERTIFICATE - NAWF

Nursing Assistant - Direct Entry Certificate

Location

- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- Certain courses (ALH 131 and ALH 132) in this program are offered at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- This program will require students to travel to clinical sites within the Worcester County area.

Program Goals

The Nursing Assistant - Direct Entry Certificate educates individuals to work in various aspects of healthcare, including hospitals and other healthcare facilities.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Define the role, responsibilities, and scope of practice of the nursing assistant and home health aide, including ethics, legal responsibilities, and abuse laws.
- Demonstrate effective communication skills, including recording and reporting, to interact effectively with patients, families, faculty, and members of the healthcare team.
- Understand basic anatomy and physiology of body systems appropriate to the scope of practice of the nursing assistant, and abnormal changes to be observed and reported.
- Apply basic principles of safety and infection control.
- Incorporate knowledge of stages of growth and development and the aging process into care provision.
- Demonstrate competence in the provision of basic nursing care skills required of the nursing assistant and home health aide, according to individual needs.
- Demonstrate ability to assist patients with rehabilitation and restorative care, promoting independence.
- Demonstrate ability to assist patients with long-term, disabling conditions, including dementia.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for clinical uniforms, clinical parking fees, and materials required in the program.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Nursing Assistant program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
    - Phone: 508.854.4471
    - Email: SAS@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: NAWF), in order to take ALH 131. • Register for and successfully complete all courses to graduate in one semester. • Take ALH 132 after ALH 131 in same semester (note that Clinical Affiliate Health/Immunization requirements needed for ALH 131). • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Introductory Nursing Assistant	ALH 131	F/S/SU	5	Placement into college level English
Advanced Nursing Assistant	ALH 132	F/S/SU	2	ALH 131, Certificate of Completion from a state-approved nursing assistant training program or current C.N.A. Certificate
Total Credits Required:			**7**	

- Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
- Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.3902.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Students accepted into the Nursing Assistant - Direct Entry Certificate must:
  - Meet the health requirements as identified on the QCC Health Form; these documents must be submitted by first day of semester enrolled in ALH 131. Students who have not been cleared will not be allowed to participate in the clinical externship, and may necessitate withdrawal or course failure.
  - Take the College Placement Test to determine mathematics and English levels, if no college level courses were previously completed.
- This is a great opportunity for students to gain entry-level employment in the healthcare field prior to matriculating into a selective program.
- Students should be aware that clinical hours may be scheduled on weekday evenings or on Saturdays, based on facility availability.

Program Email: pcreelman@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - OT

Occupational Therapy Assistant

Location

- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- This program may require students to travel to clinical sites that are within a 75-mile radius of the College.

Program Goals

The Occupational Therapy Assistant associate degree program prepares students as generalist with a broad exposure to delivery models and systems for entry-level employment as a Certified Occupational Therapy Assistant (COTA). The Certified Occupational Therapy Assistant practices under the supervision of a Registered Occupational Therapist (OTR) as a member of the interdisciplinary healthcare team. Program graduates are eligible to apply for certification by examination from the National Board for Certification in Occupational Therapy (NBCOT). Upon successful completion of the examination, the graduate is eligible to apply for state licensure, required for practice.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate client-centered care by recognizing and understanding issues related to diversity in an individual's perception of health, illness, and disability.
- Demonstrate knowledge of service delivery models and systems used in settings where occupational therapy is currently practiced and emerging practice areas.
- Achieve entry-level competence for practice through a combination of didactic and fieldwork education.
- Define and demonstrate knowledge of theory as it applies to practice.
- Articulate and apply occupational therapy principles and intervention tools to achieve expected outcomes as related to occupation.
- Articulate and apply therapeutic use of occupations with persons, groups, and populations for the purpose of facilitating performance and participation in activities, occupations, and roles and situations in home, school, workplace, community, and other settings, as informed by the Occupational Therapy Practice Framework.
- Apply evidence-based occupational therapy interventions to address the physical, cognitive, functional cognitive, psychosocial, sensory, and other aspects of performance in a variety of contexts and environments to support engagement in everyday life activities that affect health, well-being, and quality of life, as informed by the Occupational Therapy Practice Framework.
- Articulate the significance of life-long learning to keep current with evidence-based professional practice.
- Uphold the ethical standards, values, and attitudes of the occupational therapy profession.
- Recognize and articulate the distinct roles and responsibilities of the occupational therapist and the occupational therapy assistant in the supervisory process for service delivery.
- Demonstrate preparation and skills for effective collaboration with occupational therapists in service delivery.
- Communicate effectively, orally and in writing, and work interprofessionally with all who provide services and programs for persons, groups, and populations.
- Advocate as a professional for access to occupational therapy services offered and for the recipients of those services.
- Demonstrate active involvement in professional development, leadership, and advocacy.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
- English: Placement into college level English.
- Biology: Minimum grade of "B" in high school biology or "C" or higher in any college level biology course (BIO 101 recommended). Required grade must be earned within two attempts of taking and completing the course. Qualifying biology course must be taken within five years of application.
- TEAS Admission Requirement: Applicants must have taken the TEAS within the last five years of applying to the program.
  - A qualifying composite score must be achieved in no more than three attempts within a rolling three-year period (scores from multiple tests cannot be combined).
  - To meet the TEAS admission requirement, applicants must achieve one of the following:
    - The TEAS admission requirement may be waived if the applicant has an advanced degree (i.e., BS, BA, MS). **OR**
    - A composite TEAS score of 60% or higher **OR**
    - A composite TEAS score between 56% and 59%, with the following minimum GPA requirements (see table below):

TEAS Score	Overall QCC College Biology GPA (4 credit minimum)	Overall QCC College GPA (15 credit minimum)
59	2.7 or higher	2.7 or higher
58	2.8 or higher	2.8 or higher
57	2.9 or higher	2.9 or higher
56	3.0 or higher	3.0 or higher

Program Retention / Progression Requirements:
To be eligible to continue in the program, students must:

- Achieve a grade of "C" or higher in all program courses designated by OTA.
- Achieve a grade of "C" or higher in BIO 111, BIO 112, ENG 101, and ENG 102.
- Maintain documentation of current Healthcare Provider Level BLS/CPR Certification.
- Maintain documentation of immunization currency and satisfactory health status.
- Maintain documentation of annual TB testing.
- Maintain documentation of health insurance.
- Maintain an active membership in the American Occupational Therapy Association (AOTA) for Semesters 2, 3, and 4.
- Complete both OTA 241 and OTA 242 within 18 months of the OTA didactic coursework.

Program Readmission Requirements:
There is a one-time readmission policy for the program.

- Readmission is not guaranteed and is always based upon space availability. See the QCC Student Handbook and Program Student Handbook for the complete readmission procedure.
- Students who did not earn a grade of "C" or higher in OTA 101 and/or OTA 131 need to re-apply to the program through the Admissions Office. Students should contact the Program Coordinator as soon as they receive the notification of being placed on the waitlist (by April 15) to discuss readmission.
- Students who did not earn a grade of "C" or higher in any other OTA course should contact the Program Coordinator to discuss readmission by October 15 for Spring courses or by April 15 for Fall courses.
- Students who have been dismissed or administratively withdrawn from a program within the School of Healthcare at Quinsigamond Community College for reasons of "clinically unsafe practice/behavior" or who violate the College's Student Code of Conduct or Policy on Affirmative Action are not eligible for admission/readmission to any Healthcare program.

Program Graduation Requirements:
Students must satisfy all course and program requirements, including regulations related to attendance and conduct, in order to be eligible for graduation.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, annually or every semester. Fingerprinting and drug testing are required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

- A felony conviction could prevent a student from participating in (eligibility) certification and credentialing exams post-graduation.

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for textbooks, American Occupational Therapy Association (AOTA) membership, transportation and parking fees at field placement sites, and National Board for Certification in Occupational Therapy (NBCOT) exam and licensing applications.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Occupational Therapy Assistant program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Register for and successfully complete all courses to graduate in four semesters. • Complete BIO 111 and ENG 101 with grades of "C" or higher.				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Occupational Therapy: Concepts & Interventions	OTA 101	F	3	
Occupational Therapy: Methods and Modalities I	OTA 131	F	3	Coreq: OTA 101
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
Liberal Arts Elective	---	F/S/SU	3	
		Total	**19**	
Semester 2 (Spring) • Complete BIO 112, OTA 103, OTA 105, and OTA 223 with grades of "C" or higher. • Complete PSY 121 (the prerequisite for OTA 211 and OTA 215).				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Group Process and Interventions	OTA 103	S	4	OTA 101, PSY 101
Developing Professional Behaviors	OTA 105	S	3	OTA 101
Concepts and Occupational Therapy Interventions with the Physically Challenged	OTA 223	S	4	BIO 111, OTA 101, OTA 131
Survey of Life Span Development	PSY 121	F/S/SU	3	PSY 101
		Total	**18**	
Semester 3 (Fall) • Complete ENG 102, OTA 211, OTA 215, OTA 221, and OTA 231 with grades of "C" or higher.				
Composition II	ENG 102	F/S/SU	3	ENG 101
Occupational Therapy with the Older Adult	OTA 211	F	3	OTA 101, PSY 121
Developmental Problems and Practice with Children	OTA 215	F	4	OTA 101, PSY 121
Concepts and Occupational Therapy Interventions in Mental Health	OTA 221	F	4	OTA 101, OTA 103, PSY 101
Occupational Therapy: Methods and Modalities II	OTA 231	F	3	OTA 101, OTA 131
		Total	**17**	
Semester 4 (Spring) • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Register to take NBCOT credentialing exam after graduation (www.nbcot.org). • Submit an Intent to Graduate Form, located on *The Q*.				

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Occupational Therapy Field Placement I	OTA 241	S	7	BIO 112, ENG 102, OTA 105, OTA 211, OTA 215, OTA 221, OTA 223, OTA 231
Occupational Therapy Field Placement II	OTA 242	S	7	BIO 112, ENG 102, OTA 105, OTA 211, OTA 215, OTA 221, OTA 223, OTA 231
		Total	**14**	
Total Credits Required:			**68**	

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0803.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: otassistant@qcc.mass.edu

Accreditation

The Quinsigamond Community College Occupational Therapy Assistant program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), which can be contacted at: Accreditation Council for Occupational Therapy Education (ACOTE), of the American Occupational Therapy Association (AOTA) | 7501 Wisconsin Avenue, Suite 510E, Bethesda, MD 20814 | 301.652.6611 | www.acoteonline.org. Graduates of the program will be eligible to sit for the National Certification Examination for the Occupational Therapy Assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). In addition, all states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination. Note that a felony conviction may affect a graduate's ability to sit for the NBCOT Certification Examination or attain state licensure.

Statistics

Program Outcomes:
Program outcomes are defined as performance indicators that reflect the extent to which the purposes of the program are achieved and by which program effectiveness is documented. Program outcomes are measurable, consumer-oriented indexes designed to evaluate the degree to which the program is achieving its mission and goals. Examples include, but are not limited to, program completion rates, licensure/certification examination pass rates, and job placement rates.

Program Statistics:
For information pertaining to the most recent performance results of QCC OTA graduates on the national certification exam, visit www.nbcot.org/Educators-Folder/SchoolPerformance.

OTA Program Outcome 2022-2024

Graduation Year	Graduated According to the Program Outline Time	Graduated Within 150% of Expected Time	Students Admitted	Withdrew (for Reasons Not Related to Academic/Clinical Performance)	Graduation Rate	NBCOT Pass Rate
2024	11	0	14	1	85%	80%
2023	9	1	12	2	100%	91%
2022	8	1	10	0	90%	86%
Total	**28**	**2**	**36**	**3**	**92%**	**86%**

ASSOCIATE IN SCIENCE - EM

Paramedic Technology

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- EMT Paramedic Certificate

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).

Program Goals

The goal of the Paramedic Technology associate degree program is to prepare competent entry-level emergency medical technician-paramedics to serve in career and volunteer positions throughout the Commonwealth and neighboring regions.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Apply the knowledge of paramedicine in the scope of the overall healthcare system.
- Understand the paramedic's role in the community as a provider, educator, and leader.
- Explain and demonstrate the role paramedics can play in the leadership of EMS Systems.
- Explain how paramedics can assist the community in reducing the rate of mortality for various disease processes and play a role in the reduction of those rates.
- Demonstrate strong public speaking skills, communication skills, and medical systems knowledge to be an effective communicator, provider, and leader in the public safety field.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Current Paramedic certification (any current state paramedic or National Registry Paramedic certification or currently enrolled in the EMT Paramedic Certificate program).

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

Additional Cost

See the Program Fees (Page 27)

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Emergency Medical Services/ Paramedicine program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
    - Phone: 508.854.4471
    - Email: SAS@qcc.mass.edu
    - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
    - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: EM). • Meet with Career Services to credential 24 credits for current Paramedic certification. • Contact Career Services (www.QCC.edu/APexams) to receive credit for High School (HS) Advanced Placement (AP) Exams. QCC School Code: 3714.				
Upon successful completion of state Paramedic written and practical exam or National Registry of Emergency Medical Technicians Paramedic written and practical exam, 24 credits credentialed (24 credits can be transferred from regionally accredited college)	Transfer Courses: MED 160 MED 170 MED 180 MED 190 MED 210 MED 220		24	
		Total	**24**	
Semester 2 (Spring) • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete ENG 101; or AP English/Language and Composition, with AP Exam grade of "3" or higher, to count as ENG 101. • Complete PSY 101; or AP Psychology, with AP Exam grade of "3" or higher, to count as PSY 101.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
Lab Science Elective	---	F/S/SU	4	
Mathematics Elective	---	F/S/SU	3	
		Total	**13**	
Semester 3 (Fall) • For the Science Elective, consider taking a Lab Science course if interested in pursuing other healthcare degrees. • Meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete ENG 102; or AP English/Literature and Composition, with AP Exam grade of "3" or higher, to count as ENG 102.				
Composition II	ENG 102	F/S/SU	3	ENG 101
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
Humanities Elective	---	F/S/SU	3	
Science Elective	---	F/S/SU	3-4	
		Total	**12-13**	
Semester 4 (Spring) • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Healthcare Elective	---	F/S/SU	3	
History Elective	---	F/S/SU	3	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Humanities Elective	---	F/S/SU	3	
Humanities Elective	---	F/S/SU	3	
		Total	**12**	
Total Credits Required:			**61-62**	

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0904.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: emt@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - PTWF

Pharmacy Technician - Direct Entry Certificate

Location

- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- This program will require students to travel to clinical sites within the Worcester County area.
- This program may be completed face-to-face.

Program Goals

The Pharmacy Technician - Direct Entry Certificate provides students with the knowledge, skills, and abilities needed to prepare for a career as a certified pharmacy technician. The program will prepare the graduate to assume an entry-level pharmacy technician position in a variety of contemporary settings, including, but not limited to, community, hospital, home care and long-term care settings. Students learn various duties a technician may perform, as well as communication skills and aspects of assisting the pharmacist. Students will also perform 135 hours of externship at a local pharmacy to get practical instruction in this field.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Gain knowledge regarding the laws of pharmacy practice.
- Learn drug names and classification, compounding, calculations, abbreviations, and dosage forms.
- Perform various pharmacy technician duties.
- Refine communication and interview skills.
- Assist the pharmacist as directed.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for clinical uniforms, clinical parking fees, and materials required in the program.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Pharmacy Technician program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: PTWF), in order to take ALH 137. • Complete ALH 137 with a grade of "C" or higher.				
Introduction to Medical Terminology	ALH 102	F/S/SU	3	Placement into college level English
Pharmacy Technician	ALH 137	F	3	Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures
		Total	**6**	
Semester 2 • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete ALH 138 with a grade of "C" or higher. • Submit an Intent to Graduate Form, located on *The Q.*				
Pharmacy Technician Clinical Co-Operative Externship	ALH 138	S	6	ALH 137
		Total	**6**	
Total Credits Required:			**12**	

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0805.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Students accepted into the Pharmacy Technician - Direct Entry Certificate must:
  - Provide documentation of immunization currency and satisfactory health status, and must submit evidence of a positive Hepatitis B antibody titer prior to beginning the clinical externship; this is a six month process.
  - Meet the health requirements as identified on the QCC Health Form; these documents must be submitted by first day of enrollment in ALH 138. Students who have not been cleared will not be able to participate in the clinical externship, and may necessitate withdrawal or course failure.
  - Take the College Placement Test to determine mathematics and English levels, if no college level courses were previously completed.
- This is a great opportunity for students to gain entry-level employment in the healthcare field prior to matriculating into a selective program.
- Students will increase their chances of obtaining employment by completing both the theoretical course (ALH 137) and the clinical externship (ALH 138).
- Upon successful completion of this program, graduates may seek licensure with the Massachusetts Board of Registration in Pharmacy by:
  - Completing a National Certification (ExCPT or PTCB),
  - Obtaining a passing score (75) on a Board-approved pharmacy technician assessment examination after having successfully completed one of the following:
    - A Board-approved pharmacy technician training program; or
    - A minimum of 500 hours of employment as a pharmacy technician trainee.
- Upon passing the National exam (ExCPT or PTCB), graduates are required to apply for state licensure.

Program Email: pcreelman@qcc.mass.edu

Accreditation

The Quinsigamond Community College Pharmacy Technician program is approved by the Massachusetts Board of Registration in Pharmacy, which can be contacted at: Massachusetts Board of Registration in Pharmacy | 250 Washington Street, Boston, MA 02108 | 800.414.0168 | www.mass.gov/orgs/board-of-registration-in-pharmacy.

For information on electives, see p. 373-374.

CERTIFICATE - PKWF

Phlebotomy/EKG Technician - Direct Entry Certificate

Location

- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- This program will require students to travel to clinical sites within the Worcester County area.
- This program may be completed face-to-face.

Program Goals

The Phlebotomy/EKG Technician - Direct Entry Certificate educates individuals to work in various aspects of healthcare, including hospitals, clinics, and outreach/home sites.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Understand medical terminology, basic anatomy of the venous system, basic hematology, infection control, quality assurance, and safety.
- Perform venipuncture, capillary puncture, and specimen handling.
- Gain knowledge of basic EKG tracing, rate, rhythm, common heart abnormalities, and the use and function of the EKG machine.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for clinical uniforms, clinical parking fees, and materials required in the program.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Phlebotomy/EKG Technician program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Summer) • Apply and get accepted to this program (Program Code: PKWF), in order to take ALH 125. • Register for and complete ALH 125 with a grade of "C" or higher to graduate in one semester. • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
Phlebotomy/EKG Technician Principles and Application	ALH 125	F/S/SU	9	Placement into college level English
Total Credits Required:			**9**	

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.1009.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Students accepted into the Phlebotomy/EKG Technician - Direct Entry Certificate must:
  - Provide documentation of immunization currency and satisfactory health status, and must submit evidence of a positive Hepatitis B antibody titer prior to beginning the clinical externship; this is a six month process.
  - Meet the health requirements as identified on the QCC Health Form; these documents must be submitted by first day of semester enrolled in ALH 125. Students who have not been cleared will not be allowed to participate in the clinical externship, and may necessitate withdrawal or course failure.
  - Take the College Placement Test to determine mathematics and English levels, if no college level courses were previously completed.
- This is a great opportunity for students to gain entry-level employment in the healthcare field prior to matriculating into a selective program.
- Students will increase their chances of obtaining employment by completing the theoretical and clinical externship course (ALH 125).

Program Email: pcreelman@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - LP

Practical Nursing Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Nurse Education - Advanced Placement LPN

Location

- This program may be completed 50% or more online.
- This program will be completed utilizing a blended modality; some coursework will be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester while other coursework will be completed online.
- This program will require students to travel to clinical sites within the Worcester County and MetroWest area.

Program Goals

Practical Nurse Education prepares students with skills and education that will enable them to become an effective licensed practical nurse (LPN). The Practical Nursing Certificate will prepare the graduate to assume an entry-level position in the field or pursue additional education. Graduates of the program assume responsibilities related to direct patient care in a variety of settings, including, but not limited to, doctor's offices, clinics, extended care facilities, home health agencies, community health agencies, and acute care facilities. Upon successful completion of this program, students are eligible to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN). The program also prepares students for further study at two-year and four-year colleges and universities.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Apply the nursing process to the patient-centered care of culturally diverse patients, throughout the life span, who have actual, common, well-defined, or potential health-deviation requisites.
- Use therapeutic communication effectively with clients, families, and members of the collaborative healthcare team.
- Illustrate use of relevant technology for patient-centered care and documentation.
- Implement goal-directed teaching plans to assist clients in resolving self-care deficits.
- Safely manage the nursing care of clients with actual or potential common, well-defined health-deviation requisites, in a variety of structured settings, in accordance with ethical, legal and professional standards.
- Demonstrate professional attributes of a Practical Nurse in the provision of safe, effective patient-centered care.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.
- TEAS Admission Requirement: Applicants must have taken the TEAS within the last five years of applying to the program.
  - A qualifying composite score must be achieved in no more than three attempts within a rolling three-year period (scores from multiple tests cannot be combined).
  - To meet the TEAS admission requirement, applicants must achieve one of the following:
    - A composite TEAS score of 55% or higher **OR**
    - A composite TEAS score between 51% and 54%, with the following minimum GPA requirements (see table below):

TEAS Score	Overall QCC College Biology GPA (4 credit minimum)	Overall QCC College GPA (15 credit minimum)
54	2.7 or higher	2.7 or higher
53	2.8 or higher	2.8 or higher
52	2.9 or higher	2.9 or higher
51	3.0 or higher	3.0 or higher

Program Retention / Progression Requirements:
To be eligible to continue in the program, students must:

- Achieve a grade of "C" or higher in all program courses designated by PNP.
- Achieve a grade of "C" or higher in BIO 100 or BIO 112, PSY 101, and PSY 121; students who have received a grade below a "C" in BIO 100 or BIO 112, PSY 101, and PSY 121 are required to repeat the course and obtain a grade of "C" or higher by the end of the semester in which they are required or required as a prerequisite. Science courses must be completed within five years of application to the program. There are no expiration restrictions for general education courses.
- Demonstrate satisfactory progress in the laboratory and clinical components of each nursing course.
- Demonstrate satisfactory performance in the nursing

laboratory and in the clinical settings.
- Satisfy all course and program requirements, including regulations on attendance and conduct, in order to be eligible for certification for licensure.
- Maintain documentation of current Healthcare Provider Level BLS/CPR Certification.
- Maintain documentation of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health, clinical affiliates, and satisfactory health status.
- Maintain documentation of annual TB testing.
- Maintain documentation of health insurance.

Program Readmission Requirements:
There is a one-time readmission policy for the program.

- Readmission is not guaranteed and is always based upon space availability. See the QCC Student Handbook for the complete readmission policy.
- Practical Nursing students who leave the program due to withdrawal or academic failure in Semester 2 (PNP 101 and/or PNP 111) should reapply for entry into the program through the Admissions Office.
- Students eligible for readmission include students who left the program due to withdrawal or academic failure in Semesters 3, 4, or 5 (PNP 210, PNP 233, PNP 235, or PNP 240).
    - An appointment must be made with the Program Coordinator to ensure all readmission requirements and documents are completed.
    - In addition to the criteria listed in the QCC Student Handbook, a student requesting readmission into the Practical Nursing program must have met the requirement of a composite score on the TEAS test to be considered for readmission. Additional immunization requirements may be required for clinical experiences.
    - The request for readmission must be submitted to the Program Coordinator within one year of date of separation from the program. If the student does not apply for readmission within one year, the student is ineligible for readmission and can apply to the program through the Admissions Office.
- Students who have been dismissed or administratively withdrawn from a program within the School of Healthcare at Quinsigamond Community College for reasons of "clinically unsafe practice/behavior" or who violate the College's Student Code of Conduct or Policy on Affirmative Action are not eligible for admission/readmission to any Healthcare program.

Program Graduation Requirements:
Students must satisfy all course and program requirements, including regulations related to attendance and conduct, in order to be eligible for graduation.

- Students are required to attend the three-day NCLEX review course.
- All students must complete an "Intent to Graduate" card (even if not attending the QCC graduation ceremony in May). Completion of the "Intent to Graduate" card will prompt the Registrar to print a "Certificate of Graduation". The "Certificate of Graduation" is required to register and sit for the NCLEX-PN Licensure exam.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

- Applicants should understand that the Massachusetts Board of Registration in Nursing (MABORN) reserves the right to refuse an applicant the privilege of sitting for the NCLEX examination based on a Good Moral Character Licensure requirement.
- The Massachusetts Board of Registration in Nursing (MABORN) requires all candidates for licensure to disclose any incidents with Child Protective Services. These may affect a candidate's ability to sit for the NCLEX examination and obtain licensure.
- More information is available from the Massachusetts Board of Registration in Nursing (MABORN).

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for professional uniforms and required supplies, CPR certification, health immunizations, and physical exams. Also, there may be additional costs associated with the purchase of textbooks, licensing examinations applications, clinical make-up, and any required skills for remediation.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Practical Nursing program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional

time may be needed to effectively implement accommodations.

- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.3901.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

- Students interested in transferring to QCC can find more information on the Admissions webpage at www.QCC.edu/admissions.
- Students interested in transferring from QCC can find more information on the Transfer Services webpage at www.QCC.edu/transfer. See the Educational Mobility Policy.
- Transfer Policy for the QCC Practical Nursing programs:
  - A student may seek a transfer of credit from another approved institution, provided that a passing grade has been earned in all previous nursing courses and the coursework is comparable to the course offered at QCC. Transfer credit will be considered for PNP 210 and PNP 233 (or equivalent courses offering similar content) only if the student has not been away from the program for more than one year. Transfer of Practical Nursing coursework will not be accepted. See the QCC Catalog for additional information. Transfer is not guaranteed.
  - Students who wish to request transfer from one QCC nursing program to another QCC nursing program must meet with the Program Coordinator of the most recently enrolled program to review the process. The student must meet the admission requirements of the prospective program. Transfer is not guaranteed.

Additional Information

- This program prepares students for further study at two-year and four-year colleges and universities, as well as providing a broad background for employment in healthcare facilities.
- Courses in both Practical Nursing and Liberal Arts are required in the program curriculum. Nursing courses include clinical experiences in area hospitals, rehabilitation, long-term care and community agencies, schools, as well as classroom study and laboratory practice on campus.
- A Social Security Number is mandatory for NCLEX Application (Licensure).
- All clinical experiences are under the supervision of QCC Nurse Education faculty, and entrance into most clinical agencies will require the wearing of a standardized school uniform.
- Clinical experiences will start before 7:00 a.m. Some clinical experiences may be held on Saturday, Sunday and on weekday or weekend evenings.
- Additional requirements for students participating in clinical placement:
  - Complete the Health Screening form and submit it to Castle Branch by identified due date.
  - May be required to receive the COVID-19 vaccine in compliance with the most stringent requirement of clinical agencies.
  - Receive annual influenza vaccine.
  - Complete tuberculosis screening.
  - Submit a titer following the completion of the Hepatitis B series of immunizations to document immunity.
  - Create an account and complete the student orientation on Massachusetts Centralized Clinical Placement website (www.mass.edu/mcncps/orientation/welcome.asp). Assign a clinical site and print a ticket to clinical for each clinical term.
- Students who are interested in exploring an apprenticeship program as part of their degree or certificate pathway should email adp@qcc.mass.edu.

Program Email: nurseeducation@qcc.mass.edu

Accreditation

The Quinsigamond Community College Practical Nursing program is approved by the Massachusetts Board of Registration in Nursing (MABORN), and accredited by the Accreditation Commission for Education in Nursing, Inc. (ACEN). MABORN can be contacted at: Massachusetts Board of Registration in Nursing | 250 Washington Street, Boston, MA 02108 | 800.414.0168 | www.mass.gov/orgs/board-of-registration-in-nursing. ACEN can be contacted at: Accreditation Commission for Education in Nursing, Inc. | 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326 | 404.975.5000 | www.acenursing.org. The Board of Commissioners granted continuing accreditation to the Practical Nursing program and scheduled the next evaluation visit for Spring 2026.

Statistics

Program Outcomes:
Program outcomes are defined as performance indicators that reflect the extent to which the purposes of the program are achieved and by which program effectiveness is documented. Program outcomes are measurable, consumer-oriented indexes designed to evaluate the degree to which the program is achieving its mission and goals. Examples include, but are not limited to, program completion rates, licensure/certification examination pass rates, and job placement rates.

Program Statistics:
Aggregate Program Completion:

- Expected Level of Achievement developed by QCC PN Faculty (and reported to ACEN accrediting body) are that 70% of students will complete the program within 150% of stated program length beginning with enrollment in first PNP course.
    - 2020-2021: 98%
    - 2021-2022: 100%
    - 2022-2023: 100%
- Expected Level of Achievement developed by QCC PN Faculty (and reported to ACEN accrediting body) are that 50% of students will complete the program on time beginning with enrollment on the first day of the first nursing course and ends with completion of course required for conferral of a certificate.
    - 2021-2022: 67%
    - 2022-2023: 71%

NCLEX Licensure Pass Rates:

- Expected Level of Achievement developed by QCC PN Faculty (and reported to ACEN accrediting body) are at or above National Mean.
    - 2021: National Results = 80% | QCC Results = 73%
    - 2022: National Results = 79% | QCC Results = 78%
    - 2023: National Results = 86% | QCC Results = 91%

Graduate Satisfaction (as answered on Post-Graduate Survey):

- Question asked - “As a graduate, the length of the program prepared me for entry into the novice level of nursing practice”.
    - 100% of the students responded “Agree” or “Strongly Agree” to the above statement

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Summer I or II) • Register for and successfully complete all courses to graduate in five semesters. • Semester 1 must be completed prior to entry into PNP courses. • Take BIO 111 and BIO 112 if considering advancing to the RN level. • Ensure all Healthcare Compliance requirements are met prior to Semester 2. • Complete all general education courses each semester with grades of "C" or higher.				
Principles of Human Biology **OR**	BIO 100	F/S/SU	4	Placement into college level English
Anatomy & Physiology II	BIO 112			BIO 111
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**7**	
Semester 2 (Fall) • Ensure all Healthcare Compliance requirements are met prior to Semester 3. • Complete all PNP courses each semester with grades of "C" or higher.				
Practical Nursing I: Fundamentals of Nursing	PNP 101	F	10	BIO 100 or BIO 112, PSY 101, Acceptance to the PNP Program
Introduction to Pharmacology	PNP 111	F	3	BIO 100 or BIO 112, PSY 101, Acceptance to the PNP Program
Survey of Life Span Development	PSY 121	F/S/SU	3	PSY 101
		Total	**16**	
Semester 3 (Intersession) • Ensure all Healthcare Compliance requirements are met prior to Semester 4.				
Nutrition Concepts in Health and Illness	PNP 210	IN	1	PNP 101
Trends in Practical Nursing	PNP 233	IN	1	PNP 101
		Total	**2**	
Semester 4 (Spring) • Ensure all Healthcare Compliance requirements are met prior to Semester 5. • Meet with Academic Advisor to discuss associate degree (Program Code: NUL); or create an account on the QCC job board to search for internships, co-ops and jobs. • Submit an Intent to Graduate Form, located on *The Q*.				
Practical Nursing II: Medical/Surgical/Mental Health/Leadership Nursing	PNP 235	S	15	PNP 101, PNP 111, PNP 210, PNP 233, PSY 121
		Total	**15**	
Semester 5 (Summer I) • Apply to associate degree (Program Code: NUL); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete all ATI requirements and obtain the "Green Checkmark".				
Practical Nursing III: Maternal/Newborn/ Pediatric Nursing	PNP 240	SU	6	PNP 235
		Total	**6**	
Total Credits Required:			**46**	

For information on electives, see p. 373-374.

CERTIFICATE - LPE

Practical Nursing Certificate - Evening

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Nurse Education - Advanced Placement LPN

Location

- This program may be completed 50% or more online.
- This program will be completed utilizing a blended modality; some coursework will be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester while other coursework will be completed online.
- This program will require students to travel to clinical sites within the Worcester County and MetroWest area.

Program Goals

Practical Nurse Education prepares students with skills and education that will enable them to become an effective licensed practical nurse (LPN). The Practical Nursing Certificate will prepare the graduate to assume an entry-level position in the field or pursue additional education. Graduates of the program assume responsibilities related to direct patient care in a variety of settings, including, but not limited to, doctor's offices, clinics, extended care facilities, home health agencies, community health agencies, and acute care facilities. Upon successful completion of this program, students are eligible to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN). The program also prepares students for further study at two-year and four-year colleges and universities.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Apply the nursing process to the patient-centered care of culturally diverse patients, throughout the life span, who have actual, common, well-defined, or potential health-deviation requisites.
- Use therapeutic communication effectively with clients, families, and members of the collaborative healthcare team.
- Illustrate use of relevant technology for patient-centered care and documentation.
- Implement goal-directed teaching plans to assist clients in resolving self-care deficits.
- Safely manage the nursing care of clients with actual or potential common, well-defined health-deviation requisites, in a variety of structured settings, in accordance with ethical, legal and professional standards.
- Demonstrate professional attributes of a Practical Nurse in the provision of safe, effective patient-centered care.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.
- TEAS Admission Requirement: Applicants must have taken the TEAS within the last five years of applying to the program.
  - A qualifying composite score must be achieved in no more than three attempts within a rolling three-year period (scores from multiple tests cannot be combined).
  - To meet the TEAS admission requirement, applicants must achieve one of the following:
    - A composite TEAS score of 55% or higher **OR**
    - A composite TEAS score between 51% and 54%, with the following minimum GPA requirements (see table below):

TEAS Score	Overall QCC College Biology GPA (4 credit minimum)	Overall QCC College GPA (15 credit minimum)
54	2.7 or higher	2.7 or higher
53	2.8 or higher	2.8 or higher
52	2.9 or higher	2.9 or higher
51	3.0 or higher	3.0 or higher

Program Retention / Progression Requirements:
To be eligible to continue in the program, students must:

- Achieve a grade of "C" or higher in all program courses designated by PNP.
- Achieve a grade of "C" or higher in BIO 100 or BIO 112, PSY 101, and PSY 121; students who have received a grade below a "C" in BIO 100 or BIO 112, PSY 101, and PSY 121 are required to repeat the course and obtain a grade of "C" or higher by the end of the semester in which they are required or required as a prerequisite. Science courses must be completed within five years of application to the program. There are no expiration restrictions for general education courses.
- Demonstrate satisfactory progress in the laboratory and clinical components of each nursing course.
- Demonstrate satisfactory performance in the nursing laboratory and in the clinical settings.

- Satisfy all course and program requirements, including regulations on attendance and conduct, in order to be eligible for certification for licensure.
- Maintain documentation of current Healthcare Provider Level BLS/CPR Certification.
- Maintain documentation of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health, clinical affiliates, and satisfactory health status.
- Maintain documentation of annual TB testing.
- Maintain documentation of health insurance.

Program Readmission Requirements:
There is a one-time readmission policy for the program.

- Readmission is not guaranteed and is always based upon space availability. See the QCC Student Handbook for the complete readmission policy.
- Practical Nursing students who leave the program due to withdrawal or academic failure in Semester 2 (PNP 101 and/or PNP 111) should reapply for entry into the program through the Admissions Office.
- Students eligible for readmission include students who left the program due to withdrawal or academic failure in Semesters 3, 4, or 5 (PNP 210, PNP 233, PNP 235, or PNP 240).
    - An appointment must be made with the Program Coordinator to ensure all readmission requirements and documents are completed.
    - In addition to the criteria listed in the QCC Student Handbook, a student requesting readmission into the Practical Nursing program must have met the requirement of a composite score on the TEAS test to be considered for readmission. Additional immunization requirements may be required for clinical experiences.
    - The request for readmission must be submitted to the Program Coordinator within one year of date of separation from the program. If the student does not apply for readmission within one year, the student is ineligible for readmission and can apply to the program through the Admissions Office.
- Students who have been dismissed or administratively withdrawn from a program within the School of Healthcare at Quinsigamond Community College for reasons of "clinically unsafe practice/behavior" or who violate the College's Student Code of Conduct or Policy on Affirmative Action are not eligible for admission/readmission to any Healthcare program.

Program Graduation Requirements:
Students must satisfy all course and program requirements, including regulations related to attendance and conduct, in order to be eligible for graduation.

- Students are required to attend the three-day NCLEX review course.
- All students must complete an "Intent to Graduate" card (even if not attending the QCC graduation ceremony in May). Completion of the "Intent to Graduate" card will prompt the Registrar to print a "Certificate of Graduation". The "Certificate of Graduation" is required to register and sit for the NCLEX-PN Licensure exam.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

- Applicants should understand that the Massachusetts Board of Registration in Nursing (MABORN) reserves the right to refuse an applicant the privilege of sitting for the NCLEX examination based on a Good Moral Character Licensure requirement.
- The Massachusetts Board of Registration in Nursing (MABORN) requires all candidates for licensure to disclose any incidents with Child Protective Services. These may affect a candidate's ability to sit for the NCLEX examination and obtain licensure.
- More information is available from the Massachusetts Board of Registration in Nursing (MABORN).

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for professional uniforms and required supplies, CPR certification, health immunizations, and physical exams. Also, there may be additional costs associated with the purchase of textbooks, licensing examinations applications, clinical make-up, and any required skills for remediation.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Practical Nursing program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
    - Phone: 508.854.4471
    - Email: SAS@qcc.mass.edu
    - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)

- Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.3901.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

- Students interested in transferring to QCC can find more information on the Admissions webpage at www.QCC.edu/admissions.
- Students interested in transferring from QCC can find more information on the Transfer Services webpage at www.QCC.edu/transfer. See the Educational Mobility Policy.
- Transfer Policy for the QCC Practical Nursing programs:
  - A student may seek a transfer of credit from another approved institution, provided that a passing grade has been earned in all previous nursing courses and the coursework is comparable to the course offered at QCC. Transfer credit will be considered for PNP 210 and PNP 233 (or equivalent courses offering similar content) only if the student has not been away from the program for more than one year. Transfer of Practical Nursing coursework will not be accepted. See the QCC Catalog for additional information. Transfer is not guaranteed.
  - Students who wish to request transfer from one QCC nursing program to another QCC nursing program must meet with the Program Coordinator of the most recently enrolled program to review the process. The student must meet the admission requirements of the prospective program. Transfer is not guaranteed.

Additional Information

- This program prepares students for further study at two-year and four-year colleges and universities, as well as providing a broad background for employment in healthcare facilities.
- Courses in both Practical Nursing and Liberal Arts are required in the program curriculum. Nursing courses include clinical experiences in area hospitals, rehabilitation, long-term care and community agencies, schools, as well as classroom study and laboratory practice on campus.
- A Social Security Number is mandatory for NCLEX Application (Licensure).
- All clinical experiences are under the supervision of QCC Nurse Education faculty, and entrance into most clinical agencies will require the wearing of a standardized school uniform.
- Clinical experiences will start before 3:00 p.m. Some clinical experiences may be held on Saturday, Sunday and on weekday or weekend evenings.
- Additional requirements for students participating in clinical placement:
  - Complete the Health Screening form and submit it to Castle Branch by identified due date.
  - May be required to receive the COVID-19 vaccine in compliance with the most stringent requirement of clinical agencies.
  - Receive annual influenza vaccine.
  - Complete tuberculosis screening.
  - Submit a titer following the completion of the Hepatitis B series of immunizations to document immunity.
  - Create an account and complete the student orientation on Massachusetts Centralized Clinical Placement website (www.mass.edu/mcncps/orientation/welcome.asp). Assign a clinical site and print a ticket to clinical for each clinical term.
- Students who are interested in exploring an apprenticeship program as part of their degree or certificate pathway should email adp@qcc.mass.edu.

Program Email: nurseeducation@qcc.mass.edu

Accreditation

The Quinsigamond Community College Practical Nursing program is approved by the Massachusetts Board of Registration in Nursing (MABORN), and accredited by the Accreditation Commission for Education in Nursing, Inc. (ACEN). MABORN can be contacted at: Massachusetts Board of Registration in Nursing | 250 Washington Street, Boston, MA 02108 | 800.414.0168 | www.mass.gov/orgs/board-of-registration-in-nursing. ACEN can be contacted at: Accreditation Commission for Education in Nursing, Inc. | 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326 | 404.975.5000 | www.acenursing.org. The Board of Commissioners granted continuing accreditation to the Practical Nursing program and scheduled the next evaluation visit for Spring 2026.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Summer I or II) • Register for and successfully complete all courses to graduate in five semesters. • Semester 1 must be completed prior to entry into PNP courses. • Take BIO 111 and BIO 112 if considering advancing to the RN level. • Ensure all Healthcare Compliance requirements are met prior to Semester 2. • Complete all general education courses each semester with grades of "C" or higher.				
Principles of Human Biology **OR**	BIO 100	F/S/SU	4	Placement into college level English
Anatomy & Physiology II	BIO 112			BIO 111
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**7**	
Semester 2 (Fall) • Ensure all Healthcare Compliance requirements are met prior to Semester 3. • Complete all PNP courses each semester with grades of "C" or higher.				
Practical Nursing I: Fundamentals of Nursing	PNP 101	F	10	BIO 100 or BIO 112, PSY 101, Acceptance to the PNP Program
Introduction to Pharmacology	PNP 111	F	3	BIO 100 or BIO 112, PSY 101, Acceptance to the PNP Program
Survey of Life Span Development	PSY 121	F/S/SU	3	PSY 101
		Total	**16**	
Semester 3 (Intersession) • Ensure all Healthcare Compliance requirements are met prior to Semester 4.				
Nutrition Concepts in Health and Illness	PNP 210	IN	1	PNP 101
Trends in Practical Nursing	PNP 233	IN	1	PNP 101
		Total	**2**	
Semester 4 (Spring) • Ensure all Healthcare Compliance requirements are met prior to Semester 5. • Meet with Academic Advisor to discuss associate degree (Program Code: NUL); or create an account on the QCC job board to search for internships, co-ops and jobs. • Submit an Intent to Graduate Form, located on *The Q*.				
Practical Nursing II: Medical/ Surgical/Mental Health/Leadership Nursing	PNP 235	S	15	PNP 101, PNP 111, PNP 210, PNP 233, PSY 121
		Total	**15**	
Semester 5 (Summer I) • Apply to associate degree (Program Code: NUL); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete all ATI requirements and obtain the "Green Checkmark".				

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Practical Nursing III: Maternal/ Newborn/Pediatric Nursing	PNP 240	SU	6	PNP 235
		Total	**6**	
Total Credits Required:			**46**	

Statistics

Program Outcomes:
Program outcomes are defined as performance indicators that reflect the extent to which the purposes of the program are achieved and by which program effectiveness is documented. Program outcomes are measurable, consumer-oriented indexes designed to evaluate the degree to which the program is achieving its mission and goals. Examples include, but are not limited to, program completion rates, licensure/ certification examination pass rates, and job placement rates.

Program Statistics:
Aggregate Program Completion:

- Expected Level of Achievement developed by QCC PN Faculty (and reported to ACEN accrediting body) are that 70% of students will complete the program within 150% of stated program length beginning with enrollment in first PNP course.
  - 2020-2021: 98%
  - 2021-2022: 100%
  - 2022-2023: 100%
- Expected Level of Achievement developed by QCC PN Faculty (and reported to ACEN accrediting body) are that 50% of students will complete the program on time beginning with enrollment on the first day of the first nursing course and ends with completion of course required for conferral of a certificate.
  - 2021-2022: 67%
  - 2022-2023: 71%

NCLEX Licensure Pass Rates:

- Expected Level of Achievement developed by QCC PN Faculty (and reported to ACEN accrediting body) are at or above National Mean.
  - 2021: National Results = 80% | QCC Results = 73%
  - 2022: National Results = 79% | QCC Results = 78%
  - 2023: National Results = 86% | QCC Results = 91%

Graduate Satisfaction (as answered on Post-Graduate Survey):

- Question asked - “As a graduate, the length of the program prepared me for entry into the novice level of nursing practice”.
  - 100% of the students responded “Agree” or “Strongly Agree” to the above statement

CERTIFICATE - PHC

Public Health Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Healthcare - Public Health Option
- Healthcare

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- Some classes may be offered at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- Some courses may be completed at QCC Southbridge.
- This program may be completed face-to-face.

Program Goals

The Public Health Certificate prepares the student to obtain employment as an entry-level public health worker. Public healthcare workers serve large populations of people and organize their efforts to prevent the spread of diseases through entire communities.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Identify the roles and responsibilities of the public health worker.
- Identify the multiple ways public health affects daily living.
- Explain relationships between the social and behavioral sciences and public health.
- Implement strategies that promote behavior change.
- Understand safe practices as it relates to the public health role.
- Understand the similarities and differences in public and global health including demographic measures of health status and burden of disease.
- Understand the impact of the environment and communicable diseases on the health of populations.
- Describe the basis of chronic diseases on morbidity or mortality and approaches to prevention, early detection, and disease management.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required in the program, as there is no co-operative experience.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Public Health program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: PHC). • Register for and successfully complete all courses to graduate in two semesters. • Meet with Academic Advisor to discuss associate degree (e.g., Program Code: HCPL); or create an account on the QCC job board to search for internships, co-ops and jobs.				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Survey of Personal Health	PHA 100	F/S	3	Placement into college level English
Introduction to Public Health	PHA 101	F/S/SU	3	Placement into college level English
		Total	**13**	
Semester 2 • Apply to associate degree (e.g., Program Code: HCPL); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Introduction to the Chemistry of Living Systems	CHM 101	F/S/SU	4	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Introduction to Global Health	PHA 102	F/S/SU	3	Placement into college level English
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**14**	
Total Credits Required:			**27**	

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.2208.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: publichealth@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - RT

Radiologic Technology

Location

- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- This program will require students to travel to clinical sites within the Worcester County area.
- This program may be completed face-to-face; courses may be taught in person or online.

Program Goals

The Radiologic Technology associate degree program prepares students to serve the global community as medical imaging professionals by meeting specific Program Goals:

- Demonstrate clinical competence.
- Utilize critical thinking skills.
- Employ effective communication skills.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Practice effective patient care, including radiation safety.
- Produce quality diagnostic images according to protocol.
- Modify routine imaging parameters to accommodate patient limitations.
- Assess image quality and implement corrective actions to ensure optimal images.
- Employ appropriate oral communication.
- Utilize effective writing skills.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
- Complete all Discovery Activities listed at www.QCC.edu/radiologic-technology/admission-health-transfer-articulation-agreements.
- English: Placement into college level English.
- Mathematics: Placement into MAT 121 or MAT 122 (QMAT placement score > 21 or appropriate multiple measures or completion of college level mathematics course).
- Biology: Minimum grade of "B" in high school biology or "C+" or higher in any college level biology course (BIO 101 recommended). Required grade must be earned within two attempts of taking and completing the course. Qualifying biology course must be taken within five years of application.
- TEAS Admission Requirement: Applicants must have taken the TEAS within the last five years of applying to the program.
  - A qualifying composite score must be achieved in no more than three attempts within a rolling three-year period (scores from multiple tests cannot be combined).
  - To meet the TEAS admission requirement, applicants must achieve one of the following:
    - A composite TEAS score of 60% or higher **OR**
    - A composite TEAS score between 56% and 59%, with the following minimum GPA requirements (see table below):

TEAS Score	Overall QCC College Biology GPA (4 credit minimum)	Overall QCC College GPA (15 credit minimum)
59	2.7 or higher	2.7 or higher
58	2.8 or higher	2.8 or higher
57	2.9 or higher	2.9 or higher
56	3.0 or higher	3.0 or higher

Program Retention / Progression Requirements:
To be eligible to continue in the program, students must:

- Achieve a grade of "C" or higher in all program courses designated by RDT.
- Achieve a grade of "C" or higher in BIO 111 and BIO 112.
- Maintain documentation of current Healthcare Provider Level BLS/CPR Certification.
- Maintain documentation of immunization currency and satisfactory health status.
- Maintain documentation of annual TB testing.
- Maintain documentation of health insurance.
- Be aware that they may be exposed to bloodborne pathogens. Bloodborne Pathogens means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV). United States Department of Labor, OSHA, September 5, 2019 (www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030).

Program Readmission Requirements:
There is a one-time readmission policy for the program.

- Readmission is not guaranteed and is always based upon space availability.
- Students must meet with Program Director to request readmission immediately following withdrawal or dismissal

from the Radiologic Technology program.
- Students who have been dismissed or administratively withdrawn from a program within the School of Healthcare at Quinsigamond Community College for reasons of "clinically unsafe practice/behavior" or who violate the College's Student Code of Conduct or Policy on Affirmative Action are not eligible for admission/readmission to any Healthcare program.

Program Graduation Requirements:
Students must satisfy all course and program requirements, including regulations related to attendance and conduct, in order to be eligible for graduation.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks and drug testing are required in the program, either annually or every semester. Fingerprinting may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

Additional Cost

See the Program Fees (Page 27).

- Students enrolled in RDT courses are subject to expenses for uniforms and transportation to clinical sites and clinical parking fees.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Radiologic Technology program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0911.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Clinical rotations occur during Fall, Winter, Spring, and Summer semesters. Students are responsible for their own transportation and may be assigned to any clinical education setting affiliated with the Radiologic Technology program.
- Graduates are eligible to apply for certification by examination from the American Registry of Radiologic Technologists and licensing by the Radiation Control Program of MA-DPH (required for employment).
  - A fee of $200.00-$300.00 is required for each credentialing process.

Program Email: radiologictechnology@qcc.mass.edu

Accreditation

The Quinsigamond Community College Radiologic Technology program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), which can be contacted at: Joint Review Committee on Education in Radiologic Technology | 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182 | 312.704.5300 | www.jrcert.org. The program's current award is eight (8) years. General program accreditation information and the current accreditation award letter can be found here.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Summer I & II) • Attend Program and Clinical Orientation sessions (mandatory). • Complete BIO 111 with a grade of "C" or higher. • Complete ENG 101. • Complete either MAT 121 (recommended) or MAT 122 with a grade of "C" or higher.				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Topics in Mathematics **OR**	MAT 121	F/S/SU	3	College level math course or QMAT placement score > 21 or equivalent placement measures or Coreq: MAT 051
Statistics	MAT 122			College level math course or QMAT placement score > 21 or Coreq: MAT 052
		Total	**10**	
Semester 2 (Fall) • Successfully complete required pre-clinical and competency evaluations; demonstrate professional attributes and compliance with policies in the clinical setting. • Complete all RDT courses each semester with grades of "C" or higher.				
Introduction to Psychology **OR**	PSY 101	F/S/SU	3	Placement into college level English
Psychology of Interpersonal Relations	PSY 118	F		
Patient Care & Ethics in Radiology	RDT 102	F	3	Accepted to RT Program
Radiographic Medical Terminology	RDT 104	F	1	Accepted to RT Program
Fundamentals of Radiographic Equipment and Medical Imaging	RDT 110	F	3	Accepted to RT Program, MAT 121 or MAT 122 with a grade of "C" or higher
Radiographic Positioning & Anatomy I	RDT 121	F	3	Coreq: RDT 102, RDT 104
Medical Radiography Clinic I	RDT 131	F	2	Coreq: RDT 110, RDT 121
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**18**	
Semester 3 (Spring) • Successfully complete required pre-clinical and competency evaluations; demonstrate professional attributes and compliance with policies in the clinical setting. • Complete BIO 112 with a grade of "C" or higher.				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Medical Imaging II	RDT 112	S	3	RDT 110
Radiographic Positioning & Anatomy II	RDT 122	S	3	RDT 121, SPH 101
Medical Radiography Clinic II	RDT 132	S	3	RDT 131
Radiation Science	RDT 141	S	2	RDT 110
		Total	**15**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 (Summer I) • Successfully complete required competency evaluations; demonstrate professional attributes and compliance with policies in the clinical setting.				
Medical Radiography Summer Clinic II	RDT 133	SU	2	RDT 132
		Total	**2**	
Semester 5 (Summer II) • Successfully complete required pre-clinical and competency evaluations; demonstrate professional attributes and compliance with policies in the clinical setting.				
Medical Radiography Summer Clinic III	RDT 230	SU	2	RDT 133
		Total	**2**	
Semester 6 (Fall) • Successfully complete required continued competency evaluations; demonstrate professional attributes and compliance with policies in the clinical setting.				
Composition II	ENG 102	F/S/SU	3	ENG 101
Medical Radiography Clinic III	RDT 231	F	3	RDT 230
Imaging Applications	RDT 240	F	4	RDT 112, RDT 122
Medical Radiographic Equipment & Quality Assurance	RDT 245	F	3	RDT 112
		Total	**13**	
Semester 7 (Spring) • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Apply for ARRT certification exam (www.arrt.org) and MA-RCP temporary license (www.mass.gov/how-to/apply-for-a-temporary-radiologic-technologist-license). • Successfully complete required pre-clinical, mandatory and/or elective, and continued competency evaluations; demonstrate professional attributes and compliance with policies in the clinical setting. • Submit an Intent to Graduate Form, located on *The Q*.				
Medical Radiography Clinic IV	RDT 232	S	3	RDT 231
Radiology Seminar	RDT 252	S	4	BIO 112, RDT 231, RDT 240
Radiologic Pharmacology and Pathology	RDT 254	S	3	BIO 112, RDT 231, RDT 240
CT & Cross-Section Anatomy	RDT 260	S	2	ARRT Certification in Radiography and current license by the State of Massachusetts Radiation Control Program, Department of Public Health; or BIO 112 and RDT 231 and RDT 240
		Total	**12**	
Total Credits Required:			**72**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - RS

Respiratory Care

Location

- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- This program may require students to travel to clinical sites that are within a 75-mile radius of the College.

Program Goals

The QCC Respiratory Care associate degree program includes the following Program Goals:

- To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs).
- To prepare graduates to obtain the RRT (Registered Respiratory Therapist) credential.
- To prepare graduates to obtain gainful employment as a Licensed Respiratory Care Practitioner (RCP).

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate professional behaviors consistent with the respiratory care code of ethics, ethical obligations, and professional conduct.
- Demonstrate critical thinking and problem-solving skills, time management skills, interpersonal communication skills, and technical skills necessary to provide competent patient-centered respiratory care in multidisciplinary care settings for patients of all ages.
- Demonstrate the knowledge and application of physical principles of gas and fluid dynamics.
- Demonstrate knowledge and application of anatomy and physiology of the cardiac and pulmonary systems and the mechanisms of homeostatic control for acid/base balance ventilation, gas transport, and circulation for patients of all ages.
- Demonstrate implementation, monitoring, troubleshooting, evaluation, and strategies for discontinuing select therapeutic modalities employed in respiratory therapy such as gas, humidity, bland and medicated aerosol therapies, passive hyperinflation, chest physiotherapy, postural drainage, airway clearance and management techniques, non-invasive and invasive ventilation strategies for patients of all ages.
- Demonstrate knowledge and application of concepts and techniques of patient assessment through inspection, palpation, percussion, and auscultation. The student will demonstrate proficiency in the patient interview and physical examination, arterial blood gas sampling and analysis, basic pulmonary and sleep diagnostics, electrocardiography, imaging, and laboratory diagnostic testing for patients of all ages.
- Demonstrate knowledge and application of the indications, contraindications, hazards, and routes of administration and correct dosages for all classes of respiratory drugs for patients of all ages.
- Demonstrate knowledge and application of the etiology, clinical manifestations, diagnostic and therapeutic of diseases and conditions of the cardiopulmonary patients of all ages.
- Demonstrate basic competencies in the sub-acute care setting.
- Identify the roles and responsibilities of respiratory therapists in alternate care sites (i.e., pulmonary and sleep diagnostics, rehabilitation, and homecare settings).

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
  - GPA: 3.00 or equivalent in high school or 3.00 in college with minimum 10 credits; or 550 Battery Average on GED; or HiSET 45.
- Attendance at a Health Information Session or complete FYE 102 with a grade of “C” or higher.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.
- Interview with Program Director.
- English: Placement into college level English.
- Mathematics: Placement into college level mathematics.
- Qualifying biology course must be taken within five years of application. Required grade must be earned within two attempts of taking and completing the course.
  - Biology: Minimum grade of “B” in high school biology or “C” in college level biology course (BIO 101 recommended). Will accept a “3” on High School Advanced Placement Biology Exam.
- TEAS Admission Requirement: Applicants must have taken the TEAS within the last five years of applying to the program
  - A qualifying composite score must be achieved in no more than three attempts within a rolling three-year period (scores from multiple tests cannot be combined).
  - To meet the TEAS admission requirement, applicants must achieve one of the following:
    - The TEAS admission requirement may be waived

if the applicant has an advanced degree in science (i.e., BS, MS, or higher), or has taken the SAT and received a combined score of 1100 or higher, or received a score of 21 or higher on the ACT on each of the ACT sections **OR**

- A composite TEAS score of 65% or higher **OR**
- A composite TEAS score between 61% and 64%, with the following minimum GPA requirements (see table below):

TEAS Score	Overall QCC College Biology GPA (4 credit minimum)	Overall QCC College GPA (15 credit minimum)
64	3.0 or higher	3.0 or higher
63	3.1 or higher	3.1 or higher
62	3.2 or higher	3.2 or higher
61	3.3 or higher	3.3 or higher

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

- Students should be aware that a prior or current history of a criminal or sexual offense may negatively impact the applicant's ability to obtain a limited work permit while a student in the program, and/or a license to practice within the Commonwealth of Massachusetts after graduation.

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for uniforms/clinical wear, textbooks, parking fees at clinical sites, licensing examinations, CPR certification, health immunizations, physical exams, professional student membership, clinical make-up, and any required skills remediation.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Respiratory Care program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- If an applicant holds the CRT credential awarded by the National Board for Respiratory Care or has completed courses at a CoARC accredited school of Respiratory Care, then the applicant may apply for advanced standing/credits toward a degree from QCC.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0908.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Students accepted to the Respiratory Care program must:
  - Obtain Healthcare Provider Level BLS/CPR Certification prior to beginning the program.

  - Provide documentation of immunization currency and satisfactory health status and be cleared by August 15 of the respective year.
  - Maintain health insurance throughout their enrollment.
  - Provide annual TB test results.
- Courses in both Respiratory Care and Liberal Arts are required in the program curriculum. Respiratory Care courses include clinical experiences in area hospitals, rehabilitation/long-term care facilities and home care settings, as well as classroom study and laboratory practice on campus.
- All clinical experiences are under the supervision of QCC Respiratory Care faculty or clinical preceptors, and entrance into all clinical agencies will require a standardized school uniform and identification nametag.
- All Respiratory Care students must:
  - Achieve a grade of "C" or higher in all program courses designated by RCP.
  - Achieve a grade of "C" or higher in BIO 111, BIO 112, and BIO 232.
  - Satisfy all course and program requirements, including regulations on conduct, professionalism, and attendance.
  - Demonstrate satisfactory performance in both the clinical and laboratory setting.
- Readmission is not guaranteed and is based on space availability and recommendation by faculty; review the readmission policy outlined in the QCC Handbook.
- Licensure by the Massachusetts Department of Public Health is required to work as a Respiratory Therapist within the Commonwealth of Massachusetts. For additional information on licensure, please visit www.mass.gov/respiratory-care-licensing.
- A Social Security Number is mandatory for all NBRC examinations.
- This program prepares students for further study at four-year colleges and universities.

Program Email: respiratorycare@qcc.mass.edu

Accreditation

The Quinsigamond Community College Respiratory Care program is fully accredited by the Commission on Accreditation for Respiratory Care (CoARC), which can be contacted at: Commission on Accreditation for Respiratory Care | 264 Precision Boulevard, Telford, TN 37690 | 817.283.2835 | www.coarc.com.

The Quinsigamond Community College Respiratory Care program, CoARC number 200037, awards an Associate in Science in Respiratory Care, and is located at the Quinsigamond Community College Healthcare and Workforce Development Center, 25 Federal St. Worcester MA, 01608, and is accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com).

CoARC accredits respiratory therapy education programs in the United States. To achieve this end, it utilizes an "outcomes-based" process. Programmatic outcomes are performance indicators that reflect the extent to which the educational goals of the program are achieved and by which program effectiveness is documented.

Programmatic outcomes data reported on the **CoARC Programmatic website** include:

- 3-year period being reported;
- RRT Credentialing Success;
- Attrition;
- Job Placement;
- Overall Graduate Satisfaction;
- Overall Employer Satisfaction;
- Total Number of Program Enrollees;
- Total Number of Program Graduates;
- Maximum Annual Enrollment.

Additional information can be found on the **CoARC Website**.

Commission on Accreditation for Respiratory Care
264 Precision Blvd
Telford, TN, 37690
817.283.2835

Statistics

Program Outcomes:
Program outcomes are defined as performance indicators that reflect the extent to which the purposes of the program are achieved and by which program effectiveness is documented. Program outcomes are measurable, consumer-oriented indexes designed to evaluate the degree to which the program is achieving its mission and goals. Examples include, but are not limited to, program completion rates, licensure/certification examination pass rates, and job placement rates.

Program Statistics:
Exam Pass Rates (TMC and CSE):

TMC High Cut Score (Therapist Multiple Choice Exam) Pass Rates				
Graduation Year	**Graduates Tested**	**Total Passing (%)**	**First Time Passing (%)**	**Passing Repeaters**
2017	7	7 (100%)	5 (71%)	2 (29%)
2018	10	10 (100%)	10 (100%)	0 (0%)
2019	5	5 (100%)	5 (100%)	0 (0%)
2020	9	9 (100%)	8 (88.9%)	1 (11.1%)
2021	4	4 (100%)	4 (100%)	0 (0%)
2022	5	5 (100%)	5 (100%)	0 (0%)
2023	6	5 (83.3%)	4 (66.7%)	1 (16.7%)

CSE (Clinical Simulation Exam) Pass Rates				
Graduation Year	**Graduates Tested**	**Total Passing (%)**	**First Time Passing (%)**	**Passing Repeaters**
2017	5	4 (80%)	N/A	N/A
2018	10	9 (90%)	7 (70%)	2 (20%)
2019	5	5 (100%)	5 (100%)	0 (0%)
2020	9	9 (100%)	8 (88.9%)	1 (11.1%)
2021	4	4 (100%)	4 (100%)	0 (0%)
2022	5	5 (100%)	4 (80%)	1 (20%)
2023	5	4 (80%)	1 (20%)	3 (60%)

Credential Earned (RRT):

- The QCC Respiratory Care program received the CoARC Distinguished RRT Credentialing Success Award in 2020 and 2021 for meeting or exceeding accreditation thresholds and having a 90% or higher on students achieving the RRT credential (three-year average).

RRT Credential Earned		
Graduation Year	**Graduates (#)**	**RRT Credential Earned**
2017	7	6 (86%)
2018	10	9 (90%)
2019	5	5 (100%)
2020	9	9 (100%)
2021	4	4 (100%)
2022	5	5 (100%)
2023	6	4 (67%)

Job Placement:

- 100% of QCC Respiratory Care program graduates are able to secure a full-time job placement within six months of graduation.

Graduate Job Placement			
Graduation Year	**Graduates (#)**	**Employed**	**Job Placement (%)**
2017	7	7	100%
2018	9	9	100%
2019	5	5	100%
2020	10	10	100%
2021	4	4	100%

Graduate Satisfaction:

- 100% of QCC Respiratory Care program graduates from the graduating classes from 2017 to 2021 were satisfied with the program and felt that they were prepared to enter the workforce as a Respiratory Therapist by rating the program a "3" or higher on a 5-point Likert Scale.

Graduate Satisfaction			
Graduation Year	**Graduates (#)**	**Employed**	**Job Placement (%)**
2017	7	7	100%
2018	9	9	100%
2019	5	5	100%
2020	10	10	100%
2021	4	4	100%

Employer Satisfaction:

- 100% of employers surveyed were satisfied with students graduating from the QCC Respiratory Care program and felt that they were adequately prepared to enter the workforce as a Respiratory Therapist by scoring a "3" or higher on a 5-point Likert Scale.

Employer Satisfaction			
Graduation Year	**Graduates (#)**	**Employed**	**Positive Survey Items (%)**
2017	7	7	100%
2018	9	9	100%
2019	5	5	100%
2020	10	10	100%
2021	4	4	100%

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Summer) • Register for and successfully complete all courses to graduate in six semesters. • Complete BIO 111 and ENG 101.				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**10**	
Semester 2 (Fall) • Complete all RCP courses each semester with grades of "C" or higher.				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Essentials for Respiratory Care I	RCP 125	F	3	BIO 111, ENG 101
Respiratory Care Modalities I	RCP 126	F	5	BIO 111, ENG 101
Cardiopulmonary Physiology	RCP 127	F	3	BIO 111, ENG 101
		Total	**15**	
Semester 3 (Spring) • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Apply for a Student License.				
Essentials for Respiratory Care II	RCP 135	S	3	BIO 112, RCP 125, RCP 126, RCP 127
Respiratory Care Modalities II	RCP 136	S	7	BIO 112, RCP 125, RCP 126, RCP 127
Pharmacology	RCP 137	S	2	BIO 112, RCP 125, RCP 126, RCP 127
		Total	**12**	
Semester 4 (Summer) • Complete BIO 232 with a grade of "C" or higher.				
Medical Microbiology	BIO 232	F/S/SU	4	BIO 112 or CHM 105 or CHM 123
Composition II	ENG 102	F/S/SU	3	ENG 101
Critical Care I	RCP 246	SU	2	RCP 135, RCP 136, RCP 137
		Total	**9**	
Semester 5 (Fall) • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs.				
Advanced Patient Assessment	RCP 255	F	3	BIO 232, ENG 102, RCP 246
Critical Care II	RCP 256	F	8	BIO 232, ENG 102, RCP 246
Cardiopulmonary Diagnostics	RCP 257	F	3	BIO 232, ENG 102, RCP 246
		Total	**14**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 6 (Spring) • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation (i.e., write a resume) and to learn more about QCC's job board. • Register to take the NBRC credentialing examinations after graduation. • Submit an Intent to Graduate Form, located on *The Q*.				
Bioethics	IDS 215	S	3	Coreq: ENG 101
Pulmonary Diseases and Conditions	RCP 265	S	3	RCP 255, RCP 256, RCP 257
Neonatal and Pediatric Respiratory Care	RCP 266	S	8	RCP 255, RCP 256, RCP 257
Respiratory Care Seminar	RCP 267	S	2	RCP 255, RCP 256, RCP 257
		Total	**16**	
Total Credits Required:			**76**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - SUR

Surgical Technology

Location

- This program may be completed at QCC at the Healthcare and Workforce Development Center in downtown Worcester.
- This program will require students to travel to clinical sites within the Worcester County area.

Program Goals

The Surgical Technology associate degree program is designed to prepare the beginning practitioner to possess the knowledge, skills, and abilities necessary to provide services in the operating room in the role of surgical technologist as part of the surgical team. Instruction includes components of the basic sciences, operating room policies and procedures, safe patient care, operating room techniques, surgical procedures, and clinical practice.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Correlate the knowledge of anatomy, physiology, pathophysiology, and microbiology to their role as a surgical technologist.
- Demonstrate a safe level of practice and knowledge in their role as a surgical technologist.
- Identify the purpose and principles for maintaining environmental control in the operating room suite.
- Identify the various classifications of surgical armamentarium, including instrumentation, sutures, and equipment used during the perioperative experience.
- Acquire an understanding of the ethical, legal, moral, and medical values related to the patient and the operating room team during the perioperative experience.
- Identify the elements, actions, and use of medications and anesthetics used during the perioperative experience.
- Demonstrate knowledge and utilize relevant medical terminology.
- Demonstrate safe practice techniques in regards to perioperative routines, patient transportation, positioning, and emergency procedures.
- Demonstrate and integrate principles of surgical asepsis as part of the perioperative experience.
- Carry out the principles and techniques of medical asepsis as part of the perioperative experience.
- Communicate effectively using both written and oral formats.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Attendance at a Health Information Session or complete FYE 102 with a grade of "C" or higher.
- Must show evidence of being compliant with the immunization requirements specified by the Massachusetts Department of Public Health. Additional immunization requirements will be required for clinical experiences.
- TEAS Admission Requirement: Applicants must have taken the TEAS within the last five years of applying to the program.
  - A qualifying composite score must be achieved in no more than three attempts within a rolling three-year period (scores from multiple tests cannot be combined).
  - To meet the TEAS admission requirement, applicants must achieve one of the following:
    - A composite TEAS score of 60% or higher **OR**
    - A composite TEAS score between 56% and 59%, with the following minimum GPA requirements (see table below):

TEAS Score	Overall QCC College Biology GPA (4 credit minimum)	Overall QCC College GPA (15 credit minimum)
59	2.7 or higher	2.7 or higher
58	2.8 or higher	2.8 or higher
57	2.9 or higher	2.9 or higher
56	3.0 or higher	3.0 or higher

Program Retention / Progression Requirements:
To be eligible to continue in the program, students must:

- Achieve a grade of "C" or higher in all program courses designated by ALH and SUR.
- Achieve a grade of "C" or higher in BIO 111 and BIO 112.
- Maintain documentation of current Healthcare Provider Level BLS/CPR Certification.
- Maintain documentation of immunization currency and satisfactory health status.
- Maintain documentation of annual TB testing.
- Maintain documentation of health insurance.

Program Readmission Requirements:
There is a one-time readmission policy for the program.

- Readmission is not guaranteed and is always based upon space availability. See the QCC Student Handbook and Program Student Handbook for the complete readmission procedure.
- Students who did not earn a grade of "C" or higher in

SUR 131 need to re-apply to the program through the Admissions Office. Students should contact the Program Coordinator as soon as they receive the notification of being placed on the waitlist (by April 15) to discuss readmission.

- Students who did not earn a grade of "C" or higher in any other SUR course should contact the Program Coordinator by April 15 to discuss readmission.
- Students who have been dismissed or administratively withdrawn from a program within the School of Healthcare at Quinsigamond Community College for reasons of "clinically unsafe practice/behavior" or who violate the College's Student Code of Conduct or Policy on Affirmative Action are not eligible for admission/readmission to any Healthcare program.

Program Graduation Requirements:
Students must satisfy all course and program requirements, including regulations related to attendance and conduct, in order to be eligible for graduation.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and National Background checks are required in the program, either annually or every semester. Fingerprinting and drug testing may be required. Fingerprinting and drug testing results must meet clinical requirements. An issue with CORI/SORI, National Background, fingerprinting and/or drug testing could prevent a student from participating in a clinical/field rotation, which could result in dismissal from the program.

Additional Cost

See the Program Fees (Page 27).

- Students should anticipate additional expenses for textbooks, credentialing exam, transportation, badges, medical uniforms (scrubs for lab), and parking fees at clinical sites.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

- The QCC Surgical Technology program is deeply committed to diversity and fostering an inclusive environment that represents the diverse population of healthcare professionals. We value the uniqueness and potential of every learner and strive to create a culture of respect and equality, welcoming all students, including individuals with disabilities. We encourage students with disabilities to disclose their needs and seek accommodations to fully engage in our program. All disability-related conversations and requests are handled through a confidential process to protect the privacy of our students. After reviewing the Technical Performance Standards, students who have questions about accommodations should contact QCC Student Accessibility Services as soon as possible. Given the complexities of clinical-based programs, additional time may be needed to effectively implement accommodations.
- For more information, contact QCC Student Accessibility Services:
  - Phone: 508.854.4471
  - Email: SAS@qcc.mass.edu
  - Office Location: Room 246A, Administration Building, QCC Worcester (Main Campus)
  - Website: www.qcc.edu/support/specialized-support/student-accessibility-services

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.0909.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Students that are graduates of the certificate program returning for the associate degree program should see the Program Coordinator.
- Students are responsible for their own transportation, making reliable transportation essential.
- Obtaining I.D. badges for some clinical sites will incur an extra cost for students.
- Students will also need to budget for parking fees at certain clinical sites.

Program Email: surgicaltechnology@qcc.mass.edu

Accreditation

The Quinsigamond Community College Surgical Technology program is accredited by the Commission on Accreditation

of Allied Health Education Programs (CAAHEP), upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA). CAAHEP can be contacted at: Commission on Accreditation of Allied Health Education Programs | 727.210.2350 | www.caahep.org. The Surgical Technology program was last accredited on May 20, 2011 by CAAHEP.

Statistics

Program Outcomes:
Program outcomes are defined as performance indicators that reflect the extent to which the purposes of the program are achieved and by which program effectiveness is documented. Program outcomes are measurable, consumer-oriented indexes designed to evaluate the degree to which the program is achieving its mission and goals. Examples include, but are not limited to, program completion rates, licensure/certification examination pass rates, and job placement rates.

- OAE Pass Rate Posting Requirement Standard V.A.4. requires that the sponsoring institution (school) publish, maintain, and make accessible to the public on its website programmatic outcomes. The ARC/STSA requires that all CAAHEP-accredited surgical technology and surgical assisting programs publish, at a minimum, the program's approved outcomes assessment examination pass rate results. The data published should be consistent with the most recent Annual Report filed with the ARC/STSA.

Program Statistics:
Surgical Technology Certification Exam Pass Rates:

- Expected Level of Achievement developed by QCC ST Faculty are that 80% of first-time test takers will successfully complete the Surgical Technology Certification exam.
    - 2021: QCC Results = 100%
    - 2022: QCC Results = 89%
    - 2023: QCC Results = 88%
    - 2024: QCC Results = 100%

Graduates Obtaining Jobs:

- Expected Level of Achievement developed by QCC ST Faculty are that 80% of responding graduates seeking employment are employed within one year of graduation.
    - 100% of responding graduates have obtained jobs

Graduate Satisfaction (as answered on Program Completion Survey):

- Question asked - "Am I prepared to enter the workforce as a Certified Surgical Technologist?"
    - 100% of the graduates responded "Yes" to the above statement

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: SUR). • Register for and successfully complete all courses to graduate in four semesters. • Contact Career Services (www.QCC.edu/APexams) to receive credit for High School (HS) Advanced Placement (AP) Exams. QCC School Code: 3714. • Complete ENG 101; or AP English/Language and Composition, with AP Exam grade of "3" or higher, to count as ENG 101. • Complete PSY 101; or AP Psychology, with AP Exam grade of "3" or higher, to count as PSY 101.				
Introduction to Medical Terminology	ALH 102	F/S/SU	3	Placement into college level English
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
Surgical Procedures I	SUR 131	F	3	BIO 101 or HS AP Biology, Placement into college level English
		Total	**16**	
Semester 2 (Spring) • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete ENG 102; or AP English/Literature and Composition, with AP Exam grade of "3" or higher, to count as ENG 102.				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Composition II	ENG 102	F/S/SU	3	ENG 101
Surgical Procedures II	SUR 132	S	8	BIO 111 and SUR 131 with grades of "C" or higher
		Total	**15**	
Semester 3 (Fall) • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs.				
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
Surgical Procedures III	SUR 231	F	12	BIO 112 and SUR 132 with grades of "C" or higher
		Total	**15**	
Semester 4 (Spring) • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit application to NBSTA for certificate examination. • Submit an Intent to Graduate Form, located on *The Q.*				
Clinical	SUR 232	S	8	SUR 231 with a grade of "C" or higher
Surgical Procedures IV	SUR 233	S	3	SUR 231 with a grade of "C" or higher
Humanities Elective	---	F/S/SU	3	
		Total	**14**	
Total Credits Required:			**60**	

For information on electives, see p. 373-374.

Notes

CERTIFICATE - AAC

Advanced Automotive Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Automotive Technology

Location

- This program may be completed at QCC at Burncoat (the QCC Automotive Technology Laboratory located at Burncoat High School in Worcester).
- This program may be completed face-to-face.

Program Goals

The Advanced Automotive Certificate program is designed to prepare students to become professional automotive technicians and fill the need of area dealerships and independent repair facilities. The program trains students in the advanced areas of automotive repair to prepare students to become ASE Master Technicians. The program builds a foundation of knowledge allowing graduates to adapt to new technology and grow as an employee. The program also provides the opportunity to transfer to a bachelor's degree program in a related field of study.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Diagnose and repair automotive manual and automatic transmission/driveline systems.
- Diagnose and repair electronic power-train control systems.
- Diagnose and repair components of the electrical and electronic systems.
- Sit for the ASE Master Technician certification examinations.
- Adapt to new technology and service procedures as they are developed, and thus, build a professional foundation in all aspects of automotive systems and service techniques.
- Grow as an automotive technician, moving up the career ladder.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

- Enrollment in Automotive Technology programs is restricted to 20 full-time students per academic year on a first-come, first-served basis, beginning each Fall semester.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Completion of the Ford Maintenance and Light Repair Certificate (Program Code: AMF) or equivalent.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

- Applicants should be aware that some employers may require CORI/SORI checks, fingerprinting, and drug testing as part of the hiring process.

Additional Cost

See the Program Fees (Page 27).

- Students enrolled in AUT 299 may incur an additional expense for professional liability insurance.
- Students are responsible for the purchase of tools prior to employment.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 47.0604.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Register for and successfully complete all courses to graduate in two semesters. • Meet with Program Coordinator to discuss readiness for AUT 299. • Meet with Career Services to discuss the co-op process and leads for co-op placements. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for AUT 299). See www.QCC.edu/career-services. • Create an account on the QCC job board to search for internships, co-ops and jobs.				
Automotive Drive Train	AUT 251	F	4	AUT 121, Coreq: AUT 253
Automatic Transmission & Transaxle	AUT 253	F	4	Coreq: AUT 251
Pre Cooperative Education Seminar	CPS 298	F/S	0	
		Total	**8**	
Semester 2 (Spring) • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Automotive Electronics	AUT 113	S	3	AUT 111, Coreq: AUT 211
Electronic Powertrain Control Systems	AUT 211	S	5	AUT 125, Coreq: AUT 113
Cooperative Work Experience **OR**	AUT 299	F/S/SU	3	CPS 298, Approval of Program Coordinator
Business Elective	---			
		Total	**11**	
Total Credits Required:			**19**	

Additional Information

- Applicants should be aware that some employers may require CORI/SORI checks, fingerprinting, and drug testing as part of the hiring process.
- Applicants to this program must have a valid learner's permit and a driving record that is suitable for prospective employer's insurance requirements. A Request for Driving Record will be forwarded to the MA Department of Transportation on behalf of each student accepted to the program each Fall semester.
- Students should note that a valid driver's license will be required for employment in this field; individuals with driving and/or legal infractions should be aware that their actions may impact their employability.
- Students may earn NC3: Multimeter Certification (EEDM504D).
- Students may earn credits from Subaru University by completing online training.

Program Email: autotech@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN APPLIED SCIENCE - AT

Automotive Technology

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Advanced Automotive Certificate
- Automotive Technology - Ford Maintenance and Light Repair Certificate

Location

- This program may be completed at QCC Worcester (Main Campus) and at QCC at Burncoat (the QCC Automotive Technology Laboratory located at Burncoat High School in Worcester).
- This program may be completed face-to-face; some required courses may be completed online.

Program Goals

The Automotive Technology associate degree program is designed to prepare students to become professional automotive technicians and fill the need of area dealerships and independent repair facilities. The program trains students in all eight areas of automotive repair to prepare students to become ASE Master Technicians. The program builds a foundation of knowledge allowing graduates to adapt to new technology and grow as an employee. The program also provides the opportunity to transfer to a bachelor's degree program in a related field of study.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Diagnose and repair components of the electrical and electronic systems.
- Diagnose and repair automotive engine and power transmission systems.
- Diagnose and repair components of the steering and suspension systems.
- Diagnose and repair components of hydraulic and anti-lock brake systems.
- Diagnose and repair components of the climate control system.
- Diagnose and repair electronic power-train control systems.
- Sit for the ASE Master Technician certification examinations.
- Adapt to new technology and service procedures as they are developed, and thus, build a professional foundation in all aspects of automotive systems and service techniques.
- Grow as an automotive technician, moving up the career ladder.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

- Enrollment in Automotive Technology programs is restricted to 20 full-time students per academic year on a first-come, first-served basis, beginning each Fall semester.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

- Applicants should be aware that some employers may require CORI/SORI checks, fingerprinting, and drug testing as part of the hiring process.

Additional Cost

See the Program Fees (Page 27).

- Students enrolled in AUT 299 may incur an additional expense for professional liability insurance.
- Students are responsible for the purchase of tools prior to enrollment in AUT 299 and/or employment.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 47.0604.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: AT). • Register for and successfully complete all courses to graduate in five semesters. • Complete AUT 102, AUT 111, and AUT 131. • Complete ENG 101. • Complete prerequisite(s) for the Mathematics Elective or Science Elective or Lab Science Elective.				
Fundamentals of Automotive Service	AUT 102	F	3	Coreq: AUT 111, AUT 131
Automotive Electrical Systems	AUT 111	F	4	Coreq: AUT 102, AUT 131
Brake Systems	AUT 131	F	3	Coreq: AUT 102, AUT 111
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		Total	**13**	
Semester 2 (Spring) • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete ENG 102 or ENG 105.				
Basic Gasoline Engines	AUT 121	S	4	AUT 102, Coreq: AUT 125
Engine Testing/Performance Analysis	AUT 125	S	4	AUT 102, AUT 111, Coreq: AUT 121
Composition II **OR**	ENG 102	F/S/SU	3	ENG 101
Technical Writing	ENG 105	F/S		
Mathematics Elective or Science Elective or Lab Science Elective	---	F/S/SU	3-4	
		Total	**14-15**	
Semester 3 (Summer) • Complete AUT 133 and AUT 141. • Complete FYE 101 or PSY 158.				
Suspension, Steering & Alignment	AUT 133	SU	3	AUT 102, Coreq: AUT 141
Climate Control System	AUT 141	SU	3	AUT 121, Coreq: AUT 133
First Year Experience **OR**	FYE 101	F/S/SU	3	Placement into college level English
Human Relations in Organizations	PSY 158			
		Total	**9**	
Semester 4 (Fall) • Meet with Program Coordinator to discuss readiness for AUT 299. • Contact Career Services to complete all requirements of CPS 298 (required prior to registration for AUT 299). See www.QCC.edu/career-services. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs.				
Automotive Drive Train	AUT 251	F	4	AUT 121, Coreq: AUT 253

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Automatic Transmission & Transaxle	AUT 253	F	4	Coreq: AUT 251
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
		Total	**14**	
Semester 5 (Spring) • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Automotive Electronics	AUT 113	S	3	AUT 111, Coreq: AUT 211
Electronic Powertrain Control Systems	AUT 211	S	5	AUT 125, Coreq: AUT 113
Cooperative Work Experience **OR**	AUT 299	F/S/SU	3	CPS 298, Approval of Program Coordinator
Business Elective	---			
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**14**	
Total Credits Required:			**64-65**	

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Applicants should be aware that some employers may require CORI/SORI checks, fingerprinting, and drug testing as part of the hiring process.
- Applicants to this program must have a valid learner's permit and a driving record that is suitable for prospective employer's insurance requirements. A Request for Driving Record will be forwarded to the MA Department of Transportation on behalf of each student accepted to the program each Fall semester.
- Students should note that a valid driver's license will be required for employment in this field; individuals with driving and/or legal infractions should be aware that their actions may impact their employability.
- Students may earn NC3: Multimeter Certification (EEDM504D).
- Students may earn credits from Subaru University by completing online training.

Program Email: autotech@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - AMF

Automotive Technology - Ford Maintenance and Light Repair Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Automotive Technology

Location

- This program may be completed at QCC at Burncoat (the QCC Automotive Technology Laboratory located at Burncoat High School in Worcester).
- This program may be completed face-to-face.

Program Goals

The QCC Ford Maintenance and Light Repair Certificate curriculum is designed by Ford Motor Company to prepare certified light line technicians for Ford/Lincoln dealerships. The program features hands-on training on late model vehicles, as well as classroom instruction.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Perform tasks to diagnose and repair components of the electrical systems.
- Diagnose and repair automotive engine systems.
- Diagnose and repair components of the steering and suspension systems.
- Diagnose and repair components of hydraulic and anti-lock brake systems.
- Diagnose and repair components of the climate control system.
- Sit for the ASE Technician certification examinations.
- Adapt to new technology and service procedures as they are developed, and thus, build a professional foundation in all aspects of automotive systems and service techniques.
- Grow as an automotive technician, moving up the career ladder.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

- Enrollment in Automotive Technology programs is restricted to 20 full-time students per academic year on a first-come, first-served basis, beginning each Fall semester.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

- Applicants should be aware that some employers may require CORI/SORI checks, fingerprinting, and drug testing as part of the hiring process.

Additional Cost

See the Program Fees (Page 27).

- Students enrolled in AUT 299 may incur an additional expense for professional liability insurance.
- Students are responsible for the purchase of tools prior to employment.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 47.0604.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Register for and successfully complete all courses to graduate in three semesters. • Meet with Academic Advisor to discuss associate degree (Program Code: AT); or create an account on the QCC job board to search for internships, co-ops and jobs.				
Fundamentals of Automotive Service	AUT 102	F	3	Coreq: AUT 111, AUT 131
Automotive Electrical Systems	AUT 111	F	4	Coreq: AUT 102, AUT 131
Brake Systems	AUT 131	F	3	Coreq: AUT 102, AUT 111
		Total	**10**	
Semester 2 (Spring) • Apply to associate degree (Program Code: AT); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board.				
Basic Gasoline Engines	AUT 121	S	4	AUT 102, Coreq: AUT 125
Engine Testing/ Performance Analysis	AUT 125	S	4	AUT 102, AUT 111, Coreq: AUT 121
		Total	**8**	
Semester 3 (Summer) • Submit an Intent to Graduate Form, located on *The Q*.				
Suspension, Steering & Alignment	AUT 133	SU	3	AUT 102, Coreq: AUT 141
Climate Control System	AUT 141	SU	3	AUT 121, Coreq: AUT 133
		Total	**6**	
Total Credits Required:			**24**	

Additional Information

- Applicants should be aware that some employers may require CORI/SORI checks, fingerprinting, and drug testing as part of the hiring process.
- Applicants to this program must have a valid learner's permit and a driving record that is suitable for prospective employer's insurance requirements. A Request for Driving Record will be forwarded to the MA Department of Transportation on behalf of each student accepted to the program each Fall semester.
- Students should note that a valid driver's license will be required for employment in this field; individuals with driving and/or legal infractions should be aware that their actions may impact their employability.
- Students may earn NC3: Multimeter Certification (EEDM504D).
- Students may earn credits from Subaru University by completing online training.

Program Email: autotech@qcc.mass.edu

For information on electives, see p. 373-374.

Aviation Maintenance Technology

Location

- Plymouth Municipal Airport, 246 South Meadow Road, Plymouth, MA 02360, Gate 6, Building S3-H1 & H2

Program Goals

The Aviation Maintenance Technology (AMT) program is offered through an articulation agreement with Cape Cod Community College (CCCC). General education requirements can be taken at Quinsigamond Community College (QCC). All AMT courses must be taken at the CCCC aviation training facility, located in Plymouth, MA. Students must meet the admissions requirements to the CCCC AMT program. The AMT program at CCCC includes 2000 clock hours of Federal Aviation Administration (FAA) approved curriculum. There are 44 subjects designed to prepare students for FAA examination and certification.

Student Learning Outcomes

Upon completion of the program at CCCC, graduates will be able to:

- Be prepared for FAA examination and certification.

Admissions Process

For admission to CCCC, apply online at https://campusweb.capecod.edu/ICS/Admissions/Apply_Online.jnz. To schedule a tour of the aviation facility, contact the AMT Student Retention Specialist at 508.375.5062. Note: There is a new AMT class starting every Spring, Summer, and Fall semester.

Program Admissions Requirements

Students must meet the admissions requirements to the CCCC AMT program. For additional information, visit www.capecod.edu/amtrequirements/.

- Must have completed or exceeded ENL020 and ENL050 or satisfactory basic skills assessment/Accuplacer.
- Students that option to take the college Accuplacer/ Skills Assessment must score 68 or higher in Reading Comprehension and 86 or higher in Sentence Skills.

CORI, SORI, Finger Printing & Drug Testing

In order 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 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 [CCCC] 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. The College's assessment of CORI records is based on regulations issued by the Executive Office of Health and Human Services, 101 Code of Massachusetts Regulations 15.00-15.17. SORI checks are performed pursuant to Massachusetts General Laws, Chapter 6, Section 178C-178P. For additional information, visit www.capecod.edu/corisori/.

Additional Cost

For tuition, fees, and additional costs, visit https://live-capecod.cleancatalog.io/tuition-and-fees.

Technical Performance Standards

In order to successfully complete the AMT program and work in the field of aviation maintenance, certain physical technical standards must be satisfied and maintained throughout the program and in the industry. All AMT students must be able to satisfy the following standards with or without a reasonable accommodation.

- Communication
  - Communicate verbally in understandable English, including the ability to hear and speak normally without electronic assistance.
  - Participate in classroom discussions and team projects during class, including shop/lab time.
- Vision
  - See and accurately read all written assignments, texts, manuals, and other required materials in English.
  - Have vision abilities, including close vision, distance vision, and ability to adjust focus.
- Physical
  - Ability to lift 30-50lbs. unassisted in a safe manner.
  - Ability to sit, walk, and stand for extended periods of time.
  - Ability to kneel, crouch, stoop, crawl, lie down, reach, twist, handle, finger, and feel.
  - Ability to raise arms over one's head.
  - Use scaffolds, ladders, and aviation specific equipment.
  - Use of hand, power tools, and testing equipment.
  - Have no disease or disability that does not allow the contact or use of required tools, chemicals, or equipment needed to perform essential duties and tasks.
  - Work often outdoors or inside hangar in inclement weather conditions.
- Behavioral/Mental Performance

- Function safely, effectively, and calmly.
- Prioritize and manage tasks simultaneously.
- Exhibit social skills necessary to interact with classmates, faculty and staff, visitors, and industry.
- Maintain personal hygiene consistent with program dress code guidelines.
- Display ethical attitudes and actions consistent with professional behavior of the Aircraft Mechanic's Creed and FAA regulations.
- Display the social skills to behave with politeness, tact, and sensitivity to others in all settings.
- Exhibit respect for cultural and ethnic differences of peers and individuals in the classroom.
- Remain free from alcohol and/or chemical impairment in classroom and lab settings at all times.

Career Outlook

For occupational employment statistics information, visit the United States Department of Labor - Bureau of Labor Statistics website at www.bls.gov/oes/current/oes493011.htm. For commercial market outlook information, visit the Boeing Report at www.boeing.com/commercial/market/commercial-market-outlook/.

Transfer Articulations & Opportunities

The AMT program is offered through an articulation agreement with CCCC.

Additional Information

- The AMT program at CCCC includes 2000 clock hours of Federal Aviation Administration (FAA) approved curriculum.
- There are 44 subjects designed to prepare students for FAA examination and certification.
- For additional information about this program, visit the CCCC AMT website at www.capecod.edu/aviation/.

Program Email: amt@qcc.mass.edu

Curriculum

Courses (general education requirements) that may be taken at QCC (22-23 total credits required):

- CIS 111
- ENG 101
- ENG 102
- MAT 100 or MAT 122 or MAT 231 or MAT 233 (Note: MAT 231 is not currently offered)
- PHY 101
- Behavioral Science Elective(s) and/or Social Science Elective(s) - two Electives (6 credits total)

CERTIFICATE - HVAC

Heating Ventilation Air Conditioning Certificate

Location

- Classes are currently scheduled evenings only at Worcester Technical High School.

Program Goals

The QCC HVAC/R program will provide successful graduates with the skills needed to enter the HVAC/R field as an entry-level technician who can install, maintain, and repair a wide variety of HVAC/R equipment. Graduates of the QCC Heating Ventilation Air Conditioning Certificate will also possess the knowledge, skills, and abilities that will ensure the safe and energy-efficient operation of HVAC/R equipment.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Solder, braze, and flare copper tubing.
- Safely wire and install electrical circuits.
- Use electrical meters to make electrical measurements.
- Understand and interpret wiring schematics.
- Troubleshoot electrical problems.
- Evacuate, charge, and recover refrigerant from air conditioning and refrigeration systems.
- Troubleshoot air conditioning and refrigeration systems.
- Troubleshoot heating systems.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- Laptop Computer: Students enrolled in any HVC course may be required to bring their own computer to class; contact the Program Coordinator for minimum hardware and software requirements.
- Hand Tools for Lab Use: Students enrolled in certain HVC courses may be required to purchase basic hand tools utilized in the laboratory; contact the Program Coordinator for a required tool list.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 47.0201.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: hvac@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Register for and successfully complete all courses to graduate in two semesters. • Create an account on the QCC job board to search for internships, co-ops and jobs.				
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Basic Refrigeration Systems and Heat Theory	HVC 101	F/S	4	Enrollment limited to HVC majors only, Coreq: HVC 102, HVC 108
Basic Electricity	HVC 102	F/S	4	Enrollment limited to HVC majors only, Coreq: HVC 101, HVC 108
Motors and Motor Controls	HVC 108	F/S	4	Enrollment limited to HVC majors only, Coreq: HVC 101, HVC 102
		Total	**15**	
Semester 2 (Spring) • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Comfort Cooling Systems	HVC 107	F/S	4	HVC 101, Enrollment limited to HVC majors only, Coreq: HVC 109, HVC 110
Oil Heating Systems	HVC 109	F/S	4	HVC 101, Enrollment limited to HVC majors only, Coreq: HVC 107, HVC 110
Gas Heating Systems	HVC 110	F/S	4	HVC 101, Enrollment limited to HVC majors only, Coreq: HVC 107, HVC 109
		Total	**12**	
Total Credits Required:			**27**	

For information on electives, see p. 373-374.

CERTIFICATE - UTC

Utility Technology Certificate

Location

- This program may be completed at QCC Worcester (Main Campus) and at a utility training facility.
- This program may be completed face-to-face.

Program Goals

The Utility Technology Certificate is designed to prepare students for entry-level positions in the electrical, gas, and/or communications utility industry. The utility industry has forecast a strong need for technologically-literate employees in the next several years for positions, such as overhead and underground line workers, meter workers, substation maintenance personnel, gas workers, and communication workers. The program includes courses that provide students with an introduction to the utility industry. In addition, students will demonstrate their practiced and acquired skills learned in the classroom as well as field work experience with utility partners.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Develop the skills needed for the understanding of business office technology, operating systems functions, Internet technology, and productivity suites.
- Be aware of the requirements for employment and certifications needed to compete for employment in the utility industry.
- Be introduced to the basic principles of utility installations, including basic theory of electric, gas, and communications.
- Apply the concepts and methods of mathematics to solve problems.
- Develop critical thinking and reading, thesis development, organization and grammatical correctness, as well as evaluate, incorporate, and document sources from print, Internet, and a library database to support their writing.
- Continue to gain knowledge of the principles of utility work methods along with government regulation and facility installations.
- Gain an understanding of OSHA regulations that guide this industry, and obtain OSHA certification.
- Gain an introductory understanding of basic scientific principles.
- Apply their knowledge in the field with hands-on work experience, and demonstrate industry work methods and safe work practices.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

- CORI/SORI checks and fingerprinting may be required by utility employers. Drug testing will very likely be performed by prospective employers. Additionally, serious driving infractions will affect an individual's employability.

Additional Cost

See the Program Fees (Page 27).

- Cooperative work experience participants will be expected to wear protective boots (with steel or composite toes and an EH rating) at the utility training site (approximately $100.00-$200.00).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 47.0103.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: UTC). • Register for and successfully complete all courses to graduate in two semesters. • Create an account on the QCC job board to search for internships, co-ops and jobs. • Complete CPS 298.				
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Topics in Mathematics	MAT 121	F/S/SU	3	College level math course or QMAT placement score > 21 or equivalent placement measures or Coreq: MAT 051
Introduction to Utilities: Electric, Gas, Communications	UTT 101	F	3	
Utility Installations/Principles I	UTT 110	F	3	Coreq: UTT 101
OSHA 30/Safety/CPR/First Aid	UTT 115	F	3	
		Total	**12**	
Semester 2 (Spring) • If seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q.*				
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Utility Installations/Principles II	UTT 111	S	3	UTT 110
Cooperative Work Experience	UTT 299	S	3	Coreq: UTT 111, UTT 115
		Total	**9**	
Total Credits Required			**21**	

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- Students are advised to enroll in all Semester 1 courses in the Fall semester in order to progress to Semester 2.
- Students should enroll in all Semester 2 courses in order to complete the program in one academic year.
- Individuals seeking employment with utility companies must also meet employer-specific hiring requirements; this may include CORI/SORI checks, fingerprinting, and drug testing.
- Applicants to this program must have a valid learner's permit and a driving record that is suitable for prospective employer's insurance requirements. A Request for Driving Record will be forwarded to the MA Department of Transportation on behalf of each student accepted to the program each Fall semester.
- Students should note that a valid driver's license will be required for employment in this field; individuals with driving and/or legal infractions should be aware that their actions may impact their employability.

Program Email: eut@qcc.mass.edu

ASSOCIATE IN ARTS - GS

General Studies

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- Some courses may be completed at QCC Southbridge.
- This program may be completed face-to-face.

Program Goals

The QCC General Studies associate degree program includes the following Program Goals:

- To provide a comprehensive, responsive, directed academic experience which helps students identify educational and career choices, develop individualized career plans, and implement career pathways leading to further education or careers.
- To meet the academic needs of QCC career programs, four-year institutions, and area employers.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Identify and explore their educational and career choices.
- Write and speak effectively.
- Engage in a reflective process of information discovery, articulate the value of information and its cycle of development, and participate responsibly in communities of learning.
- Apply the concepts and methods of mathematics to solve problems.
- Relate scientific methods of inquiry to the acquisition of knowledge.
- Utilize computer and emerging technologies effectively.
- Appreciate the variety of human experiences as expressed through the arts.
- Demonstrate knowledge and appreciation of diverse cultures.
- Assess their own ethical values and recognize ethical issues in a variety of contexts.
- Demonstrate knowledge and appreciation of the behavioral sciences.
- Reflect on the impact of technological advances on the individual, society, and the environment.
- Develop civic knowledge, skills, and dispositions through learning and practice.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 24.0102.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: generalstudies@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: GS). • Register for and successfully complete all courses to graduate in four semesters. • Complete ENG 101, FYE 101, and HUM 101. • Complete MAT 100 or MAT 121 or MAT 122.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
First Year Experience	FYE 101	F/S/SU	3	
Critical Thinking and Problem Solving	HUM 101	F/S/SU	3	Placement into college level English
College Algebra **OR**	MAT 100	F/S/SU	3	QMAT placement score > 32 or Coreq: MAT 097
Topics in Mathematics **OR**	MAT 121			College level math course or QMAT placement score > 21 or equivalent placement measures or Coreq: MAT 051
Statistics	MAT 122			College level math course or QMAT placement score > 21 or Coreq: MAT 052
Behavioral Science Elective	---	F/S/SU	3	
		Total	**15**	
Semester 2 • Meet with Academic Advisor to choose Electives consistent with academic and career plan. • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete ENG 102.				
Composition II	ENG 102	F/S/SU	3	ENG 101
Elective	---	F/S/SU	3	
Elective	---	F/S/SU	3	
Elective	---	F/S/SU	3	
History Elective	---	F/S/SU	3	
		Total	**15**	
Semester 3 • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Confirm that MassTransfer 34-credit general education transfer block can be completed.				
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Elective	---	F/S/SU	3	
Humanities Elective	---	F/S/SU	3	
Lab Science Elective	---	F/S/SU	4	
Social Science Elective	---	F/S/SU	3	
		Total	**16**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Elective	---	F/S/SU	3	
Elective (200-level)	---	F/S/SU	3	
Humanities Elective (200-level)	---	F/S/SU	3	
Lab Science Elective	---	F/S/SU	4	
Social Science Elective	---	F/S/SU	3	
		Total	**16**	
Total Credits Required:			**62**	

ASSOCIATE IN ARTS - GSDS

General Studies - Deaf Studies Option

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- Some laboratory classes may be completed at local laboratory facilities.
- This program may be completed face-to-face.

Program Goals

The General Studies - Deaf Studies Option prepares students to have the necessary communication skills and cultural knowledge to work with deaf and hard of hearing individuals. Through practicum participation and other course related research, students explore career opportunities in the deaf community.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Transfer to a four-year college to continue in the area of deaf studies.
- Transfer to an interpreter training program.
- Work in a program serving deaf and hard of hearing individuals.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 05.0211.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: kmorgan@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: GSDS). • Register for and successfully complete all courses to graduate in four semesters. • Complete ENG 101. • Complete prerequisite(s) for MAT 121 or MAT 122.				
Beginning American Sign Language I	ASL 111	F/S/SU	3	
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Critical Thinking and Problem Solving	HUM 101	F/S/SU	3	Placement into college level English
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
		Total	**15**	
Semester 2 • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete MAT 121 or MAT 122.				
Beginning American Sign Language II	ASL 112	F/S	3	ASL 111
Introduction to Deaf Studies	ASL 113	S	3	ASL 111
Composition II	ENG 102	F/S/SU	3	ENG 101
Topics in Mathematics **OR**	MAT 121	F/S/SU	3	College level math course or QMAT placement score > 21 or equivalent placement measures or Coreq: MAT 051
Statistics	MAT 122			College level math course or QMAT placement score > 21 or Coreq: MAT 052
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**15**	
Semester 3 • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Confirm that MassTransfer 34-credit general education transfer block can be completed.				
Issues in Deaf Society	ASL 114	F/S	3	
Career Signing	ASL 119	F/S	3	ASL 112, ASL 113
Intermediate American Sign Language I	ASL 211	F/S	3	ASL 112

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Lab Science Elective	---	F/S/SU	4	
Social Science Elective	---	F/S/SU	3	
		Total	**16**	
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Deaf Community Practicum	ASL 200	F/S	3	ASL 112, ASL 113, CORI/SORI Check
Intermediate American Sign Language II	ASL 212	S	3	ASL 211
Social Psychology	PSY 253	F	3	ENG 101, PSY 101
History Elective	---	F/S/SU	3	
Science Elective or Lab Science Elective	---	F/S/SU	3-4	
		Total	**15-16**	
Total Credits Required:			**61-62**	

For information on electives, see p. 373-374.

ASSOCIATE IN ARTS - LA

Liberal Arts

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- Some courses may be completed at QCC Southbridge.
- This program may be completed face-to-face.

Program Goals

The QCC Liberal Arts associate degree program includes the following Program Goals:

- Provide a well-rounded foundational education in the liberal arts disciplines, defined as fine arts and humanities, mathematics, natural sciences, and social sciences.
- Foster and hone high-level communication and critical reasoning skills, vital for success in a bachelor's degree program or professional career.
- Provide the broad-based intercultural and interdisciplinary learning for flourishing in the globalized, knowledge-driven, and increasingly diverse society and economy of the 21st century.
- Instill the life-long orientation to learning that a continuously-evolving global society will require for sustained success.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate the capacity to make well-reasoned ethical and aesthetic judgments by calling upon the discursive, expressive, and interpretive skills honed and developed in the humanities and fine arts.
- Apply the concepts and methods of mathematics to solve problems, and demonstrate quantitative reasoning in a variety of disciplines.
- Demonstrate knowledge of the scientific process and basic scientific principles, and apply the scientific method to complex problems in the natural sciences.
- Demonstrate understanding of the development, diversity, and complexity of human behavior in society and culture, and the methodologies used in the social and behavioral sciences.
- Demonstrate high-level communication skills (verbal, written, graphic, and numerical) across the full span of the liberal arts disciplines.
- Apply critical reasoning skills, drawing upon interdisciplinary approaches, to analyze and solve complex problems.
- Demonstrate the ability to use interlibrary catalog/loan systems and electronic databases and to distinguish between reliable and non-reliable sources, whether print, cinematic, televisual, or web.
- Demonstrate the multiple perspectives that derive from knowledge and awareness of cultures and cultural practices (one's own and others').

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 24.0101.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: kwong@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: LA). • Register for and successfully complete all courses to graduate in four semesters. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete ENG 101 and the Mathematics Elective.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Psychology **OR**	PSY 101	F/S/SU	3	Placement into college level English
Introductory Sociology (Principles)	SOC 101			
Elective	---	F/S/SU	3	
Mathematics Elective	---	F/S/SU	3	
Science Elective or Lab Science Elective	---	F/S/SU	3-4	
		Total	**15-16**	
Semester 2 • Meet with Academic Advisor to review Elective choices and Liberal Arts Options. • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete ENG 102 and the Mathematics Elective.				
Composition II	ENG 102	F/S/SU	3	ENG 101
Introduction to Humanities	HUM 105	F/S/SU	3	ENG 101
Mathematics Elective	---	F/S/SU	3	
Social Science Foundational Elective	---	F/S/SU	3	
U.S. or World History Survey Elective	---	F/S/SU	3	
		Total	**15**	
Semester 3 • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Confirm that MassTransfer 34-credit general education transfer block can be completed.				
Lab Science Elective	---	F/S/SU	4	
Liberal Arts Elective	---	F/S/SU	3	
Liberal Arts Elective (200-level)	---	F/S/SU	3	
Literature, Philosophy, or Language Elective	---	F/S/SU	3	
Multiple Perspectives Elective	---	F/S/SU	3	
		Total	**16**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				
Elective	---	F/S/SU	3	
Creative Arts Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
Liberal Arts Elective (200-level)	---	F/S/SU	3	
Liberal Arts Elective (200-level)	---	F/S/SU	3	
		Total	**15**	
Total Credits Required:			**61-62**	

ASSOCIATE IN ARTS - LAEN

Liberal Arts - English Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The QCC Liberal Arts - English Option associate degree program includes the following Program Goals:

- Provide foundational courses in English literature required by four-year colleges and universities, enabling students to transfer to a bachelor's degree program as juniors in English and/or a related field, such as creative writing, fine arts, communication/journalism, liberal arts or cultural studies.
- Introduce students to the liberal arts disciplines, defined as fine arts, humanities, mathematics, natural sciences, and social and behavioral sciences.
- Develop students' communication and critical reasoning skills, vital for success in a bachelor's degree program or professional career.
- Enhance students' understanding and appreciation of a broad range of issues and ideas in both western and non-western art and literature through an intercultural and interdisciplinary approach to teaching.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Utilize the broad-based liberal arts curriculum in the fine arts, humanities, mathematics, natural sciences, and social and behavioral sciences to develop a historical perspective on the world.
- Demonstrate familiarity with major writers and historical events that have shaped major literary movements and traditions.
- Analyze primary sources in their historical context.
- Demonstrate familiarity with different literary genres.
- Understand major critical theories and demonstrate the ability to apply them to analysis and interpretation of texts.
- Evaluate, analyze and synthesize material from primary and secondary sources.
- Demonstrate the ability to use library databases to conduct research and to distinguish between reliable and unreliable sources in various media.
- Demonstrate high level communication skills, both oral and written, and use knowledge of audience, purpose and genre to produce effective writing.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 23.0101.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: english@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: LAEN). • Register for and successfully complete all courses to graduate in four semesters. • Complete ENG 101 and the Mathematics Elective.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Psychology **OR**	PSY 101	F/S/SU	3	Placement into college level English
Introductory Sociology (Principles)	SOC 101			
Mathematics Elective	---	F/S/SU	3	
Science Elective or Lab Science Elective	---	F/S/SU	3-4	
Social Science Foundational Elective	---	F/S/SU	3	
		Total	**15-16**	
Semester 2 • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete ENG 102 and the Mathematics Elective.				
Composition II	ENG 102	F/S/SU	3	ENG 101
Introduction to Humanities	HUM 105	F/S/SU	3	ENG 101
Lab Science Elective	---	F/S/SU	4	
Mathematics Elective	---	F/S/SU	3	
U.S. or World History Survey Elective	---	F/S/SU	3	
		Total	**16**	
Semester 3 • For the Literature Survey Electives (Semesters 3 and 4), choose any four of the following 200-level ENG courses: ENG 231, ENG 232, ENG 241, ENG 242, ENG 251, ENG 252, ENG 261, and ENG 262 (see individual course descriptions for semester offerings and prerequisites). • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Confirm that MassTransfer 34-credit general education transfer block can be completed.				
Introduction to Literary Theory	ENG 210	F/S	3	ENG 101
Creative Arts Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
Literature Survey Elective (200-level)	---	F/S/SU	3	
Literature Survey Elective (200-level)	---	F/S/SU	3	
		Total	**15**	
Semester 4 • Consult with transfer institution regarding selection of Liberal Arts Electives. • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Liberal Arts Elective (200-level)	---	F/S/SU	3	
Liberal Arts Elective (200-level)	---	F/S/SU	3	
Literature, Philosophy, or Language Elective	---	F/S/SU	3	
Literature Survey Elective (200-level)	---	F/S/SU	3	
Literature Survey Elective (200-level)	---	F/S/SU	3	
		Total	**15**	
Total Credits Required:			**61-62**	

For information on electives, see p. 373-374.

ASSOCIATE IN ARTS - LAHI

Liberal Arts - History Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The QCC Liberal Arts - History Option associate degree program includes the following Program Goals:

- Provide a foundational education in history, enabling transfer to a bachelor's degree program in history.
- Provide a well-rounded foundational education in the liberal arts disciplines, defined as fine arts, humanities, mathematics, natural sciences, and social and behavioral sciences.
- Foster and hone high-level communication and critical reasoning skills, vital for success in a bachelor's degree program or professional career.
- Provide the broad-based intercultural and interdisciplinary learning for flourishing in the globalized, knowledge-driven, and increasingly diverse society and economy of the 21st century.
- Instill the life-long orientation to learning that a continuously evolving global society will require for sustained success.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Utilize the broad-based liberal arts curriculum in the fine arts, humanities, mathematics, natural sciences, and social and behavioral sciences to develop a historical perspective on the world.
- Demonstrate a basic knowledge of significant periods, events, and ideas in the past that have shaped different cultures and civilizations.
- Analyze primary sources in their historical context.
- Evaluate secondary sources through an understanding of how historians ask questions and interpret the past.
- Write articulately and persuasively on historical issues.
- Demonstrate understanding of the development, diversity, and complexity of human behavior in society and culture, and the methodologies to do so in the social and behavioral sciences.
- Demonstrate the capacity to make well-reasoned ethical and aesthetic judgments, by calling upon the discursive, expressive, and interpretative skills honed and developed in the humanities and fine arts.
- Apply the concepts and methods of mathematics to solve problems, and demonstrate quantitative reasoning in a variety of disciplines.
- Demonstrate knowledge of the scientific process and basic scientific principles, and apply the scientific method to complex problems in the natural sciences.
- Demonstrate high-level communication skills (verbal, written, graphic, and numerical) across the full span of the liberal arts disciplines.
- Apply critical reasoning skills, drawing upon interdisciplinary approaches, to analyze and solve complex problems.
- Demonstrate the ability to use interlibrary catalog/loan systems and electronic databases and to distinguish between reliable and non-reliable sources, whether print, cinematic, televisual, or web.
- Demonstrate the multiple perspectives that derive from knowledge and awareness of cultures and cultural practices (one's own and others').

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life,

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: LAHI). • Complete ENG 101 and the Mathematics Elective.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Psychology **OR**	PSY 101	F/S/SU	3	Placement into college level English
Introductory Sociology (Principles)	SOC 101			
Creative Arts Elective	---	F/S/SU	3	
Mathematics Elective	---	F/S/SU	3	
Science Elective or Lab Science Elective	---	F/S/SU	3-4	
		Total	**15-16**	
Semester 2 • Meet with Academic Advisor to review Elective choices. • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete ENG 102 and the Mathematics Elective.				
Composition II	ENG 102	F/S/SU	3	ENG 101
World History I: Beginning to 1500	HST 104	F/S/SU	3	ENG 101
U.S. History: Beginnings to 1865	HST 115	F/S/SU	3	ENG 101
Introduction to Humanities	HUM 105	F/S/SU	3	ENG 101
Mathematics Elective	---	F/S/SU	3	
		Total	**15**	
Semester 3 • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Confirm that MassTransfer 34-credit general education transfer block can be completed.				
World History II: 1500 to World War I	HST 105	F/S/SU	3	ENG 101
U.S. History: 1865 to Present	HST 116	F/S/SU	3	ENG 101
Lab Science Elective	---	F/S/SU	4	
Literature, Philosophy, or Language Elective	---	F/S/SU	3	
Social Science Foundational Elective	---	F/S/SU	3	
		Total	**16**	
Semester 4 • Consult with transfer institution regarding selection of Liberal Arts Electives. • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
History Elective	---	F/S/SU	3	
History Elective (200-level)	---	F/S/SU	3	
Liberal Arts Elective (200-level)	---	F/S/SU	3	
Liberal Arts Elective (200-level)	---	F/S/SU	3	
Multiple Perspectives Elective	---	F/S/SU	3	
		Total	**15**	
Total Credits Required:			**61-62**	

volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 54.0101.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: kwong@qcc.mass.edu

ASSOCIATE IN ARTS - LAMC

Liberal Arts - Media Communications Option

Location

- This program may be completed 80% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The QCC Liberal Arts - Media Communications Option associate degree program includes the following Program Goals:

- Provide foundational courses in media communications required by four-year colleges and universities, enabling students to transfer to a bachelor's degree program as juniors in media communications/journalism and/or a related field.
- Introduce students to the liberal arts disciplines, defined as fine arts, humanities, mathematics, natural sciences, and social and behavioral sciences.
- Develop students' communication and critical reasoning skills, vital for success in a bachelor's degree program or professional career.
- Enhance students' understanding and appreciation of a broad range of issues and ideas through an intercultural and interdisciplinary approach to teaching.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Utilize the broad-based liberal arts curriculum in the fine arts, humanities, mathematics, natural sciences, and social and behavioral sciences to support a foundation in human communication.
- Analyze basic theories and principles of human communication sufficient to demonstrate a basic knowledge of significant periods, events, and ideas in the past that have shaped different concepts and perspectives.
- Explain general structures, practices, power and impact of mass communication, including various forms of the media.
- Write news stories, documentaries, public service announcements, editorials, features, reviews and/or related formats, following journalistic writing style, such as AP (Associated Press).
- Edit and layout pages of printed newspaper or other printed media.
- Collect, categorize, assess and evaluate content (print, video, images, sounds) from various sources and attribute to identifiable, credible sources.
- Demonstrate the capacity to make well-reasoned ethical and aesthetic judgments, by calling upon the discursive, expressive, and interpretative skills honed and developed in the humanities and fine arts.
- Apply the concepts and methods of mathematics to solve problems, and demonstrate quantitative reasoning in a variety of disciplines.
- Demonstrate knowledge of the scientific process and basic scientific principles, and apply the scientific method to complex problems in the natural sciences.
- Demonstrate understanding of the development, diversity, and complexity of human behavior in society and culture, and the methodologies to do so in the social and behavioral sciences.
- Demonstrate high-level communication skills (verbal, written, graphic, and numerical) across the full span of the liberal arts disciplines.
- Apply critical reasoning skills, drawing upon interdisciplinary approaches, to analyze and solve complex problems.
- Demonstrate the ability to use interlibrary catalog/loan systems and electronic databases, and to distinguish between reliable and non-reliable sources, whether print, cinematic, televisual, or web.
- Demonstrate the multiple perspectives that derive from knowledge and awareness of cultures and cultural practices (one's own and others').
- Present formal and informal speeches or deliveries.
- Demonstrate currency in journalism and the convergence of various types of media.
- Perform basic interviewing techniques.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: LAMC). • Register for and successfully complete all courses to graduate in four semesters. • Complete ENG 101 and the Mathematics Elective.				
Introduction to Mass Communication	COM 100	F/S	3	Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Psychology **OR**	PSY 101	F/S/SU	3	Placement into college level English
Introductory Sociology (Principles)	SOC 101			
Mathematics Elective	---	F/S/SU	3	
Science Elective or Lab Science Elective	---	F/S/SU	3-4	
		Total	**15-16**	
Semester 2 • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete ENG 102 and the Mathematics Elective.				
Journalism I	COM 101	F/S	3	COM 100
Composition II	ENG 102	F/S/SU	3	ENG 101
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Mathematics Elective	---	F/S/SU	3	
U.S. or World History Survey Elective	---	F/S/SU	3	
		Total	**15**	
Semester 3 • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Confirm that MassTransfer 34-credit general education transfer block can be completed.				
Journalism II	COM 102	F/S	3	COM 101
Creative Arts Elective	---	F/S/SU	3	
Lab Science Elective	---	F/S/SU	4	
Literature, Philosophy, or Language Elective	---	F/S/SU	3	
Social Science Foundational Elective	---	F/S/SU	3	
		Total	**16**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 • Consult with transfer institution regarding selection of Liberal Arts Electives. • For the Program Elective, choose: ALH 106, ART 101, ART 111, ART 141, ART 211, BUS 113, CIS 105, CIS 111, CRJ 101, ECO 215, ECO 216, FIN 250, IMD 154, MGT 101, MRK 201, PHA 101, PHA 102, or PSC 201. • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q.*				
Introduction to Humanities	HUM 105	F/S/SU	3	ENG 101
Liberal Arts Elective (200-level)	---	F/S/SU	3	
Liberal Arts Elective (200-level)	---	F/S/SU	3	
Multiple Perspectives Elective	---	F/S/SU	3	
Program Elective	---	F/S/SU	3	
		Total	**15**	
Total Credits Required:			**61-62**	

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 09.0102.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: mediacommunications@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN ARTS - LAMU

Liberal Arts - Music Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The QCC Liberal Arts - Music Option associate degree program includes the following Program Goals:

- Prepare students to transfer to a four-year college or university, or entry-level work requiring communication and critical thinking skills.
- Provide a foundational education comprised of the humanities, social sciences, and mathematics, with a concentration in music knowledge, skill, and a solid base of musical proficiency.
- To attract to the college experience students with a strong interest in music whom might otherwise never attend college.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate fundamental musicianship.
- Demonstrate and apply music theory and composition.
- Identify historical perspectives of music, including styles and nationality, and interpret the underlying meanings of music from historical perspectives.
- Distinguish melodic and rhythmic intervals and demonstrate this through musical dictation.
- Create, analyze, and understand the aesthetic value of musical works.
- Demonstrate musical proficiency in his or her chosen instrument.
- Demonstrate a broad range of knowledge, skill, and abilities for interpreting the human experience via the arts and humanities, mathematics and natural sciences, and the social and behavioral sciences.
- Appreciate and contribute to the history of diverse human cultural experience and develop a global perspective for interpreting and evaluating it.
- Use rich, descriptive language and logical, coherent structure to convey ideas effectively in multiple modes of communication - speaking, reading, writing, and listening.
- Acquire, analyze, organize, and utilize data to determine appropriate solutions to myriad work/life/personal challenges.
- Develop a life path that develops self-actualization, adapts to change, and recognizes the value of life-long learning.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 50.0901.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: jcastillo@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: LAMU). • Register for and successfully complete all courses to graduate in four semesters. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete ENG 101 and the Mathematics Elective.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Music Theory I	MUS 151	F/S	4	Placement into college level English
Introduction to Psychology **OR**	PSY 101	F/S/SU	3	Placement into college level English
Introductory Sociology (Principles)	SOC 101			
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Mathematics Elective	---	F/S/SU	3	
		Total	**16**	
Semester 2 • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events.				
Composition II	ENG 102	F/S/SU	3	ENG 101
Introduction to Humanities	HUM 105	F/S/SU	3	ENG 101
Music Ensemble I	MUS 135	F/S	1	MUS 151
Music Theory II	MUS 152	F/S	4	MUS 151
Mathematics Elective	---	F/S/SU	3	
		Total	**14**	
Semester 3 • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Confirm that MassTransfer 34-credit general education transfer block can be completed.				
Music Ensemble II	MUS 136	F/S	1	MUS 135
Music History I	MUS 261	F/S	3	Placement into college level English
Literature, Philosophy, or Language Elective	---	F/S/SU	3	
Science Elective or Lab Science Elective	---	F/S/SU	3-4	
Social Science Foundational Elective	---	F/S/SU	3	
U.S. or World History Survey Elective	---	F/S/SU	3	
		Total	**16-17**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				
Music Ensemble III	MUS 137	F/S	1	MUS 136
Music History II	MUS 262	F/S	3	MUS 261
Elective	---	F/S/SU	3	
Lab Science Elective	---	F/S/SU	4	
Multiple Perspectives Elective	---	F/S/SU	3	
		Total	**14**	
Total Credits Required:			**60-61**	

ASSOCIATE IN ARTS - LAPY

Liberal Arts - Psychology Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Liberal Arts - Psychology Option prepares students for transfer to four-year colleges and universities at which they can continue their education in the field of psychology.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
- Understand and apply basic research methods in psychology, including research design, data analysis and interpretation.
- Respect and use critical and creative thinking, skeptical inquiry, and, when possible, the scientific approach to solve problems related to behavior and mental processes.
- Understand and apply psychological principles to personal, social, and organizational issues.
- Weigh evidence, tolerate ambiguity, act ethically and reflect other values that are the underpinnings of psychology as a discipline.
- Acquire, analyze, organize, and utilize data to determine appropriate solutions to myriad work/life/personal challenges.
- Demonstrate comprehensive scientific, mathematical and computer/technological competencies.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 42.0101.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: psychology@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: LAPY). • Register for and successfully complete all courses to graduate in four semesters. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete ENG 101 and MAT 122.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Critical Thinking and Problem Solving	HUM 101	F/S/SU	3	Placement into college level English
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**15**	
Semester 2 • Meet with Academic Advisor to choose Program Electives consistent with academic and career plan. • For the Program Electives (Semesters 2 and 4), choose: PSY 123, PSY 124, PSY 252, PSY 253, PSY 261, or PSY 262. • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events.				
Composition II	ENG 102	F/S/SU	3	ENG 101
Research Methods in Psychology	PSY 251	F/S	3	ENG 101, MAT 122, PSY 101
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
Program Elective	---	F/S/SU	3	
U.S. or World History Survey Elective	---	F/S/SU	3	
		Total	**15**	
Semester 3 • Meet with Academic Advisor to discuss Foreign Language requirement at potential transfer institution(s). • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Confirm that MassTransfer 34-credit general education transfer block can be completed.				
General Biology: Core Concepts	BIO 101	F/S/SU	4	Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures
Psychological Statistics	PSY 250	F/S/SU	3	ENG 101, MAT 122, PSY 101
Creative Arts Elective	---	F/S/SU	3	
Foreign Language Elective	---	F/S/SU	3	
Multiple Perspectives Elective	---	F/S/SU	3	
		Total	**16**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 • Register for second Foreign Language Elective course (should be next level in same language as completed in Semester 3). • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Elective	---	F/S/SU	3	
Foreign Language Elective	---	F/S/SU	3	
Program Elective	---	F/S/SU	3	
Program Elective	---	F/S/SU	3	
		Total	**16**	
Total Credits Required:			**62**	

For information on electives, see p. 373-374.

ASSOCIATE IN ARTS - LASO

Liberal Arts - Sociology Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The QCC Liberal Arts - Sociology Option associate degree program includes the following Program Goals:

- Provide a curriculum with an emphasis on courses that students will need to seamlessly transfer to a bachelor's degree program in sociology or a pre-professional field.
- Provide a well-rounded foundational education in the liberal arts disciplines, defined as fine arts, humanities, mathematics, natural sciences, and social and behavioral sciences.
- Foster and hone high-level communication and critical reasoning skills, vital for success in a bachelor's degree program or professional career.
- Develop critical thinking and/or observation skills, and apply them to the analysis of problems or questions related to society.
- Enhance students' understanding and appreciation of a broad range of issues and ideas in both western and non-western societies and cultures through an intercultural and interdisciplinary approach to teaching.
- Instill the life-long orientation to broad-based intercultural and interdisciplinary learning required for sustained success in the globalized, knowledge-driven, and increasingly diverse society and economy of the 21st century.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Utilize the broad-based liberal arts curriculum in the fine arts, humanities, mathematics, natural sciences, and social and behavioral sciences to develop a sociological perspective on the world.
- Identify, differentiate among, and apply a variety of sociological theories.
- Identify, compare and contrast, and apply methods of sociological research.
- Demonstrate knowledge and comprehension of the sociocultural processes and structures that shape social interaction.
- Contextualize themselves and their social interactions as socially constructed and subject to change over time.
- Identify key patterns of social stratification and inequality, their operation and consequences.
- Demonstrate the capacity to make well-reasoned ethical and aesthetic judgments, by calling upon the discursive, expressive, and interpretative skills honed and developed in the humanities and fine arts.
- Apply the concepts and methods of mathematics to solve problems, and demonstrate quantitative reasoning in a variety of disciplines.
- Demonstrate knowledge of the scientific process and basic scientific principles, and apply the scientific method to complex problems in the natural sciences.
- Demonstrate understanding of the development, diversity, and complexity of human behavior in society and culture, and the methodologies to do so in the social and behavioral sciences.
- Demonstrate high-level communication skills (verbal, written, graphic, and numerical) across the full span of the liberal arts disciplines.
- Apply critical reasoning skills, drawing upon interdisciplinary approaches, to analyze and solve complex problems.
- Demonstrate the ability to use interlibrary catalog/loan systems and electronic databases and to distinguish between reliable and non-reliable sources, whether print, cinematic, televisual, or web.
- Demonstrate the multiple perspectives that derive from knowledge and awareness of cultures and cultural practices (one's own and others').

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: LASO). • Register for and successfully complete all courses to graduate in four semesters. • Complete ENG 101 and MAT 121.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Critical Thinking and Problem Solving	HUM 101	F/S/SU	3	Placement into college level English
Topics in Mathematics	MAT 121	F/S/SU	3	College level math course or QMAT placement score > 21 or equivalent placement measures or Coreq: MAT 051
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**15**	
Semester 2 • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete ENG 102.				
Cultural Anthropology **OR**	ANT 111	F/S/SU	3	Placement into college level English
Introduction to Psychology	PSY 101			
Composition II	ENG 102	F/S/SU	3	ENG 101
Introduction to Humanities	HUM 105	F/S/SU	3	ENG 101
Social Problems & Social Change	SOC 111	F/S/SU	3	Placement into college level English
Science Elective or Lab Science Elective	---	F/S/SU	3-4	
		Total	**15-16**	
Semester 3 • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Confirm that MassTransfer 34-credit general education transfer block can be completed. • Complete MAT 122.				
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
Creative Arts Elective	---	F/S/SU	3	
Liberal Arts Elective (200-level)	---	F/S/SU	3	
Sociology Elective (200-level)	---	F/S/SU	3	
U.S. or World History Survey Elective	---	F/S/SU	3	
		Total	**15**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 • Consult with transfer institution regarding selection of Liberal Arts Electives. • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q.*				
Lab Science Elective	---	F/S/SU	4	
Liberal Arts Elective (200-level)	---	F/S/SU	3	
Literature, Philosophy, or Language Elective	---	F/S/SU	3	
Multiple Perspectives Elective	---	F/S/SU	3	
Sociology Elective (200-level)	---	F/S/SU	3	
		Total	**16**	
Total Credits Required:			**61-62**	

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 45.1101.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: bthomas@qcc.mass.edu

ASSOCIATE IN ARTS - LATH

Liberal Arts - Theater Option

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

Theater at QCC serves the Liberal Arts by providing a rigorous aesthetic, intellectual, and practical opportunity to explore the frontiers of learning and the formation of collaborative communities. The primary mode of study is the practice of theater, involving theoretical, historical, aesthetic and technical elements. The QCC Liberal Arts - Theater Option program is comprehensive in nature, and is designed to maximize opportunities for training that would transfer to four-year institutions for students interested in theater arts, or provide students with enough knowledge to enter the visual or performing arts workforce.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Obtain a fundamental understanding of the production process, including ticket sales, set design/construction, lights/sound, and marketing, front of house, props, costumes, and makeup/hair.
- Learn how to use their bodies as vessels for more complete and creative acting and character development; students will also learn tumbling, mask utilization, breathing techniques, and script analysis as it serves the physical life of the characters, as well as balance, physical/psychological extension, flexibility, stress/adaptive strategies, sensory acuity, and hand-to-hand combat.
- Learn the importance of breathing, alignment, dynamic tension, warm-up, range extension, pitch and stress work, resonance, vocal care and stamina, acting through the emotion, improving speech detail, International Phonetic Alphabet notation/pronunciation in varying contemporary and classical styles, and text analysis; students will study how “voice” can influence characterization and will also learn dialects.
- Gain familiarity with the art and practice of acting, both as an observer and a participant, including an introduction to the language, terms, and concepts of theater, as well as to the specific craft and technique work of the actor and the process by which actors work; students will learn to critically observe and evaluate theater performance: text and subtext, stage business, blocking, character analysis, analyzing a script - dramaturgy, beats of action, methods of acting - want/objective-obstacle-action-conclusion, auditioning skills, play reports, post 1930 full-length plays (non-musicals, one-acts, or ten-minute plays), urgency scene (no speaking), oral history, as well as other skills.
- Learn how to manage a production from rehearsal to performance to striking the production on closing night, including pre-show techniques and efficiencies, call times, sound and light cues, costume changes, front of house coordination, recording blocking, and managing backstage; students will also learn Actors Equity Association rules of stage management.
- Learn to develop artistic perception, creative expression, and aesthetic valuing of the writer’s Creative Intent, and develop the ability to connect and apply what is learned in drama to other art forms, subjects, and careers; students will continue to learn theater terminology for the stage, acting, directing, and technical aspects of production through the literary management of the text, will learn writing/acting/script analysis, and will use personally-inspired stories to create scenes and possibly one-act plays, as well as cultural implications, staging effects, and oral interpretation.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life,

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: LATH). • Register for and successfully complete all courses to graduate in four semesters. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete ENG 101 and the Mathematics Elective.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Psychology **OR**	PSY 101	F/S/SU	3	Placement into college level English
Introductory Sociology (Principles)	SOC 101			
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Theater Production	THA 101	F/S	3	Placement into college level English
Mathematics Elective	---	F/S/SU	3	
		Total	**15**	
Semester 2 • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events.				
Composition II	ENG 102	F/S/SU	3	ENG 101
Introduction to Humanities	HUM 105	F/S/SU	3	ENG 101
Stage Movement	THA 102	F/S	3	
Stage Voice	THA 103	F/S	3	
Mathematics Elective	---	F/S/SU	3	
		Total	**15**	
Semester 3 • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Confirm that MassTransfer 34-credit general education transfer block can be completed.				
Acting	THA 201	F/S	3	
Stage Management	THA 202	F/S	3	
Literature, Philosophy, or Language Elective	---	F/S/SU	3	
Science Elective or Lab Science Elective	---	F/S/SU	3-4	
Social Science Foundational Elective	---	F/S/SU	3	
		Total	**15-16**	
Semester 4 • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				
Playwriting	THA 203	F/S	3	ENG 101

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Lab Science Elective	---	F/S/SU	4	
Liberal Arts Elective	---	F/S/SU	3	
Multiple Perspectives Elective	---	F/S/SU	3	
U.S. or World History Survey Elective	---	F/S/SU	3	
		Total	**16**	
Total Credits Required:			**61-62**	

volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 50.0507.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: kmorgan@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - BI

Biotechnology Technician Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- General Studies - Biotechnology Option

Location

- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Biotechnology Technician Certificate provides students with an overview of the science of biotechnology, as well as the technical skills necessary for employment in the industry.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Explain the fundamental scientific principles in the field of biotechnology.
- Work effectively and collaboratively in a laboratory setting, while collecting, analyzing and interpreting experimental data.
- Demonstrate the proper use of basic laboratory equipment, adhering to laboratory safety protocols.
- Recognize the importance of Good Manufacturing Practices (GMP) in the field of biomanufacturing.
- Apply mathematical principles to biotechnological concepts.
- Demonstrate clear and effective communication skills, including written, graphic, and numerical, with emphasis on documentation.
- Utilize scientific methodology and critical thinking to analyze and/or troubleshoot biotechnological issues.
- Demonstrate basic working knowledge of MS Windows and the use of computer technology for data analysis.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Fingerprinting & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 26.1201.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: biotechnology@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Register for and successfully complete all courses to graduate in two semesters. • Meet with Academic Advisor to discuss associate degree (Program Code: GSBT); or create an account on the QCC job board to search for internships, co-ops and jobs.				
Introduction to Biotechnology with Laboratory	BTT 102	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
General Chemistry I	CHM 105	F/S/SU	4	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		Total	**14**	
Semester 2 • Apply to associate degree (Program Code: GSBT); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Biology II: Introduction to Cells and Molecules	BIO 107	F/S/SU	4	CHM 105 or CHM 123, ENG 101
College Algebra	MAT 100	F/S/SU	3	QMAT placement score > 32 or Coreq: MAT 097
Manufacturing Safety	MNT 100	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
		Total	**10**	
Total Credits Required:			**24**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - ERG

Engineering

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Engineering associate degree program is a rigorous program that emphasizes mathematics and sciences; it prepares students for transfer to four-year colleges and universities, at which they can continue their education in all fields of engineering, life sciences, and sciences. The program strives to develop students' ability and awareness to think critically, solve problems, foster a strong sense of global community, and work wisely and creatively to better themselves and the world in which they live.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Apply knowledge of mathematics and science to introductory engineering principles.
- Use the scientific or design methods to conduct lab experiments or build prototypes.
- Apply engineering principles to design a system, component, or process to meet the requirements of a project.
- Work collaboratively to successfully complete engineering and design projects.
- Utilize the techniques, skills, and modern engineering tools necessary for engineering practice.
- Explore and identify a specific field of engineering for transfer to a four-year school.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 14.0102.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- It is strongly recommended that students interested in this program contact the Program Coordinator as early as possible in order to review degree requirements and make arrangements for any needed prerequisite courses.
- Students should note that some required courses carry a minimum prerequisite of MAT 124 or higher.
- Some transfer institutions may also require MAT 237 and MAT 243 prior to matriculation in their engineering bachelor's degree programs; students should discuss this with the Program Coordinator.
- Online coursework is typically not eligible for transfer credit at Worcester Polytechnic Institute (WPI). Students are advised to consult with their transfer institution(s) of choice for similar policies.

Program Email: Engineering@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: ERG). • Register for and successfully complete all courses to graduate in four semesters. • Meet with Program Coordinator. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete ENG 101 and MAT 233.				
Principles of Chemistry for Engineers I	CHM 123	F/S/SU	4	Coreq: MAT 233
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Engineering Design and Graphics Using CAD	ERG 101	F/S/SU	3	MAT 124
Calculus I	MAT 233	F/S/SU	4	MAT 124 or approp place score
Social Science Elective	---	F/S/SU	3	
		Total	**17**	
Semester 2 • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events.				
Principles of Chemistry for Engineers II	CHM 124	F/S/SU	4	CHM 123, MAT 233
Composition II	ENG 102	F/S/SU	3	ENG 101
Calculus II	MAT 234	F/S/SU	4	MAT 233
General Physics I: Newtonian Mechanics	PHY 105	F/S/SU	4	MAT 233
		Total	**15**	
Semester 3 • Meet with representatives of four-year schools to discuss/begin the transfer application process.				
Introduction to Materials Science	ERG 211	F/SU	3	CHM 123, PHY 105
Statics	ERG 221	F/IN	3	PHY 105, Coreq: MAT 235
Calculus III	MAT 235	F/S/SU	4	MAT 234
General Physics II: Electricity & Magnetism	PHY 107	F/S/SU	4	MAT 234, PHY 105
		Total	**14**	
Semester 4 • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				
Thermodynamics	ERG 223	S/SU	3	CHM 124, MAT 235, PHY 107
Strength of Materials	ERG 225	S/SU	3	ERG 221, MAT 235, Coreq: MAT 238
Engineering Computation and Modeling	ERG 280	F/S/SU	3	MAT 233
Differential Equations	MAT 238	F/S/SU	3	MAT 235
Humanities Elective	---	F/S/SU	3	
		Total	**15**	
Total Credits Required:			**61**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - ERBM

Engineering - Biomedical Engineering Option

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Engineering - Biomedical Engineering Option is a rigorous program that emphasizes mathematics, sciences, and life sciences; it prepares students for transfer to four-year colleges and universities, at which they can continue their education in all fields of biomedical engineering, medicine, life sciences, and sciences. The program strives to develop students' ability and awareness to think critically, solve problems, foster a strong sense of global community, and work wisely and creatively to better themselves and the world in which they live.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Apply knowledge of mathematics and science to introductory engineering principles with an emphasis on biomedical engineering.
- Use the scientific or design methods to conduct lab experiments or build prototypes.
- Apply engineering principles to design a system, component, or process to meet the requirements of a project.
- Work collaboratively to successfully complete engineering and design projects.
- Utilize the techniques, skills, and modern engineering tools necessary for engineering practice.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 14.0102.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- It is strongly recommended that students interested in this program contact the Program Coordinator as early as possible in order to review degree requirements and make arrangements for any needed prerequisite courses.
- Students should note that some required courses carry a minimum prerequisite of MAT 124 or higher.
- Some transfer institutions may also require MAT 237 and MAT 243 prior to matriculation in their engineering bachelor's degree programs; students should discuss this with the Program Coordinator.
- Online coursework is typically not eligible for transfer credit at Worcester Polytechnic Institute (WPI). Students are advised to consult with their transfer institution(s) of choice for similar policies.

Program Email: Engineering@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: ERBM). • Register for and successfully complete all courses to graduate in four semesters. • Meet with Program Coordinator. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete ENG 101 and MAT 233.				
Principles of Chemistry for Engineers I	CHM 123	F/S/SU	4	Coreq: MAT 233
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Calculus I	MAT 233	F/S/SU	4	MAT 124 or approp place score
Social Science Elective	---	F/S/SU	3	
		Total	**14**	
Semester 2 • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events.				
Principles of Chemistry for Engineers II	CHM 124	F/S/SU	4	CHM 123, MAT 233
Composition II	ENG 102	F/S/SU	3	ENG 101
Calculus II	MAT 234	F/S/SU	4	MAT 233
General Physics I: Newtonian Mechanics	PHY 105	F/S/SU	4	MAT 233
		Total	**15**	
Semester 3 • Meet with representatives of four-year schools to discuss/begin the transfer application process.				
Introduction to Materials Science	ERG 211	F/SU	3	CHM 123, PHY 105
Statics	ERG 221	F/IN	3	PHY 105, Coreq: MAT 235
Calculus III	MAT 235	F/S/SU	4	MAT 234
General Physics II: Electricity & Magnetism	PHY 107	F/S/SU	4	MAT 234, PHY 105
Humanities Elective	---	F/S/SU	3	
		Total	**17**	
Semester 4 • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				
Biology II: Introduction to Cells and Molecules	BIO 107	F/S/SU	4	CHM 105 or CHM 123, ENG 101
Thermodynamics	ERG 223	S/SU	3	CHM 124, MAT 235, PHY 107
Strength of Materials	ERG 225	S/SU	3	ERG 221, MAT 235, Coreq: MAT 238
Engineering Computation and Modeling	ERG 280	F/S/SU	3	MAT 233
Differential Equations	MAT 238	F/S/SU	3	MAT 235
		Total	**16**	
Total Credits Required:			**62**	

For information on electives, see p. 373-374.

ASSOCIATE IN ARTS - GSBT

General Studies - Biotechnology Option

Location

- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The General Studies - Biotechnology Option provides students with a strong academic foundation in biotechnology and lab sciences. Graduates are prepared to enter the biotechnology workforce.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Explain the fundamental scientific principles in the field of biotechnology.
- Work effectively and collaboratively in a laboratory setting, while collecting, analyzing and interpreting experimental data.
- Demonstrate the proper use of basic laboratory equipment, adhering to laboratory safety protocols.
- Apply mathematical principles to biotechnological concepts.
- Recognize the importance of Good Manufacturing Practices (GMP) in the field of biomanufacturing.
- Demonstrate clear and effective communication skills, including written, graphic, and numerical, with emphasis on documentation.
- Utilize scientific methodology and critical thinking to analyze and/or troubleshoot biotechnological issues.
- Demonstrate knowledge and appreciation of the relative historical and cultural perspectives of society.
- Identify careers in biotechnology and utilize skills to seek employment, including job search databases and resume writing.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 26.1201.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: biotechnology@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: GSBT). • Register for and successfully complete all courses to graduate in five semesters. • Complete CHM 105 and ENG 101.				
Introduction to Biotechnology with Laboratory	BTT 102	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
General Chemistry I	CHM 105	F/S/SU	4	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition I	ENG 101	F/S/SU	3	Placement into college level English
College Mathematics I: Pre-Calculus	MAT 123	F/S/SU	3	MAT 100 or approp place score
		Total	**14**	
Semester 2 • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete BIO 107.				
Biology II: Introduction to Cells and Molecules	BIO 107	F/S/SU	4	CHM 105 or CHM 123, ENG 101
General Chemistry II	CHM 106	F/S/SU	4	CHM 105
Composition II	ENG 102	F/S/SU	3	ENG 101
College Mathematics II: Trigonometry	MAT 124	F/S/SU	3	MAT 123 or approp place score
		Total	**14**	
Semester 3 • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs. • Confirm that MassTransfer general education transfer block can be completed.				
General Microbiology	BIO 231	F/S	4	BIO 107
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
History Elective	---	F/S/SU	3	
		Total	**13**	
Semester 4 • Meet with Academic Advisor to discuss internship option. • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board.				
Cell Biology	BIO 259	F/S	4	BIO 107
Principles of Genetics	BIO 262	F/S	4	BIO 107, MAT 122

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Humanities Elective	---	F/S/SU	3	
Social Science Elective	---	F/S/SU	3	
		Total	**14**	
Semester 5 (Summer) • Submit an Intent to Graduate Form, located on *The Q*.				
Techniques in Biotechnology I	BTT 211	SU	3	BIO 231, BIO 259, BIO 262
Manufacturing Safety	MNT 100	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
		Total	**6**	
Total Credits Required:			**61**	

ASSOCIATE IN ARTS - GSPH

General Studies - Pre-Pharmacy Option

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The General Studies - Pre-Pharmacy Option provides students with the first two years of a strong academic foundation required for transfer directly to a Doctor of Pharmacy Program or to bachelor's degree programs in biology, chemistry, or biochemistry.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate the academic and technical skills necessary for admission to a four- or six-year pharmacy program.
- Demonstrate the ability to be an effective team member.
- Demonstrate effective written and verbal communication skills.
- Understand the fundamental scientific principles necessary for continuation in pharmacology or a related field.
- Demonstrate a high standard of math competency.
- Utilize critical thinking and scientific methodology.
- Demonstrate application of scientific knowledge to common pharmacy and biological sciences practices.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 51.1103.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: prepharm@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 (Fall) • Apply and get accepted to this program (Program Code: GSPH). • Register for and successfully complete all courses to graduate in five semesters. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete ENG 101 and MAT 122.				
Biology I: Introduction to Organismal Diversity	BIO 106	F/S	4	Coreq: ENG 101
General Chemistry I	CHM 105	F/S/SU	4	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
		Total	**14**	
Semester 2 (Spring) • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events.				
Biology II: Introduction to Cells and Molecules	BIO 107	F/S/SU	4	CHM 105 or CHM 123, ENG 101
General Chemistry II	CHM 106	F/S/SU	4	CHM 105
Composition II	ENG 102	F/S/SU	3	ENG 101
College Mathematics II: Trigonometry	MAT 124	F/S/SU	3	MAT 123 or approp place score
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**17**	
Semester 3 (Summer) • Meet with Academic Advisor to choose Electives required for program. • Complete BIO 111 with lab.				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or BIO 107 or HS AP Biology or PNP 240 with a grade of "C" or higher, Coreq: ENG 101
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Economics Elective	---	F/S/SU	3	
		Total	**13**	
Semester 4 (Fall) • Meet with representatives of pharmacy schools to discuss/begin the transfer application process. • Confirm that MassTransfer general education transfer block can be completed. • Submit transfer application to pharmacy school during October/November.				

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
General Microbiology **OR**	BIO 231	F/S	4	BIO 107
Medical Microbiology	BIO 232	F/S/SU		BIO 112 or CHM 105 or CHM 123
Organic Chemistry I	CHM 201	F/S/SU	4	CHM 106 or CHM 124
Calculus I	MAT 233	F/S/SU	4	MAT 124 or approp place score
History Elective	---	F/S/SU	3	
		Total	**15**	
Semester 5 (Spring) • Prepare for interview with pharmacy colleges for admission. • Submit an Intent to Graduate Form, located on *The Q*.				
Organic Chemistry II	CHM 202	F/S/SU	4	CHM 201
General Physics I: Newtonian Mechanics	PHY 105	F/S/SU	4	MAT 233
Political Science Elective	---	F/S/SU	3	
Psychology Elective (200-level) or Sociology Elective (200-level)	---	F/S/SU	3	
		Total	**14**	
Total Credits Required:			**73**	

ASSOCIATE IN ARTS - LABI

Liberal Arts - Biology Option

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Liberal Arts - Biology Option provides a curriculum with an emphasis on courses that the student will need to transfer to a bachelor's degree program in the biological sciences or a pre-professional field. This program also provides a well-rounded foundational education in the liberal arts disciplines, while fostering and honing high-level communication and critical reasoning skills, which are vital for success in a bachelor's degree program or professional career.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate an understanding of general biology principles, including evolution and organismal diversity, cell structure and function, metabolism and enzyme function, cell reproduction and genetics.
- Explain how the chemical principles of matter and energy affect processes in biological systems.
- Employ the scientific method to investigate scientific principles, analyze and interpret data, and solve complex problems.
- Demonstrate proper use of basic laboratory equipment, adhering to laboratory safety protocols, as well as a technical proficiency in computer technology for data analysis.
- Apply mathematical reasoning to explore biological and chemical concepts, including data analysis using statistics, the correct composition and interpretation of graphs, and solution chemistry and calculations to support the preparation of reagents.
- Demonstrate clear and effective communication skills, including verbal, written, graphic, and numerical, with emphasis on the presentation of experimental results.
- Identify reliable sources of information for use in the formation and support of evidence-based arguments.
- Utilize the broad-based liberal arts curriculum to recognize the value of multiple perspectives needed to participate in a global society.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 26.0101.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: biology@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: LABI). • Register for and successfully complete all courses to graduate in four semesters. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete CHM 105, ENG 101, and MAT 123.				
Biology I: Introduction to Organismal Diversity	BIO 106	F/S	4	Coreq: ENG 101
General Chemistry I	CHM 105	F/S/SU	4	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition I	ENG 101	F/S/SU	3	Placement into college level English
College Mathematics I: Pre-Calculus	MAT 123	F/S/SU	3	MAT 100 or approp place score
		Total	**14**	
Semester 2 • Meet with Academic Advisor to review choices (CHM 201 or PHY 101 or PHY 105) that depend on transfer plans and mathematics prerequisite(s) completed. • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete BIO 107.				
Biology II: Introduction to Cells and Molecules	BIO 107	F/S/SU	4	CHM 105 or CHM 123, ENG 101
General Chemistry II	CHM 106	F/S/SU	4	CHM 105
Composition II	ENG 102	F/S/SU	3	ENG 101
College Mathematics II: Trigonometry	MAT 124	F/S/SU	3	MAT 123 or approp place score
Social Science Foundational Elective	---	F/S/SU	3	
		Total	**17**	
Semester 3 • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Confirm that MassTransfer general education transfer block can be completed.				
General Microbiology **OR**	BIO 231	F/S	4	BIO 107
Cell Biology	BIO 259			
Organic Chemistry I **OR**	CHM 201	F/S/SU		CHM 106 or CHM 124
Physics I **OR**	PHY 101	F/SU	4	MAT 148 or Coreq: MAT 124
General Physics I: Newtonian Mechanics	PHY 105	F/S/SU		MAT 233
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
Literature, Philosophy, or Language Elective	---	F/S/SU	3	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
U.S. or World History Survey Elective	---	F/S/SU	3	
		Total	**17**	
Semester 4 • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				
Principles of Genetics	BIO 262	F/S	4	BIO 107, MAT 122
Organic Chemistry II **OR**	CHM 202	F/S/SU	4	CHM 201
Physics II **OR**	PHY 102	S/SU		PHY 101
General Physics II: Electricity & Magnetism	PHY 107	F/S/SU		MAT 234, PHY 105
Creative Arts Elective	---	F/S/SU	3	
Multiple Perspectives Elective	---	F/S/SU	3	
		Total	**14**	
Total Credits Required:			**62**	

ASSOCIATE IN ARTS - LACH

Liberal Arts - Chemistry Option

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The QCC Liberal Arts - Chemistry Option associate degree program includes the following Program Goals:

- Provide a curriculum with an emphasis on courses that the student will need to seamlessly transfer to a bachelor's degree program in chemistry or a pre-professional field.
- Provide a well-rounded foundational education in the liberal arts disciplines, defined as fine arts, humanities, mathematics, natural sciences, and social and behavioral sciences.
- Foster and hone high-level communication and critical reasoning skills, vital for success in a bachelor's degree program or professional career.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate understanding of basic chemical principles, including relation of matter and energy, atomic structure, stoichiometry, chemical reactions, thermodynamics, and theory of bonding.
- Apply basic chemical principles to organic chemistry, including organic synthesis design and related lab skills.
- Incorporate the physics principles into the understanding of chemistry and apply chemical principles to biological systems.
- Employ the scientific method to investigate scientific principles, analyze and interpret data, and solve complex problems.
- Apply mathematical reasoning to explore chemical concepts, including data analysis using statistics and the correct composition and interpretation of graphs.
- Demonstrate proper use of basic laboratory equipment, adhering to laboratory safety protocols, as well as a technical proficiency in computer technology for data analysis.
- Demonstrate clear and effective communication skills, including verbal, written, graphic, and numerical, with emphasis on the presentation of experimental results.
- Utilize the broad-based liberal arts curriculum in the fine arts, humanities, mathematics, natural sciences, and social and behavioral sciences to examine the role of chemistry in society.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 40.0501.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

- For the purpose of the articulation agreement with Worcester Polytechnic Institute (WPI):
  - It is required that students intending to pursue the Bachelor of Science degree in Biochemistry option at WPI also complete BIO 259, BIO 260, and BIO 262; students who have not completed these courses at the time of enrollment at WPI may be considered for initial admission to the Chemistry major, with the opportunity for eventual transition to Biochemistry.
  - For WPI, all non-Mathematics courses require grades of "B" or higher to transfer; Mathematics courses require grades of "B-" or higher.

Program Email: chemistry@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: LACH). • Register for and successfully complete all courses to graduate in five semesters. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete ENG 101 and MAT 233.				
Biology I: Introduction to Organismal Diversity	BIO 106	F/S	4	Coreq: ENG 101
General Chemistry I	CHM 105	F/S/SU	4	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Calculus I	MAT 233	F/S/SU	4	MAT 124 or approp place score
		Total	**15**	
Semester 2 • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Confirm that MassTransfer general education transfer block can be completed. • Complete CHM 106 and MAT 234.				
Biology II: Introduction to Cells and Molecules	BIO 107	F/S/SU	4	CHM 105 or CHM 123, ENG 101
General Chemistry II	CHM 106	F/S/SU	4	CHM 105
Composition II	ENG 102	F/S/SU	3	ENG 101
Calculus II	MAT 234	F/S/SU	4	MAT 233
		Total	**15**	
Semester 3 (Summer)				
Creative Arts Elective	---	F/S/SU	3	
Multiple Perspectives Elective	---	F/S/SU	3	
		Total	**6**	
Semester 4 • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Complete CHM 201 and PHY 105.				
Organic Chemistry I	CHM 201	F/S/SU	4	CHM 106 or CHM 124
General Physics I: Newtonian Mechanics	PHY 105	F/S/SU	4	MAT 233
Literature, Philosophy, or Language Elective	---	F/S/SU	3	
		Total	**11**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 5 • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				
Organic Chemistry II	CHM 202	F/S/SU	4	CHM 201
General Physics II: Electricity & Magnetism	PHY 107	F/S/SU	4	MAT 234, PHY 105
Social Science Foundational Elective	---	F/S/SU	3	
U.S. or World History Survey Elective	---	F/S/SU	3	
		Total	**14**	
Total Credits Required:			**61**	

ASSOCIATE IN ARTS - LAES

Liberal Arts - Environmental Science Option

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Liberal Arts - Environmental Science Option provides students with a strong academic foundation in the environmental, natural, and physical sciences. Graduates are prepared to transfer to a bachelor's degree program in the environmental field.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Evaluate human impact on the environment and be able to identify and explain local and global environmental issues to a diverse audience.
- Employ the scientific method to investigate scientific principles, analyze and interpret data, and solve complex problems.
- Demonstrate proper use of basic laboratory equipment, adhering to laboratory safety protocols, and use of computer technology for data analysis.
- Apply mathematical reasoning to explore environmental phenomenon, including data analysis using statistics, and the correct composition and interpretation of graphs.
- Demonstrate clear and effective communication skills, including verbal, written, graphic, and numerical, with emphasis on the presentation of experimental results.
- Identify reliable sources of information for use in the formation and support of evidence-based arguments.
- Utilize the broad-based liberal arts curriculum to recognize the value of multiple perspectives needed to participate in a global society.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 03.0104.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

- For the purpose of the articulation agreement with UMass Lowell, students must receive a minimum grade of "C-" in all courses within the program for transferability to UMass Lowell.

Program Email: envscience@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: LAES). • Register for and successfully complete all courses to graduate in five semesters. • Meet with Academic Advisor to choose courses consistent with academic plan. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete ENG 101 and MAT 123.				
Biology I: Introduction to Organismal Diversity	BIO 106	F/S	4	Coreq: ENG 101
General Chemistry I	CHM 105	F/S/SU	4	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition I	ENG 101	F/S/SU	3	Placement into college level English
College Mathematics I: Pre-Calculus	MAT 123	F/S/SU	3	MAT 100 or approp place score
		Total	**14**	
Semester 2 • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events.				
Biology II: Introduction to Cells and Molecules	BIO 107	F/S/SU	4	CHM 105 or CHM 123, ENG 101
General Chemistry II	CHM 106	F/S/SU	4	CHM 105
Composition II	ENG 102	F/S/SU	3	ENG 101
College Mathematics II: Trigonometry	MAT 124	F/S/SU	3	MAT 123 or approp place score
		Total	**14**	
Semester 3 (Summer)				
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**6**	
Semester 4 • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Complete MassTransfer block audit to determine eligibility for transfer to public colleges. • Complete Liberal Arts - Environmental Science Option degree audit.				
Calculus I	MAT 233	F/S/SU	4	MAT 124 or approp place score
Physics I	PHY 101	F/SU	4	MAT 148 or Coreq: MAT 124
Climate and Weather: Causes and Effects	SCI 104	F/S/SU	3	Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures
Integrated Science: Earth and Space	SCI 105	F/S/SU	4	Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures
		Total	**15**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 5 • Continue with/complete the transfer application process. • Complete MAT 122. • Submit an Intent to Graduate Form, located on *The Q*.				
Statistics	MAT 122	F/S/SU	3	College level math course or QMAT placement score > 21 or Coreq: MAT 052
Introduction to Ethics	PHI 131	F/S/SU	3	Placement into college level English
Sustaining Earth's Environment	SCI 110	F/S/SU	4	Placement into college level English
Economics Elective (200-level)	---	F/S/SU	3	
		Total	**13**	
Total Credits Required:			**62**	

ASSOCIATE IN ARTS - LAMT

Liberal Arts - Mathematics Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The QCC Liberal Arts - Mathematics Option associate degree program includes the following Program Goals:

- Provide a well-rounded foundational education in the liberal arts disciplines, with an emphasis on courses enabling students to transfer to a bachelor's degree program in mathematics and/or a related field.
- Foster and hone high-level communication and critical reasoning skills vital for success in a bachelor's degree program or professional career.
- Provide the broad-based intercultural and interdisciplinary learning for flourishing in the globalized, knowledge-driven, and increasingly diverse society and economy of the 21st century.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Accurately communicate about mathematics to a variety of individuals and diverse groups of human beings.
- Possess a fundamental understanding of mathematical theory.
- Use technology to explore mathematical concepts.
- Develop critical thinking and mathematical methods for problem solving.
- Relate concepts and make connections that are inherent in mathematics.
- Be qualified to transfer to a four-year curriculum and be prepared to complete their bachelor's degree in two additional years.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 27.0101.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: mathematics@qcc.mass.edu

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: LAMT). • Register for and successfully complete all courses to graduate in four semesters. • Attend Transfer Services events. For information see www.QCC.edu/transfer. • Complete MAT 233.				
Introduction to Programming Using Python	CSC 101	F/S	3	MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Principles of Macroeconomics **OR**	ECO 215	F/S/SU	3	Coreq: ENG 101
Principles of Microeconomics	ECO 216			
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Calculus I	MAT 233	F/S/SU	4	MAT 124 or approp place score
Introduction to Psychology **OR**	PSY 101	F/S/SU	3	Placement into college level English
Introductory Sociology (Principles)	SOC 101			
		Total	**16**	
Semester 2 • Meet with a Transfer Services Advisor. See www.QCC.edu/transfer. Attend Transfer Services events. • Complete MAT 234.				
Computer Science I	CSC 108	F/S/SU	4	CSC 101 or prior AP Computer Science A (CSA) Exam with a score of "3" or higher, Placement into college level English, MAT 100 or appropriate placement score
Composition II	ENG 102	F/S/SU	3	ENG 101
Discrete Mathematics	MAT 125	F/S	3	MAT 123 or approp place score
Calculus II	MAT 234	F/S/SU	4	MAT 233
		Total	**14**	
Semester 3 • Meet with Academic Advisor to review Lab Science Elective choices (Semesters 3 and 4). Recommended sequences: BIO 106 and BIO 107; or CHM 105 and CHM 106; or PHY 105 and PHY 107. • Meet with representatives of four-year schools to discuss/begin the transfer application process. • Confirm that MassTransfer STEM general education transfer block can be completed. • Complete MAT 235.				
Introduction to Humanities	HUM 105	F/S/SU	3	ENG 101
Calculus III	MAT 235	F/S/SU	4	MAT 234
Probability & Statistics for Engineers and Scientists	MAT 237	F/S/SU	3	MAT 234
Lab Science Elective	---	F/S/SU	4	
		Total	**14**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q.*				
World History I: Beginning to 1500 **OR**	HST 104			
World History II: 1500 to World War I **OR**	HST 105	F/S/SU	3	ENG 101
World History III: World War I to Present	HST 106			
Mathematics and Science in the Humanities	HUM 234	F/S	3	ENG 102
Differential Equations	MAT 238	F/S/SU	3	MAT 235
Linear Algebra	MAT 243	F/S/SU	3	Coreq: MAT 238
Lab Science Elective	---	F/S/SU	4	
		Total	**16**	
Total Credits Required:			**60**	

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - CJ

Criminal Justice

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Criminal Justice associate degree program provides students with a broad academic background in the area of criminal justice and the opportunity to develop the skills needed for pursuing a public service career in policing, corrections, courts, probation, parole, federal agencies, the private sector, or transfer to a four-year institution.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Identify the various sources of law and recognize how the different components of the legal system operates to settle both criminal and civil conflicts.
- Explain the dimensions of crime and criminal behavior and the approaches to prevention and treatment.
- Summarize from a historical and systemic perspective criminal justice institutions (i.e., police, courts, corrections) and how they relate to each other.
- Articulate information clearly to a variety of audiences by means of oral presentation, written documents and reports, and graphs, charts, and tables.
- Examine the importance of diversity, culture, and ethical considerations that criminal justice professionals encounter in the workforce.
- Compare and contrast the operations and administration of the criminal justice system.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- As required by the Massachusetts Department of Higher Education for the ongoing approval for participation in the Police Career Incentive Pay Program (PCIPP), also known as the “Quinn Bill Program”, the QCC Criminal Justice program has instituted a policy that:
  - Credit for prior learning options for this program are limited.
  - Students enrolled in this program may be able to earn academic credit for DANTES and CLEP Exams (6 credit maximum).
  - Only credit from a regionally accredited institution of higher education is transferrable to the QCC Criminal Justice program.
- Students who have successfully completed a Local Police Academy recognized by the Municipal Police Training Committee or a State Police Academy in Massachusetts may be awarded six (6) college credits towards the QCC Criminal Justice degree.
- The credits that will be awarded are as follows:
  - CRJ 111 Criminal Law (3 credits)
  - CRJ 231 Introduction to Policing (3 credits)
- Students who meet the criteria and wish to receive the credits towards their degree must submit proof of completion from the Local or State Police Academy. A certificate of completion from the academy must be certified and submitted directly from MPTC or the State

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: CJ). • Register for and successfully complete all courses to graduate in four semesters. • Complete ENG 101. • Complete the Mathematics Elective or Lab Science Elective.				
Cultural Anthropology **OR**	ANT 111	F/S/SU	3	Placement into college level English
Introductory Sociology (Principles)	SOC 101			
Introduction to Criminal Justice	CRJ 101	F/S/SU	3	Placement into college level English
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
Mathematics Elective or Lab Science Elective	---	F/S/SU	3-4	
		Total	**15-16**	
Semester 2 • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer.				
Multicultural Diversity in Criminal Justice	CRJ 110	F/S/SU	3	Placement into college level English
Criminal Law	CRJ 111	F/S/SU	3	Placement into college level English
Composition II	ENG 102	F/S/SU	3	ENG 101
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
Elective	---	F/S/SU	3	
		Total	**15**	
Semester 3 • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs.				
Contemporary Corrections	CRJ 123	F/S/SU	3	Placement into college level English
Introduction to Policing	CRJ 231	F/S/SU	3	Placement into college level English
IT Security Foundations	CST 205	S/SU	3	Placement into college level English
United States Government	PSC 201	F/S/SU	3	ENG 101
Juvenile Delinquency & the Juvenile Justice System	SOC 212	F/S/SU	3	ENG 101
		Total	**15**	
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Evidence & Court Procedure	CRJ 211	F/S/SU	3	ENG 101

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Criminology	CRJ 213	F/S/SU	3	Placement into college level English
Legal and Ethical Concepts in Human Services **OR**	HUS 231	F/S	3	CRJ 101 or HUS 101
Introduction to Ethics	PHI 131	F/S/SU		Placement into college level English
State & Local Government	PSC 221	F/S/SU	3	ENG 101
Elective	---	F/S/SU	3	
		Total	**15**	
Total Credits Required:			**60-61**	

Policy Academy Training Committee. The certificate can be sent to experience@qcc.mass.edu.

- Note: Not all colleges and universities accept credits earned through a police academy. Students that are planning to transfer to another college or university should check with their transfer office to make certain that the institution accepts police academy credits.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 43.0107.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: criminaljustice@qcc.mass.edu

ASSOCIATE IN SCIENCE - CJTR

Criminal Justice - Transfer Option

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Criminal Justice - Transfer Option associate degree program provides students with a broad academic background in the area of criminal justice and the opportunity to develop the skills needed for pursuing a public service career in policing, corrections, courts, probation, parole, federal agencies, or the private sector. This program is specifically designed for students who wish to meet the rigorous requirements of the MassTransfer Program, which ensures the full transfer of credit into the criminal justice and general education courses in bachelor's degree programs within the Massachusetts public education system.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Identify the various sources of law and recognize how the different components of the legal system operates to settle both criminal and civil conflicts.
- Explain the dimensions of crime and criminal behavior and the approaches to prevention and treatment.
- Summarize from a historical and systemic perspective criminal justice institutions (i.e., police, courts, corrections) and how they relate to each other.
- Articulate information clearly to a variety of audiences by means of oral presentation, written documents and reports, and graphs, charts, and tables.
- Examine the importance of diversity, culture, and ethical considerations that criminal justice professionals encounter in the workforce.
- Compare and contrast the operations and administration of the criminal justice system.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- As required by the Massachusetts Department of Higher Education for the ongoing approval for participation in the Police Career Incentive Pay Program (PCIPP), also known as the "Quinn Bill Program", the QCC Criminal Justice program has instituted a policy that:
    - Credit for prior learning options for this program are limited.
    - Students enrolled in this program may be able to earn academic credit for DANTES and CLEP Exams (6 credit maximum).
    - Only credit from a regionally accredited institution of higher education is transferrable to the QCC Criminal Justice program.
- Students who have successfully completed a Local Police Academy recognized by the Municipal Police Training Committee or a State Police Academy in Massachusetts may be awarded six (6) college credits towards the QCC Criminal Justice degree.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: CJTR). • Register for and successfully complete all courses to graduate in four semesters. • Complete ENG 101. • For the Mathematics Elective, MAT 100 recommended.				
Cultural Anthropology **OR**	ANT 111	F/S/SU	3	Placement into college level English
Introductory Sociology (Principles)	SOC 101			
Introduction to Criminal Justice	CRJ 101	F/S/SU	3	Placement into college level English
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
Mathematics Elective	---	F/S/SU	3	
		Total	**15**	
Semester 2 • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete prerequisite(s) for the Lab Science Elective (Semester 3) and the Science Elective (Semester 4).				
Multicultural Diversity in Criminal Justice	CRJ 110	F/S/SU	3	Placement into college level English
Criminal Law	CRJ 111	F/S/SU	3	Placement into college level English
Composition II	ENG 102	F/S/SU	3	ENG 101
Introduction to Ethics	PHI 131	F/S/SU	3	Placement into college level English
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**15**	
Semester 3 • For the Lab Science Elective, choose any BIO, CHM, PHY, or SCI 4-credit course. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process.				
Contemporary Corrections	CRJ 123	F/S/SU	3	Placement into college level English
Introduction to Policing	CRJ 231	F/S/SU	3	Placement into college level English
Technical and Workplace Writing	ENG 205	F/S/SU	3	ENG 102, Computer Literacy
State & Local Government	PSC 221	F/S/SU	3	ENG 101
Lab Science Elective	---	F/S/SU	4	
		Total	**16**	
Semester 4 • Continue with/complete the transfer application process. • Submit an Intent to Graduate Form, located on *The Q*.				
Evidence & Court Procedure	CRJ 211	F/S/SU	3	ENG 101
Criminology	CRJ 213	F/S/SU	3	Placement into college level English

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Juvenile Delinquency & the Juvenile Justice System	SOC 212	F/S/SU	3	ENG 101
Elective	---	F/S/SU	3	
Science Elective	---	F/S/SU	3-4	
		Total	**15-16**	
Total Credits Required:			**61-62**	

- The credits that will be awarded are as follows:
    - CRJ 111 Criminal Law (3 credits)
    - CRJ 231 Introduction to Policing (3 credits)
- Students who meet the criteria and wish to receive the credits towards their degree must submit proof of completion from the Local or State Police Academy. A certificate of completion from the academy must be certified and submitted directly from MPTC or the State Policy Academy Training Committee. The certificate can be sent to experience@qcc.mass.edu.
- Note: Not all colleges and universities accept credits earned through a police academy. Students that are planning to transfer to another college or university should check with their transfer office to make certain that the institution accepts police academy credits.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 43.0107.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: criminaljustice@qcc.mass.edu

CERTIFICATE - DSC

Direct Support Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Human Services

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Direct Support Certificate is designed for community support workers who work in programs funded by the Massachusetts Department of Developmental Services (DDS); it serves as a pathway for career development and advancement for non-degree workers in the field. Graduates are prepared to transfer into the Human Services associate degree program.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Understand the past, present and future of human services.
- Demonstrate the ability to effectively perform empathic listening, observation and interactional skills with individuals, groups, families and community.
- Utilize knowledge of formal and informal networks for individuals, families and groups within the developmental disabilities (DD) community of care.
- Understand and apply a specific set of skills designed for effective interaction and treatment for individuals with developmental disabilities.
- Identify, explain and apply the 12 National Community Support Skill Standards for human service delivery.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

- Students applying for the Direct Support Certificate are required to complete a program specific application in addition to the College admissions application.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.
- Must be employed in a DDS funded agency for six months or longer.
- Must meet with the Direct Support Certificate Program Coordinator to complete additional application.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are required. Fingerprinting and drug testing are not required.

- CORI/SORI checks are required for all students before fieldwork/practicum placement; students should be aware that a court record, active or inactive, may prevent them from completing curriculum/fieldwork requirements.

Additional Cost

See the Program Fees (Page 27).

- Registration for the practicum (HUS 143) includes a fee for liability/malpractice insurance.
- No additional fees outside of $50.00/class.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- For students attending QCC for career development and that have 5-7 years of prior experience in the field of human services, a portfolio may be a viable option for prior learning credit.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Register for and successfully complete all courses to graduate in two semesters. • Meet with Direct Support Certificate Coordinator for Registration. • Meet with Direct Support Certificate Coordinator before taking HUS 143. • Meet with Academic Advisor/Program Coordinator to discuss associate degree (Program Code: HA); or create an account on the QCC job board to search for internships, co-ops and jobs. • Complete ENG 101.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Human Services	HUS 101	F/S	3	Placement into college level English
Introduction to Developmental Disabilities	HUS 131	F	3	Coreq: ENG 101, HUS 101
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**12**	
Semester 2 • Apply to associate degree (Program Code: HA); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Must obtain First Aid and CPR by completion of certificate. • Submit an Intent to Graduate Form, located on *The Q*.				
The Helping Relationship: Delivering Human Services	HUS 121	F/S	3	Placement into college level English
Direct Support Practicum	HUS 143	S	3	HUS 101
Special Topics in Developmental Disabilities	HUS 145	S	3	HUS 101
		Total	**9**	
Total Credits Required:			**21**	

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 44.0000.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- The Department of Developmental Services (DDS) pays for this program; students pay only $50.00 per class.
- Employees can be public-provider or private-provider employed.
- The DDS can help with employment opportunities.

Program Email: smoriarty@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - FS

Fire Science

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Fire Science Certificate

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Fire Science associate degree program prepares students for a career or promotion within fire and emergency service organizations. Students are also prepared for careers in the private sector, which include fire investigation, fire engineering, suppression/alarm systems maintenance, emergency management and hazard analysis.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate and use basic interpersonal, group and public communication skills.
- Formulate accurate and clearly written letters, memos, technical reports and business communications.
- Illustrate and relate the basics of mathematical models to fire and life safety.
- Summarize and restate basic theories and fundamentals of how and why fires start, spread and are controlled.
- Evaluate the components of building construction related to fire and life safety; including inspections, pre-incident planning and emergency operations.
- Compare and contrast and perform basic responsibilities of company officers, including supervision, delegation, problem solving, decision-making, communications, and leadership.
- Evaluate the laws, rules, regulations, and codes and those relevant to fire prevention of the authority having jurisdiction.
- Distinguish the benefits of fire protection systems in various types of structures.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- The Fire Science program does not have any additional costs. However, EMT 101 may require students to purchase some supplies. The EMT 101 course prepares students for the Massachusetts State Certification exam, and the cost of the state exam is the student's responsibility.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- Additionally, credit may be earned for courses taken at the Massachusetts Firefighting Academy or at Worcester Fire Academy or for EMT 101 for students with current EMT Basic, EMT Advanced, or EMT Paramedic certification.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: FS). • Register for and successfully complete all courses to graduate in four semesters. • Two Fire Science Electives can substitute for EMT 101. • Meet with Career Services to credential for EMT. See www.QCC.edu/credit-prior-learning. • Complete ENG 101 and the Mathematics Elective.				
Basic Emergency Medical Technology	EMT 101	F/S/SU	7	
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Principles of Emergency Services	FSC 101	F	3	Placement into college level English
Mathematics Elective	---	F/S/SU	3	
		Total	**16**	
Semester 2 • If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer. • Complete prerequisite(s) for the Lab Science Electives.				
Introduction to Microcomputer Applications **OR**	CIS 111	F/S/SU	3	
Advanced Microcomputer Applications	CIS 112			CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21
Composition II	ENG 102	F/S/SU	3	ENG 101
Fire Behavior and Combustion	FSC 104	S	3	Placement into college level English, FSC 101
Building Construction for Fire Protection	FSC 121	S	3	Placement into college level English, FSC 101
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**15**	
Semester 3 • For the Lab Science Electives (Semesters 3 and 4), BIO 101 and BIO 111 recommended for students planning to become a paramedic. • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs.				
Principles of Fire and Emergency Services Safety and Survival	FSC 201	F	3	FSC 104, FSC 121
Fire Prevention	FSC 203	F	3	ENG 101, FSC 104, FSC 121
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
Fire Science Elective	---	F/S	3	
Lab Science Elective	---	F/S/SU	4	
		Total	**16**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Fire Protection Systems	FSC 223	S	3	FSC 203
Introduction to Fire and Emergency Services Administration	FSC 263	S	3	FSC 203, SPH 101
Introductory Sociology (Principles) **OR**	SOC 101	F/S/SU	3	Placement into college level English
Social Problems & Social Change	SOC 111			
Fire Science Elective	---	F/S	3	
Lab Science Elective	---	F/S/SU	4	
		Total	**16**	
Total Credits Required:			**63**	

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 43.0202.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- This program is designed to align with the Fire and Emergency Services Higher Education (FESHE) Model for associate degree programs in Fire Science.
- QCC is recognized as a FESHE College by the National Fire Academy.

Program Email: firescience@qcc.mass.edu

CERTIFICATE - FSC

Fire Science Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Fire Science

Location

- This program may be completed 50% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Fire Science Certificate prepares students for a career or promotion within fire and emergency service organizations. Students are also prepared for careers in the private sector, which include fire investigation, fire engineering, suppression/alarm systems maintenance, emergency management and hazard analysis.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Demonstrate and use basic interpersonal, group and public communication skills.
- Formulate accurate and clearly written letters, memos, technical reports and business communications.
- Illustrate and relate the basics of mathematical models to fire and life safety.
- Summarize and restate basic theories and fundamentals of how and why fires start, spread and are controlled.
- Evaluate the components of building construction related to fire and life safety; including inspections, pre-incident planning and emergency operations.
- Compare and contrast and perform basic responsibilities of company officers, including supervision, delegation, problem solving, decision-making, communications, and leadership.
- Evaluate the laws, rules, regulations, and codes and those relevant to fire prevention of the authority having jurisdiction.
- Distinguish the benefits of fire protection systems in various types of structures.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are not required. Fingerprinting and drug testing are not required.

Additional Cost

See the Program Fees (Page 27).

- The Fire Science program does not have any additional costs. However, EMT 101 may require students to purchase some supplies. The EMT 101 course prepares students for the Massachusetts State Certification exam, and the cost of the state exam is the student's responsibility.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- Additionally, credit may be earned for courses taken at the Massachusetts Firefighting Academy or at Worcester Fire Academy or for EMT 101 for students with current EMT Basic, EMT Advanced, or EMT Paramedic certification.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: FSC). • Register for and successfully complete all courses to graduate in two semesters. • Meet with Academic Advisor to discuss associate degree (Program Code: FS); or create an account on the QCC job board to search for internships, co-ops and jobs.				
Basic Emergency Medical Technology	EMT 101	F/S/SU	7	
Principles of Emergency Services	FSC 101	F	3	Placement into college level English
Occupational Safety and Health for Emergency Services **OR**	FSC 151	F	3	Placement into college level English
Fire Science Elective	---	F/S		
		Total	**13**	
Semester 2 • Apply to associate degree (Program Code: FS); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Fire Behavior and Combustion	FSC 104	S	3	Placement into college level English, FSC 101
Building Construction for Fire Protection	FSC 121	S	3	Placement into college level English, FSC 101
		Total	**12**	
Total Credits Required:			**25**	

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 43.0203.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- This program is designed to align with the Fire and Emergency Services Higher Education (FESHE) Model for associate degree programs in Fire Science.
- QCC is recognized as a FESHE College by the National Fire Academy.

Program Email: firescience@qcc.mass.edu

For information on electives, see p. 373-374.

ASSOCIATE IN SCIENCE - HA

Human Services

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Human Services Certificate
- Direct Support Certificate

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.
- This program may be completed in a combination of face-to-face, online, and blended course formats.

Program Goals

The Human Services associate degree program prepares students for a career as an entry-level human service practitioner; it also serves as a pathway for career development and advancement for non-degree workers in the field of human services. Graduates are prepared to transfer to a four-year program.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Understand the past, present and future of human services.
- Demonstrate the ability to effectively perform empathic listening, observation and interactional skills with individuals, groups, families and community.
- Conduct intake interviews and provide a basic assessment of human needs.
- Apply core interpersonal skills within the helping relationship.
- Be prepared for group facilitation and participation.
- Utilize knowledge of formal and informal networks in the human services delivery system.
- Apply fundamental legal and ethical standards in providing client services and maintaining participant records.
- Advocate for participant's needs utilizing a strength-based, culturally-competent dynamic.
- Identify, explain and apply the 12 National Community Support Skill Standards for human service delivery.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are required. Fingerprinting and drug testing are not required.

- CORI/SORI checks are required for all students before fieldwork/practicum placement; students should be aware that a court record, active or inactive, may prevent them from completing curriculum/fieldwork requirements. There are placements and careers in the field of human services that are still an option with a CORI history; however, each individual case will be reviewed upon acceptance and again prior to placement for the practicum with the appropriate agency to assure there is no misunderstanding about what is or is not possible due to CORI issues.

Additional Cost

See the Program Fees (Page 27).

- Registration for the practicums (HUS 243 and HUS 244) includes a fee for liability/malpractice insurance.

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: HA). • Register for and successfully complete all courses to graduate in four semesters. • Complete ENG 101.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Human Services	HUS 101	F/S	3	Placement into college level English
The Helping Relationship: Delivering Human Services	HUS 121	F/S	3	Placement into college level English
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
Mathematics Elective or Science Elective	---	F/S/SU	3-4	
		Total	**15-16**	

Semester 2
• HUS 143 recommended for students co-enrolled in Direct Support Certificate (Program Code: DSC).
• If considering transfer, meet with a Transfer Services Advisor. See www.QCC.edu/transfer.
• Plan for Practicum:
  • Complete prerequisite(s) for HUS 243 (refer to Human Services Department Student Handbook).
  • Register by May 1 for HUS 243 with Practicum Coordinator; HUS 243 and HUS 244 must be accomplished in a Fall/Spring cycle.
  • Complete required Practicum entry paperwork, including an in-depth CORI/SORI review prior to placement.				

Composition II	ENG 102	F/S/SU	3	ENG 101
Group Process for Human Services	HUS 125	F/S/SU	3	HUS 101, HUS 121
Community Service: Delivering Human Services **OR**	HUS 141	F/S/SU	3	ENG 101, HUS 101, HUS 121
Direct Support Practicum	HUS 143	S		HUS 101
Introduction to Counseling	PSY 231	F/S/SU	3	PSY 101
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
		Total	**15**	
Semester 3 • If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process; or create an account on the QCC job board to search for internships, co-ops and jobs.				
Cultural Competence for Human Service Workers	HUS 221	F/S	3	CRJ 101 or HUS 101, ENG 101, SOC 101
Legal and Ethical Concepts in Human Services	HUS 231	F/S	3	CRJ 101 or HUS 101
Human Services Practicum I	HUS 243	F	4	HUS 101, HUS 141, PSY 231
Chemical Dependency	PSY 273	F/S/SU	3	PSY 101
Speech Communication Skills	SPH 101	F/S/SU	3	Placement into college level English
		Total	**16**	

For information on electives, see p. 373-374.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 4 • Continue with/complete the transfer application process; or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Complete Capstone Paper and all required paperwork documenting Practicum experience. • Submit an Intent to Graduate Form, located on *The Q*.				
Introduction to Gerontology	GRT 101	F/S	3	Placement into college level English
Human Services Practicum II	HUS 244	S	4	HUS 243
Elective	---	F/S/SU	3	
Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
		Total	**16**	
Total Credits Required:			**62-63**	

faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- For students attending QCC for career development who have a minimum of five years of prior experience in the field of human services, a portfolio may be a viable option for prior learning credit. The greater the number of years in direct service, the higher the number of credits one may earn.

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 44.0000.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Additional Information

- The Human Services Department Student Handbook has a grid outlining the order in which courses should be taken; it will provide the optimal order of courses if one is taking two, three, four, or five courses per semester. It is imperative that prerequisites be accomplished to prevent barriers to graduating in a timely manner, without loss of financial aid options.

Program Email: humanservices@qcc.mass.edu

For information on electives, see p. 373-374.

CERTIFICATE - HS

Human Services Certificate

Connections

The following program(s) have connections that can be completed alongside or applied to this program:

- Human Services

Location

- This program may be completed 90% or more online.
- This program may be completed at QCC Worcester (Main Campus).
- This program may be completed face-to-face.

Program Goals

The Human Services Certificate prepares students for entry-level career positions in a wide variety of human service occupations; it also serves as a pathway for career development and advancement for non-degree workers in the field. Graduates are prepared to transfer into the Human Services associate degree program.

Student Learning Outcomes

Upon completion of the program, graduates will be able to:

- Understand the past, present and future of human services.
- Demonstrate the ability to effectively perform empathic listening, observation and interactional skills with individuals, groups, families and community.
- Conduct intake interviews and provide a basic assessment of human needs.
- Apply core interpersonal skills within the helping relationship.
- Be prepared for group facilitation and participation.
- Utilize knowledge of formal and informal networks in the human services delivery system.
- Advocate for participant's needs utilizing a strength-based, culturally-competent dynamic.
- Identify, explain and apply the 12 National Community Support Skill Standards for human service delivery.

Admissions Process

Admissions inquiries should be directed to admissions@qcc.mass.edu. Prospective students may apply to the program of their choice by following the enrollment steps at www.QCC.edu/enrollment-steps.

Program Admissions Requirements

Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.

- High School Diploma or GED/HiSET.

CORI, SORI, Finger Printing & Drug Testing

Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) checks are required. Fingerprinting and drug testing are not required.

- CORI/SORI checks are required for all students before fieldwork/practicum placement; students should be aware that a court record, active or inactive, may prevent them from completing curriculum/fieldwork requirements. There are placements and careers in the field of human services that are still an option with a CORI history; however, each individual case will be reviewed upon acceptance and again prior to placement for the practicum with the appropriate agency to assure there is no misunderstanding about what is or is not possible due to CORI issues.

Additional Cost

See the Program Fees (Page 27).

Technical Performance Standards

See the Technical Performance Standards (Page 16). (Note: Not all programs have technical performance standards).

Credit for Prior Learning

Credit for Prior Learning (CPL) allows students to use skills they already have towards a college degree or certificate. Work, life, volunteer and military experience may be translated into credit, allowing students to take fewer classes and earn their degree faster. CPL eliminates redundancies for students who have already earned credentials or mastered skills required for their program of study. Email experience@qcc.mass.edu for more information and eligibility.

- For students attending QCC for career development who have a minimum of five years of prior experience in the field of human services, a portfolio may be a viable option for prior learning credit. The greater the number of years in direct service, the higher the number of credits one may earn.

Course Title	Course #	Semester Offered	Credits	Prerequisites
Semester 1 • Apply and get accepted to this program (Program Code: HS). • Register for and successfully complete all courses to graduate in two semesters. • Meet with Academic Advisor to discuss associate degree (Program Code: HA); or create an account on the QCC job board to search for internships, co-ops and jobs.				
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Introduction to Gerontology	GRT 101	F/S	3	Placement into college level English
Introduction to Human Services	HUS 101	F/S	3	Placement into college level English
The Helping Relationship: Delivering Human Services	HUS 121	F/S	3	Placement into college level English
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		Total	**15**	
Semester 2 • Apply to associate degree (Program Code: HA); or if seeking employment, meet with Career Services for career readiness preparation and to learn more about QCC's job board. • Submit an Intent to Graduate Form, located on *The Q*.				
Group Process for Human Services	HUS 125	F/S/SU	3	HUS 101, HUS 121
Community Service: Delivering Human Services **OR**	HUS 141	F/S/SU	3	ENG 101, HUS 101, HUS 121
Direct Support Practicum	HUS 143	S		HUS 101
Introduction to Counseling	PSY 231	F/S/SU	3	PSY 101
Introductory Sociology (Principles)	SOC 101	F/S/SU	3	Placement into college level English
		Total	**12**	
Total Credits Required:			**27**	

Career Outlook

Please consult the Massachusetts Career Information System at https://masscis.intocareers.org/ or the Occupational Outlook Handbook at www.bls.gov/ooh/ for specific occupational information. The CIP code for this program is 44.0000.

Transfer Articulations & Opportunities

Prospective students may learn more about transfer articulation agreements at www.QCC.edu/agreements. More information regarding transfer opportunities is available at www.QCC.edu/transfer.

Program Email: humanservices@qcc.mass.edu

For information on electives, see p. 373-374.

English as a Second Language (ESL) Course Offerings

Course Title	Course #	Offered	Credits	Prerequisites
English as a Second Language: Writing I	ESL 103	F/S	3	Non-native speaker of English, High School Diploma or GED and approp place score
English as a Second Language: Reading I	ESL 113	F/S	3	Non-native speaker of English, High School Diploma or GED and approp place score
English as a Second Language: Listening/ Speaking I	ESL 133	F/S	3	Non-native speaker of English, High School Diploma or GED and approp place score
		Total	**9**	
English as a Second Language: Writing II	ESL 104	F/S	3	Non-native speaker of English, High School Diploma or GED and ESL 103 passed with a grade of "C" or higher or approp place score
English as a Second Language: Reading II	ESL 114	F/S	3	Non-native speaker of English, High School Diploma or GED and ESL 113 passed with a grade of "C" or higher or approp place score
English as a Second Language: Listening/ Speaking II	ESL 134	F/S	3	Non-native speaker of English, High School Diploma or GED and ESL 133 passed with a grade of "C" or higher or approp place score
		Total	**9**	
English as a Second Language: Writing III	ESL 105	F/S	3	Non-native speaker of English, High School Diploma or GED and ESL 104 passed with a grade of "C" or higher or approp place score
English as a Second Language: Reading III	ESL 115	F/S	3	Non-native speaker of English, High School Diploma or GED and ESL 114 passed with a grade of "C" or higher or approp place score
English as a Second Language: Listening/ Speaking III	ESL 135	F/S	3	Non-native speaker of English, High School Diploma or GED and ESL 134 passed with a grade of "C" or higher or approp place score
		Total	**9**	
College English Transition	ESL 160	F/S	6	Non-native speaker of English, High School Diploma or equivalent and ESL 105 and ESL 115 or placement by ESL Coordinator (Coordinator will make decision by combination of CELSA score, Accuplacer Reading score, and a short writing sample)
		Total	**6**	
Total Credits Required:			**33**	

Course Information

Quinsigamond Community College (QCC) offers three types of associate degrees, and the type of degree determines the minimum number of credits required in general education. The Associate in Applied Science degree requires a minimum of 16 credits in general education; the Associate in Science degree requires a minimum of 20 credits in general education; and the Associate in Arts degree requires a minimum of 33 credits in general education. These requirements are distributed across the disciplines of humanities, mathematics, science, and the social sciences. Actual distribution requirements will vary according to the demands of each program.

General Education Student Learning Outcomes

General education at QCC provides students with the skills, knowledge, and perspectives that enable them to achieve their academic, professional, and personal goals. The following learning goals for general education are integrated into each associate degree program:

- **Civic Learning and Engagement** - Students will develop civic knowledge, skills and dispositions through learning and practice.
- **Communication Skills** - Students will read, write and speak effectively to build knowledge and convey meaning.
- **Information and Digital Literacy** - Students will engage in a reflective process of information discovery, use information responsibly and employ digital technologies to learn, communicate and collaborate.
- **Intercultural Knowledge and Competence** - Students will demonstrate intercultural knowledge within a variety of cultural contexts and with culturally different ideas and individuals.
- **Quantitative and Scientific Reasoning** - Students will apply concepts and methods of mathematics and science to acquire knowledge and solve problems.

Types of Courses

The following types of courses are offered at QCC:

College Level Courses: College level courses are defined as all credit courses offered by the College except the developmental (pre-college level) courses.

Developmental Courses: Developmental courses are courses offered by the College to improve academic skills of students, enabling them to succeed in college level courses. The following developmental courses cannot be used to satisfy degree or certificate requirements:

CHM 090*	ENG 096	MAT 090*
ENG 090	ENG 097	MAT 095
ENG 091	ENG 099	MAT 097
ENG 092	MAT 051	MAT 098*
ENG 093	MAT 052	MAT 099*
ENG 095	MAT 054	

Interdisciplinary Courses: Interdisciplinary courses are those courses which combine subject matter from more than one academic discipline. The interdisciplinary courses can also be used to satisfy a Liberal Arts Elective if they have an IDS designation in the course numbers.

Types of Course Modalities

The following types of course modalities are offered at QCC:

In-Person: Course instruction is provided at a specific location on campus on a specific day and time. On the 'Course Offerings & Schedule,' terms that mean a class meets in-person include, but are not limited to, the following: Lecture, Lab, Clinic/Clinical, Honors Lecture, High School or High School Classroom, 7-week, and Emporium Method. These classes list a specific physical location where they are meeting.

Online: Students log in to Blackboard to review course content and assignments. There are no scheduled meeting times; work is completed based on course deadlines as set by the professor. On the 'Course Offerings & Schedule,' terms that mean a class is online include, but are not limited to, the following: Online, 7-week Online, and High School Online.

Remote Blended: Classes are held virtually at a specific day and time, using Zoom once a week (75 minutes). Additional coursework that meets course objectives is delivered asynchronously through Blackboard. These courses, in addition to the virtual class meeting, use various online tools that include, but are not limited to, discussion boards, assignments, testing, web links, videos, group work, journals, etc.

In-Person Blended: This type of course delivery includes a combination of both in-person and online instruction where students will meet with their instructor once a week in class (75 minutes) at a specific day and time on campus. Additional coursework is delivered asynchronously through Blackboard that meets course objectives. These courses, in addition to the in-person class, use various online tools that include, but are not limited to, discussion boards, assignments, testing, web links, videos, group work, journals, etc.

7-week: 7-week courses run in a compressed time and either meet more often to ensure adequate contact time or utilize other proven accelerated learning methods to replicate the required contact hours. Specialized accelerated learning cognitive methods may also be used. A 7-week course may be offered online, real time remote, or in a hybrid modality.

Please note that under certain circumstances, course modalities may need to be modified to ensure the safety of our campus community and/or the professor's ability to continue instruction and complete courses and academic semesters.

Types of Electives

The following types of electives are offered at QCC:

Electives: Any college level course qualifies as an Elective; a student may enroll in any college level course for which he or she meets the prerequisite(s).

Behavioral Science Electives: Behavioral sciences involve seeking to discover general truths about human social behavior. Courses with the following designations are considered Behavioral Science Electives:

Anthropology (ANT)
Psychology (PSY)
Sociology (SOC)

Business Electives: Courses with the following designations are considered Business Electives:

Accounting (ACC)
Bookkeeping (BKK)*
Business (BUS)
Business Law (BSL)
Business Office Support Specialist (BSS)
Computer Information Systems (CIS)
Economics (ECO)
Finance (FIN)
Hospitality & Recreation Management (HRM)
Logistics (LOG)
Management (MGT)
Manufacturing Technology (MNT)
Marketing (MRK)

Creative Arts Electives: Courses with the following designations are considered Creative Arts Electives:

Art (ART)
Music (MUS)
Theater (THA)

The following specific courses are also considered Creative Arts Electives:

ENG 202
ENG 203
ENG 204
ENG 209

Foreign Language Electives: Courses with the following designations are considered Foreign Language Electives. (Note: These course designations are also considered Multiple Perspectives Electives or Humanities Electives):

American Sign Language (ASL)
French (FRC)
German (GER)*
Spanish (SPN)

Healthcare Electives: Courses with the following designations are considered Healthcare Electives:

Allied Health (ALH)
Complementary Health (CHC)*
Dental Assisting (DAS)
Dental Hygiene (DHY)
Emergency Medical Technician (EMT)
Medical Support Specialist (MSS)
Nurse Education (NUR)
Occupational Therapy (OTA)
Paramedicine (MED)
Practical Nursing Program (PNP)
Public Health (PHA)
Radiologic Technology (RDT)
Respiratory Care (RCP)
Surgical Technology (SUR)

The following specific courses are also considered Healthcare Electives:

ASL 111
BIO 221*
BIO 232
BSS 112
CIS 111
CIS 212
IDS 101
IDS 215
PHI 131
PHY 103*
PSY 273
SOC 211
SOS 260
SPN 113

Humanities Electives: The humanities courses present knowledge concerned with humanity and world culture: philosophy, literature, and the fine arts. These arts are distinguished from the sciences and are produced or intended primarily for beauty, not utility. Sculpture, painting, drawing, architecture, literature, drama, music, and dance are examples of such expressions. Courses with the following designations are considered Humanities Electives:

American Sign Language (ASL)
Art (ART)
Communication (COM)
English (ENG)
French (FRC)
German (GER)*
Humanities (HUM)
Music (MUS)
Philosophy (PHI)
Spanish (SPN)
Speech (SPH)
Theater (THA)

Liberal Arts Electives: The following types of Electives are also considered Liberal Arts Electives:

Behavioral Science Electives
Humanities Electives
Mathematics Electives
Science Electives or Lab Science Electives
Social Science Electives

Literature, Philosophy, or Language Electives: Courses with the following designations are considered Literature, Philosophy, or Language Electives:

American Sign Language (ASL)
French (FRC)
German (GER)*
Humanities (HUM)
Philosophy (PHI)
Spanish (SPN)

The following specific courses are also considered Literature, Philosophy, or Language Electives:

ENG 200
ENG 210
ENG 212*
ENG 215*
ENG 231
ENG 232
ENG 241
ENG 242
ENG 251
ENG 252
ENG 256
ENG 259*
ENG 260
ENG 261
ENG 262

Literature Survey Electives: The following specific courses are considered Literature Survey Electives:

ENG 231
ENG 232
ENG 241
ENG 242
ENG 251
ENG 252
ENG 261
ENG 262

Mathematics Electives: Any college level mathematics course (MAT 100 or above, except for MAT 103, MAT 111, MAT 112, MAT 147, and MAT 148) qualifies as a Mathematics Elective, except as designated by specific programs. Note that some programs may have specific recommendations

Multiple Perspectives Electives: Courses designated as Multiple Perspectives Electives involve the study of diversity of people with respect to culture (national origin, language, religion, and

ethnicity), gender, race, social class, age, sexual orientation, and ability. The study can be focused on diversity in America or global diversity in a non-Western context. The following specific courses are considered Multiple Perspectives Electives:

ANT 111 and ANT 221*
ART 260*
ASL 111, ASL 112, ASL 113, ASL 114, ASL 200, ASL 211, ASL 212, and ASL 215*
BIO 141*
CHC 151*, CHC 250*, and CHC 255*
COM 101 and COM 102
CRJ 110
ECE 133*
ENG 231, ENG 232, ENG 256, ENG 261, and ENG 262
FRC 111, FRC 112, FRC 211*, and FRC 212*
GEO 210
GER 111*, GER 112*, GER 211*, and GER 212*
GRT 101
HST 104, HST 105, HST 106, HST 133, HST 152*, HST 157*, HST 203, HST 204, HST 205, HST 215*, HST 216, and HST 241*
HUM 147* and HUM 211
HUS 221
IDS 101 and IDS 141*
MUS 121
PHA 102
PHI 121, PHI 123*, and PHI 201
PSY 142
SOC 111, SOC 201, SOC 211, SOC 215, and SOC 220*
SPN 111, SPN 112, SPN 211*, and SPN 212*

Science Electives or Lab Science Electives: These courses present systematized knowledge derived from observation, study, and experimentation. Electives that are specifically designated as Science Electives do not require a lab; however, a science course with a lab will also fulfill the requirement. Electives that are specifically designated as Lab Science Electives require a science course that includes a lab (4 credits). Courses with the following designations are considered Science Electives (3 credits) or Lab Science Electives (4 credits):

Biology** (BIO)
Biotechnology (BTT)
Chemistry (CHM)
Physics (PHY)
Science (SCI)

Social Science Electives: All the social sciences are concerned with the study of people and their behavior, both individually and as a member of groups, nations, cultures, and societies. Courses with the following designations are considered Social Science Electives:

Anthropology (ANT)
Economics (ECO)
Geography (GEO)
History (HST)
Political Science (PSC)
Psychology (PSY)
Social Science (SOS)
Sociology (SOC)

Social Science Foundational Electives: The following specific courses are considered Social Science Foundational Electives:

ANT 111
ANT 221*
ECO 215
ECO 216
GEO 210
PSC 201
PSY 101
SOC 101

Technology Career Electives: Courses with the following designations are considered Technology Career Electives:

Computer Information Systems (CIS)
Computer Science (CSC)
Computer Systems Engineering Technology (CST)
Electromechanical Technology (ELM)
Electronics Technology (ELT)
Interactive Media Digital Design (IMD)
Interactive Media Game Design (IMG)

U.S. or World History Survey Electives: The following specific courses are considered U.S. or World History Survey Electives:

HST 104
HST 105
HST 106
HST 115
HST 116

Anticipated Course Offerings

The College has attempted to identify the cycle of course offerings. The following notations can be found at the end of course descriptions:

- **F:** Indicates course is offered during Fall semester
- **S:** Indicates course is offered during Spring semester
- **SU:** Indicates course is offered during Summer sessions (Sessions I & II will be determined at time of offering)
- **IN:** Indicates course is offered during Intersession

Courses that are not offered every year may be designated with an **F** or **S** and a specific year. Thus, a course designated **F, 2025** means that the course will be offered in Fall semester, 2025. Students are encouraged to work with their Academic Advisors to plan a sequence of courses that takes into consideration when courses will be offered.

The College reserves the right to deviate from the indicated cycles, although such deviations are anticipated to be minimal. The College also reserves the right to cancel courses and sections that are under-enrolled.

** Indicates courses or course designations that are no longer offered*
***BIO 140 (no longer offered) is not a Lab Science Elective*

Course Descriptions

A prerequisite for a course is listed at the end of its description. It must be successfully completed before registering for that course. The prerequisite requirement may also be fulfilled by an appropriate placement score. The Instructor of the course section, Program Coordinator, School Dean, or the Vice President of Academic Affairs may waive the prerequisite requirement on presentation of acceptable documentation. A corequisite requirement indicates a course that should be taken concurrently with, or prior to enrollment in, a course.

Accounting

ACC 101 - Financial Accounting I

This course focuses on the relationships between business activities and events and the impact they have on financial statements from a preparer perspective. Students study financial transactions for both service and merchandising businesses and relate the transactions to a company's assets, liabilities, owners' equity, revenues, and expenses. Areas of study include the basic accounting model, the process of the accounting cycle, accounting principles and terminology, financial statement preparation, analytics, and computerized accounting applications.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

ACC 102 - Financial Accounting II

This course builds on the material learned in ACC 101. Students use their knowledge of preparing financial statements to analyze and communicate a variety of financial information including accounting for plant assets, stockholders equity, current and long-term liabilities and the statement of cash flows. Students demonstrate the knowledge they gain by working with Web resources to present a financial analysis of a public corporation.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ACC 101, CIS 111

ACC 211 - Federal Taxation

This course examines basic federal income and employment taxes. Students learn how to prepare individual tax returns including the appropriate schedules, manually and on computers. Topics covered include analysis of tax problems, identification of tax issues, income inclusion and exclusion, deductible business and non-business expenses, gains and losses, tax credits, special taxes, and current tax laws and procedures.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

ACC 222 - Managerial Accounting

This course examines information used by executives and managers who work in business. Students study manufacturing accounting, budgeting and forecasting. Using computer applications, analytics, working in groups, and through classroom exercises, students learn to use and interpret accounting data as the basis for managerial decision-making and planning.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ACC 102

ACC 225 - Volunteer Income Tax Assistance, VITA Practicum

This course introduces students to concepts and language of IRS and taxation while preparing federal and state taxes within their community for low-income individuals.

Credits: 4

Semester Offered: S

Prerequisites: CIS 111, Placement into college level English

ACC 231 - Computerized Accounting

This course focuses on understanding accounting through a mastery of general ledger software applications, using industry-standard software. Students set up and maintain a computerized accounting records system by recording the transactions necessary to operate a service and merchandising business. The course covers the areas of cash, accounts receivable, accounts payable, and payroll transactions. Students learn how to create these transactions on a computer and how to understand and interpret the resulting financial reports. QuickBooks certification exam will be offered at the end of the semester.

Credits: 3

Semester Offered: F/S

Prerequisites: ACC 101, CIS 111

Allied Health

ALH 102 - Introduction to Medical Terminology

This course provides a basic foundation for students interested in the allied health field. Emphasis is on analyzing word parts and learning basic prefixes, suffixes and word roots. The course also highlights the body systems: basic anatomy and physiology, including terms used in diseases and surgical procedures.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

ALH 103 - Introduction to Pharmacology for Allied Health Professionals

This course provides a foundation with knowledge in pharmacology, a historical view of pharmacology and explores the fundamental pharmacological concepts such as pharmacokinetics and pharmacodynamics. Students study drug classifications, their actions, indications for use, contraindications and adverse effects. Natural alternatives and herbal remedies are included. This course is designed for all students with an interest in the Allied Health Professions, as well as the general public.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

ALH 106 - Medical Law and Ethics

This course explores many legal, ethical and bioethical issues encountered in a medical office and offers suggestions for dealing with those issues in an informed, legal and sensitive manner. Students learn the various designations for medical employees (licensed, registered and certified) and understand the laws that directly relate to physicians. Also an understanding of the role of bioethics in a medical office is discussed.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

ALH 125 - Phlebotomy/EKG Technician Principles and Application

This course provides an introduction to the theory, techniques, and roles of a phlebotomist and electrocardiogram (EKG) technician. Students learn phlebotomy skills, including skin puncture, venipuncture, blood collection, and quality assurance. Additional topics include infection control, medical terminology, quality assurance, principles of venipuncture, specimen handling, basic hematology, and basic anatomy of the venous system. Students learn the cardiovascular system as it relates to the performance of an EKG. Students gain knowledge in basic EKG tracing, rate, rhythm, common heart abnormalities, and the use and function of the EKG machine. The externship prepares students for a career as a phlebotomy/EKG technician. Students learn phlebotomy skills, EKG skills, and how to use reference materials. Students then work in a laboratory and learn how to perform as a phlebotomist; they also work in an EKG clinic and learn how to perform as an EKG technician. Students practice their communication skills, familiarize themselves with the layout of the laboratory and its daily and monthly operation; students also familiarize themselves with the layout of the EKG clinic and its daily and monthly operation. Students experience data entry and third party billing, inventory and quality control checks. Students also practice writing a resume, interviewing techniques, and professional skills.

Credits: 9

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

ALH 131 - Introductory Nursing Assistant

This course provides students with the theory and entry-level skills necessary to safely provide basic nursing assistant level care in a long-term care facility, acute care facility or home health care agency. Students learn the role and responsibilities of the nursing assistant and home health aide within the health care team, including patient and residents' rights, professionalism, communication skills, basic body structure and function, common disorders, rehabilitation and restorative care, infection control and safety, special care concerns, and basic patient care skills, including vital signs. Upon completion of classroom and skills practice laboratory learning and competency testing, students participate in a clinical rotation at a skilled nursing facility, under the supervision of a registered nurse.

Credits: 5

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

ALH 132 - Advanced Nursing Assistant

This advanced course is designed for students who have completed a Massachusetts state-approved nursing assistant training program and want to expand their knowledge related to the role and practice of the certified nursing assistant. Students learn the importance of professionalism and develop the traits, behaviors, and skills that employers are demanding of today's health care workers. Topics include work ethics and performance, personal values, personal traits of the health care professional, interpersonal relationships, teamwork and communication skills, cultural competence, professionalism and personal life, job-seeking skills, becoming a leader, and career development. This course also includes advanced education to expand students' knowledge of how to understand and successfully care for people with dementia. Topics include types and symptoms of dementia, conditions that may present dementia-like symptoms, prevention of abuse, communication strategies, understanding and dealing with challenging behaviors, and the principles of a person-centered approach to care.

Credits: 2

Semester Offered: F/S/SU

Prerequisites: ALH 131, Certificate of Completion from a state-approved nursing assistant training program or current C.N.A. Certificate

ALH 137 - Pharmacy Technician

This course provides students with the knowledge needed to prepare for a career as a pharmacy technician. Students study the laws of pharmacy practice, drug names and classification, compounding, calculations, abbreviations, and dosage forms. Students learn various duties a technician may perform as well as communication skills and aspects of assisting the pharmacist.

Credits: 3

Semester Offered: F

Prerequisites: MAT 095 with a grade of "C" or higher or equivalent placement measures

ALH 138 - Pharmacy Technician Clinical Co-Operative Externship

The externship prepares students for a career as a pharmacy technician. Students learn compounding skills, mathematical calculations, and how to use reference materials. Students then work in a pharmacy and learn how to perform as a pharmacy technician. They practice their communication skills; familiarize themselves with the layout of a pharmacy and its daily and monthly operation. Students experience data entry and third-party billing, inventory and compounding. Students also practice writing resumes, interviewing, and professional skills.

Credits: 6

Semester Offered: S

Prerequisites: ALH 137

ALH 299 - Cooperative Work Experience

This course provides students with a structured learning experience while applying classroom theory to a practical work experience. Students develop a learning agreement that lists the objectives they will accomplish through their work experience. Evaluation is based on satisfactory completion of the learning agreement objectives and the demonstration of soft skills such as punctuality and attitude.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ACC 101 or MRK 201, ALH 106, BSS 112 or MRK 221, CPS 298

American Sign Language

ASL 111 - Beginning American Sign Language I

This course introduces American Sign Language (ASL), a method of visual/gestural communication used by deaf people in the United States and Canada. Students learn visual readiness skills to recognize and express spatial relationships and to use appropriate non-manual signals, such as facial expressions and body movements. Course topics include communicative functions, vocabulary, grammar, and cultural aspects of the deaf community. The course also covers functional communication to help students understand the needs and history of the deaf as well as their Community. Students learn the differences between American Sign Language and oral communication for the deaf.

Credits: 3

Semester Offered: F/S/SU

ASL 112 - Beginning American Sign Language II

This course emphasizes visual readiness skills and conversational skills by utilizing grammatical principles, language functions, and cultural behaviors. Students explore the functions of language and identify cultural behaviors characteristic of deaf people. Students increase their fluency in American Sign Language: describing behavior, making requests, and giving directions, etc.

Credits: 3

Semester Offered: F/S

Prerequisites: ASL 111

ASL 113 - Introduction to Deaf Studies

This course utilizes a multidisciplinary perspective to emphasize issues and values affecting the American Deaf Community. Topics include the causes of hearing loss, the speech and hearing process, various manual sign systems, professions in the field of deafness, current events in the Deaf community, various aspects of deaf communication, technology and its impact on communication, educational philosophies, and the history of the Deaf in the United States.

Credits: 3

Semester Offered: S

Prerequisites: ASL 111

ASL 114 - Issues in Deaf Society

This course explores relevant issues confronting the deaf members of the Deaf Community. Students examine issues that deal with community/cultural advocacy and advancement, confronting audism, cultural differences, educational, economic and legal barriers and deaf contributions to society. Students focus on preparing themselves for career fields where their constituents are deaf/Deaf or use ASL.

Credits: 3

Semester Offered: F/S

ASL 119 - Career Signing

Students examine specific situational signing protocols associated with their chosen career and the cultural ethical issues relating to members of the Deaf Community. Students focus on specific American Sign Language signing vocabulary related to their individual career field of choice and the relating circumstances they may confront. Students also examine basic interpreting processes and codes of ethics. Examples of such careers include, but are not limited to: Community/Cultural Advocacy, Criminal Justice, Education, Nursing, Human Services and the Arts.

Credits: 3

Semester Offered: F/S

Prerequisites: ASL 112, ASL 113

ASL 200 - Deaf Community Practicum

This course emphasizes practical experience by involving students in various educational or human service settings that service the Deaf Community. Students utilize receptive and expressive skills as well as their knowledge of Deaf Culture through first hand interaction and exposure. Students integrate their hands on experience with related readings, classroom discussions and student presentations. This course has a community based learning component.

Credits: 3

Semester Offered: F/S

Prerequisites: ASL 112, ASL 113, CORI/SORI Check

ASL 211 - Intermediate American Sign Language I

This course focuses on further development of visual-spatial orientation and manipulations skills, sign vocabulary, and complex sentence structures. Students continue learning strategies for opening, sustaining, and closing general conversations on a range of topics. The course concentrates on developing the abilities to question, narrate, and give increasingly detailed descriptions of activities, interactions, plans, and directions. Students learn how to communicate clearly and express themselves in a culturally appropriate way.

Credits: 3

Semester Offered: F/S

Prerequisites: ASL 112

ASL 212 - Intermediate American Sign Language II

This course emphasizes further development of visual/spatial orientation, vocabulary, complex sentence structures and conversational skills. Students learn to give clearly detailed descriptions of activities, interactions, plans and directions. Through in-class assignments and interactions with the Deaf community students demonstrate complex conversational receptive and expressive skills. Students learn to analyze and discuss current events in the Deaf community using ASL. The course also covers ASL to voice and voice to ASL translating.

Credits: 3

Semester Offered: S

Prerequisites: ASL 211

Anthropology

ANT 111 - Cultural Anthropology

The course introduces the concepts of cultural adaptation in small-scale and large-scale societies. It focuses on the integration of fundamental cultural institutions including economics, political organizations, family, and religion. Students learn how to explain why specific cultural differences and similarities occur and persist in the United States and other countries. Students develop an understanding of culture contact, culture change, and the role of anthropology in the modern world.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

Art

ART 101 - Art Appreciation

This course introduces the major art forms and ways to relate to them. Through the use of videos, DVDs and field trips, students learn about the diversity found in art and the impact that artistic works have. Students learn how to appreciate art by developing the skills necessary to view it through intelligent and informed evaluations.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

ART 111 - A History of Art I

This course presents a study of art through the major historical periods in Western civilization. Course topics include pre-historic, ancient, classical, early Christian, and Byzantine artistic expressions including painting, sculpture, architecture, and the minor arts. Students learn the many aspects of the visual arts as they relate to the formal influences by examining the underlying social, political, environmental, and humanistic factors of specific historical periods. Museum trips are required.

Credits: 3

Semester Offered: F

Prerequisites: Placement into college level English

ART 112 - A History of Art II

This course covers a study of art through the major historical periods in Western civilization. It focuses on painting, sculpture, architecture, and the minor arts of the Renaissance, Baroque, and early modern periods. Students learn aspects of the visual arts of these periods as they relate to formal influences and underlying social, political, environmental, and humanistic factors. Museum trips are required.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English

ART 121 - Contemporary Art

This course covers the underlying social, political, environmental, and humanistic influences that affect contemporary artistic styles and ways artists have expressed those influences. Students examine the development of diverse styles in contemporary art by exploring the evolution of modern artistic trends from 1940 to the present.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English

ART 131 - Introduction to Drawing I

This course examines the varied experiences involved in the drawing process while emphasizing an awareness of traditional disciplines. Students learn how to solve problems of surface organization and to develop the ability to analyze and translate three-dimensional space into a two-dimensional surface by using both perceptual and conceptual drawing methods.

Credits: 3

Semester Offered: F/S

ART 132 - Introduction to Drawing II

This course introduces instrumental and perspective drawing, including free application of mechanical theories. Topics include art and design applications of techniques; proper instrument use; and parallel, angular, and three-point perspective. Students learn how to use both freehand techniques and mechanical instruments to render drawings with speed, accuracy, legibility, and neatness.

Credits: 3

Semester Offered: F/S

Prerequisites: ART 131

ART 141 - Photographing People

This course covers both posed and candid photographs of people. Students learn the proper operation of various cameras (automatic, manual, single-lens reflex, digital) and the selection of subjects, posing, and lighting. Students must supply their own photographic equipment (a working camera) and pay their own processing costs for prints.

Credits: 3

Semester Offered: F/S/SU

ART 211 - History of Graphic Design

This course is a chronological exploration of graphic design from the invention of writing and to the digital revolution. Students examine the origins of type and graphic representations from the Renaissance, through Art Nouveau, the Bauhaus, and Postmodern influences. Students learn about the impact that graphic forms have made. Students study the basic concepts and movements in graphic design and the relationship of fine art, design art, photography, and emerging technologies in graphic and visual communications.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English

Automotive Technology

AUT 102 - Fundamentals of Automotive Service

This course provides students the fundamentals of working in the automotive industry. It covers dealership workshop operations and organization, and how to work safely in a shop environment. Students learn to identify the major components and systems of an automobile; how to navigate both printed and electronic service information systems; and how to follow service procedures. The course focuses on the proper use of shop equipment such as hand tools, power tools, and specialty tools, including proper usage, storage and safety guidelines; fasteners, fluids, and vehicle maintenance; and measuring devices such as micrometers and dial indicators.

Credits: 3

Semester Offered: F

Corequisites: AUT 111, AUT 131

Please Note: Two hours lecture, three hours laboratory

AUT 111 - Automotive Electrical Systems

This course covers basic automotive electrical theory and operation including the battery and starting and charging system. Students learn electrical diagnostic tools and testing using all service publications in their available formats, obtain information needed for diagnosis, use the Symptom-to-System-to-Component-to-Cause (SSCC) diagnostic process, and learn repair procedures.

Credits: 4

Semester Offered: F

Corequisites: AUT 102, AUT 131

Please Note: Three hours lecture, three hours laboratory

AUT 113 - Automotive Electronics

This course covers the internal workings of automotive microprocessors, automotive networks, and the interrelationships between sensors. This course covers the types of generated signals produced from various types of electronic inputs and output devices. Through classroom exercises, students examine electronically controlled components using lab scopes, multimeters, and scan tools to identify and describe the functions of various sensors. This course focuses on the understanding and diagnosing of automotive electronic systems.

Credits: 3

Semester Offered: S

Corequisites: AUT 211

Prerequisites: AUT 111

Please Note: Two hours lecture, three hours laboratory

AUT 121 - Basic Gasoline Engines

This course covers the basic functions of gasoline engines. Topics include operation, design, diagnostic, and repair strategies. Students disassemble measure, inspect, and reassemble engines to blueprint specifications and perform dynamic tests in a laboratory environment. Students learn how to describe the major components of a gasoline engine and explain how they contribute to an engine's performance and operation.

Credits: 4

Semester Offered: S

Corequisites: AUT 125

Prerequisites: AUT 102

Please Note: Three hours lecture, three hours laboratory

AUT 125 - Engine Testing/Performance Analysis

This course covers basic engine performance, operations, and testing. Topics include the theory and operation of engine systems including ignition, fuel and air management, and emission control using current diagnostic methods and tools. Students diagnose and repair engine performance-related problems and learn how to explain the operations and relationships between engine performance and emissions.

Credits: 4

Semester Offered: S

Corequisites: AUT 121

Prerequisites: AUT 102, AUT 111

Please Note: Three hours lecture, three hours laboratory

AUT 131 - Brake Systems

This course focuses on the basics of hydraulic principles, and the types, components, and operation of brake systems. Students learn the specific types of master cylinders, disc brakes, drum brakes, and anti-lock brakes with emphasis on diagnosing brake problems and making adjustments and repairs. The course concentrates on the diagnosis and repair of car and light truck anti-lock brakes and stability systems using equipment specified by manufacturers.

Credits: 3

Semester Offered: F

Corequisites: AUT 102, AUT 111

Please Note: Two hours lecture, three hours laboratory

AUT 133 - Suspension, Steering & Alignment

This course examines conventional suspension, air suspension, and programmed/automatic ride control systems. Students learn the theory and operation of basic steering systems, rack and pinion steering systems, and variable and electronic steering systems. Topics include two - four-wheel alignment and use of specialized steering equipment. Students gain an entry-level knowledge of suspension and steering as the foundation for performing comprehensive vehicle suspension and steering performance evaluations and repairs.

Credits: 3

Semester Offered: SU

Corequisites: AUT 141

Prerequisites: AUT 102

AUT 141 - Climate Control System

This course explores the air conditioning and heater components through an understanding of basic refrigeration principles and the use of diagnostic tools. Students learn how to diagnose and repair A/C and heating related problems (including controls, switches, compressors, and clutches) and learn to perform leak testing, recharging, and safety procedures. Students acquire the knowledge necessary to obtain a National Institute Automotive Service Excellence (ASE) certification in this field.

Credits: 3

Semester Offered: SU

Corequisites: AUT 133

Prerequisites: AUT 121

AUT 211 - Electronic Powertrain Control Systems

This course covers the repair of devices that manage engine operations, emissions, and powertrain systems. Through a combination of lectures and laboratory work students learn to diagnose and repair electronic powertrain control systems. The course also examines the regulations for the second generation of On-Board Diagnostics (OBD II) and the latest developments in powertrain controls.

Credits: 5

Semester Offered: S

Corequisites: AUT 113

Prerequisites: AUT 125

Please Note: Four hours lecture, three hours laboratory

AUT 251 - Automotive Drive Train

This course covers manual transmissions, manual transaxles, clutch systems, operation assemblies, and front wheel drive halfshafts. Students learn how to explain driveline functions, including three-, four-, and five-speed manual transmissions and transaxles. They also learn how to diagnose and repair rear differentials, and locate and repair driveline vibrations problems in two-wheel drive, four-wheel drive, and all-wheel drive systems.

Credits: 4

Semester Offered: F

Corequisites: AUT 253

Prerequisites: AUT 121

Please Note: Three hours lecture, three hours laboratory

AUT 253 - Automatic Transmission & Transaxle

This course covers the operation principles of automatic transmissions, transaxles, and CVTs, including hydraulic and mechanical operating principles and powerflow, diagnostic procedures, disassembly, repair, and reassembly. Students learn about automatic transmission powerflow, hydraulic circuits in valve bodies, and other components. They diagnose problems by electronic testing and pressure methods. The course

also covers electronic transmissions and their relationships to the powertrain control module.

Credits: 4

Semester Offered: F

Corequisites: AUT 251

Please Note: Three hours lecture, three hours laboratory

AUT 299 - Cooperative Work Experience

This course provides students with a structured learning experience while applying classroom theory to a practical work experience. Students develop a learning agreement that lists the objectives they will accomplish through their work experience. Evaluation is based on satisfactory completion of the learning agreement objectives and the demonstration of soft skills such as punctuality and attitude.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: CPS 298, Approval of Program Coordinator

Biology

BIO 100 - Principles of Human Biology

This course focuses on the basic structure and function of the human body. Topics include the anatomy and physiology of human cells, tissues and key organ systems. Basic chemical principles will be introduced. The course also explores the major types of microorganisms that infect humans as well as concepts of disease transmission and prevention. Three hours lecture, three hours laboratory.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

BIO 101 - General Biology: Core Concepts

Students intending to major in the health sciences learn scientific method, basic chemistry (for the understanding of biologic concepts), structure and function of basic cells and tissues, mitosis and meiosis, genetics, and the basic principles of evolution. The laboratory component covers basic techniques in observation, analysis, and interpretation of data relating to the topics discussed in lecture. The lab activities are investigative in nature with the students devising hypotheses, predictions, and identifying independent and dependent variables.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures

BIO 104 - Introduction to Plant Biology

This course introduces the formal concepts of the science of botany as well as the impact that plants have on humans and earth. Topics include plant structure, plant growth, diversity of plants, life cycles and natural history, major plant environments of the world, and the economic influence that plants have on our species. Students gain enhanced appreciation of the importance of plants in our lives and present the fundamental concepts used in the study of plants. In the laboratory component, students learn basic scientific investigation of the plant world.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures

BIO 105 - Principles of Ecology

This course examines the fundamental concepts of ecology. Topics include ecosystem formation within the context of habitat, population, community, biodiversity, evolution, sustainability and global change. The laboratory component focuses on the collection and interpretation of data based on computer simulations of renowned ecological field studies.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

BIO 106 - Biology I: Introduction to Organismal Diversity

This course examines the principles of organismal biology. Topics include evolution, comparative anatomy and physiology, diversity of biological organisms, phylogeny, and interactions at different levels of biological hierarchy. The laboratory component focuses on observing, sketching and dissecting specimens, designing experiments, as well as acquiring and interpreting data. The course is designed for students majoring in the sciences.

Credits: 4

Semester Offered: F/S

Corequisites: ENG 101

Restriction: Restricted to Liberal Arts - Biology Option (LABI), Liberal Arts - Chemistry Option (LACH), Liberal Arts - Environmental Science Option (LAES), and General Studies - Pre-Pharmacy Option (GSPH) students

BIO 107 - Biology II: Introduction to Cells and Molecules

This course examines principles of molecular, cellular and physiological levels of living organisms. Topics include structure and function of biomolecules and cells, cellular energetics, heredity, gene expression, and evolution. The laboratory component focuses on scientific methodology, acquiring and interpreting data, and experimental design. This course is designed for students majoring in science and engineering.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: CHM 105 or CHM 123, ENG 101

BIO 111 - Anatomy & Physiology I

This course examines the organization of the human body at the tissue, organ, and system level. Students study the structure and function of the integumentary, skeletal, muscular, and nervous systems with emphasis on concepts of homeostasis, the complementary nature of structure and function, and the interrelationships of systems.

Credits: 4

Semester Offered: F/S/SU

Corequisites: ENG 101

Prerequisites: BIO 101 or BIO 107 or High School Advanced Placement Biology or PNP 240 with a grade of "C" or higher

BIO 112 - Anatomy & Physiology II

Students study the structure and function of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. The course emphasizes the roles that systems play in immunity and in fluid, electrolyte, and pH balance.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: BIO 111

BIO 113 - The Biology of Stress

This course introduces the structure and function of the human body and its response to stress. Students will learn the evolutionary benefits of stress, as well as how a persistent stress response can result in chronic diseases, such as diabetes and coronary artery disease. Students will also investigate the biological mechanisms underlying stress reduction strategies, such as proper nutrition, exercise, and sleep. Topics include the anatomy and physiology of organ systems, homeostasis, the stress response, disease states, evolution, and genetics.

Credits: 3

Semester Offered: F

Prerequisites: Placement into college level English

BIO 231 - General Microbiology

This course explores the morphology, growth, metabolism, and genetics of microorganisms including bacteria, fungi, and viruses. Topics include microbial growth and control, genetic transmission and expression, microbial pathogenicity, infectious disease transmission, immunology, and the role of microbes in biotechnology. Students also focus on microscopy, aseptic transfer, and safe cultivation of microorganisms with an additional emphasis on documentation, data analysis, and experimental design.

Credits: 4

Semester Offered: F/S

Prerequisites: BIO 107

BIO 232 - Medical Microbiology

This course examines the structure, growth, and control of medically significant bacteria, viruses, fungi, protozoa, and helminths. Students learn about the transmission, pathogenesis, and clinical manifestations of disease. The course includes host defense mechanisms and types of immunity. Students also focus on the cultivation, isolation, identification, and control of bacteria.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: BIO 112 or CHM 105 or CHM 123

BIO 241 - Nutrition

This course covers the nutrients including proteins, minerals, and vitamins; their sources; their digestion, absorption, and cellular function. Students also examine nutrition in pregnancy and lactation; nutrition of the elderly; obesity; fad diets; and food preservation.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: BIO 101 or BIO 107 or CHM 101

BIO 259 - Cell Biology

This course focuses on the structure and function of cells. Topics include organelles, membrane structure and function, protein structure, function and trafficking, metabolism, signal transduction, cytoskeletal dynamics and regulation of growth as well as data collection, analysis, and documentation methods. Students learn laboratory instrumentation, microscopy, cellular techniques, and protein analysis methods employed in biomedical research and the biotechnology industry.

Credits: 4

Semester Offered: F/S

Prerequisites: BIO 107

BIO 260 - Molecular Biology

This course focuses on the principles of molecular biology and associated laboratory techniques. Topics include the structure and function of nucleic acids including replication, protein synthesis and sorting, and gene regulation. Students learn data collection, analysis, and documentation. The laboratory component focuses on recombinant DNA and its manipulation.

Credits: 4

Semester Offered: S

Prerequisites: BIO 107

BIO 262 - Principles of Genetics

This course covers the principles of classical, molecular and population genetics in both model organisms and humans. Students explore inheritance, gene expression, population genetics and evolution, and genetic mutation and repair. The material emphasizes experimental evidence for genetic principles along with application of these principles to solve problems. Students perform investigative laboratory exercises in genetic mapping, recombinant DNA techniques, gene regulation, and bioinformatics.

Credits: 4

Semester Offered: F/S

Prerequisites: BIO 107, MAT 122

Biotechnology

BTT 101 - Introduction to Biotechnology

The basic tenets of biotechnology including the scientific method will be presented through readings on the commercialization of recombinant DNA technology to produce therapeutic proteins and on the drug discovery process. Students will discuss the ethics, public policy issues, patent issues, career opportunities, and therapeutic promises of recombinant DNA technology. Students will also learn about the drug discovery process to elucidate issues in drug discovery such as target identification, lead discovery and optimization, candidate selection, ethical clinical trials, and drug markets.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

BTT 102 - Introduction to Biotechnology with Laboratory

The course examines the various fields of biotechnology, including the drug discovery process, biomanufacturing, genetic engineering, gene therapy, and cell therapy. Students identify important ethical and policy issues in the application of biotechnology within the social framework. The laboratory component focuses on the fundamentals of Good Manufacturing Practice, documentation, laboratory safety, fundamental laboratory measurements, laboratory calculations, and handling of laboratory instruments.

Credits: 4

Semester Offered: F/S

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

BTT 211 - Techniques in Biotechnology I

The course focuses on laboratory skill sets which are commonly used in the biotechnology industry. Students develop specific skills in areas such as formulation of solutions, mammalian cell culture,

enzyme assay development, protein expression and purification, DNA and protein analysis, and recombinant DNA techniques.

Credits: 3

Semester Offered: SU

Prerequisites: BIO 231, BIO 259, BIO 262

BTT 212 - Techniques in Biotechnology II

The course focuses on industrial scale practices in biotechnology with an emphasis on good manufacturing practices. At local biotechnology companies students explore biomanufacturing production suites, laboratories which support biomanufacturing, and drug discovery laboratories. Students develop specific skills in such areas as good documentation practices, sterile operations, quality control, environmental monitoring, fermentation, and process development. Students also acquire employment search skills to prepare them for careers in biotechnology.

Credits: 3

Semester Offered: SU

Prerequisites: BIO 231, BIO 259, BIO 260

Business

BUS 113 - Ethical Issues in Business & the Professions

This course is designed to examine the ethics of professional conduct, evaluate business practices and organizations, using the case study methods and confront students' ethical challenges facing the professional in the light of current business goals, values, and practices in relation to the constantly changing societal expectations.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

BUS 201 - Integrated Communications for Business

This course emphasizes the creation, preparation and perfecting of effective business communication and telephone etiquette. Students write and edit letters, memos, proposals, short reports, e-mails, resumes, cover letters, and oral presentations using word processing, spreadsheets, and presentation software. Students create a portfolio of their semester's work.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: CIS 111, Placement into college level English

BUS 250 - Business Administration Capstone

This course is designed to prepare Business Administration career track students to make the transition from school to work. The course focuses on how personality traits affect relationships with coworkers and managers, as well as overall career advancement. Other topics of importance include analysis of the job market, analyzing companies, the job hunting process, including resume presentation, techniques and job interviewing skills, the basics of networking, professional dress codes, and codes of ethics.

Credits: 3

Semester Offered: F/S

Corequisites: ACC 101 or CIS 212

Prerequisites: CIS 111

BUS 298 - Career Strategies & Internship Experience

This course provides students with career and employment strategies. Students learn the job hunting process, identification of their skill set, resume and cover letter preparation, job interviewing skills, networking, negotiation, interpersonal skills development, business etiquette, ethics, and presenting themselves for success. Internship Placement: Students develop a learning agreement with the instructor, stipulating learning goals and outcomes based on the position description. Students are required to successfully satisfy the terms of the learning agreement and complete a 150-hour unpaid or 225-hour paid internship work experience related to their particular major. The faculty member and Career & Transfer Services can provide internship placement assistance, but students are ultimately responsible for securing a timely internship placement.

Credits: 3

Semester Offered: F/S

Corequisites: ACC 101 or CIS 212

Prerequisites: CIS 111, CPS 298

Business Law

BSL 101 - Business Law I

This course examines law and society; the operation of law as it reflects the mores of human relations; and the ethics of business, criminal, and tort law with special emphasis on the law of contracts. Topics include the general principles of the law assigned, the nature of the United States legal system, the trial process, and the sources of law available. Students analyze court decisions and learn to apply the law both in fact situations and in reasoning in gray areas.

Credits: 3

Semester Offered: F/S/SU

BSL 102 - Business Law II

This course covers the Uniform Commercial Code with emphasis in the areas of sales, commercial paper, property law, agency, partnership, and corporations. Students learn the general principles of law assigned, analysis of court decisions, application of law to fact situations, and reasoning in gray areas as they pertain to the UCC.

Credits: 3

Semester Offered: S

BSL 103 - E-Business Law & Ethics

This course introduces legal, clerical, and cyberlegal issues as they relate to the e-business world of today. Students learn the general laws as they pertain to business with special focus on laws which pertain to e-commerce contracting, copyright, and trademark infringement. The topics of Internet crime, free speech, privacy under the U.S. Constitution, and libel and other torts are also covered. The emphasis of the course is on ethical decision-making and socially responsible and appropriate practices involving technology.

Credits: 3

Semester Offered: F/S

Corequisites: CIS 111

Business Office Support Specialist

BSS 101 - Keyboarding Applications

This course focuses on the alphanumeric touch method of keyboarding with a personal computer, emphasizing the

progressive development of speed and accuracy. Students learn basic keyboarding techniques, hardware components, and standard business needs, including business letters, forms, proposals, tabulations, and drafts. Through the course, students develop skills in composition, language arts, proofreading, and formatting. The goal of the course is for students to attain a speed of 30-35 wpm for three minutes with less than three errors.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

BSS 112 - Medical/Dental Billing and Insurance

Students in this course acquire the entry-level skills for using patient billing software in medical and dental offices by utilizing Microsoft® and other web-based patient billing simulation packages. Students explore the steps of the patient billing process, including coding and third-party billing, become familiar with computerized recordkeeping for medical facilities, and learn how the various components of the patient billing system relate to the accounting system in a medical office.

Credits: 3

Semester Offered: F/S

Prerequisites: ALH 102

Career Placement Services

CPS 298 - Pre Cooperative Education Seminar

The Pre Cooperative Education Seminar is a required preparatory course designed to provide students with the necessary structure, resources, and support to successfully secure and engage in their cooperative education experience. Students will learn about the attitudes, skills and behaviors expected by employers. They will develop an understanding of Cooperative Education policies, procedures and requirements. Students will prepare an effective cover letter and resume, practice interview skills, job search strategies and learn how to self-market for a successful coop experience and post-graduate job search. Students will work with Career Services & Credit for Prior Learning to complete the necessary job readiness workshops.

Credits: 0

Semester Offered: F/S

Chemistry

CHM 101 - Introduction to the Chemistry of Living Systems

This course is designed for students seeking careers in the health sciences and the natural sciences (biology and chemistry) by focusing on those chemicals and processes that operate in living systems. Students learn the fundamentals of inorganic, organic, and biological chemistry and apply these chemical principles in laboratory exercises.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: MAT 095 with a grade of "C" or higher or QMAT placement score > 21

CHM 105 - General Chemistry I

This course focuses on the classification of matter and the behavior and characteristics of chemicals in the natural world. Topics include the basic structure of the atom, nuclear chemistry, nomenclature of chemicals, chemical reactions, the mole concept, stoichiometry, acid-base concepts, the concentration units of solutions, the gas laws, thermochemistry and quantum theory. The laboratory portion of the course fosters basic laboratory skills and reinforces lecture concepts.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: MAT 095 with a grade of "C" or higher or QMAT placement score > 21

CHM 106 - General Chemistry II

This course focuses on stoichiometry, bonding and periodicity in special groups, Lewis structures, intramolecular attractions, crystalline solids, kinetics, acids and bases, thermodynamics, electrochemistry, organic chemistry and biochemistry. The lab fosters basic laboratory skills and reinforces lecture concepts.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: CHM 105

CHM 123 - Principles of Chemistry for Engineers I

This is the first part of a two-semester course sequence. The course is designed for students in engineering or for students requiring a sound knowledge of chemical principles. Students learn chemical principles of atomic structure, stoichiometry, thermochemistry, gases, quantum theory, chemical bonding, intermolecular forces, and solutions.

Credits: 4

Semester Offered: F/S/SU

Corequisites: MAT 233

CHM 124 - Principles of Chemistry for Engineers II

This course is designed for students in engineering or for students requiring a sound knowledge of chemical principles. Students learn the chemical principles of chemical kinetics, chemical equilibrium, acid-base, solubility, electro-chemistry, coordination compounds, and organic chemistry.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: CHM 123, MAT 233

CHM 201 - Organic Chemistry I

This course introduces the chemistry of carbon compounds for students pursuing a career in medicine, chemistry, or modern biology by examining the relationship between organic chemistry and biology. Topics include the chemistry of the carbon atom; the structure, physical properties and reactivity of the important classes of organic compounds; stereochemistry; and IR spectroscopy. Laboratory topics include chromatography, isolation and crystallization, fractional distillation, and basic organic reactions. Three hours lecture, three hours laboratory.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: CHM 106 or CHM 124

CHM 202 - Organic Chemistry II

This course includes the study of functional group reactions, aromaticity, NMR spectroscopy, common biological reaction types, biochemicals, biochemical pathways, and natural products chemistry. Laboratory topics include classic organic reactions; synthesis, isolation, and identification of natural products; and, polymer chemistry.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: CHM 201

Communication

COM 100 - Introduction to Mass Communication

This course focuses on the relationship between mass communication and culture, asking how television, film, radio, Internet, and print media impact contemporary life; how news, politics, advertising, popular culture, entertainment and human behavior have been influenced by the history and technological development of the media. Topics also include government regulation of the media, as well as media professions and evolving practices.

Credits: 3

Semester Offered: F/S

Corequisites: ENG 101

COM 101 - Journalism I

This course focuses on theory and practice of journalism fundamentals for print and broadcast media including social media (Twitter, Facebook, Instagram, Snapchat) as a part of a brief history of media development and present trends. Students examine basic news reporting for newspaper with emphasis on lead writing, interviewing, researching and preparing new stories. Topics covered include discussions of libel laws and ethics as well as techniques of editing. This course also covers criticism and analysis of college and local area media.

Credits: 3

Semester Offered: F/S

Prerequisites: COM 100

COM 102 - Journalism II

This course focuses on advanced reporting in gathering news for multimedia. Students examine and practice specialized types of reporting including interviewing, covering speeches, meetings, local/college government. Also, students track news, simulate dynamics of newsroom environment, and write under pressure. Students learn to write headlines, edit, revise, and expand written material to make it suitable for publication in the school newspaper and professional publication.

Credits: 3

Semester Offered: F/S

Prerequisites: COM 101

Computer Information Systems

CIS 105 - Introduction to Information Technology

This course provides an overview of the core aspects of information technology. The topics include: computer hardware, operating systems, application software, networks, information security, interactive media, and programming. The course focuses on defining how each IT area relates to, and interacts with, each other. Upon completion of the course, students have the knowledge necessary for further study in IT as well as understanding of the impact of technology on society and organizations of all types. This course requires hands-on projects in which the students use the Windows environment.

Credits: 3

Semester Offered: F/S

CIS 111 - Introduction to Microcomputer Applications

This course provides an overview of common business office technology usage, including operating systems functions, Internet technologies, and productivity suites. The course focuses on basic working knowledge and hands-on experiences in word processing, spreadsheet processing, relational database processing, and presentation software. This course is the first of two in a series to assist students in preparation of the Microsoft Office Specialist (MOS) certification exam. This course requires hands-on projects in which the students use the Windows environment.

Credits: 3

Semester Offered: F/S/SU

CIS 112 - Advanced Microcomputer Applications

This course builds on the foundations acquired in CIS 111. Students learn complex spreadsheet and database processing through the use of realistic business situations. For spreadsheet, topics will include financial functions, amortization schedules, connecting multiple worksheets and workbooks, sorting, querying tables, Pivot Tables, importing data, as well as data cleansing utilizing VBA. For database, topics will include report and form creation, learn multiple-table form techniques, learn advance report generation techniques, add combo boxes and command buttons to forms, creation of multiple page form, and form navigation using macros. This course is the second of two in a series to assist students in preparation of the Microsoft Office Specialist (MOS) certification exam.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

CIS 121 - Introduction to Programming with C++

This course focuses on the basic concept of programming, utilization of the executable codes, and implementation of these codes in problem solving. Students learn the concept of solving problems through the design and implementation of algorithmic solutions using the C++ programming language. Topics include the programming process, structured programming techniques, and basic logic formations. Practical business applications are emphasized throughout the course. Microsoft frameworks and Visual Studio will be emphasized.

Credits: 3

Semester Offered: F/S

Corequisites: CIS 105 or CIS 111

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

CIS 134 - Web Page Development I

This course focuses on designing Web sites using HTML5/XHTML and CSS3 along with development tools such as Notepad++. Topics include creating links, image maps, using grid-based layout for laying out pages, positioning elements, applying CSS for graphic design, flexbox for mobile web pages, media queries, tables, client-side forms, and insertion of audio and video files. Validation of web pages using transitional DTD, strict DTD will also be discussed. Students will work on individual assignments to create web pages/sites.

Credits: 3

Semester Offered: F/S

Corequisites: CIS 105 or CIS 111

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

CIS 141 - Introduction to Data Communication & Networks

This course examines business data communications. Students learn fundamental communication concepts, communication networks, and communications hardware and software. Students study the information in a non-technical format designed to provide an understanding of data communication systems needed in today's business environment.

Credits: 3

Semester Offered: S/SU

Corequisites: CIS 105 or CIS 111

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

CIS 206 - Management of Data Analytics

This course prepares students to understand data-driven decision making in business. Students complete assignments and hands-on projects using data and software. Topics in this course include descriptive, predictive, and prescriptive data analytics, data manipulation, determination of correct data, decision making, and the use of analytical tools.

Credits: 3

Semester Offered: S

Prerequisites: CIS 105 or CIS 111 or CIS 243, MAT 122

Please Note: This course is cross-listed as MGT 206

CIS 212 - Electronic Health Records

This course provides students with the understanding of Electronic Health Records (EHR) system, HIPAA requirements, patient confidentiality, a team-based approach, and workflow processes in a health care setting. This course allows the student to learn to use and operate an EHR software package.

Credits: 3

Semester Offered: F/S

Prerequisites: ALH 102, CIS 111

CIS 223 - .NET Programming I

In this course, students who already have been exposed to programming and critical thinking are introduced to Microsoft .NET architecture, Visual Studio IDE and object-oriented programming with .NET. The course emphasizes building stand-alone desktop projects with graphical user interfaces using WinForm components. Students are taught how to apply the principles of programming and problem solving within an object-based design and event-driven paradigm. Among other skills, the student learns basic interface design, using common libraries and features of the common language runtime.

Credits: 3

Semester Offered: S

Prerequisites: CIS 105 or CIS 111, CIS 121 or CSC 108

CIS 225 - Programming with C++ II

This course is a continuation of CIS 121 and covers advanced topics, including recursive programming, storage techniques, pointer and dynamic variables, arrays, manipulation of data (searching, sorting, etc.), file processing, linked lists, stacks and queues. The course emphasizes structured programming through the use of algorithm analysis. Students explore higher-level problem solving through user-defined functions and classes, and learn how to write programs and demonstrate proficiency in the C++ language. Advanced Visual Studio features are utilized for building Application solutions.

Credits: 3

Semester Offered: S

Prerequisites: CIS 121 or CSC 108

CIS 226 - Introduction to Java

This course explores the fundamentals of visual object-oriented programming using the Java language. Students learn how to design, write, and compile Java programs through lectures, hands-on programming assignments, and projects. The emphasis is on problem solving through algorithmic analysis. Topics include Java applications and applets, control structures, methods and classes, arrays, searches, and fundamental data types.

Credits: 3

Semester Offered: F

Prerequisites: CIS 121 or CSC 108

CIS 227 - Java II

This course is a continuation of CIS 226 and focuses on higher-level visual object-oriented programming using the Java language. Students learn to design, write, and execute Java applications and applets using graphic user interface (GUI) components through lectures, hands-on programming exercises, and projects. Other topics include exception handling, classes and methods, objects and inheritance, and problem solving through the use of algorithmic analysis.

Credits: 3

Semester Offered: S

Prerequisites: CIS 226

CIS 228 - SQL Programming

This course introduces students to the fundamentals and functions of Structured Query Language (SQL), including relational database, table creation, updating, and manipulation concepts. Using a live data base, students learn SQL basics and then move on to the more sophisticated and challenging aspects of SQL. Students get in-depth knowledge of the language through extensive use of Internet-based, industry-standard SQL programming and certification testing engines. Upon completion of this course, students have the skills and competencies required to program in SQL and the background necessary to continue to intermediate and advanced courses in PL/SQL and database administration.

Credits: 3

Semester Offered: S

Prerequisites: CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

CIS 229 - PL/SQL Programming

This is an intermediate course in the use of Relational Database Management Systems Procedural Language, PL/SQL. The course focuses on the concepts, design and components of relational database PL/SQL programming Language, including creating record, types, defining transactions, the basics of SQL in PL/SQL and datatypes. The student will also manipulate RDBMS including functions related to multiple tables, compound and complex queries, exporting and importing tables, sub-queries, and reporting.

Credits: 3

Semester Offered: F

Prerequisites: CIS 228

CIS 230 - Mobile Apps Development

This course introduces application development for mobile devices such as Android, Windows, and web. Students program professional apps, using standard IDE (Integrated Development

Environment) platforms commonly used professionally, through lectures, hands-on programming assignments, and individual and group projects.

Credits: 3

Semester Offered: S

Prerequisites: CIS 226

CIS 232 - .NET Programming II

This course emphasizes in-depth programming skills and extends the student's knowledge of Microsoft .NET and Microsoft IDE Visual Studio. The course emphasizes the use of SQL and ADO.NET for the creation of stand-alone and distributed database applications to solve common business problems. The course exposes students to n-tier and database application design, advanced error handling, and the production of flexible business reports. Advanced Visual Studio features are utilized for building Application solutions.

Credits: 3

Semester Offered: F

Prerequisites: CIS 223

CIS 234 - Web Page Development II

This course focuses on creating interactive Web sites using the latest version of XHTML, DHTML and JavaScript. Students write code for form validation, page animation, image and text rollovers, pull-down menus, slide shows, create expandable and collapsible outlines, and mouse and keyboard events to create interactive and dynamic web sites. Students also learn to code for W3CDOM. Concepts of e-commerce are discussed.

Credits: 3

Semester Offered: S

Prerequisites: CIS 121 or CSC 108, CIS 134

CIS 241 - Systems Analysis & Design

This course introduces the student to the major design methodologies such as SDLC, RAD, Object and Agile. This course provides practical experience in feasibility studies, data gathering, analysis, and design of a business information system. Students study the various techniques that can be utilized, conduct a feasibility study, learn valid data collection processes, analyze existing systems, and design new information systems.

Credits: 3

Semester Offered: F

Prerequisites: CIS 121 or CIS 223 or CIS 226 or CIS 230 or CSC 108

CIS 243 - Database Management Application Development

This course focuses on in-depth database management utilizing current database applications. Microsoft's Access is utilized to help reinforce relational database application concepts. Students learn the concepts of distributed database systems, query optimization, concurrency control, and deductive database and object-oriented database systems through lecture and hands-on activities. Topics include structural design, testing and debugging techniques, security, and backup and restart procedures. Students design and construct a complete database system.

Credits: 3

Semester Offered: S

Prerequisites: CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

CIS 244 - Database Management Concepts

This course provides an overview of the skills and the knowledge of database application systems that are used in business, government, and industry. Topics include database systems, data models, the relational database model, entity relationship modeling, normalization of database tables, advanced data modeling, introduction to Structured Query Language (SQL), database design.

Credits: 3

Semester Offered: S

Prerequisites: CIS 105 or CIS 111, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

CIS 246 - .NET Programming III

This course introduces students who are already familiar with HTML, Visual Basic, and database concepts to creating N-tier Web applications using .NET technologies such as: Active Server pages and ActiveX data objectives. Microsoft's Active Server Pages (ASP) technology allows the Internet developer to create browser-independent, dynamic Web pages by combining programmatic code with the three-tier client-server Web applications.

Credits: 3

Semester Offered: S

Prerequisites: CIS 134, CIS 232

CIS 247 - Database Administration

This course focuses on how to fine tune a selected relational database (RDB), such as SQL SERVER/ORACLE. Topics include RDB architectural components; RDB administration tools; RDB instances; creating an RDB database; constructing Data Dictionary views; maintaining the control file; maintaining the Redo Log File; managing table spaces and data files; understanding relationships and impacts on the storage structure; managing tables, indexes and segments; maintaining data integrity; managing users, profiles, privileges, and roles; understanding and using database auditing options; using National Language Support.

Credits: 3

Semester Offered: S

Prerequisites: CIS 228 or CIS 244

CIS 251 - Quality Assurance Foundations

This course is one of three in a series developed to introduce students to the importance of user-oriented programming development. This course focuses on software testing concepts. Topics include fundamentals of testing, testing throughout SDLC process, static testing, and dynamic testing. Testing techniques such as Black-box and White-box, management of testing, and testing tools are also covered. At the end of the course, students prepare to sit for ISTQB's 2018 Foundation Level Exam.

Credits: 1

Semester Offered: S

Prerequisites: CIS 121 or CSC 108 or CSC 201

CIS 252 - Information Architecture/User Interface Foundations

This course provides fundamental methodologies for information systems user interface design requirements. Students will learn to plan and design navigation pathways for the information to flow easily and logically for the user. The focus will be on applying UI techniques that will meet the organizational information system's goals and user's requirements. The seven habits of Information Systems Interface Designers will be discussed, including understanding the business, maximum graphical effectiveness in information systems, think like a user, use of models and prototypes, focus on usability, invite feedback, and documentation.

Credits: 1

Semester Offered: S

Prerequisites: CIS 121 or CSC 108, CIS 134

CIS 253 - Security Techniques in Programming

This course provides fundamental process and methodologies for creating secure software. Students are introduced to a variety of different software threats and vulnerabilities. Focus is placed on incorporating various techniques in the beginning of the Software Development Life Cycle.

Credits: 1

Semester Offered: S

Prerequisites: CIS 121 or CSC 108, CIS 134

CIS 299 - Cooperative Work Experience & Seminar

This course provides students with an opportunity to learn about various approaches for career and employment. Students learn to create a portfolio, which includes resume, list of skills, and a sample of the completed project from a previous class. Students also learn to write a forwarding letter, elevator speech, interviewing skills, thank-you letter after an interview, business etiquette, as well as ethics. Using the job description, the student and the faculty will develop a learning agreement specifying learning goals. Students will complete 150 hours for a non-paid position and 225 hours for a paid position. Co-op placement assistance will be provided by career placement services and the faculty; however the student will be responsible for obtaining a co-op placement.

Credits: 3

Semester Offered: S

Prerequisites: CIS 241, CPS 298, Approval of Program Coordinator

Computer Science

CSC 101 - Introduction to Programming Using Python

This course introduces analytical thinking and problem solving using the Python programming language. Python is a modern language popular in many scientific and engineering disciplines. Students learn key concepts that help them learn how to work with data in their disciplines. This course covers basic logic operations, creating reusable and generic functions, and the use of data structures to represent the components of a problem. Topics include control structures, iterators, functions, and basic data structures, such as list, dictionary, file, etc., which are common in many programming languages. Students implement, comment, test, and debug programs through class assignments.

Credits: 3

Semester Offered: F/S

Prerequisites: MAT 095 with a grade of "C" or higher or QMAT placement score > 21

CSC 105 - IT Help Desk Concepts

This course focuses on key information needed by user support professionals, including decision making, communicating successfully with a client, determining the client's specific needs, and technical writing for the end user. Students are introduced to the latest in support industry trends, such as the use of Web support, e-mail-based support, self-service support and automated help desk software. Career paths for user-support workers are researched and discussed. This course details real-life scenarios of working professionals and issues in the IT help desk environment.

Credits: 2

Semester Offered: F/S

CSC 108 - Computer Science I

CSC 108 is the initial course in a structured five-part computer science series, emphasizing foundational principles in procedural programming. Designed to progressively build students' expertise, proficiency, and professional ethics in software engineering, the course introduces essential programming skills through a language supportive of the procedural paradigm. Central to the curriculum is the structured programming approach, guiding students through the systematic processes of designing, coding, and testing. The course emphasizes algorithmic thinking and methodical problem-solving, teaching students to conceptualize and efficiently decompose complex problems. Key aspects of procedural programming, such as writing functions and understanding control structures (loops, conditionals), are covered in depth to instill disciplined programming practices. In addition to technical skills, the course incorporates critical themes like security awareness, human-computer interaction, and social responsibility, aligning technical learning with broader societal impacts. Clear documentation, effective naming conventions, and a consistent coding style are underscored to promote a meticulous approach to software development. Conducted using a language like C++, the course involves four hours of lectures weekly and serves as the gateway to more advanced topics in the computer science series, equipping students with a robust foundation in procedural programming and its applications.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: CSC 101 or prior AP Computer Science A (CSA) Exam with a score of "3" or higher, Placement into college level English, MAT 100 or appropriate placement score

Please Note: Four hours lecture

CSC 109 - Computer Science II

CSC 109 is the second course in a five-part computer science series, emphasizing advanced software engineering principles, focusing on abstraction and sound design. This course engages students in creating secure, reusable software components for diverse problems, highlighting the importance of reusability. Central to the curriculum is Object-Oriented Design (OOD), where students learn to structure software using objects that encapsulate data and behaviors, enhancing modularity and scalability. The course delves into Polymorphism, allowing objects of various classes to be handled uniformly, and Abstract Classes, establishing blueprints for consistent interfaces while allowing flexible implementations. Practical exercises involve developing simple Abstract Data Types (ADTs), emphasizing documentation for reuse. Students also write assertions for class methods, fostering a deep understanding of problem-solving pre-coding, and post-coding practices including comprehensive testing with test plans and drivers. This holistic approach reinforces constructing software from well-defined, independent components and using library classes and APIs. Requiring intermediate C++ skills, the course meets for four hours weekly, bridging foundational knowledge with more complex computer science concepts, and preparing students for subsequent advanced courses.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: CSC 108 with a grade of "C" or higher

Please Note: Four hours lecture

CSC 140 - Mobile Operating Systems

This course explores information technology devices used in personal and professional capacities, including modern mobile operating systems environments. Students learn how to utilize, configure, and maintain common mobile operating systems including Windows, Android, and IOS in home and enterprise business environments. Students are presented with mobility related subject-matter contained within the CompTIA's A+, Network+, and Security+ certification exams.

Credits: 3

Semester Offered: F/S

CSC 141 - Windows Client Operating Systems

This course provides the student with an introduction to Microsoft client or desktop operating systems. Hands-on activities in the laboratory closely parallel classroom discussion to give the student practical experience with the use and management of multiple desktop operating systems, both legacy and current. Topics include operating system installation and configuration, file systems, resource management, user management, and security. This course focuses on current Microsoft desktop operating systems and teaches subject-matter corresponding to the current Microsoft Solutions Associate certification examination.

Credits: 4

Semester Offered: F/S/SU

Please Note: Three hours lecture, three hours laboratory

CSC 201 - Systems Programming and Scripting

This course provides an introduction to writing programs for use by operating systems. Students examine scripting within both Windows and Linux. Topics include command line operating system syntax, basic rules of scripting, examination of tools used for script creation, and creating scripts using both command line and graphical user interface tools.

Credits: 3

Semester Offered: F/S

Corequisites: CST 245

Prerequisites: CSC 141

CSC 208 - Introduction to Architecture and Assembly Language

CSC 208 is the fourth installment of a comprehensive five-part computer science series. This course provides a comprehensive exploration of computer systems from a programmer's perspective, bridging the gap between hardware and software. Students will gain a deep understanding of how computer systems execute programs and handle data, delving into topics like data representation, machine-level code, processor architecture, memory hierarchy, system-level I/O, and network programming. Emphasizing the translation of high-level programming languages into machine code, the course enhances skills in software optimization for efficiency and performance. With interactive labs and assignments, it offers practical experience in system-level programming, exploring hardware and software design choices. This course is ideal for those aiming to deepen their knowledge in computer architecture and system software, laying a solid foundation for advanced computer science and engineering studies.

Credits: 4

Semester Offered: S/SU

Prerequisites: CSC 109 with a grade of "C" or higher or ROS 109 with a grade of "C" or higher

CSC 210 - Storage Technologies

This course covers the information needed to plan, design, manage, and use storage technology infrastructure for information management in an enterprise environment. Students learn information availability and management theories commonly used in business today, including backup, recovery, and replication. Through hands-on activities, students implement solutions using modern storage subsystems such as Direct Attached Storage (DAS), Storage Attached Networks (SANs), Network Attached Storage (NAS), and Content Addressed Storage (CAS). This course contains subject-matter consistent with topics in EMC's Storage Technologist and CompTIA's Storage+ exams. Note: Some of the products and technologies discussed in this course are subject to federal government restrictions on exports from the U.S. Accordingly, all students registered for this course shall be subject to review under the "Denied Persons List" maintained by the U.S. Department of Commerce's Bureau of Industry and Security in order to determine their eligibility to receive U.S. goods and technology information.

Credits: 3

Semester Offered: S/SU

Prerequisites: Placement into college level English

Please Note: Two hours lecture, three hours laboratory

CSC 211 - Programming with Data Structures

CSC 211, the third installment in a comprehensive five-part computer science series, delves into data structures and basic algorithm analysis through object-oriented programming. This course encompasses fundamental structures like lists, stacks, and queues, alongside more complex constructs such as binary and balanced trees, hash tables, priority queues, and representations of sets and graphs. Students explore a variety of algorithms, applying recursion techniques and employing common sorting and searching methods like MergeSort. The curriculum also covers graph traversal algorithms including Dijkstra's and Prim's algorithms, along with in-depth studies of depth-first traversals, divide-and-conquer strategies, backtracking, and greedy algorithms. Practical aspects involve developing and rigorously testing diverse programs using advanced C++ programming skills. This course not only strengthens programming proficiency but also provides essential analytical skills for understanding and implementing efficient data manipulations and operations.

Credits: 4

Semester Offered: F/SU

Prerequisites: CIS 225 or CSC 109 with a grade of "C" or higher or ROS 109 with a grade of "C" or higher

CSC 212 - Introduction to Software Engineering

CSC 212, the concluding course in the software engineering series, broadens the student's perspective to encompass the full software development lifecycle, from initial concept to ongoing maintenance. Emphasizing the analysis and design of medium-sized systems, the course includes a comprehensive team project covering analysis, design, implementation, and testing phases, along with detailed documentation and test plans. Students are introduced to design patterns and advanced programming techniques using data structures and templates. A significant aspect of the course is

the integration of professional ethics, software, and information assurance, addressing security concerns and liabilities in computer-based systems. The course culminates in a collaborative research project, culminating in a presentation to a live audience. This comprehensive approach prepares students for professional software development, emphasizing ethical considerations and a thorough understanding of the software lifecycle.

Credits: 4

Semester Offered: F/S

Prerequisites: CSC 109 with a grade of "C" or higher or ROS 109 with a grade of "C" or higher

Please Note: Four hours lecture

CSC 233 - Computer Hardware and Support

This course is a comprehensive study of the topics students need to learn in order to service, maintain, upgrade, and optimize computer systems' hardware and related devices. Students perform hands-on laboratory projects utilizing servers, personal computers, laptops, tablets, and embedded systems. This course presents students with subject-matter corresponding to the CompTIA's A+ 220-801 certification examination.

Credits: 4

Semester Offered: F/S

Corequisites: CSC 141

Please Note: Three hours lecture, three hours laboratory

CSC 234 - Networking Technologies

This course presents students with information needed to install, configure and troubleshoot local area networks (LANs). Students are also introduced to wide area networks (WANs) methods and technologies. Students will learn the basics of telecommunications, home and enterprise networking technologies, wireless networking technologies, protocols of data communications, LAN cabling, and internetworking. This course presents subject-matter contained within the CompTIA's Network+ certification examination.

Credits: 4

Semester Offered: F/S/SU

Corequisites: CSC 141

Please Note: Three hours lecture, three hours laboratory

CSC 241 - Windows Server Operating Systems

This course introduces students to current Microsoft Windows server operating systems and the techniques utilized to network computers with Windows client and server operating systems. Topics covered include establishing a user environment including permissions and rights, print servers, files system management, and advanced configuration and connectivity. Students use hands-on projects and project cases to emphasize what is covered in the lecture. This course presents subject-matter contained in the Microsoft Certified Solutions Associate examination in the area of the current Microsoft server operating system.

Credits: 3

Semester Offered: F/S

Prerequisites: CSC 141

Please Note: Two hours lecture, three hours laboratory

Computer Systems Engineering Technology

CST 205 - IT Security Foundations

This course provides students with knowledge of the basic information security goals of availability, integrity, accuracy, and confidentiality. Vocabulary and terminology specific to the field of information security are discussed. Detection of exposures and vulnerabilities with their appropriate countermeasures, planning, and administrative controls are also discussed. Students become competent in the five areas of security, including general security, communications security, infrastructure security, cryptography, and operational/organizational security. This course presents subject-matter contained within CompTIA's Security+ exam.

Credits: 3

Semester Offered: S/SU

Prerequisites: Placement into college level English

CST 206 - Computer Forensics

This course provides students with an introduction to computer forensics and investigation. Students are presented with methods to properly conduct computer forensics investigations beginning with an understanding of ethics through identification of tools and techniques to prevent, identify, and/or analyze computer crime. Students are presented with subject-matter contained within the Certified Forensic Computer Examiner (CFCE) certification offered by the International Association of Computer Investigative Specialists (IACIS) organization.

Credits: 3

Semester Offered: F/S

Prerequisites: CSC 141

CST 207 - Telecommunications in Business

This course provides students with the key technical and business strategies needed to leverage telecommunications technologies effectively in the business enterprise today. This course covers the principles of implementing and managing secure integrated voice, video, and data for a converged network solution, as well as providing an understanding of the importance of the convergence of voice and data in today's enterprise. This course introduces voice technologies including VOIP, IVR, phone systems, and call center management; reviews video technologies including IPTV and video conferencing; and explores the implementation of LAN and WAN-based technologies including circuit and packet-switched networks. Students are presented with subject-matter contained within the CompTIA's Convergence Technologies Professional (CTP+) certification exam.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

CST 208 - Enterprise IT Systems Security

This course presents a modern and relevant introduction to information systems security in business. Topics presented combine technical and managerial competence, skills, experience, and credibility to design, implement, and manage enterprise IT systems and network environments. Students are presented with subject-matter contained within the International Information Systems Security Certification Consortium (ISC)2 Certified Information Security Professional (CISSP) certification exam.

Credits: 3

Semester Offered: S

Prerequisites: CSC 141

CST 209 - Ethical Hacking

This course combines an ethical hacking methodology with the hands-on application of security tools to assist students in maintaining secure computer and network infrastructures. Students learn to identify, counter, and defend hackers from penetrating networks and gaining access to vital information, mitigating potential threats. This course presents subject matter contained in the EC Council's Certificated Ethical Hackers certification exam.

Credits: 3

Semester Offered: S

Prerequisites: CSC 201, CST 205

Please Note: Two hours lecture, three hours laboratory

CST 211 - Advanced Topics in Security

This course explores and reflects on modern security issues throughout the globe. Students learn to perform ongoing research on advanced security trends and the impact of those trends to the enterprise and consumer. Topics include security best practices, situational awareness, current vulnerabilities and threats, cyber-terrorism, mobile devices and Internet of Things security, and proposed/pending legislative actions regarding information security.

Credits: 3

Semester Offered: F/S

Prerequisites: CST 205

Please Note: Three hours lecture

CST 231 - Internetworking Principles and Protocols

This course presents a detailed overview of the implementation of the Transmission Control Protocol/Internet Protocol (TCP/IP) suite, including security protocols. It prepares students with the necessary concepts and skills needed to configure, manage, and troubleshoot the TCP/IP environment. Upon completion of the course, students are able to configure TCP/IP clients and resources, configure and manage TCP/IP services, and troubleshoot network problems using TCP/IP utilities.

Credits: 3

Semester Offered: F/S

Corequisites: CSC 234

Please Note: Two hours lecture, three hours laboratory

CST 235 - Network Infrastructure Management

This course represents the concepts and technologies employed to manage computer networks. It has a technical focus, employing the latest techniques in the disciplines of Network Management to provide a central solution to managing distributed Network Resources. Students design, document, and plan the implementation of a complex network environment including security, configure/use network management systems to control and troubleshoot networking equipment, and configure and use software to maintain and troubleshoot remote computer systems and resources from a central command center.

Credits: 3

Semester Offered: S

Corequisites: CST 231

Prerequisites: CSC 234

Please Note: Two hours lecture, three hours laboratory

CST 238 - Enterprise Application Infrastructure

This course covers the many operating systems, services, and applications commonly deployed in business and industry today. Current trends are further illustrated with the current technology in wide use today.

Credits: 3

Semester Offered: S/SU

Corequisites: CSC 241

Please Note: Two hours lecture, three hours laboratory

CST 240 - Routing Technologies

This course provides students with a foundation in, and apprentice knowledge of, network routing for the small to medium office and home office environment. Students gain skills necessary to install, configure, and operate LAN, WAN, and dial access services for small to medium networks, including, but not limited to use of these protocols: IP, IGRP, IPX, Serial, AppleTalk, Frame Relay, IP RIP, VLANs, RIP, Ethernet and Access Lists. This course presents student with subject-matter contained within the Cisco Certified Network Associate (CCNA) certification examination.

Credits: 3

Semester Offered: S

Corequisites: CST 231

Please Note: Two hours lecture, three hours laboratory

CST 245 - UNIX Operating Systems I

This course provides students with a strong foundation in UNIX operating systems. Students explore the implementation of UNIX in a networked environment as a file/print server in an end-user environment and also as a special-purpose server, such as Web, e-mail, and database servers. Topics include installation and rebuilding of the operating system kernel, configuration, system administration and maintenance, and troubleshooting. This course presents subject-matter contained within the CompTIA's Linux+ certification exams.

Credits: 4

Semester Offered: F/S/SU

Corequisites: CSC 141

Please Note: Three hours lecture, three hours laboratory

CST 246 - UNIX Operating Systems II

This course provides students with the knowledge to implement and maintain UNIX-based server technologies. Students install server-based Linux and those packages required to support Linux clients. Server components are discussed and then implemented by students and include: DNS, DHCP, NIS, NFS, and SAMBA. Students explore configuration of log files, remote access, task automation, security, and virtualization. After completing this course students have the required knowledge to sit for the Red Hat Certified System Administrator/Engineer (EX200 and EX300).

Credits: 3

Semester Offered: S

Prerequisites: CST 245

Please Note: Two hours lecture, three hours laboratory

CST 253 - Unified Communications

This course, one of five in a series, introduces students to the growing complexities of network and application administration in today's enterprise computing environments. This course focuses on Unified Communication technologies, including real-time enterprise communication services such as instant messaging, presence information, voice, mobility features, audio, web and video conferencing, fixed-mobile convergence, desktop sharing, data sharing, call control and speech recognition with non-real-time

communication services such as unified messaging across multiple devices and media-types.

Credits: 1

Semester Offered: S

Corequisites: CST 231

Prerequisites: CSC 141, CSC 234

CST 299 - Cooperative Work Experience & Seminar

This course provides students with a structured learning experience, in which they apply classroom theory to a practical work experience. The seminar provides opportunities for students to exchange feedback about their work experience. The number of credits earned is determined by the number of weeks and hours per week required by the cooperative work experience and the objectives of the student's learning contract.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: CPS 298, Approval of Program Coordinator

Criminal Justice

CRJ 101 - Introduction to Criminal Justice

This course covers the philosophies and historical background of the American criminal justice system. Students discuss the organization, operation, and processes of the justice system: police, courts, and corrections. Students learn the nature of crime, the characteristics of criminals and victims, and several contemporary issues confronting each part of the system, such as the use of force by the police, changes in sentencing practices, and the growth in the prison population.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

CRJ 102 - Terrorism and Homeland Security

This course covers the fundamentals of preparing an organization and community for terrorism in the 21st century. Areas of study include the concept of threat assessment, prevention, mitigation, and response. Students learn about crisis and consequence management, and the methods used to plan for and respond to domestic terrorist incidents involving nuclear, biological, or chemical weapons of mass destruction as it relates to Homeland Security.

Credits: 3

Semester Offered: F/SU

CRJ 110 - Multicultural Diversity in Criminal Justice

This course examines multicultural issues and social problems relating to the implementation of justice in a culturally diverse society. Students explore and discuss issues such as hate crimes, immigration and refugees in the United States, racial profiling, multicultural issues related to terrorism, homeland security, disaster preparedness, gangs, the homeless, and the mentally ill.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

CRJ 111 - Criminal Law

This course examines the American court system from the perspective of the various ways in which antisocial or criminal behavior is stemmed or prevented by this formal mechanism of social control. Areas of study include common law, morality, decency, crimes against persons and property, and the history of several landmark cases. Students learn the statutory definitions of crime, the importance of constitutional proscriptions, and the motivations and origins of criminal behavior.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

CRJ 113 - Constitutional Law

This course focuses on the Bill of Rights; the Due Process clause of the Fourteenth Amendment; and, the laws of arrest, search and seizure, right to counsel, self-incrimination, and entrapment. Areas of study include judicial interpretations, civil rights, and individual liberties. Students learn the constitutional framework for criminal justice procedures and policies. The course provides a basis for understanding the principles and reasons on which the U.S. Constitution is based and the application of U.S. Supreme Court decisions.

Credits: 3

Prerequisites: Placement into college level English

CRJ 123 - Contemporary Corrections

This course examines the history, philosophy, and components of the American corrections system. Areas of study include the origins of correctional systems in the U.S. and the development of the major programs that make up the correctional system - jails, probation, intermediate punishments, prisons, and parole. Students learn about life in prison, the management of correctional programs, the increases in imprisonment over the last two decades, rehabilitation, and controversial issues such as the death penalty.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

CRJ 207 - Criminal Investigation

This course covers the fundamentals of investigation. Students learn the duties and responsibilities of an investigator, interview and interrogation techniques, search methods, techniques of protecting a crime scene, and the collection and preservation of evidence. Areas of study include the modus operandi system, scientific aids, electronic information gathering systems, court preparation, and case follow-up. Students learn the basics of technical writing as it applies to criminal investigation.

Credits: 3

Semester Offered: F

Prerequisites: ENG 101

CRJ 211 - Evidence & Court Procedure

This course examines the adjudication process and the influence of both case law and established practices of the courts. Areas of study include due process; evidentiary rules; burden of proof; hearsay; and offender, victim, and witness recall. Students learn the relevance of constitutional law to the adjudication process and examine the processing of a real case to understand the strengths and weaknesses of the current judicial process.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101

CRJ 213 - Criminology

This course focuses on various criminological theories. Areas of study include early explanations of criminal behavior and their modern counterparts. Areas of study include an overview of criminological theories regarding various types of violent crimes, property crimes, business and government crimes, drug-related crimes, and fraud-related crimes. Students learn these basic theories and their relationship to criminal investigations.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

CRJ 231 - Introduction to Policing

This course focuses on the philosophy and history of policing, limitations imposed on law enforcement in a democratic society in accordance with the Constitution; and the role and place of law enforcement in the total criminal justice process. Students study law enforcement agencies; examine the current challenges facing the contemporary police officer and practical police problems. Areas of study include homeland security, community policing, and crime control concepts. Students will be expected to demonstrate mastery of these areas before proceeding to more advanced coursework in the curriculum.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

Culinary Arts

CUL 111 - Introduction to Meats

This course is one part of a four-part introduction course introducing commercial food preparation and production. Students learn basic principles of commercial cookery, including methods of preparation, nutrition, cost, and organization and management of commercial kitchens. Topics include the purpose and use of recipes; portion control techniques; and the selection, cooking, and handling of Beef, Veal, Lamb and Pork. Students learn basic principles of kitchen operation and the safe usage of food service equipment. Students apply their knowledge in both HRM-run operations and in their corresponding Co-op placement.

Credits: 2

Semester Offered: F/S

Corequisites: HRM 110 or HRM 115

CUL 112 - Introduction to Poultry & Seafood

This course is one of a four-part introduction course introducing commercial food preparation and production. Students learn basic principles of commercial cookery, including methods of preparation, nutrition, cost, and organization and management of commercial kitchens. Topics include the purpose and use of recipes; portion control techniques; and the selection, cooking, and handling of Poultry, Fish, Shellfish and Soup. Students learn basic principles of kitchen operation and the safe usage of food service equipment. Students apply their knowledge in both HRM-run operations and in their corresponding Co-op placement.

Credits: 2

Semester Offered: F/S

Corequisites: HRM 110 or HRM 115

CUL 113 - Introduction to Vegetables, Fruits & Grains

This course is one part of a four-part introduction course introducing commercial food preparation and production. Students learn basic principles of commercial cookery, including methods of preparation, nutrition, cost, and organization and management of commercial kitchens. Topics include the purpose and use of recipes; portion control techniques; and the selection, cooking, and handling of Vegetables, Fruits, Potatoes, Grains and Pasta. Students learn basic principles of kitchen operation and the safe usage of food service equipment. Students apply their knowledge in both HRM-run operations and in their corresponding Co-op placement.

Credits: 2

Semester Offered: F/S

Corequisites: HRM 110 or HRM 115

CUL 114 - Introduction to Dairy, Salads & Sandwiches

This course is one part of a four-part introduction course introducing commercial food preparation and production. Students learn basic principles of commercial cookery, including methods of preparation, nutrition, cost, and organization and management of commercial kitchens. Topics include the purpose and use of recipes; portion control techniques; and the selection, cooking, and handling of Eggs, Breakfast foods, Dairy products, Salads and Dressings, and Sandwiches. Students learn basic principles of kitchen operation and the safe usage of food service equipment. Students apply their knowledge in both HRM-run operations and in their corresponding Co-op placement.

Credits: 2

Semester Offered: F/S

Corequisites: HRM 110 or HRM 115

CUL 131 - Pies, Pastries & Cookies

Students learn basic principles of commercial baking, when producing pies, pastries, and cookies. Students apply their knowledge in the HRM Lab

Credits: 1

Semester Offered: F/S

CUL 132 - Cakes & Frostings

Students learn basic principles of commercial baking, when producing cakes and frostings. Students apply their knowledge in the HRM Lab.

Credits: 1

Semester Offered: F/S

CUL 133 - Custards, Creams & Desserts

Students learn basic principles of sweet concoctions that are not baked, such as sweet custard, creams, frozen desserts and dessert sauces. Students apply their knowledge in the HRM Lab.

Credits: 1

Semester Offered: F/S

CUL 141 - Trawl to Table

Students explore the theory and practice of fisheries' sustainability through lectures, readings, laboratory exercises, and by interacting with local fishermen. This course focuses primarily on species harvested in the Gulf of Maine, with an emphasis on sustainable seafood options for local chefs.

Credits: 1

Semester Offered: F

CUL 142 - Farm to Table

This course explores the ecology of food and sustainable food practices. Students learn how environmental and ecological health affect flavor and nutrition of farmed animals. Together the class

considers the best way to locally source ingredients in a sustainable operation. Topics include foraging, farming, hydroponics on location, whole animal butchery, preservation techniques, menu planning and branding.

Credits: 1

Semester Offered: S

CUL 152 - Asian Cuisine

Students immerse themselves in studies of the cuisines from different corners of the world, with an emphasis in Asian cuisine. Topics include menu planning, menu research and authentic reproduction of ethnic menus for service. Ingredients indigenous to Asia will play key roles in learning the native dishes, food cultures and their cooking techniques.

Credits: 1

Semester Offered: F/S

CUL 153 - Middle Eastern Cuisine

Students immerse themselves in the cuisines from countries in the Middle East. Topics include menu planning, menu research and authentic reproduction of ethnic menus for service. Ingredients indigenous to the Middle East will play key roles in learning the native dishes, food cultures and cultural cooking techniques.

Credits: 1

Semester Offered: F/S

CUL 154 - Latin American Cuisine

Students study the cuisines from different Latin American countries, regions in Africa and Mexico. Topics include menu planning, menu research and authentic reproduction of ethnic menus for service. Ingredients indigenous to various Latin countries will play key roles in learning the native dishes, food culture and cultural cooking techniques.

Credits: 1

Semester Offered: F/S

Dental Assisting

DAS 101 - Clinical Science I

This course covers terminology and procedures performed in a general dental office. Students learn oral diagnosis, treatment of dental disease, management of medical emergencies, and dental therapeutics. Students will also gain familiarity in pharmacology including addiction.

Credits: 3

Semester Offered: F

Corequisites: DAS 102, DAS 151, DHY 131, DHY 241

Prerequisites: DA students only, BIO 100 with a grade of "C" or higher or BIO 111 with a grade of "C" or higher and BIO 112 with a grade of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101

DAS 102 - Dental Sciences

This course provides knowledge and understanding of the development, form, and function of the structures of the head and neck and oral cavity, including histology and embryology of the teeth and periodontium, and the embryonic development of the face and teeth, in order to understand the rationale behind the performance of general dentistry procedures.

Credits: 3

Semester Offered: F

Corequisites: DAS 101, DAS 151, DHY 131, DHY 241

Prerequisites: DA students only, BIO 100 with a grade of "C" or higher or BIO 111 with a grade of "C" or higher and BIO 112 with a grade of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101

DAS 105 - Clinical Science II

This course explores the concepts of preventive dentistry, patient education and motivation, and dental specialties. Topics include dietary considerations for the dental patient; the psychology of human behavior as it relates to working and communicating with patients, other dental personnel, and society; and, restorative dentistry equipment and methods. Students prepare for the DANB CDA examination through a review of chairside materials, laboratory materials, and procedures.

Credits: 4

Semester Offered: S

Corequisites: DAS 111, DAS 124, DAS 155

Prerequisites: DAS 153 with a grade of "C" or higher

DAS 111 - Practice Management

This course introduces students to office principles including reception techniques, appointment control, third-party billing, financial records, and manual and computerized accounting procedures. Students learn the basics of Microsoft Windows®, Word®, and PowerPoint®. Students learn effective oral communication through presentations on selected topics. Students prepare for employment through study of interviewing skills and creation of a resume.

Credits: 3

Semester Offered: S

Corequisites: DAS 105, DAS 124, DAS 155

Prerequisites: DAS 153 with a grade of "C" or higher

DAS 124 - Introduction to Oral Pathology

This course is an introduction to the etiology, incidence, and disease process of common oral and dental pathological conditions. Students gain familiarity with diseases of the teeth and supporting structures, developmental disturbances of the oral cavity, and neoplasms; and, distinguish normal from abnormal tissue.

Credits: 1

Semester Offered: S

Corequisites: DAS 105, DAS 111, DAS 155

Prerequisites: DAS 153 with a grade of "C" or higher

DAS 151 - Dental Assisting I

This course prepares students to provide chairside assistance to the dentist in all phases of general and specialty dentistry. Topics include principles of four-handed dentistry, instrument use and identification, exposure control, OSHA regulations, and hazard control recommendations. Students explore dental ethics, jurisprudence, and manipulation of chairside intraoral materials. Students gain a familiarity with a professional dental setting through an externship in a local dental office.

Credits: 4

Semester Offered: F

Corequisites: DAS 101, DAS 102, DHY 131, DHY 241

Prerequisites: DA students only, BIO 100 with a grade of "C" or higher or BIO 111 with a grade of "C" or higher and BIO 112 with a grade of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101

DAS 153 - Dental Assisting Clinical Practicum

In the setting of a general dental office, during hours of rotation, students will apply the skills and knowledge acquired in the classroom by competently performing dental assisting functions including participating in four-handed chairside techniques and related dental assisting procedures. Students are responsible for recruiting patients to participate in full-mouth radiographic series.

Credits: 2

Semester Offered: IN

Prerequisites: DAS 101 with a grade of "C" or higher, DAS 102 with a grade of "C" or higher, DAS 151 with a grade of "C" or higher, DHY 125 with a grade of "C" or higher, DHY 131 with a grade of "C" or higher, DHY 241 with a grade of "C" or higher

DAS 155 - Dental Assisting II

In the setting of a general and specialty dental office rotations, students apply the skills and knowledge acquired in the classroom by competently performing dental assisting functions including participating in four-handed chairside techniques and related dental assisting procedures. A minimum number of externship hours will be required. Students must attend weekly seminars to discuss extern issues and topics related to the practice of dentistry. The course also provides a review of the DANB CDA examination.

Credits: 6

Semester Offered: S

Corequisites: DAS 105, DAS 111, DAS 124

Prerequisites: DAS 153 with a grade of "C" or higher

DAS 299 - Dental Externship

Students apply classroom knowledge to a practical work experience. Students share learning experiences through a bi-weekly seminar conducted in conjunction with a 120-hour externship. Students prepare objectives for their work experience as part of a learning contract and portfolio.

Credits: 3

Semester Offered: S

Prerequisites: BSS 111, BSS 112

Dental Hygiene

DHY 111 - Dental Hygiene Process I

In this fundamental course, students are introduced to the dental hygiene process of care through lecture and laboratory sessions. The theoretical concepts presented in this lecture are expanded upon and applied in the laboratory setting. Emphasis is placed on patient assessment in the dental hygiene process of care, including: disease transmission theory and regulatory guidelines, infection control practices, medical histories, vital signs assessment, intra and extra oral examination, soft and hard deposits, caries theory, removal of extrinsic stains/biofilm, dentifrices and mouth rinses, and the development of basic instrumentation skills. Skills are developed through practice on mannequins and student partners.

Credits: 4

Semester Offered: F

Prerequisites: BIO 232 with a grade of "C" or higher, CHM 101 with a grade of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 102

DHY 112 - Dental Hygiene Process II

This course continues theoretical preparation in the dental hygiene process of care. Emphasis is on the action and administration of fluorides, caries prevention, prevention and management of medical emergencies including medicolegal implications, dental hygiene care planning, introduction to ultrasonic instrumentation, health promotion, and care of special needs clients. In the clinical setting, emphasis is on patient assessment, care planning, patient education, basic hand and ultrasonic instrumentation, care of oral appliances and application of caries preventive agents. Students are expected to use critical thinking and problem solving skills when planning and implementing patient care. A Service-Learning component integrates with the academic experience.

Credits: 5

Semester Offered: S

Prerequisites: BIO 232 with a grade of "C" or higher, DHY 116 with a grade of "C" or higher

DHY 113 - Dental Hygiene Process Summer Clinic

This course continues preparation in the dental hygiene process of care and emphasizes developing and refining hand and ultrasonic instrumentation skills, medical emergency drills, protocol for dietary counseling, intraoral photography and an introduction to supportive periodontal treatment. Students demonstrate their understanding of the dental hygiene process of care in implementation and evaluation using critical thinking, problem solving and sound judgment in providing direct patient care in supervised clinical sessions.

Credits: 1

Semester Offered: SU

Prerequisites: BIO 232 with a grade of "C" or higher, DHY 112 with a grade of "C" or higher, DHY 124 with a grade of "C" or higher, DHY 126 with a grade of "C" or higher, DHY 150 with a grade of "C" or higher, DHY 250 with a grade of "C" or higher

DHY 116 - Practice Management for the Dental Hygienist

This course introduces students to the duties related to dental practice management administrative functions and to dental office software, as it relates to the provision of clinical services used in the day-to-day operations in a dental setting. Students learn interpersonal and communication skills as well as basic computer skills to utilize dental practice management software for basic office procedures.

Credits: 1

Semester Offered: IN

Prerequisites: DHY 111 with a grade of "C" or higher, DHY 121 with a grade of "C" or higher, DHY 123 with a grade of "C" or higher, DHY 131 with a grade of "C" or higher, PSY 101

DHY 121 - Anatomy of the Head & Neck

This course provides a theoretical and practical study of the anatomy of the head and neck. Students apply this foundational knowledge of anatomical principals and concepts to dental hygiene practice and the provision of comprehensive dental hygiene care. Students will gain in depth knowledge in head and neck anatomy including: anatomical nomenclature, identification of dento-osseous structures, location and function of muscles, nerves, lymphatics, glandular tissues, blood supply and the anatomy involved in the administration of local anesthesia.

Credits: 2

Semester Offered: F

Prerequisites: BIO 112 with a grade of "C" or higher, CHM 101 with a grade of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101

DHY 123 - Oral Histology & Embryology

The student will study the microscopic anatomy of the oral tissues. Oral structure and its embryonic development and function will be presented. The student will gain knowledge in the cellular structure and embryonic development of the head, face, and oral cavity.

Credits: 2

Semester Offered: F

Prerequisites: BIO 112 with a grade of "C"

or higher, CHM 101 with a grade of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101

DHY 124 - Periodontology

This course provides a gross and microscopic study of the anatomy and physiology of the supporting structures of the teeth. The student will gain theoretical and practical knowledge in the etiology, the classification, and principles of examination and treatment of periodontal disease. An ability to recognize normal versus abnormal states of periodontium tissues is an expected learner outcome.

Credits: 2

Semester Offered: S

Prerequisites: DHY 116 with a grade of "C" or higher

DHY 125 - Dental Anatomy

This course examines the anatomy and morphology of the human permanent and primary dentitions. The student will gain a theoretical and practical knowledge of tooth anatomy and relate those anatomical principles to the dental hygiene process of clinical care. The student will identify the anatomy of the human teeth. The lab component of this course will allow students to transfer that knowledge to the associated clinically-related activities.

Credits: 1

Semester Offered: SU

Prerequisites: DA or DH students only, BIO 100 with a grade of "C" or higher or BIO 111 with a grade of "C" or higher and BIO 112 with a grade of "C" or higher, Placement into college level English

DHY 126 - Oral Pathology

The student is introduced to the basic principles and process of pathology. Emphasized are the disease process, pathology of the oral cavity, and their relationship to caring for the total patient. The student is expected to recognize visually normal and abnormal tissue and gain a theoretical and practical knowledge of diseases of the teeth and supporting structures and developmental disturbances of the oral cavity and neoplasms.

Credits: 2

Semester Offered: S

Prerequisites: DHY 116 with a grade of "C" or higher

DHY 131 - Dental Radiology

This course provides an introduction to the history of dental radiology, radiation hazards and protection, and the production and control of the dental x-ray beam. Classroom and laboratory instruction in x-ray exposure and processing techniques, as well as interpretation of dental x-rays, are designed to prepare the student for future clinical x-ray experience.

Credits: 3

Semester Offered: F

Prerequisites: BIO 100 with a grade of "C" or higher or BIO 111 with a grade of "C" or higher and BIO 112 with a grade of "C" or higher, DHY 125 with a grade of "C" or higher, ENG 101

DHY 150 - Local Anesthesia for the Dental Hygienist

This course provides the dental hygiene student with the essential skills and knowledge necessary to deliver safe and effective administration of local anesthetics for pain control. Through lectures and clinical experience, students learn to select appropriate anesthetic agents for each patient, select and prepare local anesthetic equipment, locate anatomical landmarks for each injection site and provide comfortable and safe maxillary and mandibular injections. Emphasis is placed on prevention, recognition and management of complications associated with local anesthetic administration. Students serve as patients for each other during laboratory sessions.

Credits: 2

Semester Offered: S

Prerequisites: DHY 116 with a grade of "C" or higher

DHY 201 - Health Promotion

This course examines the role of the dental hygiene professional in the promotion of patient-client health and well-being and in the prevention of disease. The multiple dimensions of health will be integrated with theories, principles, and processes of teaching and learning, communication, motivation and strategies for behavior change. Particular patient populations with unique health promotion needs are also presented. The learner will gain an overview of holistic nature of health and the importance of patient-provider relationships.

Credits: 2

Semester Offered: F

Prerequisites: DHY 113 with a grade of "C" or higher

DHY 202 - Dental Ethics, Jurisprudence & Professional Issues

This course explores the ethical and legal obligations of the Dental Hygiene professional. Content will include the major ethical theories applied in healthcare, the ethical code of the Dental Hygiene profession, and the resolution of ethical dilemma. The learner will become familiar with the legal regulation of their profession including practice acts, licensure, risk management, and quality assurance. A component of the course experience is devoted to preparing for dental hygiene employment and includes current professional issues, preparation of a resume, participation in employment interviews and selecting a career position.

Credits: 2

Semester Offered: S

Prerequisites: DHY 201 with a grade of "C" or higher, DHY 211 with a grade of "C" or higher, DHY 231 with a grade of "C" or higher, DHY 241 with a grade of "C" or higher

DHY 211 - Dental Hygiene Process III

This course continues the preparation in the dental hygiene process of care and emphasizes the theory of implementation of care for periodontally involved patients including advanced periodontal instrumentation, and the use of chemotherapeutic agents. Students evaluate dental hygiene care through case study applications. This course emphasizes the student demonstrating understanding of dental hygiene implementation and evaluation using critical thinking, problem solving, professional demeanor and sound judgment in providing direct patient care in supervised clinical sessions.

Credits: 5

Semester Offered: F

Prerequisites: DHY 113 with a grade of "C" or higher

DHY 212 - Dental Hygiene Process IV

This clinical theory course emphasizes the role of the dental hygienist in various dental specialties, including, but not limited to: General, Orthodontics, Pediatric Dentistry, Endodontics, Periodontics and Oral surgery practice. The clinical component emphasizes continued development in the delivery of

the dental hygiene process of care while demonstrating independent decision-making, critical thinking and problem-solving skills focusing on the periodontally involved patients requiring advanced instrumentation skills. Service-learning externships include oral health promotion and provision of services to specific target populations in the community.

Credits: 6

Semester Offered: S

Prerequisites: DHY 201 with a grade of "C" or higher, DHY 211 with a grade of "C" or higher, DHY 231 with a grade of "C" or higher, DHY 241 with a grade of "C" or higher

DHY 231 - Dental Pharmacology

This course studies the basic principles of pharmacology and anesthesiology and applies this knowledge to the treatment of patients. The student will gain knowledge of drugs, drug actions, and the efficacy of both those drugs used in dentistry and those impacting on the treatment of patients. The course content will include the physical and chemical properties, preparations, mode of administration, and effect on body systems, as well as reference to medical emergencies associated with dental treatment.

Credits: 2

Semester Offered: F

Prerequisites: DHY 113 with a grade of "C" or higher

DHY 241 - Dental Materials

This course studies the physical properties of dental materials encompassing principles of various materials, composition, and uses. The student will be introduced to a variety of dental materials in the classroom and laboratory settings. Emphasis is placed on the rationale for use of particular materials, selection criteria for various manipulative techniques of materials, and the importance of knowledge of materials for the dental hygienist and how these affect his/her responsibility in a clinical setting.

Credits: 2

Semester Offered: F

Prerequisites: BIO 100 with a grade of "C" or higher or BIO 111 with a grade of "C" or higher and BIO 112 with a grade of "C" or higher, DHY 125 with a grade of "C" or higher

DHY 243 - Dental Public Health

This course introduces dental public health and community dentistry. Emphasis is placed on the dental care delivery system, public health methodology, scientific evaluation, health care financing, and patient groups being served. The student will utilize classroom presentation and discussion, outside research, library assignments, and community experiences to become familiar with this aspect of the healthcare delivery system.

Credits: 2

Semester Offered: S

Prerequisites: DHY 201 with a grade of "C" or higher, DHY 211 with a grade of "C" or higher, DHY 231 with a grade of "C" or higher, DHY 241 with a grade of "C" or higher

DHY 250 - Nutrition in Oral and Systemic Health

This course provides an overview of the function and the food sources of nutrients essential to systemic and oral health with an emphasis on the role of nutrients in the development and maintenance of the oral tissues throughout the life cycle. Attention is given to specific life cycle nutrition and health issues that may impact oral health. The information is integrated and utilized in dietary assessment practices and nutritional instruction.

Credits: 2

Semester Offered: S

Prerequisites: DHY 116 with a grade of "C" or higher

Early Childhood Education

ECE 101 - Introduction to Early Childhood Education

This course is an introduction to early childhood education. Students study the history of the field, including theories and fundamentals essential to quality programming for young children. Course content includes studies of child development framed with an anti-bias lens with respect to diversity in race, culture, gender expression, family configuration, and language. Students learn state health and safety regulations, legal and ethical considerations in teaching, and standards of high-quality teaching practices. Students review the goals, benefits, and appropriate uses of assessment through observations conducted in the Children's School: QCC's Early Childhood Education Lab School; local, licensed Child Care program; or public school.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

ECE 102 - Growth & Development of the Young Child

This course covers the dynamics of child growth and development from birth to eight (8) years of age. Students identify a range of child growth and development theories and study cultural, economic, political, psychodynamic, and historical contexts that affect development. Through developmental observations, students describe children's physical, cognitive, social, and emotional development at various stages, including infant/toddler, preschool, and young school age.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

ECE 112 - Family Issues & Dynamics

This course focuses on the family life cycle, economics, family interactions and patterns, and family diversity; and, the course examines the effect these variables have on children's growth and development. Students relate these variables to their own personal family history and then examine this information in order to support children and families in school settings.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

ECE 123 - Fieldwork with Infants and Toddlers (Observation and Experience)

Students spend the first part of this course observing infants and toddlers to become familiar with the growth and developmental stages of these children. Specific observations cover the physical, social, cognitive and emotional needs of infants and toddlers. The impact of the caregiver's ability to nurture, support and encourage and set limits is also considered. Students, under the supervision of a licensed infant/toddler teacher, take part in the daily routines,

interact with the children and build competencies necessary to become a competent infant/toddler teacher.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English

ECE 150 - Introduction to Student Teaching Practicum

This course requires students to participate in 150 hours of practical classroom experience working with children under the age of seven (7) in either the Children's School: QCC's Early Childhood Education Lab School or a community school setting under faculty supervision. Competencies introduced include maintaining a developmentally appropriate, safe, and inclusive learning environment; developing, implementing, and evaluating appropriate activities for young children; demonstrating positive and intentional interactions with children; and using positive guidance strategies. Students will demonstrate strategies that keep children safe and healthy. Students participate in seminar and observations with faculty.

Credits: 4

Semester Offered: F/S/SU

Corequisites: ECE 102

ECE 202 - Fieldwork with Young Children I

This course provides onsite supervision and consultation for students who are developing skills and competencies as they work directly with young children in a school setting (ages 2.9-under seven years old and not yet enrolled in first grade). Early Childhood Education faculty observe and consult with students during this process. Students demonstrate and document competence in the following areas: setting up and maintaining a safe, healthy learning environment for children; providing positive guidance for children; implementing an age appropriate, culturally sensitive curricula; providing appropriate social experiences for young children; communicating and cooperating with team members appropriately; documenting self-growth over time; and demonstrating awareness of the total classroom at all times.

Credits: 3

Semester Offered: S

Prerequisites: ECE 102

ECE 221 - Infant & Toddler Curriculum and Development

This course examines the developmental stages of infants and toddlers. Using a holistic approach, students explore health and safety concerns, plans for stimulating learning experiences, and the design of indoor and outdoor environments specific to infants and toddlers. Students plan developmentally appropriate infant/toddler curricula and explain the connection between the physical environment and quality programs for infants and toddlers.

Credits: 3

Semester Offered: F/S

Prerequisites: ECE 102

ECE 231 - Curriculum for Young Children I

This course examines the value and functions of equipment, multicultural materials, and developmentally appropriate activities for young children. Students learn how to develop curriculum that promotes sensitivity toward diversity through hands on classroom activities using the Massachusetts Early Childhood Program Standard and Guidelines for Preschool Learning Experiences. Attention is given to special accommodations to meet the needs of all children. A professional portfolio is developed during this course.

Credits: 3

Semester Offered: F

Corequisites: ECE 251, ECE 253

Prerequisites: ECE 101, ECE 102 or PSY 123, ENG 101

ECE 232 - Curriculum for Young Children II

This course focuses on curriculum planning that is developmentally appropriate for young children. Students create and design plans and physical space using the Massachusetts Early Childhood Program Standards and Preschool Learning Experiences as a guide. Students implement the plans in a classroom setting (ECE 254), and address the effectiveness of their plans through observation and assessment procedures. Attention will be given to special accommodations to meet the needs of all children.

Credits: 3

Semester Offered: S

Corequisites: ECE 252, ECE 254

Prerequisites: ECE 231, ECE 251, ECE 253, ENG 101

ECE 238 - Supervision, Coaching and Mentoring in Early Childhood Settings

This course covers the critical elements involved in on-site supervision, coaching and mentoring in early childhood settings. The course emphasizes observing, recording, and analyzing data, and giving constructive feedback to the classroom teacher. Students develop conference skills and interpersonal communication strategies, demonstrate team-building skills and sensitivity to cultural issues, and gain knowledge of basic adult development. Students also write formative and summative evaluations.

Credits: 3

Semester Offered: F/S

Prerequisites: ENG 101

ECE 242 - Young Children with Special Needs

This course explores ways of meeting the challenges of young children with special needs. Students study ways to construct and design environments to support children and their families. Students are introduced to evolving social policies and legislation supportive of young children with special needs and their families, and observe intervention programs for young children.

Credits: 3

Semester Offered: F/S

Prerequisites: ECE 102 or PSY 123, Placement into college level English

ECE 243 - Administration in Early Education and Care

This course covers the administration routines and activities in a variety of early care and education settings. Content includes program and staff management, community relationship skills, budgeting, staffing, and program development. Students review meeting standards and license requirements, encouraging parent participation, and fundraising. Students explore elements of supervision and policy formation.

Credits: 3

Semester Offered: F

Prerequisites: ECE 102 or PSY 123

ECE 244 - Communication for Collaboration

This course emphasizes leadership skills needed for communication and collaboration within Early Childhood Education settings. Students examine adult development and individual style in relationship to leadership skills in early education settings. The role emotional intelligence plays in interpersonal dynamics and communication when working with staff and families is addressed.

Credits: 3

Semester Offered: F

Prerequisites: ECE 102 or PSY 123

ECE 245 - Advocacy and Ethics for Social Justice in Early Care and Education

This course examines the critical role advocacy plays in early education and care. Students use the National Association for the Education of Young Children's Code of Ethics in their work to support advocacy for quality early childhood programs, and in addressing local/international issues for children and families.

Credits: 3

Semester Offered: S

Prerequisites: ECE 102 or PSY 123

ECE 246 - Seminar and Field Experience: Leadership in Early Education and Care

This course examines students' field experiences in connection with leadership skills and competencies. Students select a focus competency directly related to the early childhood field experience and assume a leadership role working with staff and families. Seminar sessions support the students' self-examination of leadership competencies. Students demonstrate these specific leadership competencies in class and at the fieldwork placement. Skills required include reflective and analytical thinking, demonstration of logic, use of supportive interpersonal skills, clear written and oral communication and the ability to problem solve in group settings.

Credits: 3

Semester Offered: S

Prerequisites: ECE 102 or PSY 123

ECE 250 - Using Observation for Authentic Assessment of Young Children

This course focuses on observation, documentation and assessment of young children. Students conduct extensive observations of young children in natural settings. The course provides students with a working knowledge of young children with special needs, individual planning and anti-bias strategies for inclusion.

Credits: 3

Semester Offered: S

Prerequisites: ECE 101, ECE 102, ECE 112

ECE 251 - Integrating Theory and Practice I: Guidance of Young Children

This course covers major theories of Early Childhood Education and the Guides to Speech and Action developed by Katherine Baker. The implications of cultural, positive guidance practices as stated in the Department of Early Education and Care Child Guidance Policy, and the Massachusetts Early Childhood Program Standards and inclusion strategies compose the major focal area of this course. Students increase awareness of political and social issues that influence the lives of children, families, and the field of early education and care. Students observe young children throughout the course to identify positive guidance strategies, improve recording, observation and assessment skills.

Credits: 3

Semester Offered: F

Corequisites: ECE 231, ECE 253

Prerequisites: ECE 101, ECE 102 or PSY 123, ECE 112, ENG 101

ECE 252 - Integrating Theory and Practice II: Observing, Recording and Authentic Assessment

This course focuses on observation, documentation and assessment of young children based on the developmental theories covered in ECE 251. Students conduct extensive observations of young children in natural settings. Students record their observations and interpret the data. The course provides students with a working knowledge of young children with special needs, individual planning for inclusion, anti-bias strategies for inclusion and professional portfolio development.

Credits: 3

Semester Offered: S

Corequisites: ECE 232, ECE 254

Prerequisites: ECE 251

ECE 253 - Supervised Student Participation I

This course provides students with practical experience (150 hours) working with young children in the Quinsigamond Children's Laboratory School and in a community school setting under faculty supervision. Competencies introduced include working as a team member; developing, implementing and evaluating appropriate activities for young children; demonstrating positive guidance strategies and including strategies identified in the Office of Child Care Services Guidance Policy; keeping children safe and healthy; and, creating and maintaining a developmentally appropriate inclusive learning environment.

Credits: 4

Semester Offered: F

Corequisites: ECE 231, ECE 251

Prerequisites: ECE 101, ECE 102 or PSY 123, ECE 112, ENG 101

ECE 254 - Supervised Student Participation II

This course provides the students with an extended opportunity (150 hours) to relate theory to practice in the Quinsigamond Children's Laboratory School working under faculty supervision. Students act as lead teachers throughout the semester to observe children closely and use the Massachusetts Early Childhood Program Standards to plan, implement and evaluate curricula for young children. Students set up and maintain the total learning environment; provide appropriate guidance for young children and implement inclusion strategies as needed.

Credits: 4

Semester Offered: S

Corequisites: ECE 232, ECE 252

Prerequisites: ECE 231, ECE 251, ECE 253, ENG 101

ECE 255 - Guiding Young Children's Behavior

This course focuses on the examination and interpretation of behavior in young children and introduces a variety of positive approaches to guidance. Students discover how materials and use of space contribute to children's behavior; learn appropriate strategies to guide children toward cooperation and productive interactions with others; and develop realistic expectations of young children according to the child's developmental level.

Credits: 3

Semester Offered: F/S

Prerequisites: ECE 102

ECE 258 - Early Childhood Curriculum

This course examines how to develop a curriculum that supports the growth and development of the whole child. Students discover how curriculum can be both planned and emergent in nature. Creative arts, dramatic play, STEM, and literacy are explored in connection with state and national standards. The course focus promotes sensitivity toward diversity and attention is given to special accommodations to meet the needs of all young children.

Credits: 3

Semester Offered: S

Prerequisites: ECE 102

ECE 259 - Seminar and Field Experience: Classroom Teaching in Early Education and Care

This course examines students' field experiences in connection with their classroom teaching experience. Students focus on skills related to classroom teaching including behavior management, working with families, interactions with colleagues and curriculum facilitation. Seminar sessions support the students' self-examination of their classroom teaching. Students demonstrate these specific skills in class and at the fieldwork placement.

Credits: 3

Semester Offered: S

Prerequisites: ECE 102, ENG 102

ECE 260 - Introduction to Trauma Informed Care in Early Childhood Settings

This course explores the multiple impacts of trauma on the developing child along with ways to build resiliency. The role of the teacher, in the context of the child's larger circle of protective factors, is developed in terms of social emotional learning (SEL), family support and engagement, setting up the physical environment, advocacy, and self-care. An evidence-based approach, through trauma-informed best practices, guides the learning, where students will practice and apply course concepts in an early childhood classroom in a 15-hour faculty-guided field component.

Credits: 4

Prerequisites: ECE 102

ECE 261 - Best Practices in Trauma Informed Care in Early Childhood Settings

This course addresses in greater detail the key themes and concepts identified in ECE 260. Through evidence-based practice, students develop an increased capacity to work with children and families who have experienced trauma. Skills will be reinforced through continued self-reflective practice, practical application, and in-depth analysis of the child's environment. Students will continue to practice and apply course concepts in the early childhood classroom and meet with faculty in a 15-hour guided field component. Faculty will guide reflective discussion around implementing competencies in the early childhood classroom.

Credits: 4

Prerequisites: ECE 102, ECE 260

Economics

ECO 215 - Principles of Macroeconomics

The course examines the broad and general aspects of an economy and covers the traditional macroeconomic elements of an introductory economics program. Students study the theories of supply and demand, national income, fiscal and monetary policy, cyclical fluctuations, economic growth, inflation, employment, and international trade. Students learn how to understand and interpret statements and policies made by both national and world leaders.

Credits: 3

Semester Offered: F/S/SU

Corequisites: ENG 101

ECO 216 - Principles of Microeconomics

The course examines particular aspects of an economy and covers the traditional microeconomic elements of an introductory economics program. Students study pricing, input/output costs, resource allocation, farm policy, income distribution, and environmental issues. Students gain an understanding of various market structures as they relate to the national economy.

Credits: 3

Semester Offered: F/S/SU

Corequisites: ENG 101

Electromechanical Technology

ELM 251 - Instrumentation and Control Technology

This course covers the theory and application of mechanical processes and their control circuits. All major aspects of a control system are studied, including controllers, drivers, actuators, sensors and feedback control. Topics include PMDC motors, stepper motors, brushless motors, sensors, transducers, and servomechanisms. Students gain skills designing, characterizing, and troubleshooting small-scale control systems. LabVIEW is introduced and used throughout the course for data acquisition and control.

Credits: 4

Semester Offered: F/S

Prerequisites: ELT 104, ELT 121

Please Note: Three hours lecture, three hours laboratory

ELM 257 - Introduction to Programmable Logic Controllers

In this course, students gain valuable knowledge and skills in the use of programmable logic controllers (PLCs) to control manufacturing processes. Students learn the parts of a PLC system and how each part contributes to an effective system of control. In the lab, students connect a PLC to various input and output devices using proper wiring methods, write PLC programs using ladder logic, and apply troubleshooting techniques.

Credits: 4

Semester Offered: F/S

Prerequisites: ELT 103

Please Note: Three hours lecture, three hours laboratory

ELM 258 - Mechatronic Systems

This course provides students with a systems-level overview of mechatronic systems and how they are integrated into today's highly automated manufacturing environments. Topics include equipment safety, power distribution, pneumatics, controller I/O, SCADA networks, HMI programming, and manufacturing execution systems (MES). Students learn and practice systematic troubleshooting, problem solving, and preventive and corrective maintenance. Classroom material is reinforced by lab activities using a highly automated manufacturing system and other mechatronic systems.

Credits: 4

Semester Offered: F/S

Corequisites: ELM 257

Please Note: Three hours lecture, three hours laboratory

ELM 260 - Industrial Robotics

This course is an introduction to robotics as used in modern industry. Students explore coordinate systems, control systems, drive systems, and various methods of programming. In the laboratory, students complete a series of projects that require them to program robots to perform a variety of work cell tasks. Students practice industrial robot safety at all times. Students completing this course receive Fanuc CERT Certification, an internationally recognized robotics certification.

Credits: 4

Semester Offered: F/S

Prerequisites: ELT 121 or MNT 115

Please Note: Three hours lecture, three hours laboratory

Electronics Engineering Technology

EET 299 - Cooperative Work Experience

This course provides students with a structured learning experience while applying classroom theory to a practical work experience. Students develop a learning agreement that lists the objectives they will accomplish through their work experience. Evaluation is based on satisfactory completion of the learning agreement objectives and the demonstration of soft skills such as punctuality and attitude.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: CPS 298, Approval of Program Coordinator

Electronics Technology

ELT 103 - DC and AC Circuits

This course introduces students to DC and AC electrical circuits. Students learn the concepts of voltage, current, resistance, magnetism, and power and energy and the relationships between them. Methods of circuit analysis using Ohm's Law, Kirchhoff's Laws, and network theorems are studied. Concepts of AC, capacitance, and inductance are presented. Impedance, R-L-C circuits, and impedance networks are introduced. In the laboratory, students learn how to read electrical schematics and construct circuits using proper wiring and soldering techniques. Students use a variety of test equipment including digital multi-meters, oscilloscopes, and function generators to analyze and troubleshoot circuits.

Credits: 4

Semester Offered: F/S

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

Please Note: Three hours lecture, three hours laboratory

ELT 104 - Electronic Devices

In this course, students learn the operating principles of diodes, transistors, thyristors and amplifiers, and practical applications to regulate voltage, control power, and amplify signals. In the lab, students construct, test, and analyze circuits involving rectifier diodes, LEDs, Zener diodes, bipolar and field-effect transistors, SCRs, triacs, and operational amplifiers. Students develop skills reading and drawing schematics, using electronic test equipment, and troubleshooting circuits.

Credits: 4

Semester Offered: F/S

Prerequisites: ELT 103

Please Note: Three hours lecture, three hours laboratory

ELT 120 - Introduction to Photonics

This course provides students with an introduction to the fundamentals of optics, including the nature of light, light sources, and light propagation and interaction with matter in terms of geometrical optics and physical (wave) optics. This course gives students the opportunity to learn how to apply the principles of optics in a laboratory setting to conduct experiments and solve real world problems.

Credits: 4

Semester Offered: F

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

Please Note: Three hours lecture, three hours laboratory

ELT 121 - Digital Circuits

This course explores digital fundamentals including number systems, digital code, logic gates, Boolean algebra, combinational logic, and flip-flops. Students learn the functions of the basic digital circuits used in all areas of Electronics. Students learn the operation of a digital electronic circuit, troubleshooting components of digital electronic circuits, binary and hexadecimal number systems, and Boolean rules and laws used to describe and construct gate networks.

Credits: 4

Semester Offered: F/S

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

Please Note: Three hours lecture, three hours laboratory

ELT 130 - Embedded Microcontrollers

This is a project-based course where students apply the concepts they learn in ELT 103 and ELT 121 to microcontroller-based systems. Students gain valuable experience reading schematics and wiring diagrams, interfacing real-world devices to microcontroller inputs and outputs, and programming the microcontroller to perform various functions. Students also practice PC board design, soldering, and troubleshooting techniques.

Credits: 4

Semester Offered: F/S

Prerequisites: ELT 103, ELT 121

Please Note: Three hours lecture, three hours laboratory

ELT 222 - Photonics Technology

In this course, students apply the principles learned in Introduction to Photonics to investigate the operation and applications of modern photonic systems, including lasers, optical fibers, and detectors. Students learn how photonic systems operate, and apply those systems to analyze and solve real world problems.

Credits: 4

Semester Offered: S

Prerequisites: ELT 120

Please Note: Three hours lecture, three hours laboratory

Elementary Education

EDU 101 - Elementary Education: Teaching and Learning

This course provides students with a view of elementary schools as they are today. Historical, philosophical, and pedagogical perspectives are examined. Students examine curriculum, teaching strategies, and assessment models to gain insight and acquire skills in current methodologies employed in elementary settings. A pre-practicum of 24 hours beyond classroom time is required for successful completion of the course.

Credits: 3

Semester Offered: F

Prerequisites: Placement into college level English

EDU 103 - Foundations of Multicultural Education & Diversity

This course examines the relationship of cultural values and social contexts to the formation of the child's self-concept and success in the educational environment. An examination of the role of prejudice, stereotypes, institutional racism and sexism, and cultural incompatibilities in education will be included. Emphasis on considering different world views, preparing future teachers to offer an equal educational opportunity to children of all cultural groups, and considering course concepts in relationship to the work environment. A pre-practicum of 24 hours beyond classroom time is required for successful completion of the course.

Credits: 3

Semester Offered: S

Prerequisites: EDU 101, ENG 101

EDU 202 - Children with Exceptionalities

This course explores ways of meeting the diverse needs of children with exceptionalities. Students study how to differentiate instruction and design environments to meet the needs of all learners. Students are introduced to evolving social policies and legislation supportive of children with exceptionalities and their families. A pre-practicum of 24 hours beyond classroom time is required for successful completion of the course.

Credits: 3

Semester Offered: F

Prerequisites: EDU 103, PSY 123

EDU 204 - Foundations of Reading

This course provides a strong foundation in the best practices of literacy instruction. Essential areas of reading instruction are addressed: understanding phonological and phonemic awareness, the use of phonics, vocabulary development, fluency, comprehension, assessment, and writing. The course offers opportunities to gain knowledge of the mechanics of the reading process and to design and implement effective instruction for various student populations. A pre-practicum of 24 hours beyond classroom time is required for successful completion of the course.

Credits: 3

Semester Offered: S

Prerequisites: EDU 202

Emergency Medical Technician

EMT 101 - Basic Emergency Medical Technology

This course is designed to train individuals who respond to emergency calls for immediate care to the critically ill or injured and who transport patients to a medical facility. Students develop skills to determine the extent of illness or injury and establish priorities for emergency care. Topics include techniques in opening and maintaining an airway, cardiac resuscitation, controlling hemorrhage, treating shock, immobilizing fractures, assisting childbirth, managing behavioral emergencies, and light rescue skills including freeing patients from entrapment.

Credits: 7

Semester Offered: F/S/SU

Engineering

ERG 101 - Engineering Design and Graphics Using CAD

This course focuses on engineering drawing utilizing computer-assisted drawing (CAD) techniques. It introduces descriptive geometry and the basic theory of orthographic projections. Students create orthographic, isometric, sectional views and assembly drawings and dimensioning using CAD software.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: MAT 124

ERG 211 - Introduction to Materials Science

This course explores the fundamental properties of engineering materials utilizing micro and macro methods of material design. Students learn the atomic structures, chemical properties, and physical behavior of engineering materials, including biomaterials.

Credits: 3

Semester Offered: F/SU

Prerequisites: CHM 123, PHY 105

ERG 221 - Statics

This course covers a vector approach in studying static systems. Areas of study include the resultant of concentrated and distributed force systems, two and three-dimensional equilibrium, trusses, plane friction, centeroids, and moments of inertia. Students learn how to use integral equations to determine centeroids and moments of inertia for various geometrical shapes and derive and graph equations of shear and moment.

Credits: 3

Semester Offered: F/IN

Corequisites: MAT 235

Prerequisites: PHY 105

ERG 223 - Thermodynamics

This course introduces the laws of thermodynamics through the study of systems and the flow of energy across system boundaries. Students learn the First Law of Thermodynamics (utilizing heat, energy, work, enthalpy) and the Second Law of Thermodynamics (and the property of entropy) and their macroscopic and microscopic implications. The course focuses on the application of thermodynamics to engineering systems.

Credits: 3

Semester Offered: S/SU

Prerequisites: CHM 124, MAT 235, PHY 107

ERG 225 - Strength of Materials

This course emphasizes stress and strain and the mechanical properties of materials. Topics include axial load, torsion, bending and deflection of beams, Hooke's Law, Mohr's circle, transfer shear, combined loading, stress, strain transformation, design of beams, and buckling of columns. Students use integral and differential equations to solve problems in design of beams and structures.

Credits: 3

Semester Offered: S/SU

Corequisites: MAT 238

Prerequisites: ERG 221, MAT 235

ERG 280 - Engineering Computation and Modeling

This course explores the application of mathematical models in engineering and biological engineering phenomena. Students use mathematical computational software to create, solve and analyze the results of the models. Students present, in the classroom, the effects of the project on engineering projects, the environment, and life forms in general. Classroom discussion topics include: computer hardware; software; architecture; programming; functions; matrices; plotting; logical functions; selection structures; repetition structures; arrays; numerical techniques; solving equations and systems of equations; creating files; numerical differentiation and integration; and solving differential equations numerically.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: MAT 233

English

ENG 090 - Basic Reading Skills

This course focuses on developing reading skills. Students locate main ideas, recognize supporting details, locate transitions, identify patterns of organization, analyze the use of inferences and vocabulary. They employ skimming and scanning techniques, analyze word meaning through contextual and word structure analyses, and develop dictionary skills. The minimum passing grade for developmental courses is a "C".

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Appropriate placement score

Please Note: This developmental course cannot be used to satisfy degree or certificate requirements

ENG 091 - Intermediate Reading Skills

This course helps students to read independently in college level courses. Students acquire strategies for improving vocabulary and reading comprehension as well as critical thinking skills while emphasizing both academic reading and reading for studying. The minimum passing grade for developmental courses is a "C".

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 090 with a grade of "C" or higher or appropriate placement score

Please Note: This developmental course cannot be used to satisfy degree or certificate requirements

ENG 092 - College Reading Strategies

This course helps students to gain, practice, and perfect college level reading and comprehension skills using adaptive, self-paced reading technology. Students develop critical thinking abilities, improve vocabulary, language use, reading comprehension, and textbook command. The minimum passing grade for college readiness courses is a "C".

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Appropriate placement score

Please Note: This college readiness course cannot be used to satisfy degree or certificate requirements

ENG 093 - College Writing Strategies

This course helps students develop writing competence using adaptive, self-paced writing technology. Students will practice writing sentences, paragraphs, and essays, while learning how to recognize and use basic sentence patterns and write clear paragraphs containing a topic sentence, idea development, and a supportive conclusion. As students progress, they will write unified, supported, essays using grammatically sound sentences. Assignments are individually paced to prepare for college level writing courses. The minimum passing grade for college readiness courses is a "C".

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Appropriate placement score

Please Note: This college readiness course cannot be used to satisfy degree or certificate requirements

ENG 095 - Basic Writing Skills

This course helps students develop competence in written communication by practicing writing clear sentences and paragraphs. Students learn how to recognize and use basic sentence patterns and to write coherent paragraphs containing a topic sentence, idea development, and a strong conclusion. Students complete a variety of writing assignments and develop the skills needed for ENG 096 Intermediate Writing Skills. Taking the departmental final examination is a requirement of the course. The minimum passing grade for developmental courses is a "C".

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Appropriate placement score

Please Note: This developmental course cannot be used to satisfy degree or certificate requirements

ENG 096 - Intermediate Writing Skills

This course helps students develop writing competence by practicing writing paragraphs and essays. Students learn to write unified, supported, coherent essays using grammatically sound sentences. Assignments focus on writing a variety of paragraphs and essays in order to prepare for college level writing courses. Taking the departmental final examination is a requirement of the course. The minimum passing grade for developmental courses is a "C".

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 095 with a grade of "C" or higher or appropriate placement score

Please Note: This developmental course cannot be used to satisfy degree or certificate requirements

ENG 097 - The Reading-Writing Connection

This course analyzes college level essay writing by emphasizing the reading-writing connection. Students examine writing through reading and analyzing essay models and also refine their critical reading and writing skills by focusing on the writing process and effective reading strategies. Students develop a familiarity with library resources. Taking the Departmental Exam for writing is a requirement of this course. A minimum passing grade of "C" is required.

Credits: 3

Semester Offered: F/S

Prerequisites: Appropriate placement score

Please Note: This developmental course cannot be used to satisfy degree or certificate requirements

ENG 099 - College Reading & Writing Strategies

This course is an integrated reading and writing course focused on enhancing college-level reading comprehension and composition skills. Students develop critical reading, writing, and thinking abilities while improving their vocabulary and language use. Emphasis is placed on the connection between reading and writing and the processes involved in both. Technology tools are incorporated to support learning. A minimum grade of "C" is required.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Appropriate placement; any student testing into or self-placing into developmental English may enroll in this course

Please Note: This college readiness course cannot be used to satisfy degree or certificate requirements

ENG 101 - Composition I

The course focuses on theme-based argument. Students practice and develop critical reading, thinking, and writing skills necessary for college. Students read, analyze, and summarize college level analytic arguments from various genres (popular, academic, etc.) and compose research-based analytic arguments based on the course's theme. Students become aware of writing decisions made for different audiences, purposes, and genres, with a focus on academic writing conventions. Students also learn beginning research skills, including appropriate quotation, summary, paraphrase, and documentation skills. At the end of the semester, students compile a portfolio of 15-25 pages, to include their summary, synthesis, and analysis projects.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

ENG 102 - Composition II

This theme-based course, the second in the composition sequence, develops and refines skills learned in ENG 101, with a specific focus on independent research. Students sharpen rhetorical, critical thinking, and academic writing skills and practice locating, evaluating, summarizing, synthesizing, and citing primary and secondary sources. Students will manage a sustained independent inquiry project(s) to include a research question or problem analysis, an annotated bibliography, and a research project. By the end of the semester, students will compile a portfolio of 15-25 pages that includes a self-reflection assignment and displays a writing and research process to include pre-writing, drafting, feedback, revision, and appropriate citation.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101

ENG 105 - Technical Writing

This course focuses on writing letters, memos, resumes, lab reports, instructions/processes and technical descriptions, and design visual aids. Instructional emphasis is placed on clarity, correctness, conciseness, audience, precision, accuracy, organization, and document design in writing technical documents.

Credits: 3

Semester Offered: F/S

Prerequisites: ENG 101

ENG 200 - Children's Literature

This course introduces students to the nature, variety, and artistry of children's stories. Students examine various modes of the genre and investigate why stories are necessary and popular teaching vehicles for the intellectual growth and development of children. Students discuss and explore numerous tales, fables, myths, and literary archetypes. Special emphasis is placed on selected visually orientated stories and their context in today's society. Students write individual reports and interact in panel discussions, commentary, and discussions of the merits of contemporary works.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 102

ENG 202 - Creative Writing

This course centers on weekly student writing of poems, short stories, plays or personal essays. Specific Projects will be determined by individual and group interests. Group discussion of works-in-process will aid the student to achieve a significant creative writing project for the semester. Examples of creative excellence will be read and discussed, with some attention to critical and aesthetic theory.

Credits: 3

Semester Offered: F/S

Prerequisites: ENG 102

ENG 203 - Writing Poetry

This course focuses on writing fixed and free verse forms. Students learn the technical vocabulary of poetry and apply it to the work of classic and contemporary poets, as well as their own work and the work of their peers. Students present their poems in a group setting, and receive and provide both oral and written critiques.

Credits: 3

Semester Offered: F

Prerequisites: ENG 102

ENG 204 - Writing Fiction

This course focuses on writing short story and/or novel prose. Students learn the technical vocabulary of the craft and apply it to the work of classic and contemporary fiction writers, as well as their own work and the work of their peers. Students present their writing in a group setting, and receive and provide both oral and written critiques.

Credits: 3

Semester Offered: S

Prerequisites: ENG 102

ENG 205 - Technical and Workplace Writing

This course covers the theory and practice of writing appropriate to the workplace. While the course is designed for students interested in technical applications, it is useful for anyone who intends to enter an occupation that requires writing assignments such as resumes, reports, or proposals, instructions, web pages, abstracts, technical descriptions, and letters and memos in either traditional or electronic format. Other technically-oriented assignments may be included as well. Students explore concepts such as critical thinking, empathy, style, tone, persuasion, precision, simplicity, readability, ethics, etiquette, graphics, electronic and hard copy elements of design, and collaborative writing. Students develop a portfolio to show prospective employers.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 102, Computer Literacy

ENG 209 - Creative Nonfiction

This course covers topics based in reality using the tools of fiction - structure, characterization, plot, scene, dialogue, style, etc. - to animate storytelling and discover truth. Students examine readings from this genre both as scholars and writers, and cover core components of crafting memoir, personal essays, and literary journalism. Students also examine topics that include the role of memory, perception, subjectivity and ethical questions inherent in this genre as students produce original work of creative nonfiction.

Credits: 3

Semester Offered: F/S

Prerequisites: ENG 102

ENG 210 - Introduction to Literary Theory

This course covers seminal extracts from the work of major literary/cultural theorists especially those whose work initiated particular schools of literary/cultural criticism. Students examine the work of these theorists in the order in which they appeared on the historical scene. Students also explore how the work of each theorist built upon, extended, challenged, or problematized, that of predecessors. Students apply these taught theories to several major works of literature. The class runs as a seminar and culminates with a final essay.

Credits: 3

Semester Offered: F/S

Prerequisites: ENG 101

ENG 231 - World Literature I: Ancient World to 18th Century

This course examines the history and growth of great books and ideas and their relevance to modern times. Students read literary selections from the ancient world to the 18th century to help them understand the sense and perspectives of major world writers. Students learn to demonstrate an understanding of both Eastern and Western literary traditions through class discussions and written assignments.

Credits: 3

Semester Offered: F

Prerequisites: ENG 102

ENG 232 - World Literature II: 18th Century to Present

This course complements ENG 231 by examining the history, growth, and cross influences of ideas and their impact on views of the modern world. Students study major writings and writers of both Eastern and Western literature from the 18th century to the present. Students learn how to understand the universal themes of great literature and the relevance of those themes in the modern world.

Credits: 3

Semester Offered: S

Prerequisites: ENG 102

ENG 241 - British Literature I: Beginning to 1750

This course explores British literature from its beginnings to 1750. Students examine major representative authors of the Anglo-Saxon, medieval, Renaissance, metaphysical, and Restoration periods. Students study the major developments in English literature and develop an understanding of the relevancy of key themes of early British literature to present works. The course also explores the evolution of the English language from its beginnings in Old English to its modern-day form.

Credits: 3

Semester Offered: F

Prerequisites: ENG 102

ENG 242 - British Literature II: 1750 to Present

This course explores British literature from 1750 to the present. Students explore key literary and cultural movements that occurred during the Romantic, Victorian, 20th century, and contemporary periods. Selected works cover several literary genres including poetry, drama, the essay, the short story, and the novel.

Credits: 3

Semester Offered: S

Prerequisites: ENG 102

ENG 251 - American Literature I: 1600 to 1870

This course examines American literature from approximately 1600-1870, covering poetry, fiction, essays, and autobiography. Students explore literary movements and major authors of major American time periods including the Puritan, colonial, Revolutionary, Romantic, Transcendentalist, and abolitionist eras. Students examine how writers influenced both their own times and subsequent generations.

Credits: 3

Semester Offered: F

Prerequisites: ENG 102

ENG 252 - American Literature II: 1870 to Present

This course examines American literature from the mid-1800s to the present, including poetry, fiction, essays, and autobiography. Students explore literary movements, major authors, and trends of the various time periods. Topics include American regional writing; American Realism; literature during and between the two world wars; the literatures of American minorities; and the contemporary literature of disillusionment. Students explore texts both as literary works and as products of historical forces.

Credits: 3

Semester Offered: S

Prerequisites: ENG 102

ENG 256 - The Short Story

This course focuses on reading and analyzing short stories by renowned writers from various cultures. Students participate in class discussions and write papers to demonstrate close reading skills, to express individual interpretation, and to understand the common themes and unique literary characteristics of the genre. Students also examine cultural and historical contexts that influenced the authors.

Credits: 3

Semester Offered: F/SU

Prerequisites: ENG 102

ENG 260 - Special Topics in English

Special Topics in English provides an opportunity for specialized literary study of various topics from year to year. Special Topics may feature a particular literary theme, an historical era, a genre, a single author or group of authors, specific regional or national literature, or other topics defined by the teaching professor. Research papers or projects may constitute a significant portion of the course requirements. This course will vary in any number of ways according to the discretion of the instructor and the instructor's choice of text(s).

Credits: 3

Semester Offered: F/S

Prerequisites: ENG 102

ENG 261 - African American Literature I

This course examines African American literature and vernacular culture from 1746 to 1940. Students explore the major authors, genres, aesthetics, political movements, and intersectional tropes of the period. The course focuses on the slave narrative, the Abolitionist movement, minstrelsy, the Civil War, racial uplift politics, Reconstruction, plantation literature, Post-Reconstruction, the New Negro movement, the Great Migration, the New Deal, Popular Front radicalism, and social realism. Students also explore representations of the law and technology in the primary texts. The course emphasizes African American resistance, agency, transculturation, intertextuality, and cultural continuity.

Credits: 3

Semester Offered: F

Prerequisites: ENG 102

ENG 262 - African American Literature II

This course examines African American literature and vernacular culture from 1940 to 2017. Students explore the major authors, genres, aesthetics, political movements, and intersectional tropes of the period. The course focuses on the Great Migration, Popular Front radicalism, social realism, the Civil Rights/Black Power movements, the Black Arts movement, and the post-Civil Rights ethos. Students also explore representations of the law and technology in the primary texts. The course emphasizes African American resistance, agency, transculturation, intertextuality, and cultural continuity.

Credits: 3

Semester Offered: S

Prerequisites: ENG 102

English as a Second Language

ESL 103 - English as a Second Language: Writing I

This course focuses on paragraph development, including an emphasis on sentence structure and the writing process. Students learn grammar in the context of specific writing activities. Students respond in writing to prompts and short readings. The minimal passing grade for ESL courses is a "C".

Credits: 3

Semester Offered: F/S

Prerequisites: Non-native speaker of English, High School Diploma or GED and appropriate placement score

ESL 104 - English as a Second Language: Writing II

This course refines paragraph writing skills while introducing and developing the essay. Students learn more complex grammar and sentence structure. Students write paragraphs and essays, in response to simple prompts and readings. The minimal passing grade for ESL courses is a "C".

Credits: 3

Semester Offered: F/S

Prerequisites: Non-native speaker of English, High School Diploma or GED and ESL 103 passed with a grade of "C" or higher or appropriate placement score

ESL 105 - English as a Second Language: Writing III

This course develops students' skills in essay writing. Students focus on writing and revising longer pieces using complex structures and appropriate rhetorical modes. The minimal passing grade for ESL courses is a "C".

Credits: 3

Semester Offered: F/S

Prerequisites: Non-native speaker of English, High School Diploma or GED and ESL 104 passed with a grade of "C" or higher or appropriate placement score

ESL 113 - English as a Second Language: Reading I

This course focuses on reading skills and vocabulary development. Students develop and demonstrate reading comprehension through class discussions and written responses in complete sentences and short paragraphs. The minimal passing grade for ESL courses is a "C".

Credits: 3

Semester Offered: F/S

Prerequisites: Non-native speaker of English, High School Diploma or GED and appropriate placement score

ESL 114 - English as a Second Language: Reading II

This course emphasizes reading longer passages and increasing academic vocabulary. Students develop and demonstrate comprehension and critical reading skills through class discussions and written responses in paragraphs and short essays. The minimal passing grade for ESL courses is a "C".

Credits: 3

Semester Offered: F/S

Prerequisites: Non-native speaker of English, High School Diploma or GED and ESL 113 passed with a grade of "C" or higher or appropriate placement score

ESL 115 - English as a Second Language: Reading III

This course focuses on the critical reading skills necessary to understand content course readings. Students demonstrate their ability to comprehend, analyze and synthesize information through class discussions and more complex writing assignments. The minimal passing grade for ESL courses is a "C".

Credits: 3

Semester Offered: F/S

Prerequisites: Non-native speaker of English, High School Diploma or GED and ESL 114 passed with a grade of "C" or higher or appropriate placement score

ESL 133 - English as a Second Language: Listening/Speaking I

This course focuses on the speaking and pronunciation skills that are necessary in an academic setting. Students practice speaking by responding to open-ended questions in response to class readings or discussions on a topic. Students prepare and give brief presentations in class using academic vocabulary. The minimal passing grade for ESL courses is a "C".

Credits: 3

Semester Offered: F/S

Prerequisites: Non-native speaker of English, High School Diploma or GED and appropriate placement score

ESL 134 - English as a Second Language: Listening/Speaking II

Non-native speakers of English learn basic and intermediate spoken English skills necessary for social and academic interaction. The course explores American language customs, practical grammar, and correct pronunciation, including elements of intonation, stress, and rhythm.

Credits: 3

Semester Offered: F/S

Prerequisites: Non-native speaker of English, High School Diploma or GED and ESL 133 passed with a grade of "C" or higher or appropriate placement score

ESL 135 - English as a Second Language: Listening/Speaking III

This course helps non-native speakers of English develop the oral language fluency necessary for social and academic interaction. Students gain advanced skills to understand spoken English and to increase their facility in spoken English. The course focuses on assisting students to acquire a larger vocabulary in order to participate more easily in social and academic situations.

Credits: 3

Semester Offered: F/S

Prerequisites: Non-native speaker of English, High School Diploma or GED and ESL 134 passed with a grade of "C" or higher or appropriate placement score

ESL 160 - College English Transition

This course covers the integration of critical reading and writing skills needed for college success. Students demonstrate their ability to comprehend, analyze, and synthesize information from course readings and to write effective academic essays based on those readings. Students focus their ability to use academic vocabulary; write with appropriate sentence structure and grammatical form; and to summarize, paraphrase, synthesize, and document sources. The goal of this course is to prepare students to enter ENG 101.

Credits: 6

Semester Offered: F/S

Prerequisites: Non-native speaker of English, High School Diploma or equivalent and ESL 105 and ESL 115 or placement by ESL Coordinator (Coordinator will make decision by combination of CELSA score, Accuplacer Reading score, and a short writing sample)

Finance

FIN 111 - Personal Financial Planning

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

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

FIN 221 - The Stock Market and Investments

This course provides an introduction to financial investments and the stock markets. Students study the purposes and history of the stock markets and the primary investments they control including stocks, bonds, and mutual funds.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English

FIN 250 - Principles of Finance

This course covers the principles and practices of financial management that are used in business. Topics examined include acquisition of funds, cash flow, financial analysis, capital budgeting, working capital requirements, and capital structure.

Credits: 3

Semester Offered: F/S

Prerequisites: ACC 101, Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

Fire Science

FSC 101 - Principles of Emergency Services

This course provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics; life safety initiatives. This course follows the curriculum established by the Fire and Emergency Services Higher Education (FESHE) network.

Credits: 3

Semester Offered: F

Prerequisites: Placement into college level English

FSC 104 - Fire Behavior and Combustion

This course explores the theories and fundamentals of how and why fires start, spread, and how they are controlled. This course follows the curriculum established by the Fire and Emergency Services Higher Education (FESHE) network.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English, FSC 101

FSC 121 - Building Construction for Fire Protection

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. This course follows the curriculum established by the Fire and Emergency Services Higher Education (FESHE) network.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English, FSC 101

FSC 151 - Occupational Safety and Health for Emergency Services

This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk and hazard evaluation and control procedures for emergency service organizations. This course follows the curriculum established by the Fire and Emergency Services Higher Education (FESHE) network.

Credits: 3

Semester Offered: F

Prerequisites: Placement into college level English

FSC 201 - Principles of Fire and Emergency Services Safety and Survival

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. This course follows the curriculum established by the Fire and Emergency Services Higher Education (FESHE) network.

Credits: 3

Semester Offered: F

Prerequisites: FSC 104, FSC 121

FSC 203 - Fire Prevention

This course provides advanced knowledge relating to the field of fire prevention. Topics include: history and philosophy of fire prevention; organization and operation of a fire prevention bureau; use and application of codes and standards; plans review; fire inspections; fire and life safety education; and fire investigation. This course follows the curriculum established by the Fire and Emergency Services Higher Education (FESHE) network.

Credits: 3

Semester Offered: F

Prerequisites: ENG 101, FSC 104, FSC 121

FSC 207 - Fire Fighting Tactics and Strategy

This course reviews fire chemistry, equipment, and personnel. Students learn basic fire fighting tactics and strategies, methods of attack, and preplanning to prevent fire problems. Fire situations are presented for analysis and study of accepted fire fighting practices. This course follows the curriculum established by the Fire and Emergency Services Higher Education (FESHE) network.

Credits: 3

Semester Offered: S

Prerequisites: FSC 201, FSC 203

FSC 223 - Fire Protection Systems

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. This course follows the curriculum established by the Fire and Emergency Services Higher Education (FESHE) network.

Credits: 3

Semester Offered: S

Prerequisites: FSC 203

FSC 230 - Fire Investigation I

This course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the firesetter, and types of fire causes. This course follows the curriculum established by the Fire and Emergency Services Higher Education (FESHE) network.

Credits: 3

Semester Offered: F

Prerequisites: FSC 104, FSC 121

FSC 241 - Fire Protection Hydraulics and Water Supply

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. This course follows the curriculum established by the Fire and Emergency Services Higher Education (FESHE) network.

Credits: 3

Semester Offered: S

Prerequisites: MAT 095 with a grade of "C" or higher or QMAT placement score > 21

FSC 242 - Hazardous Materials Chemistry

This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity, and health hazards encountered by emergency services. This course follows the curriculum established by the Fire and Emergency Services Higher Education (FESHE) network.

Credits: 3

Semester Offered: F

Prerequisites: FSC 203, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

FSC 263 - Introduction to Fire and Emergency Services Administration

This course introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics, and leadership from the perspective of the company officer. This course follows the curriculum established by the Fire and Emergency Services Higher Education (FESHE) network.

Credits: 3

Semester Offered: S

Prerequisites: FSC 203, SPH 101

First Year Experience

FYE 101 - First Year Experience

This course will help new students make a successful transition to campus, both academically and personally. The course aims to foster a sense of belonging, promote engagement in the curricular and co-curricular life of the college, develop learning strategies, establish career planning skills, and help to clarify purpose, meaning and direction.

Credits: 3

Semester Offered: F/S/SU

FYE 102 - Healthcare First Year Experience

This course will help new Healthcare students make a successful transition to campus, both academically and personally. The course aims to foster a sense of belonging, promote engagement in the curricular and co-curricular life of the college, develop learning strategies, establish health career planning skills, and help to clarify purpose, meaning and direction. This course will offer students interested in healthcare careers the opportunity to identify and examine the admissions requirements of healthcare programs.

Credits: 3

Semester Offered: F/S/SU

French

FRC 111 - Beginning French I

The course covers the fundamentals of French grammar as a foundation for speaking, understanding, reading, and writing the language. It includes brief readings in the everyday aspects of the French-speaking world. In addition to gaining an understanding of the fundamentals of French grammar, students develop a basic working vocabulary of 500 words. Previous knowledge of French is not required.

Credits: 3

Semester Offered: F

FRC 112 - Beginning French II

Students progress further in the foundations of the language, including understanding, speaking, reading, and writing. Students improve reading and speaking skills through the study of short pieces on contemporary French life and culture. Students study the French

grammatical structure and develop a working vocabulary of 850 words. They also read and respond to short, simple French texts.

Credits: 3

Semester Offered: S

Prerequisites: FRC 111

Geography

GEO 210 - World Regional Geography

This course will give the student a foundation for understanding the geographic regions of the world. It will also introduce the basic methods of geographic analysis for understanding regional patterns, thereby enabling the student to gain insight into, and comprehension of, global culture and world events. Upon successful completion of the course, the student will be able to perform the following: locate and map basic place names of the globe (the continents, major realms and regions, major countries and cities, and major physical and cultural features); compare, contrast, and interpret maps and geographic data, and articulate his/her understanding of current global problems from a regional perspective.

Credits: 3

Semester Offered: F/S

Corequisites: ENG 101

Gerontology

GRT 101 - Introduction to Gerontology

This course focuses on issues in gerontology that includes psychological, social, and physical changes as we age. Students will explore the aging process and what it means for both individuals and society. This course gives the opportunity for students to explore several ways of looking at aging as a social construct and the disparities in race, gender, disability (accessibilities), SEC (Social Economic Culture) impact, and sexual and gender orientation. Students will learn about problems that exist for elders, such as work and retirement, biological aging, mind/body/spirit care, intimacy and relationships, and end of life issues, along with social policy, health care and technological impacts.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

Heating Ventilation Air Conditioning

HVC 101 - Basic Refrigeration Systems and Heat Theory

This course introduces students to the basic concepts of heat transfer that dictate the behavior and operation of both heating and cooling systems. Topics lay the groundwork for the basic refrigeration cycle, including sensible, latent, and specific heat. Temperature and pressure concepts are also applied to refrigeration system models. This course includes a laboratory component.

Credits: 4

Semester Offered: F/S

Corequisites: HVC 102, HVC 108

Prerequisites: Enrollment limited to HVC majors only

Please Note: Three hours lecture, three hours laboratory

HVC 102 - Basic Electricity

Students are exposed to AC fundamentals, Ohm's Law, and other circuit rules effecting circuit behavior, as well as basic electrical components used to develop series and parallel control circuits. Laboratory exercises focus on creating wiring diagrams, and then applying them to actual wiring practices on working circuitry. Students are trained in the use of electrical meters to develop troubleshooting procedures. Electrical Safety is incorporated into all activities. This course includes a laboratory component.

Credits: 4

Semester Offered: F/S

Corequisites: HVC 101, HVC 108

Prerequisites: Enrollment limited to HVC majors only

Please Note: Three hours lecture, three hours laboratory

HVC 107 - Comfort Cooling Systems

This course is a study of mechanical cooling equipment used in comfort cooling, heat pump, and other indoor environmental applications. Hands-on laboratories cover the installation and use of electrical controls, system evaluation, and mechanical and electrical troubleshooting of residential and light commercial applications. Strategies for energy efficiency maintenance procedures are matched to appropriate equipment. This course includes a laboratory component.

Credits: 4

Semester Offered: F/S

Corequisites: HVC 109, HVC 110

Prerequisites: HVC 101, Enrollment limited to HVC majors only

Please Note: Three hours lecture, three hours laboratory

HVC 108 - Motors and Motor Controls

This course provides students with a systems-level overview of electric motors and motor controls and how they are integrated into today's highly energy efficient HVAC systems. Topics include equipment safety, electrical theory of induction motors, relays, contactors and motor starters. Electrical safety and adherence to the NEC are imbedded in the course topics and lab instruction. Students will learn and practice systematic troubleshooting, problem solving and preventative maintenance. Classroom material is reinforced by lab activities using real world equipment in a lab setting.

Credits: 4

Semester Offered: F/S

Corequisites: HVC 101, HVC 102

Prerequisites: Enrollment limited to HVC majors only

Please Note: Three hours lecture, three hours laboratory

HVC 109 - Oil Heating Systems

This course provides a comprehensive study of Fuel Oil and Fuel Oil Heating Systems. Students apply heat transfer concepts and chemistry basics to analyze fuel oil and combustion. Types of burner designs are analyzed for operation and efficiency. Equipment designs focus on mediums such as water and air for heat transfer. Controls strategies and components presented reflect the modern oil heating system. Safety and efficiency are a primary focus. This course provides a foundation for those seeking their MA Oil License. All instruction will relate to and reference MA Oil Code (NFPA 31). The hands-on laboratory component is designed to be integrated with and strengthen the online content.

Credits: 4

Semester Offered: F/S

Corequisites: HVC 107, HVC 110

Prerequisites: HVC 101, Enrollment limited to HVC majors only

Please Note: Three hours lecture, three hours laboratory

HVC 110 - Gas Heating Systems

This course is a study of various gas heating systems used in residential and light commercial applications. Steam, warm water and air systems, as well as hybrid systems, will be analyzed. Students will explore chemistry of fuel gases and combustion for system efficiency and safety, and the Massachusetts Fuel Gas Code will be introduced. Equipment and control design factors will be examined for methods of overall energy efficiency. Wiring schematics and fuel knowledge will provide a sound basis for diagnostic skills. This course includes a hands-on laboratory component.

Credits: 4

Semester Offered: F/S

Corequisites: HVC 107, HVC 109

Prerequisites: HVC 101, Enrollment limited to HVC majors only

Please Note: Three hours lecture, three hours laboratory

History

HST 104 - World History I: Beginning to 1500

This course examines the world's ancient and pre-modern peoples, cultures, and civilizations. It emphasizes themes such as the development of agriculture and rise of civilization, formation of empires, development of religions, and economic and cultural interaction between regions of the world.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101

HST 105 - World History II: 1500 to World War I

This course examines the convergence of the world's people, cultures, and civilizations on a global scale beginning around the 16th century. It emphasizes themes such as the emerging global economy, colonialism, revolution, industrialization, imperialism, and the rise of the nation-state.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101

HST 106 - World History III: World War I to Present

This course examines recent and current interactions between the world's peoples, cultures, and civilizations. It emphasizes themes such as nationalism, migrations, technology, and economic and cultural interaction on a global scale.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101

HST 115 - U.S. History: Beginnings to 1865

This course surveys the period from pre-Columbian times to the end of the Civil War. Topics include Native American cultures and societies; colonization; origins and development of slavery; American Revolution; establishment of the United States; industrialization and immigration; westward expansion; sectional politics and Civil War. Students examine the Constitution in light of politics, society, economy, and culture of the period.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101

HST 116 - U.S. History: 1865 to Present

This course surveys the period from the end of the Civil War to present-day. Topics include Reconstruction; Gilded Age, populism and progressivism; imperialism; World War I; Great Depression and New Deal; World War II; Cold War; the Sixties; conservatism; globalization and September 11th's aftermath. Students examine the Constitution in light of politics, society, economy, and culture of the period.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101

HST 133 - History of Puerto Rico

This course examines selected topics concerning Puerto Rico from the pre-Columbian period through Spanish conquest and colonization, and considers its relationship with the United States since the Spanish American War. Students develop an understanding of the Native American, Spanish, and African heritage of Puerto Rico. Sections are offered in Spanish.

Credits: 3

Semester Offered: S

Prerequisites: ENG 101

HST 202 - Topics in the History of Civilization

This course examines in-depth a selected topic from the history of civilization. Students develop greater knowledge, insight, and sophistication than might be obtained from a survey course while retaining historical and chronological perspectives. Topics vary from semester to semester.

Credits: 3

Prerequisites: ENG 101

HST 203 - African American History I: Beginnings to 1865

This course examines the history of African Americans from their African origins and forced migration to and settlement in America to the end of the Civil War. Topics include the development of slavery, conceptions of race, struggle for freedom, development of African American culture, and life of free blacks before the Civil War.

Credits: 3

Semester Offered: F

Prerequisites: ENG 101

HST 204 - African American History II: 1865 to the Present

This course examines the history of African Americans from the end of the Civil War to present day. Topics include Reconstruction, Jim Crow, the Great Migration, black nationalism, the Harlem Renaissance, black culture and society, the civil rights and restorative justice/reparations movements, and the role African Americans today play in the economic, political, and social life of the United States.

Credits: 3

Semester Offered: S

Prerequisites: ENG 101

HST 205 - United States Women's History

This course focuses on the experiences of women, their various roles and statuses, as well as the changing ideas about women and gender from the Colonial period, through the Revolution and Early Republic to the present day. A major emphasis of this course will be an examination of the various efforts of women to define themselves

intersectionally, and critique the social and political mores that have impacted their lives and opportunities due to gendered hierarchies shaped by changing attitudes and understandings of race, class, and religion over time.

Credits: 3

Semester Offered: S

Prerequisites: ENG 101

HST 216 - History of Native Americans in North America

This course explores the history of Native Americans in North America from earliest archeological periods to the present. Students examine the migration and settlements of native peoples, development of Native American societies and cultures in the pre-Columbian era, their encounters with Europeans and Africans, and their responses to the challenges of conquest, dispossession, and colonialism in North America.

Credits: 3

Semester Offered: F

Prerequisites: ENG 101

HST 232 - Worcester's History

This course traces the social, industrial, and political transformations in the "Heart of the Commonwealth" from the initial encounters of native Nipmuc people with Europeans in the 1600s to Worcester's present. Students examine the city's local perspective on important topics in American History including colonial town life; the American Revolution; the anti-slavery, women's rights and other reform movements; the Civil War; industrialization; immigration; ethnic diversity; and labor.

Credits: 3

Semester Offered: F

Prerequisites: ENG 101

Hospitality & Recreation Management

HRM 100 - Today's Culinary Professional

This course is designed to orientate a new culinary/hospitality student to both academic and career planning within the context of current academic, legal, economic and market trends. Students consider their approach and commitment to their academic development at the College within the broader context of current industry demands. The course emphasizes the role of entrepreneurship and ethical behavior as an industry professional.

Credits: 1

Semester Offered: SU/IN

HRM 101 - Introduction to Hotel/ Restaurant Management

This course covers the hospitality industry, including food service, lodging, tourism, casinos, recreation, and convention management. Students learn the departments of hotels, restaurants, and travel organizations both individually and in relation to each other. Students examine the management process as it applies to the hospitality industry in order to select an area of interest for their own careers.

Credits: 3

Semester Offered: F/S

HRM 110 - Basic Foods: Mise En Place

This course provides a learner-centered pedagogy. Students establish individualized learning objectives resulting from self-engagement during this program. Curriculum content is designed to provide rudimentary competencies in the areas of culinary mise en place, such as flavoring, seasoning, portioning, culinary math, and measurements.

Credits: 3

Semester Offered: F/S

HRM 111 - Basic Foods: Basic Boucher & Patissier

This course introduces commercial food preparation and production management. Students learn basic principles of commercial cookery, including methods of preparation, nutrition, cost, and organization and management of commercial kitchens. Topics include the purpose and use of recipes; portion control techniques; and the selection, cooking, and handling of stocks and sauces, soups, meat, poultry, fish, vegetables, starches and salads. Students learn basic principles of kitchen operation and management and the safe usage of food service equipment. Students individually plan, produce, and serve products in the student-run diner at the Worcester Senior Center.

Credits: 4

Semester Offered: F/S

Corequisites: HRM 110

HRM 112 - Basic Foods: Garde-Manager & Saucier

In the laboratory portion, students in a restaurant setting produce food, including appetizers, soups, salads, entrees, vegetables, and desserts. In the classroom portion, students calculate potential and actual operating food costs, assess and design menus and operations methods, and modify recipes for special diets or quantity production.

Credits: 4

Semester Offered: F/S

Corequisites: HRM 110

HRM 113 - Basic Foods: Principles of Baking

This course introduces commercial baking mise en place and production management. Students use the basic principles of commercial baking in a variety of baking processes. Topics include tools and equipment, basic baking ingredients, measuring ingredients, baker's percentage calculation, mixing methods and leavening chemistry. Baking principles are taught using quick bread and yeast bread production. Students explore the use of ancient grains and local milling to create an Artisan Bread.

Credits: 3

Semester Offered: F/S

HRM 115 - Sanitation Certification

This course examines the principles of sanitation in the hospitality and food service management fields. It focuses on sanitation and health, serving sanitary food, keeping a sanitary food environment, and managing a safe hospitality property. Students learn the skills necessary to gain certification in the National Restaurant Association Safe Serve Examination.

Credits: 1

Semester Offered: F/S/SU

HRM 131 - Food and Beverage Cost Control

This course provides experience in identifying, analyzing, and creating controls for production, labor, and revenues necessary to ensure profitable foodservice operations. The main topics studied are forecasting, budgeting, and analyzing costs of food, beverages, and labor, in addition to the internal controls required for effective cost management. This course is required for both the foodservice track certificate and the foodservice track degree.

Credits: 3

Semester Offered: F/S

HRM 135 - Front Office Operations

This course focuses on operations and procedures of lodging management for inns, hotels, resorts, clubs, and casinos in order to relate front office operations to other departments. Using property management software, students learn the mechanics of the front office in two general areas - customer service and financial management. In customer service, the course focuses on reservation inquiries, recording, availability, denials, check-ins, rate selection, walk-ins, and room status. Students also learn procedures related to special equipment needs, housekeeping, settlement, and checkout. In the financial management section, students learn guest accounting, night audits, and revenue.

Credits: 3

Semester Offered: F

HRM 136 - Front Office Management

This course focuses on the application of hospitality service principles related to customer service including planning, organization, implementation and management of service systems and staff. Through case studies, students experience communication, problem solving, and decision-making as related to the effective management of the front office. The course also stresses customer-centered concepts in the areas of hiring, training, and motivating employees. Students participate in the International Customer Service Association's CS certification program.

Credits: 3

Semester Offered: S

HRM 137 - Introduction to Casino and Gaming Operations

This course uses a combination of lecture, guest speakers, experiential learning and independent study to examine the theory, practice and business of gambling. Students discover how the gambling industry operates, analyze many of the popular games, and explore the phenomenon and impact of legalized commercial gaming.

Credits: 3

HRM 139 - Bar and Beverage Management

This course focuses on the management of beverage operations including wine, beer, and spirit liquor. Students study grape growing, fermentation, aging, production, and primary taste characteristics of wine; beer-brewing techniques and brew houses; and the main ingredients and production of whiskeys, bourbon, tequila, gin, and vodka. Students also learn the components of beverage operations including production, control, storage, and purchasing; and the marketing, service, and accounting functions. The course emphasizes the legal and social responsibilities of managing beverage operations.

Credits: 3

Semester Offered: S

HRM 201 - Hospitality Accounting and Revenue Management

Students study managerial accounting in the hospitality industry as it informs pricing and revenue management. Presented will be major analytical themes, such as financial statement interpretation and cost accounting for internal control. The second half of the semester, students analyze financial statements through the use of operating ratios and describe the financial control system used. Students understand the budget cycle, forecast sales and revenue management strategy.

Credits: 3

Semester Offered: F/S

HRM 215 - Contract Foodservice Management

This course covers the basic systems found in contract foodservice operations such as schools, healthcare facilities, and corporate environments. Students examine consumer needs with an emphasis on planning cyclical and pre-set menus, kitchen layout and design, and facilities planning and equipment selection. Students also review the foodservice and prototype contract, the contracting process, and catering services as a function of contract foodservice operations. Students attend a restaurant trade show or conduct research and complete a project on equipment and/or facility design.

Credits: 3

Semester Offered: F/S

Corequisites: HRM 110 or HRM 115

HRM 216 - Nutrition for Foodservice Management

This course is an introduction to human nutrition in foodservice management, focusing on basic nutrition including macro and micronutrients, recipe development and modification, and nutrient analysis. It also covers food purchasing, receiving, storage, and preparation for optimum nutrient retention. It emphasizes menu planning and food preparation for foodservice managers in healthcare, institutional settings, and spas. Students plan the development and marketing of healthful menu alternatives, understand special diets, and understand the roles of culture and religion in diet and menu preparation.

Credits: 3

Semester Offered: F/S

Corequisites: CUL 111 or CUL 112 or CUL 113 or CUL 114 or HRM 110

HRM 217 - Nutrition for Dietary and Foodservice Professionals

This course is designed to introduce the concept of nutrition as a tool to prevent and manage acute illnesses and/or chronic diseases within the dietary/foodservice departments in a non-commercial setting. It emphasizes food/diet as a therapeutic intervention across the food continuum - from menu planning to food purchasing and preparation to nutrient utilization. Students apply their knowledge and skills in HRM-run operations and as part of their corresponding Co-op/Field placements.

Credits: 3

Semester Offered: F/S

Corequisites: CUL 111 or CUL 112 or CUL 113 or CUL 114 or HRM 110

HRM 218 - Dining Room and Banquet Management

This course covers dining room staffing and employee training; basic service rules, techniques and styles (American, French, Russian, a la carte, buffet, butler); proper table setting, plating and presentation; and table etiquette. Students understand menu types (static, cycle, and market menus) and managing by menu. Using the student-run restaurant, students plan a merchandising and sales promotion and plan and develop special events, with emphasis on management approaches that achieve good customer relations and satisfaction.

Credits: 3

Semester Offered: S

HRM 221 - Hospitality Law and Ethics

This course examines the U.S. laws that most impact hospitality operations in the areas of lodging, beverage service, foodservice, casino management, and convention planning. Using case studies, students learn hospitality management policies in order to minimize legal liability; the responsibilities and legal rights under the law for innkeepers, bartenders and employers; and the consequences of failing to meet those responsibilities.

Credits: 3

Semester Offered: F/S

HRM 232 - Hotel Meetings: Sales and Operations

This course focuses on front-of-the-house operations, from meeting the client through planning and selling an event. Topics include deciding room size and set up, food and beverage requirements, guest services, special equipment requirements, cost, and contracting for the event. The course also covers back-of-the-house operations including accounting, contracting with vendors, and staff scheduling and management. Students learn the marketing, planning, and management of large and small hotel meetings, functions, and conventions.

Credits: 3

Semester Offered: F

HRM 235 - Management in the Hospitality Industry

This course is a capstone course for hospitality management students. It is designed to enhance leadership ability while focusing on the principles of effective management in the context of the hospitality industry. Students study how to develop, motivate and empower high performance teams and to put quality management tools into action to increase sales and customer service. An assessment tool developed by the American Motel/Hotel Association (AMHA) enables students to develop an understanding of and skills in the following areas: coaching and counseling, communication, managing change, performance management, setting goals and standards, managing conflict, problem solving, and decision making.

Credits: 3

Semester Offered: S

HRM 236 - Destination Marketing and Management

Students develop an understanding of destination marketing through a combination of lecture and practical experience. Working with various area partners, students develop a marketing strategy for the promotion of tourism and visitor programming in the Worcester and Central Mass region. Topics covered in this course change according to current demand, events, or challenges.

Credits: 3

Semester Offered: F

HRM 298 - Hotel/Restaurant Management Cooperative Education Practicum

This is a unique practicum that provides occupationally-specific opportunities for students to participate in a learning experience that combines classroom instruction with actual business and industry career experiences. This practicum integrates academic, career and technical education; provides more interdisciplinary instruction; and supports strong partnerships among schools, businesses, and community institutions with the goal of preparing students with a variety of skills in a fast-changing culinary art based workplace.

Credits: 1-3

Semester Offered: F/S/SU

Prerequisites: Approval of Program Coordinator

HRM 299 - Cooperative Work Experience

This course provides students with a structured learning experience while applying classroom theory to a practical work experience. Students develop a learning agreement that lists the objectives they will accomplish through their work experience. Evaluation is based on satisfactory completion of the learning agreement objectives and the demonstration of soft skills such as punctuality and attitude.

Credits: 2-6

Semester Offered: F/S/SU

Prerequisites: CPS 298, Approval of Program Coordinator

Human Services

HUS 101 - Introduction to Human Services

This course focuses on the historical, political, and social aspects of the human services field from a generalist perspective. Students gain core knowledge of common problems, consumer populations, and helping models. Students learn about the agencies and services available in the greater Worcester area as part of identifying strategies for effective delivery of human services. Upon completion, students will be able to explain the value of participant empowerment, access appropriate supportive services, and expeditiously navigate the human service system.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

HUS 121 - The Helping Relationship: Delivering Human Services

This course explores the knowledge, skills, and personal characteristics that are critical for an effective helping relationship. Students apply key concepts of helping to increase awareness and knowledge of both self and others. Research about human behavior, developmental and humanistic theories, and strength-based practice are emphasized. Students obtain entry-level skills in interviewing (communication skills), assessment (writing skills), and treatment planning (community and network referrals).

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

HUS 125 - Group Process for Human Services

This course examines the theory, process, and practice of group work in human services through lecture and discovery. Students learn the value of groups, the stages of group development, the roles and tasks of the group facilitator, and the strategies for dealing with common group problems. Course material will focus on the unique issues of groups commonly found in human service programs: education, discussion, growth, support, and self-help. The experiential component provides the student opportunity to

participate in a group with the goal of enhancing self-awareness of personal qualities and skills required for effective group leader roles.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: HUS 101, HUS 121

HUS 131 - Introduction to Developmental Disabilities

This course examines a variety of developmental disabilities such as intellectual disability, autism, syndromes (e.g., Down Syndrome, Fetal Alcohol Syndrome), neurological, sensory, and health impairments, learning disabilities, and emotional and behavioral disorders. The course incorporates a sociopolitical perspective laws, legislation, court cases, and attitudes on the treatment and support of people with developmental disabilities. Effective teaching and intervention strategies are explored. Special attention is devoted to addressing barriers to integration and the impact on the individual and his/her family. Students explore their own beliefs and biases regarding people with disabilities and their possible role as change agents in society.

Credits: 3

Semester Offered: F

Corequisites: ENG 101, HUS 101

HUS 141 - Community Service: Delivering Human Services

This course includes fieldwork in human service agencies in the greater Worcester area. Students learn about the various roles of the human service practitioner and explore multiple aspects of service delivery as experienced by working professionals. Involvement in community service is an integral part of this class learning process. The course also covers effective communication styles, agency systems and system theory, effective joining styles, establishing strong work habits and ethics, assertiveness skills, self-awareness, and self-management.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101, HUS 101, HUS 121

HUS 143 - Direct Support Practicum

Students contract for a minimum of 10 hours per week at a practicum placement and a weekly seminar at the College. Practicums are supervised by an agency staff person and by the course instructor, who visits the sites and maintains weekly contact with the students. Students demonstrate sensitivity to diverse populations and satisfactory proficiency in developing, interpreting, implementing, and documenting helping interventions. They understand the appropriate use of supportive services, group facilitation, conflict resolution, and system change strategies; and use appropriate written and verbal communication skills to document their work.

Credits: 3

Semester Offered: S

Prerequisites: HUS 101

HUS 145 - Special Topics in Developmental Disabilities

This course is designed for human service professionals who work as direct support workers for the Department of Developmental Services. Students enrolled in this course gain a deeper understanding and appreciation of issues that may have been presented in previous human service classes. In addition, students further develop their skills in working with both clients and their families. Topics covered in this course include person-centered thinking, teaching and learning, diversity, health and wellness, sexuality, human rights, grief and loss, and working with families.

Credits: 3

Semester Offered: S

Prerequisites: HUS 101

HUS 221 - Cultural Competence for Human Service Workers

This course prepares human service workers in developing awareness with issues of human diversity broadly defined to include race, ethnicity, culture, nationality, religion, age, gender, gender identities and sexualities and accessibility needs. Students will explore the dynamics of diversity, privilege, and oppression. Building on standard models of cultural competence that emphasize knowledge, awareness, and skills, students will be introduced to cultural humility, culturally specific approaches to practice, and frameworks for equity and empowerment.

Credits: 3

Semester Offered: F/S

Prerequisites: CRJ 101 or HUS 101, ENG 101, SOC 101

HUS 231 - Legal and Ethical Concepts in Human Services

This course explores effective ethical and legal dilemmas and examines the issues of social justice and human rights. Students develop ethical decision-making and examine intervention and prevention strategies within human service practice. Students understand and apply ethical principles found in codes of ethics and standards of practice related to the fields of education, health sciences and human/social services. Topics of privacy, confidentiality, duty to disclose, and boundary dilemmas are covered in depth. Examples from federal, state, and local laws are used to help learners understand their legal responsibilities and effectively collaborate with professionals from the justice system.

Credits: 3

Semester Offered: F/S

Prerequisites: CRJ 101 or HUS 101

HUS 243 - Human Services Practicum I

This is a capstone course for the human services curriculum. Students apply academics through field placements conducting 120 hours of directed professional supervision. Students demonstrate cultural competence, as well as the 12 core community skill standards. During field placement, students will develop proficiency in developing, interpreting, implementing, and documenting helping interventions. They understand the appropriate use of supportive services, group facilitation, conflict resolution, and system change strategies; and use appropriate written and verbal communication skills to document their work.

Credits: 4

Semester Offered: F

Prerequisites: HUS 101, HUS 141, PSY 231

HUS 244 - Human Services Practicum II

This is a continuation of the capstone course for the human services curriculum. Students apply academics through field placements conducting 130 hours of directed professional supervision. Students demonstrate cultural competence, as well as the 12 core community skill standards. During field placement, students will develop proficiency in developing, interpreting, implementing, and documenting helping interventions. They understand the appropriate use of supportive services, group facilitation, conflict resolution, and system change

strategies; and use appropriate written and verbal communication skills to document their work.

Credits: 4

Semester Offered: S

Prerequisites: HUS 243

Humanities

HUM 101 - Critical Thinking and Problem Solving

This course focuses on the development of thinking and problem-solving skills by analyzing controversial public issues, media attempts at persuasion, and everyday problems. These skills include recognizing personal and cultural differences in perceptions and beliefs; understanding and using deductive and inductive logic and creative thinking; and recognizing logical fallacies and emotional appeals. Students will demonstrate cause and effect reasoning; construct well-reasoned and effective arguments for various audiences; develop reflective thinking; and employ problem-solving strategies.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

HUM 105 - Introduction to Humanities

The course focuses on both western and non-western cultures and their intellectual traditions through the study of literature, philosophy, visual and performing arts, theater, music, science and religion. Students explore how human knowledge has developed and grown through history by reading a variety of ancient and modern texts, listening to music, viewing artworks, watching film excerpts, and participating in discussions and experiential learning activities.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101

HUM 142 - Internet Communications

This course examines humans' relationship to cyberspace by focusing on ethical issues in the content and development of Internet communication tools. Students create an online portfolio of assignments and evaluate sources on topics including Internet history and access, web authoring, privacy and security, online learning, and censorship.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English, Computer Literacy

HUM 206 - Digital Humanities

This course explores Digital Humanities (DH), an interdisciplinary field which employs digital tools to explore and share humanities topics. Students learn about the role of DH in 21st century research, scholarship, and public projects; carry out critiques of DH tools, projects, and exhibitions; demonstrate digital literacy through competency with digital tools for exhibitions and books, digital storytelling and mapping, social network analysis and visualizations, and text mining and topic modeling; contribute to a crowdsourced DH project; communicate and collaborate with classmates to create a public DH exhibition; and strategize, create, submit, and present a detailed plan for a DH project.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101

HUM 210 - Journaling in Context: New England's Great Thinkers

This course introduces the New England Transcendental diarists of the 19th century, including: Henry David Thoreau, Ralph Waldo Emerson, Margaret Fuller, and Bronson Alcott. Students read significant journal entries written by these authors, and learn how to develop their own personal journal. Students take part in investigative exploration of journal entries from the 19th century with the objective of understanding chronological events, gathering insight regarding local and national matters, and correlating past cultural events to contemporary issues. Topics of discussion and research will consist of: social activism, utopian communities, societal experimentation, consumerism and industrialism, and personal philosophy.

Credits: 3

Semester Offered: F

Prerequisites: ENG 101

HUM 211 - The Sixties in America

This course introduces students to the dramatic events occurring in the decade of the 1960s. Students examine significant developments of the era through an exploration of various cultural media including texts, videos, art, music, and theater. The course covers Civil Rights and Black Power movements; the war in Vietnam and related controversies; the rise of the counterculture; the contemporary Women's Movement; the student revolution; and the beginnings of the Environmental Movement. Students examine the relevance of the events of the 1960s to the issues facing the 21st century.

Credits: 3

Semester Offered: F/S

Prerequisites: ENG 101

HUM 214 - Great Debates of the Western World

This course focuses on presenting opposing views of controversial questions. Students discuss classic issues such as romanticism vs. classicism, militarism vs. pacifism, and liberalism vs. conservatism. Students also examine topics including abortion, pornography, and genetic engineering. They learn how to explore the variety and complexity of human values while maintaining a framework of a rational and fair-minded approach to all sides of every dispute.

Credits: 3

Semester Offered: S

Prerequisites: ENG 101

HUM 232 - Survey of Hollywood Film: 1920 to Present

This course offers a foundational survey of Hollywood film from its inception through the present. Students study a chronological series of films selected to represent the ethno-cultural diversity of that history, films that demonstrate major developments in Hollywood film art over time. Students become familiar with the language of film, and the theoretical approaches and critical terminology used by film scholars to analyze the form. Students learn how to apply the theories and terms learned by use of them in class presentations and in class discussion, as well as in the writing of essays in the genre of film analysis.

Credits: 3

Semester Offered: F/S

Prerequisites: ENG 101

HUM 234 - Mathematics and Science in the Humanities

This course examines how the Humanities utilizes and interacts with the fields of Mathematics and Science. Students utilize methodologies of the Humanities to examine the historical, philosophical, and ethical natures of Math and

Science. Students explore mathematics and science as theoretical lenses to understand literary texts and other forms of art. This course covers topics that include but are not limited to infinities, multidimensional spacetime, biology and environmental science, robotics and technology, the mathematician/scientist character, and the discovery and impact of individual numbers/theories. Students compose essays and participate in discussions to demonstrate the connectivity of these usually disparate fields (no formal mathematical calculations are required of students).

Credits: 3

Semester Offered: F/S

Prerequisites: ENG 102

Interactive Media Digital Design

IMD 105 - UI/UX Design Fundamentals

This course introduces the principles and practices of UI/UX design. User Interface (UI) refers to the visual design characteristics of an interface; UX refers to content organizing, structure and user's product interaction. Topics include: interface design elements and principles, information structure and data relevance; ideation and site mapping, personas and storyboarding, wireframes, usability, testing and prototyping. Assignments are completed using industry-standard software and hardware.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

IMD 106 - Digital Photojournalism

This foundational course is designed to provide the basic skills necessary to produce newsworthy photographic images for publication in print and on the web. Students will examine different approaches to journalistic photography, objectivity in photographic work and ethical issues raised by documentary photography. Students will be introduced to non-fiction digital storytelling - telling stories through digital photographic imagery. Students complete assignments using industry-standard software and hardware.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English

IMD 114 - Digital Design Concepts I

This course explores the fundamentals of digital design and its application in two-dimensional space. Students learn the principles and elements of design and color theory to create vector drawing and graphics associated with digital media. Students complete assignments using industry-standard software and hardware.

Credits: 3

Semester Offered: F/SU

Prerequisites: Placement into college level English

IMD 115 - Digital Design Concepts II

This course builds on the foundations of IMD 114. Students expand their knowledge of design, color and light theory relevant to the application of two-dimensional space. They investigate the use of form, line, volume and void using complex concepts in vector drawing and graphics. Students complete assignments using industry-standard software and hardware.

Credits: 3

Semester Offered: S/SU

Prerequisites: IMD 114

IMD 121 - Graphic Design I

This course introduces fundamentals of design and use of design principles to create forms of graphic communication. It emphasizes problem solving by design, visualization of problems and their solutions, and correlation between forms and their content, function, and context. Students study advertising and related interactive media and create solutions to design problems.

Credits: 3

Semester Offered: F

Prerequisites: Placement into college level English

IMD 122 - Graphic Design II

This course builds on the foundation of IMD 121. Topics include effective branding techniques using innovative layout and typography effectively in design; visualizing communication problems and solutions; and the correlation between type forms and content, function, and context. Students expand their understanding of the relationship between formal design and the components of layout, photography, illustration, 3D package design and presentation.

Credits: 3

Semester Offered: S

Prerequisites: IMD 121

IMD 154 - Digital Imaging and Media

This course introduces the observational and perceptional skills necessary to construct complex and detailed drawings, illustrations, montages, and collages using digital media. Students experiment with line, space, form, volume and color to manipulate and create effects associated with electronic imaging. Students complete assignments using industry-standard software and hardware.

Credits: 3

Semester Offered: F/SU

Prerequisites: Placement into college level English

IMD 155 - Digital Illustration and Animation

This course explores illustrative and animation based design processes to create original compositions and narrative styles for digital media production. It introduces cell and timeline computer animation applications to explore concepts of space, motion, and perspective. Students complete assignments using industry-standard software and hardware.

Credits: 3

Semester Offered: S/SU

Prerequisites: IMD 154

IMD 161 - Digital Photography

This course covers the digital camera, including the artistic, theoretical, technical, and career aspects of photography. Students learn the relationship between the key features of light, composition, film usage, computer manipulation, scanning, resolution, and the final digital print. Students learn how to use the controls of any digital camera; use computer technology to scan, digitize, and manipulate images; and prepare images for professional display.

Credits: 3

Semester Offered: F

Prerequisites: Placement into college level English

IMD 171 - Fundamentals of 3D Digital Design

This course is an introduction to three-dimensional modeling, rendering, and animation. Students further expand their knowledge of design theory and the application of 3D design. Students develop skills in 3D software topics

including interface, modeling, texturing, lighting, rendering, and hierarchy in preparation for game design and development. Students complete assignments using industry-standard software and hardware.

Credits: 3

Semester Offered: S

Prerequisites: IMD 154, IMD 161

IMD 222 - Publication Design

This course examines the fundamentals of publication design with emphasis on the maintenance of visual continuity for publication. It covers the research, development, organization, and visual presentation of complex printed documents. Comprehensive aspects of design, content and image are addressed.

Credits: 3

Semester Offered: F

Prerequisites: IMD 115, IMD 122

IMD 263 - Digital Video Fundamentals

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 gain an understanding of the fundamental skills required in storyboarding, scripting, directing, shooting, lighting, and editing digital video productions for a variety of purposes and audiences. Students complete assignments using industry-standard software and hardware.

Credits: 3

Semester Offered: F

IMD 271 - Typography

This course introduces typographic form and design. It covers fundamental concepts from theoretical, historical, and technological contexts. It emphasizes principles of composition, spacing, and effective typographic expression as it applies to page layout with particular focus on basic letterform design, typesetting, and construction. Students complete assignments using industry-standard software and hardware.

Credits: 3

Semester Offered: F

Prerequisites: IMD 115, IMD 121

IMD 275 - Motion Graphics

This course introduces the theory and practice of motion graphic production by integrating digital animation and interactive multimedia. Students explore creative and narrative aspects of digital imaging, sound, animation, and motion editing effects to produce innovative digital spaces and experiences for web and video presentation. Students complete assignments using industry-standard software and hardware.

Credits: 3

Semester Offered: F

Prerequisites: IMD 154, IMD 155

IMD 286 - Interactive Media Processes Portfolio

This capstone course provides an opportunity for students to apply knowledge and demonstrate skills acquired throughout their time in the IMD program, and covers advanced concepts and processes of UI and UX. Students will design and present a professional quality portfolio using interactive media applications based on industry standards. Emphasis is placed on the relationship between technical, creative, and critical thinking skills. Each student prepares a body of his/her/their best work for final evaluation via website, video, PDF, and mobile app.

Credits: 4

Semester Offered: S

Prerequisites: IMD 275

Please Note: Four hours lecture

IMD 287 - Graphic Design Processes Portfolio

This capstone course prepares the student to develop a presentation portfolio utilizing print and PDF applications based on industry standards. It covers advanced concepts and processes of graphic design and portfolio preparation. Projects address pre-press and PDF production for new media. Emphasis is placed on the relationship between technical, creative and critical thinking skills. Students prepare a body of their best work for final evaluation using industry-standard software and hardware.

Credits: 4

Semester Offered: S

Prerequisites: IMD 222, IMD 271

Please Note: Four hours lecture

Interactive Media Game Design

IMG 100 - Drawing the Human Form

This course provides the student with specific drawing media experiences to build basic perceptual skills in terms of drawing from the human figure. Students review basic knowledge of the elements of art: line, value, shape/volume, texture and color to lead to manipulation for different types of spatial illusion and expressive meaning including the study of proportion, light, shade and simple anatomy to develop an understanding of the human figure. A variety of traditional and digital imaging tools and materials are explored. Digital assignments are completed using industry-standard software and hardware.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

Please Note: Due to the use of live models, students enrolled in this course must be 18 years of age or older; a release form is available for those under 18 years who plan to enroll

IMG 101 - Fundamentals of Game Design and Development

This course introduces the fundamentals of electronic game design and development. It covers the history and evolution of games, the production process and current issues and practices in the game development industry including business and technical perspectives. Topics include the design process, marketing and the application of interactive communication.

Credits: 3

Semester Offered: F

Prerequisites: Placement into college level English

IMG 102 - Introduction to Game Design

This course provides students an overview of the theoretical, aesthetic, and practical elements of game design pre-production. Through a series of creative exercises, lectures, and classroom critiques, students will gain an understanding of the fundamental skills required in character development, storyboarding, scripting, creation strategies, camera angles, lighting, and editing game design pre-production for a variety of purposes and audiences.

Assignments are completed using industry-standard software and hardware.

Credits: 3

Semester Offered: S/SU

Prerequisites: Placement into college level English

IMG 203 - Intermediate Game Design

This course continues the development of the theoretical, aesthetic, and practical elements of game design pre-production and production. Through a series of creative exercises, lectures, and classroom critiques, students will further their understanding of the skills required in character development, storyboarding, scripting, creation strategies, camera angles, lighting, and editing game design pre-production and production for a variety of purposes and audiences. Assignments are completed using industry-standard software and hardware.

Credits: 3

Semester Offered: F

Prerequisites: IMD 155, IMG 100, IMG 101, IMG 102

IMG 272 - 3D Modeling for Game Design

This course covers the principles and techniques involved in creating three-dimensional media for Game Design. Students will learn the step-by-step processes of 3D modeling including NURBS, polygons, subdivisions, environments and character development using sophisticated industry-level 3D modeling software. Students acquire skills in texture design, mapping, cameras, lighting, scene set up and rendering.

Credits: 3

Semester Offered: F

Prerequisites: Placement into college level English

IMG 288 - Interactive Game Design Portfolio

This capstone course prepares the student to develop a presentation portfolio utilizing the game design processes of an interactive game portfolio for multi-platform and device presentation. It covers digital animation, motion graphics, and multimedia for an interactive game design portfolio preparation. Emphasis is placed on the relationship between technical, creative and critical thinking skills as students plan, design, launch, and maintain a complete interactive game design environment for final portfolio evaluation. Assignments are completed using industry-standard software and hardware.

Credits: 4

Semester Offered: S

Prerequisites: IMG 203, IMG 272

Please Note: Four hours lecture

Interdisciplinary Studies

IDS 101 - Valuing Diversity

This course focuses on multiculturalism and emphasizes the value of understanding and respecting cultural diversity in today's pluralistic societies. Students explore and discuss issues of race, ethnicity, gender, social class, religion, access, ability, sexual preference or orientation, language, age, size, and appearance.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

IDS 200 - Honors Colloquium: Special Topics

This course is a team-taught seminar that serves as a capstone experience for students in the QCC Honors Program. Students examine timely issues from many disciplines using a variety of perspectives. The seminar provides a stimulating and challenging experience, covers a broad area of knowledge, and emphasizes inquiry, discovery, critical thinking, and discussion methods to encourage meaningful participation from both students and faculty.

Credits: 3

Semester Offered: F/S

Prerequisites: Enrollment in Honors Program or permission of Honors Program Coordinator, ENG 102-Honors, 30 college credits

IDS 215 - Bioethics

This course provides an introduction to ethical thinking as it relates to the life and health sciences. Students examine ethical issues surrounding continuing developments in biology and biomedicine; identify ethical components in the application of biological knowledge to areas of human activity; analyze an ethical problem in biology and human activity; and, analyze a problem in biology and medicine to arrive at an ethically valid course of action for the individual or society.

Credits: 3

Semester Offered: S

Corequisites: ENG 101

Logistics

LOG 105 - Introduction to Business Logistics

This course provides students with an understanding of the key functional areas of logistics, including transportation, distribution, warehousing and inventory management. The course explores how these functions interact, their importance to the overall organization, and the major cost components within each area. The course introduces many potential career opportunities available in this field.

Credits: 3

Semester Offered: F

Prerequisites: Placement into college level English

LOG 106 - Transportation Management

This course provides students with an understanding of the field of transportation management, which is responsible for the movement of raw materials and finished products throughout the supply chain. The course explores the various modes of freight transportation, the economic fundamentals underlying each, and how each mode might fit into a company's overall logistics strategy. During the course, students are introduced to the many potential career opportunities available in transportation management.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English

LOG 107 - Warehouse and Inventory Management

This course provides students with a practical understanding of warehousing and inventory management, including the important role that these functions perform within the supply chain. The course explores topics including warehouse design, storage and material handling processes, performance management and inventory control techniques. The course also examines the interaction between warehousing/

inventory management and other facets of the supply chain, including transportation and customer service.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English

LOG 208 - Purchasing and Supply Management

This course provides students with an understanding of purchasing and supply management, which is an essential part of most supply chains. The course explores the sourcing and bidding process, the legal and contractual aspects of procurement, and how the purchasing function is an integral part of an organization. During the course, students are introduced to the many potential career opportunities available in purchasing and supply management.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English

Management

MGT 101 - Introduction to Business

This course provides a broad overview of the business world. Students learn to apply basic business concepts and principles to a variety of business situations. Topics include business terminology, the legal forms of business organizations, the impact of the economy on business, and the basic functions of management including marketing, banking and financing, accounting, and technology.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

MGT 205 - Project Management

This course provides students with the framework needed to define the scope; plan the activities, resources and timeframe; execute and manage the implementation; and evaluate the success of projects in all areas of business and industry. Students learn techniques to assist them in managing project quality, scope, time, cost, human resources, communications, risk, procurement, and integration in the business environment. This course also provides a brief introduction to Agile project management. Students gain the foundation to take the Project Management Institute (PMI) Project Management Professional (PMP) exam. This course satisfies PMI's contact hours requirement for the PMP exam. Students wishing to take the PMI Certification Exam should note that exam has additional requirements, such as experience hours.

Credits: 3

Semester Offered: F/S

Prerequisites: ENG 101

MGT 206 - Management of Data Analytics

This course prepares students to understand data-driven decision-making in business. Students complete assignments and hands-on projects using data and software. Topics in this course include descriptive, predictive, and prescriptive data analytics, data manipulation, determination of correct data, decision-making, and the use of analytical tools.

Credits: 3

Semester Offered: S

Prerequisites: CIS 105 or CIS 111 or CIS 243, MAT 122

Please Note: This course is cross-listed as CIS 206

MGT 211 - Principles of Management

This course examines the primary functions of management. Students increase self-awareness; develop personal and interpersonal skills, lead group activities, and organize discussions. They learn how to analyze various business situations, defend possible solutions to problems, and communicate their ideas in effective written and oral formats.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

MGT 215 - Human Resource Management

This course focuses on the role of the human resources department, its function in the organization and how it supports the success of people at work. Students learn how companies recruit and select new employees, determine who gets promoted, and how salary and job performance measurement decisions are made. Students learn the importance of benefits and non-financial factors in selecting an employer, the impact of laws that protect employee rights, and how employees should use the HR staff for guidance on career development, education and training opportunities, grievances, coping with change, and personal issues that affect their jobs.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

MGT 216 - Entrepreneurship and Small Business Management

This course examines the leadership and management skills needed to succeed in starting, managing and growing a small business. Students learn about the challenges of being an entrepreneur/small business owner, examining the advantages and disadvantages, the risks and rewards. Students develop an understanding of business ethics, strategic planning, small business marketing concepts, stakeholder relationship management, basic accounting principles, and administrative processes. Topics studied include the various types of small business ownership, from startups and franchises, to buying an existing business or taking over a family owned operation. Other topics include how to research and write a business plan and identifying sources of financing.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

MGT 222 - International Business & Management

This course emphasizes the study and analysis of the nature, structures and strategies of international/global businesses. Students examine international markets, economic systems, value-chains and core competencies of a firm.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

Manufacturing Technology

MNT 100 - Manufacturing Safety

This course provides an introduction to the principles of safety, guidelines for the design of equipment, and explanations of why certain practices should or should not be followed in the manufacturing environment. Students evaluate human reactions in normal and abnormal conditions, and compare features required for safe working conditions to industry standards. Students sit for the OSHA 30 General Industry Certification Examination.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or QMAT placement score > 21

MNT 101 - Mechanical CAD I

This course introduces computer-aided design (CAD) software. Students develop an understanding of the commands needed to produce a two-dimensional drawing. Topics include drawing set up, geometry creating, editing functions, layer techniques, dimensioning, model and paper space, title block creation, and plotting a completed drawing. Other related topics include multi-view drawings, selection and arrangement of orthographic views, section and auxiliary views, and isometric and oblique drawings. Students gain proficiency in the operation of a PC-based CAD system and a functional understanding of basic computer-aided drafting techniques.

Credits: 3

Semester Offered: F/S

Prerequisites: MAT 095 with a grade of "C" or higher or QMAT placement score > 21

MNT 103 - Solid Modeling

This course focuses on computer aided design topics needed to produce parts, assemblies and drawings using industry prevalent Solid Modeling software. Students become familiar with screen layout, cursor feedback symbols, feature manager, constraint geometry, editing functions, and template creation. Extensive hands-on exercises allow students to create complex 3D extrusions from a series of 2D sketches and apply fillets, rounds, chamfers, and patterns. Additional topics include revolving sketches and extruding using shelling, ribbing, sweeping and lofting. Upon completion of this course, students are proficient in creating and animating drawing assemblies and associated part drawings, and producing a bill of materials, and have functional understanding of 3D parametric modeling software. Students sit for the Certified SolidWorks Associate examination.

Credits: 3

Semester Offered: F/S

Prerequisites: ERG 101 or MNT 101

MNT 104 - Engineering Design

This course provides a project-oriented approach to the Engineering Design Process. Students will experience design concepts through to prototype manufacture and beyond using modern digital manufacturing equipment. Students will document their own journey, keeping accurate records of design decisions, while planning and tracking project management goals and milestones. Students are encouraged to work in teams and use a collaborative approach to their learning. A final media presentation will wrap up this course.

Credits: 4

Semester Offered: SU

Prerequisites: MNT 103

MNT 106 - Quality

This course focuses on Metrology, Inspection, and Quality systems in play in modern manufacturing companies. Students use precision measurement, as well as CMM and Optical methods, to promote the validation of high precision parts. Students explore basic concepts of lean manufacturing and statistical process control (SPC) methods to determine and support quality control requirements.

Credits: 3

Semester Offered: S

Please Note: Three hours lecture

MNT 108 - Basic Machine Operation

This course introduces some of the fundamentals of machine tool technologies. It is focused on hands-on activities that are essential to a successful career in a manufacturing industry. Students learn from highly qualified instructors how to use bench working practices as well as operate lathes and milling machines. A variety of assignments challenge students to produce high precision parts while learning mechanical inspection techniques. Finally, students are introduced to the fundamentals of CNC programming and CNC equipment. Students sit for the Haas CNC Operator Certification.

Credits: 3

Semester Offered: F/S

Prerequisites: MAT 095 with a grade of "C" or higher or QMAT placement score > 21

MNT 110 - Manufacturing Materials and Processes

This course concentrates on the strength and properties of engineering materials. The students learn how the atomic structure of materials change its performance and what happens in manufacturing processes that allow us to create such a diverse array of products. Properties of materials and post processing are also studied in this introductory course.

Credits: 3

Semester Offered: S

Prerequisites: MAT 095 with a grade of "C" or higher or QMAT placement score > 21

MNT 115 - Maintenance and Instrumentation in Manufacturing

This course analyzes modern maintenance applications along with instruments that are frequently used in manufacturing industries to monitor machinery. Students obtain a detailed understanding of modern maintenance applications and the mechanical theory behind the procedures. Emphasis is placed on the operational aspect of monitoring equipment such as pressure gauges, transducers, strain gauges, electronic recorders, and controllers with a strong emphasis placed on safety. Class projects help students develop the analytical ability necessary for the operation and maintenance of manufacturing equipment.

Credits: 3

Semester Offered: S

MNT 210 - CNC Programming

This course introduces the essential concepts of computer numerical control (CNC) and its impact on manufacturing and productivity. The course focuses on manual programming of different types of CNC systems, with a strong emphasis on the understanding of G and M codes used

in current applications. Students learn to write a variety of part programs for both milling and turning operations.

Credits: 4

Semester Offered: F

Corequisites: MNT 101, MNT 108

Please Note: Three hours lecture, three hours laboratory

MNT 215 - Computer-Aided Manufacturing

This course explores the fundamental concepts of computer-aided manufacturing through lectures and laboratory experience. Topics include machining using a graphical software package to generate part programs for a CNC mill and a thorough review of manual part programming with emphasis on how to use the CNC program. Students learn how to integrate the program with the machine to fabricate the part. Students develop proficiency in editing graphics and using turning software to create part programs for full-size CNC turning centers.

Credits: 4

Semester Offered: S

Prerequisites: MNT 101, MNT 210

Please Note: Three hours lecture, three hours laboratory

MNT 216 - Manufacturing Capstone Project

This course integrates the skills learned in previous manufacturing courses and applies those skills to solve real world project challenges. Students use skills learned in computer aided design (CAD), computer aided manufacturing (CAM), computer numerical control (CNC) and manufacturing processes to design and build products. Students learn project management tools, material procurement processes, teamwork and effective communication. This course is designed to simulate the real world environment and to challenge students to be creative problem solvers.

Credits: 4

Semester Offered: S

Prerequisites: MNT 102 or MNT 103, MNT 210

Please Note: Three hours lecture, three hours laboratory

MNT 217 - Process Automation & Robotics

This course provides students with an overview of the systems and concepts involved in today's highly automated manufacturing environments. Robotic systems, an important component of an automated system, are also studied. Topics include automation design, robotic systems, manufacturing execution systems (MES), and statistical process control (SPC). Students learn and practice systematic troubleshooting, using a highly automated manufacturing system as well as robotic systems.

Credits: 3

Semester Offered: F

Corequisites: MNT 115

Prerequisites: CIS 111

MNT 218 - Lean Manufacturing and Six Sigma

This course focuses on entry-level knowledge of the "Lean Manufacturing" methodology and includes the fundamentals of "Six Sigma". It familiarizes students with the fundamental philosophy of "Lean Manufacturing" and provides them with the tools that enable the identification, measurement, and elimination of non-value-added activities in a manufacturing setting. Students gain the understanding that "Lean Manufacturing" maximizes product profit, has a positive effect on product quality, and reduces overhead costs. Students develop a working knowledge of the best practices in quality and process management. Students sit for the SME Lean Bronze Certification Examination.

Credits: 3

Semester Offered: S

Prerequisites: MNT 106

MNT 299 - Cooperative Work Experience

This course provides students with a structured learning experience while applying classroom theory to a practical work experience. Students develop a learning agreement that lists the objectives they will accomplish through their work experience. Evaluation is based on satisfactory completion of the learning agreement objectives and the demonstration of soft skills such as punctuality and attitude.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: CPS 298, Approval of Program Coordinator

Marketing

MRK 111 - Principles of Real Estate

This is an introductory course covering the legal and economic factors involved in the buying and selling of real estate. The course will benefit anyone planning to take the salesperson's real estate examination. The successful student learns licensing laws, concepts of property, deeds and contracts, mortgages, financing, purchase and sale agreements, appraisals, and commission structures.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English

MRK 201 - Principles of Marketing

This course presents an overview of marketing management in modern organizations including an introduction to the concept of marketing, the role of marketing in society and the firm, marketing terms, and the various factors that influence marketing decision-making. Students learn how to apply those factors to analyze customers, competition, marketing strengths, and marketing weaknesses. Students study market research and selection, consumer buying behavior, and product development including pricing, promotion, distribution, and global marketing strategies.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

MRK 221 - Sales & Sales Management

This course examines the selling function in companies with emphasis on the dynamics of the sales process. Students learn how to qualify sales prospects, plan a presentation, secure and open the sales interview, deliver a product demonstration, handle objections, and close a sale. Areas of study include compensation, management of a field sales force, the development of leads, sales training, and leadership styles. Students also prepare a resume, learn job interview techniques, and gain an understanding of a career in sales.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English

MRK 231 - Advertising

This course focuses on the role and importance of advertising in the marketing plan of an organization. Students learn how to prepare a detailed advertising plan using the most appropriate media. Topics covered include the history of advertising, selecting effective media, creating an advertising message using the selected media, and how an advertising agency functions.

Credits: 3

Semester Offered: F

Prerequisites: Placement into college level English

MRK 241 - Social Media Marketing

This course examines how social media is used to achieve today's marketing goals. Students gain a perspective on how traditional marketing professionals have viewed social media, myth busters, and how social media is integral to building a marketing strategy. Students explore how to use social media tools, set social media goals that align with the business's goals, and analyze and understand metrics. This class encompasses developing a social media strategy, goals and metrics for business or professional career development, as well as hands-on work in a computer lab.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

Mathematics

MAT 051 - Topics in Mathematics Corequisite

This course covers various topics in developmental mathematics to support students enrolled in MAT 121. Students apply remedial mathematics topics such as fractions, decimals, percent, order of operations, scientific notation, exponential notation, and solving equations to strengthen comprehension of college level topics in MAT 121. This course requires co-enrollment with MAT 121.

Credits: 2

Semester Offered: F/S/SU

Corequisites: MAT 121

Please Note: This developmental course cannot be used to satisfy degree or certificate requirements

MAT 052 - Statistics Corequisite

This course covers various topics in developmental mathematics to support students enrolled in MAT 122. Students apply remedial mathematics topics such as fractions, decimals, percent, proportion, scientific notation, coordinates, slope, graphing of linear equations, and mathematical phrasing just-in-time to strengthen comprehension of statistics concepts. This course requires co-enrollment with MAT 122.

Credits: 2

Semester Offered: F/S/SU

Corequisites: MAT 122

Please Note: This developmental course cannot be used to satisfy degree or certificate requirements

MAT 054 - Mathematics for Educators I Corequisite

This course covers various topics in developmental mathematics to support students enrolled in MAT 111. Students learn remedial mathematics topics such as factoring, defining and simplifying radicals, the Pythagorean Theorem, and solving rational and quadratic equations to strengthen comprehension of college level topics in MAT 111. This course requires co-enrollment with MAT 111.

Credits: 2

Semester Offered: F/S/SU

Corequisites: MAT 111

Prerequisites: MAT 095 with a grade of "C" or higher or QMAT placement score > 21

Please Note: This developmental course cannot be used to satisfy degree or certificate requirements

MAT 095 - Beginning Algebra

This course covers all basic operations of real numbers, linear and literal equations, graphing lines (using tables, x and y-intercepts), the arithmetic of polynomial expressions including properties of exponents, solving and graphing linear inequalities, perimeters and areas of basic figures, scientific notation and intrasystem metric conversions. Technology tools are utilized in this course. Taking the departmental final examination is a requirement of the course. The minimum passing grade for developmental courses is a "C".

Credits: 3

Semester Offered: F/S/SU

Please Note: This developmental course cannot be used to satisfy degree or certificate requirements

MAT 097 - College Algebra Corequisite

This course covers various topics in developmental mathematics to support students enrolled in MAT 100. Students learn remedial mathematics topics such as factoring techniques, define and simplify radical expressions, graph linear equations using slope-intercept concepts, apply the use of the Pythagorean Theorem, and solve rational, quadratic, and literal equations to strengthen comprehension of college level topics in MAT 100. This course requires co-enrollment with MAT 100.

Credits: 2

Semester Offered: F/S/SU

Prerequisites: MAT 095 with a grade of "C" or higher or QMAT placement score > 21

Please Note: This developmental course cannot be used to satisfy degree or certificate requirements.

MAT 100 - College Algebra

This course covers advanced algebra topics. Students perform arithmetic operations on rational expressions; solve equations with fractions; factor expressions; simplify complex fractions; simplify exponential expressions, roots, radicals, and rational exponents; solve linear systems using several techniques; use the midpoint and distance formulas; recognize and graph the equation of a circle; solve linear and absolute value inequalities; solve quadratic equations by completing the square and by using the quadratic formula; solve equations containing radicals or absolute values; and perform arithmetic operations on radical expressions and complex numbers.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: QMAT placement score > 32 or Corequisite: MAT 097

MAT 103 - Mathematics for Business

This course introduces the mathematical processes and techniques currently used in the fields of business and finance. Students use practical examples throughout to illustrate the relevance of analyzing and interpreting data in business and financial management.

Students learn sound decision-making skills that will aid them in fulfilling their roles as citizens, consumers, employees, employers, investors, and entrepreneurs. The course introduces business statistics and continues with business and financial topics including bank services, business and consumer loans, simple and compound interest, payroll taxes, risk management, the mathematics of buying, break-even and cost-volume-profit analysis, discounts, markups and markdowns, inventory control, stocks and bonds, annuities and sinking funds, depreciation, interpreting financial statements and financial analysis.

Credits: 3

Semester Offered: S

Prerequisites: MAT 095 with a grade of "C" or higher or equivalent placement measures

Restriction: Restricted to Business Administration Career (BB and BBAP) and Business Administration Certificate (BAC) students

MAT 111 - Mathematics for Educators I

This course focuses on the critical mathematical concepts necessary for students who are pursuing the Elementary Education Transfer Option in the General Education - Associate in Arts degree program. Students construct and apply problem-solving techniques to solve problems; apply arithmetical operations on integers, rational numbers, and decimals; develop an understanding of mathematical relationships using equations; draw conclusions based upon geometric pattern; and interpret data. Students construct geometric patterns and graphical data into algebraic equations; students also construct a geometric or graphical model given an algebraic equation. Instructor modeling is an integral component of the course.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: QMAT placement score > 32 or Corequisite: MAT 054

Restriction: Restricted to General Studies - Elementary Education Transfer Option and ECE Program students

MAT 112 - Mathematics for Educators II

This course continues the comprehensive focus on the critical Mathematics concepts necessary for students who are pursuing an Early Childhood and/or General Studies Elementary Education degree. Students develop an understanding of the principles of Euclidean geometry and use them to prove theorems. In addition, students apply Euclidean geometry to analyze the characteristics and properties of two and three-dimensional shapes, coordinate geometry, and transformations. Fundamental principles of probability and statistics explored. Students develop a deep level of understanding of geometry, probability, and statistics in order to become successful elementary and middle school teachers. Instructor modeling is an integral component of the course.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: MAT 111

Restriction: Restricted to General Studies - Elementary Education Transfer Option and ECE Program students

MAT 121 - Topics in Mathematics

This course explores a variety of topics in contemporary mathematics. These topics include problem solving and critical thinking, personal finance, numeration systems, set theory, counting principles and probability theory, and voting methods.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: College level mathematics course or QMAT placement score > 21 or equivalent placement measures or Corequisite: MAT 051

MAT 122 - Statistics

This introductory statistics course covers descriptive statistics, probability, and inferential statistics. Statistical content includes sampling, graphical summaries of data, measures of center and variability, probability theory and distributions, standard and non-standard normal distributions, the Central Limit Theorem, confidence intervals, one-sample hypothesis tests, linear correlation and regression. Statistical technology is used.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: College level mathematics course or QMAT placement score > 21 or Corequisite: MAT 052

MAT 123 - College Mathematics I: Pre-Calculus

This course focuses on the knowledge and skills necessary for advanced mathematics. Students expand binomial expressions using the binomial theorem; solve non-linear, and rational inequalities and write their solutions using interval notation; determine and write linear equations in several forms; explain the concept of function; graph functions using symmetry test; recognize and graph functions, including constant, linear, quadratic, polynomial, rational, exponential, and logarithmic functions; use function transformation techniques; perform composition and arithmetic operations on functions; find and graph inverses of functions; use properties of logarithms; and solve logarithmic and exponential equations.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: MAT 100 or appropriate placement score

MAT 124 - College Mathematics II: Trigonometry

Students solve right and oblique triangles and related applications; perform vector computations and use vector concepts to solve applications; determine the values of trigonometric ratios of angles and the values of inverse trigonometric ratios of real numbers; work with angles measured in degrees-minutes-seconds or radians; solve uniform circular motion problems; learn the traditional trigonometric identities and use them to prove other identities; perform transformations of basic trigonometric graphs; write equations to describe specific instances of harmonic motion; and solve trigonometric equations.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: MAT 123 or appropriate placement score

MAT 125 - Discrete Mathematics

This course provides an introduction to the basic concepts in Discrete Mathematics. Topics include predicate and propositional calculus, sets, proof techniques, permutations and combinations, probability, relations, closure, partial order, functions, graph connectivity and shortest paths, and an introduction to languages, grammars and nondeterministic finite-state machines.

Credits: 3

Semester Offered: F/S

Prerequisites: MAT 123 or appropriate placement score

MAT 147 - Mathematics for Technicians I

This course covers applied mathematical concepts and methods: Content includes a review of basic concepts of arithmetic operations on scientific and engineering notation and algebra. Students are introduced to simple equations, functions and graphs, geometry, right triangles, vectors and oblique triangles. Students learn applications to systems of linear equations, matrices and determinants, ratio, proportion and variation. Solving quadratic equations, basic rules of factoring, power rule, exponents and radicals, radian measure, arc length, and rotation. Pythagorean Theorem and the six trigonometric ratios are also covered.

Credits: 4

Semester Offered: F/SU

Prerequisites: MAT 095 with a grade of "C" or higher or QMAT placement score > 21

Restriction: Restricted to Manufacturing Technology programs (MP, MPC), Automotive Technology program (AT), Computer Systems Engineering Technology programs (SECS, SECY, SEIT, SEF), Electronics Engineering Technology programs (EEBI, EEMO, EEPH, CE, CP), and Utility Technology program (UTC)

MAT 148 - Mathematics for Technicians II

This course covers applied mathematical and statistical concepts and methods: Topics include Trigonometry, parametric, and polar graphs; Trigonometric identities and equations; Exponential and logarithmic functions; Complex numbers and their applications; Series, sequences and the binomial theorem; Introduction to statistics and probability; Process Control, Correlation and Regression Analysis; Derivatives of algebraic functions.

Credits: 4

Semester Offered: S/SU

Prerequisites: MAT 147

MAT 233 - Calculus I

This course begins with a review of functions and functional notation. After introducing the limit and continuity theorems on an intuitive basis, the study of differentiation begins. Typical derivative formulae are applied to polynomial, rational, trigonometric, implicit, logarithmic, exponential, and inverse trigonometric functions. Application topics include extrema, related rates, curve sketching, and velocity and acceleration. The basic rules of integration and the substitution method are introduced along with Riemann Sums and the Fundamental Theorem of Calculus.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: MAT 124 or appropriate placement score

MAT 234 - Calculus II

This course focuses on expanded methods of integration and their application. Derivatives of the exponential, logarithmic and inverse trigonometric functions as well as their antiderivatives will be reviewed. Students learn to compute the customary antiderivatives of functions and apply antidifferentiation to such areas as volumes, moments, centroids, arc lengths and surfaces of revolution. Students will be introduced to differential equations. The use of L'Hôpital's Rule and the evaluation of improper integrals are examined. The convergence tests of infinite series as well as the Power, Taylor and Maclaurin series are analyzed.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: MAT 233

MAT 235 - Calculus III

This course covers conic sections, rotation of axis, plane curves, parametric equations, vectors; polar, cylindrical, and spherical coordinates and graphs; vector-valued functions, differentiation, and integration; functions of several variables, partial derivatives, gradients; applications of extrema of functions, Lagrange multipliers; multiple integrations; area, volume, center of mass, moment of inertia, change of variables, Jacobians; Green's, divergence, and Stokes' theorems. Students learn to use calculus to solve engineering and scientific problems. The course includes some elementary differential equations.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: MAT 234

MAT 237 - Probability & Statistics for Engineers and Scientists

This course focuses on statistics and engineering. It covers interpretation, description, and treatment of data; probability and probability distributions; binomial, geometric, and hypergeometric methods; poisson processes; gamma, beta, and weibull distribution; populations and samples; inferences, hypotheses, and significance tests; Bayesian estimates; curve fitting; the method of least squares; curvilinear regression, correlation, and experimental design. Students use calculators and statistical software to solve statistical problems.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: MAT 234

MAT 238 - Differential Equations

This course covers definition of differential equations, solution of differential equations, separation of variables, homogeneous and nonhomogeneous solutions, Wronskian, second and higher order equations, solution of systems of linear differential equations, numerical methods, linear independence, the Laplace transform, transforms of derivatives, derivatives of transforms, the Gamma function, inverse transforms, and convolution theorem. Students use mathematical software to solve differential equations for numerical methods.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: MAT 235

MAT 243 - Linear Algebra

This course covers systems of linear equations, matrices, reduced echelon forms, vectors in Rn, linear independence and transformations, matrix operations, inverse of a matrix, determinants, vector space, rank, subspaces, bases, eigen vectors and eigen values, the characteristic equations, diagonalization, complex eigen values, numerical methods for solving linear systems, and orthogonality. Students learn to use linear algebra to solve problems in differential equations, statistics, and engineering design. Students also use mathematical software to solve higher order systems of equations and matrices.

Credits: 3

Semester Offered: F/S/SU

Corequisites: MAT 238

Medical Support Specialist

MSS 111 - Medical Assisting Fundamentals

This course covers introductory administrative skills and medical terminology in the medical office. Topics include performing as a professional medical assistant, verbal and non-verbal communication, technology used in the

medical office, the health care system, professional law and ethics, patient reception, telehealth and telephone techniques, analyzing word parts and learning basic prefixes, suffixes and word roots. The course also highlights the body systems: basic anatomy and physiology, including terms used in diseases and surgical procedures.

Credits: 5

Semester Offered: F

MSS 112 - Medical Assisting Clinical Fundamentals

This course covers introductory theory and techniques of medical assisting used to perform fundamental clinical assisting procedures in the cognitive, psychomotor, and affective domains. Topics include aseptic technique with infection control, measuring vital signs, preparing/maintaining treatment area, interviewing techniques and recording of patient histories, preparing, and assisting patients for procedures, electrocardiograms, monitoring test results, patient education and ambulatory aids.

Credits: 5

Semester Offered: F

MSS 121 - Medical Assisting Advanced Administration

This course introduces advanced medical office procedures including appointment scheduling, phone communication, patient reception, the medical record, written communication, managing practice finances, diagnostic and procedural coding, medical insurance, medical billing and job seeking skills. The course also goes through the advanced roles in administration and solidifies the skills needed to be a competent medical assistant.

Credits: 5

Semester Offered: S

Prerequisites: MSS 111

MSS 122 - Medical Assisting Advanced Clinical Procedures

This course covers advanced clinical theory and techniques of medical assisting skills including diagnostic testing, procedures of hematology, blood chemistries, blood drawing (capillary and venous), emergency/first aid skills in the medical office, minor office surgery techniques. This course also covers the knowledge needed for safe and correct medication administration in both the parenteral and enteral routes.

Credits: 5

Semester Offered: S

Prerequisites: MSS 112

MSS 199 - Medical Assisting Fieldwork

This is a 6-week, 180-hour externship at an appropriate, approved clinical site. Students participate in an integrated experience in which they apply the skills and knowledge learned in the medical assisting program.

Credits: 2

Semester Offered: SU

Prerequisites: MSS 121, MSS 122

Music

MUS 102 - Music Appreciation

This course focuses on the importance of understanding the elements of music and the appreciation of the artistic value of music. The course covers an overview of major composers and their works and familiarizes students with the essentials of music sound, wave, rhythm, and notation. Students explore classical European music, American music such as: folk, blues, jazz, and rock 'n' roll, as well as world music.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

MUS 121 - Jazz in America

This course introduces the various forms and styles of jazz (ragtime, Dixieland, swing, bebop, and modern) and the musicians and composers of each style, including Scott Joplin, Louis Armstrong, Duke Ellington, Charlie Parker, and George Shearing. Students develop a better understanding of the sources and roots of the various jazz styles and stylists.

Credits: 3

Semester Offered: F/S/SU

MUS 135 - Music Ensemble I

This course examines the basic performance of different genres of music: Jazz, Rock, Funk, Blues, and Latin. Students examine concepts of ensemble playing and responsibilities. Course materials cover basic performance techniques such as: instrument techniques, music reading, scales, chords, ear training, rhythm and teamwork. Students focus on building camaraderie, cohesiveness, listening, rhythm/tempo, musicality, preparedness, and harmonic/melodic elements.

Credits: 1

Semester Offered: F/S

Prerequisites: MUS 151

MUS 136 - Music Ensemble II

This course focuses on the performance of: Jazz, Rock, Funk, Blues, Samba/Bossa Nova, and Afro-Cuban. Students build on the concept of ensemble playing and responsibilities from MUS 135. Students examine intermediate performance techniques such as: instrument techniques, music reading, scales, chords, ear training, rhythm and teamwork. Students focus on building camaraderie, cohesiveness, listening, rhythm/tempo, musicality, preparedness, and harmonic/melodic elements.

Credits: 1

Semester Offered: F/S

Prerequisites: MUS 135

MUS 137 - Music Ensemble III

This course focuses on advance performance of different genres of music: Jazz, Rock, Blues, World Music Samba/Bossa Nova, and Afro-Cuban. Students examine advance performance techniques such as: instrument techniques, music reading, scales, chords, ear training, rhythm and teamwork. Students focus on building camaraderie, cohesiveness, listening, rhythm/tempo, musicality, preparedness, and harmonic/melodic elements.

Credits: 1

Semester Offered: F/S

Prerequisites: MUS 136

MUS 151 - Music Theory I

This course focuses on the fundamentals of Western music, including writing, understanding and analysis of notation. Students examine rhythm, meters, clefs, keys signatures, major/minor scales, triads and chord inversions. Students study music symbols, intervals seventh chords, tonality, forms, harmonization, and keyboard layout. The laboratory component of this course covers basic piano skills to reinforce the concepts taught in music theory lectures.

Credits: 4

Semester Offered: F/S

Prerequisites: Placement into college level English

Please Note: Three hours lecture, three hours laboratory

MUS 152 - Music Theory II

This course emphasizes diatonic harmony, including seventh chords, figured bass, and cadences. Students study voice leading, outer-voice framework, four-voice part writing, the choral, and dominant and non-dominant seventh chords are introduced. Students examine chromatic harmony, secondary functions, secondary dominants, secondary leading-tones chords, melody harmonization, modulation, binary, and ternary forms. Students focus on listening, analysis, and composition. The laboratory component of this course covers aural/visual development and proficiency skills to reinforce the concepts taught in music theory lectures.

Credits: 4

Semester Offered: F/S

Prerequisites: MUS 151

Please Note: Three hours lecture, three hours laboratory

MUS 261 - Music History I

This course covers the foundational historical events of traditional Western European classical music through 1750. Students focus on the music of ancient Greece, Medieval, Renaissance, and Baroque. Students examine the foundation of historical context, aesthetic awareness, and music vocabulary. Students listen to and analyze different genres, styles and forms of music.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

MUS 262 - Music History II

This course covers the foundational historical events of traditional Western European classical music from 1750 to the 20th century. Students examine the Classical Styles, Romantic, 20th century and beyond. Students listen to and analyze different genres, styles and forms of music.

Credits: 3

Semester Offered: F/S

Prerequisites: MUS 261

Nurse Education

NUR 100 - Paramedic to ADN Bridge

This course focuses on curriculum topics that are essential for those students who hold a Paramedic certification and who are seeking enrollment into the Nurse Education - Advanced Placement Paramedic Program (NUP). Topics include foundations of nursing practice, nursing theory, evidenced based practice, legal, ethical and advocacy issues, nursing care, role transition, nursing process, and promoting healthy psychosocial responses. Lab content includes basic nursing skills practice and competency. This course also includes clinical practice of basic skills in the long-term care setting. Successful completion of this one-credit course with a "C+" or higher enables students to enter the NUR 101 course.

Credits: 1

Semester Offered: F

Prerequisites: BIO 111 with a grade of "C" or higher, BIO 112 with a grade of "C" or higher, ENG 101, PSY 101

Restriction: Restricted to those students who have met admissions requirements for the Associate in Science in Nurse Education Program and hold a current certification in Massachusetts as a Paramedic or current certification from the National Registry of Emergency Medical Technicians (NREMT) in good standing

NUR 101 - Advanced Placement Nursing I

This course is designed for eligible Licensed Practical Nurses and Paramedics who are seeking enrollment into the Nurse Education - Advanced Placement LPN (NUL) or Advanced Placement Paramedic (NUP) Program. The course focuses on curriculum topics that are essential for the first semester Associate Degree nursing student. Topics include nursing philosophy of the profession and of the QCC Associate in Science degree Nurse Education Program, nursing process application, decision-making, critical thinking and priority setting, Nursing Theory, Maslow's Hierarchy of Needs, and Erikson's Stages of Psychosocial Development. The course also reinforces foundations of basic nursing care, health promotion, complementary alternative medicine, physical assessment, and fluid and electrolytes. The lab component includes practice and competency demonstration of lab skills including asepsis, wound care, and other assigned modules. Successful completion of this one-credit course with a "C+" or higher is required.

Credits: 1

Semester Offered: F

Prerequisites: BIO 112 with a grade of "C" or higher, NUR 100 with a grade of "C+" or higher or Admission to Nurse Education - Advanced Placement LPN (NUL) Program, PSY 101

Restriction: Restricted to those students who have met admissions requirements for the Associate Degree in the Nursing Program and hold a current license to practice as a Licensed Practical Nurse (LPN) in good standing or to those students who have met admissions requirements for the Associate in Science in Nurse Education Program and hold a current certification in Massachusetts as a Paramedic or current certification from the National Registry of Emergency Medical Technicians (NREMT) in good standing.

NUR 106 - Introduction to Nursing Concepts & Health Care

This course is the study of contemporary nursing in relation to historical development, nursing theory, social trends, and healthcare changes. The student explores influences of the past on present day nursing, health care settings, trends and legislation, challenges and issues for today's nurse and future predictions for nursing. Students will integrate concepts of diversity, equity and inclusion in discussion of patient-centered care. Successful completion of this one-credit course with a "C+" or higher is required.

Credits: 1

Semester Offered: F/S

Corequisites: BIO 112, NUR 107, PSY 101

Prerequisites: BIO 111 with a grade of "C" or higher, ENG 101

NUR 107 - Fundamentals of Nursing

This course provides an introduction to the role of the nurse in the health care system. Nursing Theory, Maslow's Hierarchy of Needs, and Erikson's Stages of Psychosocial Development are introduced and utilized as organizing frameworks. Additional integration of professional standards and competencies from National League for Nursing and other professional organizations is included. Students develop an understanding of and

ability to use the nursing process as a method for assisting patients to meet healthcare needs. Students develop basic communication skills in order to promote effective relationships with patients, families and members of the health team. Content includes, but is not limited to, oxygenation, health assessment, elimination, medication administration, and basic comfort and care. Students participate in laboratory to acquire nursing skills and demonstrate competency. Clinical experiences are provided to reinforce nursing skills and promote clinical judgment. Successful completion of this eight-credit course with a "C+" or higher is required.

Credits: 8

Semester Offered: F/S

Corequisites: BIO 112, NUR 106, PSY 101

Prerequisites: BIO 111 with a grade of "C" or higher, ENG 101

NUR 108 - Medical Surgical Nursing I/ Maternal Newborn

This course focuses on caring for maternal newborn patients and adults who have health care deviations that require specific nursing interventions. Content includes, but is not limited to, the perioperative experience, cellular proliferation, nutrition, metabolic activity, cardiovascular disorders, substance abuse, reproductive issues, domestic violence and maternal-newborn health. Students will use a developmental focus and a life span approach to concepts of health promotion and deviations. The course is based on Nursing Theory, Maslow's Hierarchy of Needs, Erikson's Stages of Psychosocial Development, and the Nursing Process. Students participate in the laboratory to acquire nursing skills and demonstrate competency. Clinical experiences are provided to reinforce nursing skills and promote clinical judgment in the care of maternal newborn patients and adult patients in the acute care, rehabilitation and/or community settings. Successful completion of this nine-credit course with a "C+" or higher is required.

Credits: 9

Semester Offered: F/S

Corequisites: BIO 232, PSY 121

Prerequisites: BIO 112 with a grade of "C" or higher, NUR 101 with a grade of "C+" or higher or NUR 106 with a grade of "C+" or higher and NUR 107 with a grade of "C+" or higher

NUR 204 - Medical Surgical Nursing II/ Pediatric

This course focuses on content related to caring for children and adult patients who have health care deviations that require specific nursing system interventions. Content includes, but is not limited to, growth and development, and deviations in respiratory, cardiac, dermatologic conditions, burns, gastrointestinal, genitourinary, musculoskeletal, neurological, hematologic and immunologic systems. The course is based on Nursing Theory, Maslow's Hierarchy of Needs, Erikson's Stages of Psychosocial Development, and the Nursing Process. Students participate in the laboratory to acquire nursing skills and demonstrate competency. Clinical experiences are provided to reinforce nursing skills and promote clinical judgment in the care of pediatric and adult patients in the acute care, rehabilitation and/or community settings. Successful completion of this nine-credit course with a "C+" or higher is required.

Credits: 9

Semester Offered: F/S/SU

Corequisites: ENG 102, any HST, SOC 101 or SOC 111

Prerequisites: BIO 232 with a grade of "C" or higher, NUR 108 with a grade of "C+" or higher, PSY 121

NUR 205 - Advanced Medical Surgical Nursing III/Mental Health

This course focuses on content related to mental health issues and the care of patients who experience health care deviations that require complex nursing interventions. Content includes, but is not limited to, deviations in respiratory, cardiac, gastrointestinal, renal, neurological; and emergency and disaster management. The course is based on Nursing Theory, Maslow's Hierarchy of Needs, Erikson's Stages of Psychosocial Development, and the Nursing Process. Students participate in the laboratory to acquire nursing skills and demonstrate competency. Clinical experiences are provided to reinforce nursing skills and promote clinical judgment in the care of patients in acute, community, and mental health care settings. The clinical experience emphasizes application of nursing process, leadership, and management of complex patients. Successful completion of this nine-credit course with a "C+" or higher is required.

Credits: 9

Semester Offered: F/S

Corequisites: NUR 206, Humanities Elective

Prerequisites: ENG 102, any HST, NUR 204 with a grade of "C+" or higher, SOC 101 or SOC 111

NUR 206 - Advanced Nursing Concepts & Transition to Practice

This course is the study of contemporary nursing in relation to social trends, health care changes, ethical issues, and transition to practice. The student will discuss influences of the past on present day nursing, health care trends and legislation, and challenges and issues for today's nurse. Management and delegation responsibilities of the professional practitioner will be included with theoretical content and application. The student will describe the role and responsibilities of the Registered Nurse, assess career potential, and future employment opportunities. Successful completion of this two-credit course with a "C+" or higher is required.

Credits: 2

Semester Offered: F/S

Corequisites: NUR 205

Prerequisites: NUR 204 with a grade of "C+" or higher

Occupational Therapy

OTA 101 - Introduction to Occupational Therapy: Concepts & Interventions

This course introduces the basic tenets of the occupational therapy profession. Students will examine the history and philosophy of occupational therapy, current issues, future trends in the profession and OT practice globally. Educational requirements to practice, roles and responsibilities of the occupational therapist (OT) and occupational therapy assistant (OTA), ethical and legal aspects of practice, and professional organizations will be introduced. Practice settings, models of healthcare delivery and service management functions are explored.

Credits: 3

Semester Offered: F

OTA 103 - Group Process and Interventions

This course describes group dynamics and processes and examines how groups are used to provide occupational therapy treatment. Students learn how to plan,

lead, and facilitate educational and task groups. In the laboratory, students practice planning and leading a variety of therapeutic groups. The course includes 15 hours of Level I fieldwork leading groups in a community setting.

Credits: 4

Semester Offered: S

Prerequisites: OTA 101, PSY 101

OTA 105 - Developing Professional Behaviors

This course examines the professional behaviors that are required in a health care setting. Students learn the importance of ethical behavior, dependability, cooperation, empathy, and other behaviors that health care professionals must demonstrate. Students learn how to establish and maintain a therapeutic relationship, how to communicate clearly when speaking and writing, and how to pursue continuing education. This course also covers the development of a professional portfolio, resume writing, and interview skills to help graduates obtain employment.

Credits: 3

Semester Offered: S

Prerequisites: OTA 101

OTA 131 - Occupational Therapy: Methods and Modalities I

This course provides in-depth study of occupations and begins to introduce students to how therapeutic occupations are used in occupational therapy practice. Students will learn to analyze occupational tasks and functional activities utilizing the Occupational Therapy Practice Framework as a guide, grade and adapt activities, and build the basic skills necessary for teaching therapeutic activities to meet the needs of occupational therapy consumers, either individually or in groups.

Credits: 3

Semester Offered: F

Corequisites: OTA 101

OTA 211 - Occupational Therapy with the Older Adult

This course examines the basic concepts of aging, including theories, trends, and policies. Students study the concepts of wellness and disease prevention, major developmental theories of aging, and how to apply these theories to occupational therapy practice with adults. Students write a research paper on one aspect of aging.

Credits: 3

Semester Offered: F

Prerequisites: OTA 101, PSY 121

OTA 215 - Developmental Problems and Practice with Children

This course examines the role of occupational therapy practitioner in medical and educational settings for children. Students study normal child development and how to provide services to children who have exceptional needs. Students learn to communicate with families, teachers, doctors, and other professionals on behalf of children and are introduced to the federal laws that apply to provision of services to children. The laboratory component includes a minimum of 15 hours Level I fieldwork, which consists of observation and supervised practice in an off-campus child-centered facility.

Credits: 4

Semester Offered: F

Prerequisites: OTA 101, PSY 121

OTA 221 - Concepts and Occupational Therapy Interventions in Mental Health

This course examines a range of common psychiatric disorders and prepares OTA students to distinguish between normal and dysfunctional behavior. Students learn to develop observational skills and explore evaluation and treatment techniques. In the laboratory component, students practice evaluation and treatment activities. The laboratory includes a minimum of 15 hours Level I fieldwork, which consists of observation and supervised practice in an off-campus mental health facility.

Credits: 4

Semester Offered: F

Prerequisites: OTA 101, OTA 103, PSY 101

OTA 223 - Concepts and Occupational Therapy Interventions with the Physically Challenged

This course examines the characteristics of physical disabilities. Students study disabilities and the impact of these disabilities on the client's ability to perform routine activities. Students learn evaluation and treatment techniques that are used to help adults with physical disabilities to live independent and productive lives. The laboratory component includes a minimum of 15 hours Level I fieldwork, which consists of observation and supervised practice in an off-campus facility that treats adult physical disabilities.

Credits: 4

Semester Offered: S

Prerequisites: BIO 111, OTA 101, OTA 131

OTA 231 - Occupational Therapy: Methods and Modalities II

This course assists advanced students to master occupational therapy treatment techniques. Students learn the application of occupational therapy techniques in simulated therapy situations; review and develop treatment plans, evaluations and documentation reports; and, practice written and verbal communication used in the practice of occupational therapy. The course consists of two hours of lecture and three hours of laboratory per week.

Credits: 3

Semester Offered: F

Prerequisites: OTA 101, OTA 131

OTA 241 - Occupational Therapy Field Placement I

This course is an experienced-based learning opportunity in which students put theory into practice. Students provide occupational therapy treatment and practice professional skills necessary to fulfill the role of an entry-level therapist in this field while working under the supervision of an experienced occupational therapist. This experience will take place in a different practice setting from OTA 242.

Credits: 7

Semester Offered: S

Prerequisites: BIO 112, ENG 102, OTA 105, OTA 211, OTA 215, OTA 221, OTA 223, OTA 231

OTA 242 - Occupational Therapy Field Placement II

This course is an experienced-based learning opportunity in which students put theory into practice. Students provide occupational therapy treatment and practice professional skills necessary to fulfill the role of an entry-level therapist in this field while working under the supervision of an experienced occupational therapist. This experience will take place in a different practice setting from OTA 241.

Credits: 7

Semester Offered: S

Prerequisites: BIO 112, ENG 102, OTA 105, OTA 211, OTA 215, OTA 221, OTA 223, OTA 231

Paramedicine

MED 110 - Introduction to Paramedicine

This course provides paramedic students with the principles of advanced pre-hospital care and EMS operations under varying circumstances including operations and paramedic roles and responsibilities. There is an added emphasis on personal wellness and injury and illness prevention, the medical-legal aspects of emergency care and ethics, the Incident Command System, and managing resources at the emergency scene, particularly at scenes involving multiple ambulances and multiple agencies. Time is devoted to rescue operations, and an overview of hazardous material is presented. The student is made aware of their role in protecting the crime scene. An overview is provided in rural EMS, to raise awareness of the special circumstances that many providers face regarding distance, terrain, weather conditions, and EMS staffing.

Credits: 4

Semester Offered: F

Corequisites: MED 120, MED 130

MED 120 - Pharmacology, Patient Assessment and Human Systems

This course covers the theory, skills, and terminology needed to perform physical assessment, including overview of basic anatomy and physiology, systematic assessment of the patient, the process of obtaining the patient's medical history, procedures in performing the physical examination and a concise method of recording the findings. This course covers the general principles of pharmacology, calculating drug doses and effects of drugs administered by paramedics in the treatment of patients in the clinical and field setting. This course provides a comprehensive laboratory experience designed to familiarize the student with the practical aspects of medical patient assessment, including primary and secondary survey. In addition, both drug dose calculations and medication administration are practiced.

Credits: 4

Semester Offered: F

Corequisites: MED 110, MED 130

MED 130 - Special Patient Populations for Paramedicine

This course provides an analysis of normal anatomy and physiology and the disease processes of the female reproductive system, life span development, geriatric patients, and those patients who are challenged. This course also views interventions for the chronic-care patient, and those who may be victims of abuse and neglect.

Credits: 4

Semester Offered: F

Corequisites: MED 110, MED 120

MED 150 - Advanced Paramedicine

The first half of this course focuses on pathophysiology common to all disease processes: shock, acid-base, and airway. The second half covers the pathophysiology of the pulmonary, nervous, gastrointestinal, and genitourinary systems. It reviews IV fluid administration and medical math, briefly reviews the anatomy and physiology of each topic covered, and uses a scenario-based approach to assessment and management.

Credits: 4

Semester Offered: S

Corequisites: MED 160, MED 170, MED 180, MED 190

Prerequisites: MED 110, MED 120, MED 130

MED 160 - Cardiology and Advanced Cardiac Life Support

This course provides the student with the knowledge and skills needed to recognize and successfully manage cardiovascular emergencies encountered in the field. Following the standards of the American Heart Association, Massachusetts Statewide Treatment Protocols, and the National Registry of EMTs, Paramedic Psychomotor Competency Portfolio Skill Assess students learn cardiac anatomy and physiology, ECG recognition, and 12 lead ECG recognition and treatment. Extensive coverage is devoted to the pharmacological and electrical management techniques used in treating acute cardiac events, including respiratory and cardiac arrest. The student has the opportunity to secure Advanced Cardiac Life Support certification for an additional fee.

Credits: 4

Semester Offered: S

Corequisites: MED 150, MED 170, MED 180, MED 190

Prerequisites: MED 110, MED 120, MED 130

MED 170 - Trauma

This course is intended to present to the paramedic student a comprehensive insight into traumatic injury to the human body, its causes, types and implications. The impact on trauma survival and the concept of well-developed regional trauma systems will be discussed. An emphasis will be placed upon the evaluation and management of both blunt and penetrating trauma in relationship to regional anatomy.

Credits: 3

Semester Offered: S

Corequisites: MED 150, MED 160, MED 180, MED 190

Prerequisites: MED 110, MED 120, MED 130

MED 180 - Neonatal and Pediatric Emergencies

This course provides the Paramedic student with a general understanding of the newborn and the newly born with overviews of structure and function of the cardiovascular and respiratory system. Neonatal resuscitation will be presented, along with neonatal assessment. In addition, this course provides the Paramedic student with a general understanding of the pediatric patient and the interaction that is necessary with their family members. Growth and development, anatomy and physiology review, pathophysiology, assessment and management of pediatric emergencies are stressed. The student has the opportunity to secure certifications in the Neonatal Resuscitation Program (NRP) and Pediatric Advanced Life Support (PALS) for an additional fee.

Credits: 2

Semester Offered: S

Corequisites: MED 150, MED 160, MED 170, MED 190

Prerequisites: MED 110, MED 120, MED 130

MED 190 - Topics in Paramedicine

This course includes the assessment and management of blood borne infectious diseases, respiratory infectious disease and their role in pandemics, toxicological emergencies, infectious diseases, endocrine emergencies, allergic reaction and anaphylaxis, and environmental emergencies.

Credits: 3

Semester Offered: S

Corequisites: MED 150, MED 160, MED 170, MED 180

Prerequisites: MED 110, MED 120, MED 130

MED 210 - Clinical Internship for the Paramedic

This course gives the student the opportunity to deliver optimum patient care at several clinical hospital sites, using a preceptor approach. Clinical rotations occur within the following departments: Intensive/Critical Care Unit, Emergency Department, Anesthesiology (Operating Room), Pediatric Emergency Department, Emergency Mental Health, Labor and Delivery, and other departments as needed. The student takes part in weekly simulation to meet accreditation standards as put forth in the National Registry of Emergency Medical Technician Paramedic Psychomotor Competency Portfolio requirements.

Credits: 7

Semester Offered: F

Prerequisites: MED 150, MED 160, MED 170, MED 180, MED 190

MED 220 - Field Internship for the Paramedic

This course gives the student the opportunity to deliver optimum patient care at multiple pre-hospital Advanced Life Support service sites, using a Paramedic preceptor approach with one Paramedic intern per ALS team per ambulance. The student has the opportunity to utilize and refine skills gained through the Paramedic Program in real time, testing student knowledge and ability to perform under pressure. Simulation occurs on a bi-weekly schedule to facilitate the completion of accreditation goals and objectives. This course capstone experience completes the student's Paramedic training.

Credits: 5

Semester Offered: S

Prerequisites: MED 210

Philosophy

PHI 102 - Introduction to Philosophy

This course introduces students to the chief branches of the discipline of philosophy - that is, logic, epistemology, ontology, and metaphysics - through study of the primary works and main ideas of a representative selection of the world's great philosophers. This survey covers the period from the ancient world through to the present, and may include both Western and Eastern philosophical traditions. Students explore the development of such fields as political philosophy, the philosophy of aesthetics, the philosophy of science, and linguistic philosophy. Student assessment includes a combination of Socratic dialogue, formal debate, formal presentations, unit tests, journal work, and research-supported philosophical essay writing.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English

PHI 121 - World Religions

This course examines the nature of religious experience through the history of the world religions and their cultural contexts. Students study the essential nature of the religious experience, the origin and role of religion, major religions and their personalities, and the essential world views of cultures.

Credits: 3

Semester Offered: SU

Prerequisites: Placement into college level English

PHI 131 - Introduction to Ethics

This course focuses on philosophical principles for human action. Students critically examine major issues in ethics, morality, and values such as: What is a human act? To what extent are we free and have choices? What is the nature of responsibility? What constitutes happiness, good, and evil?

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

PHI 201 - Judaism, Christianity and Islam

This course examines three western religions which trace their history back to Abraham: Judaism, Christianity and Islam. Students study the terminology and concepts used in the academic study of religion and apply them to the study of Judaism, Christianity and Islam with respect to: major beliefs, spiritual practices, sacred texts, organizational structure, historical development and cultural influences. Students analyze the role(s) of religion with respect to some current issues and global conflicts.

Credits: 3

Semester Offered: F/S

Prerequisites: ENG 101

PHI 203 - Philosophy of Technology

This course examines from a philosophical perspective uses of technology, cyberspace, technological forms of communication, ethical and ecological implications of technology, and technology's effects on human bodies. Students consider how technological objects influence who possesses knowledge and power; what they insinuate about gender, race, and class; and how they impact social practices. Students explore various definitions of the term "technology", and reassess their relationship to technology.

Credits: 3

Semester Offered: S

Prerequisites: ENG 101

Physics

PHY 101 - Physics I

This course focuses on the basic concepts of measurement, kinematics, dynamics, work, energy, power, momentum, rotational motion, thermodynamics, and waves through working with problems and laboratory experiments. Students perform related laboratory experiments and write research-quality laboratory reports. This course is not required for Engineering but may be recommended for students who have not yet completed calculus.

Credits: 4

Semester Offered: F/SU

Prerequisites: MAT 148 or Corequisite MAT 124

PHY 102 - Physics II

This course focuses on selected topics in the areas of waves, optics, and electromagnetism. Students learn how to apply the basic principles of problem-solving techniques. Students perform related laboratory experiments and write research-quality laboratory reports.

Credits: 4

Semester Offered: S/SU

Prerequisites: PHY 101

PHY 105 - General Physics I: Newtonian Mechanics

This course covers measurement, kinematics, vectors, Newton's laws, friction, circular motion, gravitation, work and energy, conservation of energy, linear momentum and collisions, rotational motion about a fixed axis, moments of inertia, and angular momentum and its conservation. Students perform related laboratory experiments.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: MAT 233

PHY 107 - General Physics II: Electricity & Magnetism

This course covers waves and oscillations, fluids, electric charge and electric field, Gauss's Law, electric potential, capacitance, dielectrics, electric energy storage, electric current and resistance, DC circuits, magnetism, sources of magnetic field, electromagnetic induction and Faraday's Law, inductance and electromagnetic oscillations, and AC circuits. Students perform related laboratory experiments.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: MAT 234, PHY 105

PHY 207 - General Physics III: Optics & Modern Physics

This course covers reflection and refraction, lenses and optical instruments, the wave nature of light, interference, diffraction and polarization, special theory of relativity, early quantum theory and models of the atom, quantum mechanics, molecules and solids, nuclear physics, and elementary particles. Students perform related laboratory experiments.

Credits: 4

Corequisites: MAT 238

Prerequisites: MAT 235, PHY 107

Political Science

PSC 201 - United States Government

This course examines the structure and operation of the United States government as it has developed within the framework of the Constitution. Students explore topics such as civil liberties, political parties, the election process and contemporary problems in government and politics.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101

PSC 221 - State & Local Government

This course examines the development, organization and function of state and local governments within the United States. Students analyze and compare functions of the governors, state legislatures and courts, as well as explore the relationships among local, state and federal governments.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101

Practical Nursing Program

PNP 101 - Practical Nursing I: Fundamentals of Nursing

This course examines contemporary basic nursing practice and the role of the practical nurse. Students study nursing theory and techniques of fundamental nursing skills concurrently in classroom, laboratory, and long-term and rehabilitation clinical practice settings. The course emphasizes health assessment, health maintenance, and adaptation to illness with the older adult. Nursing process is introduced as the framework for meeting the patient's identified self-care needs. Students acquire a level of competency in basic skills.

Credits: 10

Semester Offered: F

Prerequisites: BIO 100 or BIO 112, PSY 101, Acceptance to the PNP Program

PNP 111 - Introduction to Pharmacology

This course examines fundamental pharmacological concepts, drug sources and forms, controlled substance schedules, pregnancy categories, and drug references. Students learn the ethical and legal responsibilities associated with medication administration; and, review basic math concepts, common systems of measurement, and calculation of drug dosages. The course focuses on nursing principles essential to safe administration of medication. Anti-infective and immunologic agent drugs serve as the model for discussion and demonstration.

Credits: 3

Semester Offered: F

Prerequisites: BIO 100 or BIO 112, PSY 101, Acceptance to the PNP Program

PNP 210 - Nutrition Concepts in Health and Illness

This course focuses on concepts of normal nutrition, principles related to health maintenance, and nutritional modifications required during states of illness. Students correlate principles of normal nutrition with therapeutic diets needed to promote health in culturally diverse individuals experiencing health deviations. Students acquire knowledge of dietary management of patients with a variety of pathological conditions.

Credits: 1

Semester Offered: IN

Prerequisites: PNP 101

PNP 233 - Trends in Practical Nursing

This course focuses on topics that prepare students both personally and vocationally for entrance into the nursing profession. It expands on legal and ethical considerations discussed in PNP 101 and introduces students to expectations placed on the graduate practical nurse. Topics include social issues that impact the health care system such as domestic abuse and homelessness, and the role of social service agencies. Students explore skills necessary for entry into the nursing workforce, including job search skills, resume and cover letter development, interviewing skills, and legal and licensure considerations.

Credits: 1

Semester Offered: IN

Prerequisites: PNP 101

PNP 235 - Practical Nursing II: Medical/Surgical/Mental Health/Leadership Nursing

This course focuses on medical surgical and mental health deviations affecting all body systems including pharmacological principles, utilizing the framework of the nursing process. Students begin to integrate nursing skills while recognizing mental health needs of the patient. The nursing process is used as the basis for discussion of assisting patients in adapting to acute or chronic health deviations, and interventions that facilitate patient movement to self-care. Health deviations are presented systematically by building upon knowledge of applied and social sciences along with drug classifications and the effects of drugs on the body systems. Leadership topics include

managing client care, and the roles, responsibilities and typical job functions of the graduate practical nurse. Students participate in learning experiences including simulation and on selected clinical units in health care facilities in the Worcester County and surrounding area.

Credits: 15

Semester Offered: S

Prerequisites: PNP 101, PNP 111, PNP 210, PNP 233, PSY 121

PNP 240 - Practical Nursing III: Maternal/ Newborn/Pediatric Nursing

This course focuses on the specialties of maternal-newborn and pediatric nursing. Topics include growth, development, and physiologic needs of the client throughout pregnancy, labor, delivery, and during the post-partum period; and health problems common to children from infancy through adolescence. Students also study health maintenance, accident prevention, the emotional impact of hospitalization; and roles, responsibilities and typical job functions of the practical nurse. Students participate in selected clinical experiences within affiliating acute and community agencies.

Credits: 6

Semester Offered: SU

Prerequisites: PNP 235

Psychology

PSY 101 - Introduction to Psychology

In this survey course, the student becomes aware of and appreciates the various influences upon behavior. The topics covered include, but are not limited to, the nervous system, sensation and perception, motivation, learning, emotion, and personality. Through an investigation of these areas, within a multiplicity of cultural contexts, the student understands the diversity of the human condition.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

PSY 118 - Psychology of Interpersonal Relations

This course examines behavior in a variety of interpersonal situations including groups, family and the workplace. Students explore the dynamics of communication, group process, and other behavioral concepts. They share experiences in the classroom and participate in group projects that combine theory and practice. The course emphasizes varied and changing work environments. Students utilize a wide range of interpersonal skills to gain a more complete learning experience, greater personal satisfaction, and improved work efficiency in a variety of situations.

Credits: 3

Semester Offered: F

Prerequisites: Placement into college level English

PSY 121 - Survey of Life Span Development

This course examines the span of human development from conception to death. Students will explore biological, cognitive and socioemotional domains of development and their interaction across the lifespan, with a focus on the influence of culture and individual differences. The course emphasizes understanding and applying both developmental theories and empirical research, with a focus on continuity and the diversity of developmental pathways.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: PSY 101

PSY 123 - Child Development

This course surveys human development from conception to adolescence. Topics include the central issues of biological, cognitive and socioemotional development and their interaction, with a focus on the influence of culture and individual differences. Students explore major theories of child development, associated empirical research, and their application.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: PSY 101

PSY 124 - Adolescence

This course surveys the major theories and research of adolescent development, with a focus on biological, cognitive, and socioemotional transitions. There is an emphasis on understanding the influence of culture, history and individual differences upon adolescent development.

Credits: 3

Semester Offered: S

Prerequisites: PSY 101

PSY 142 - Human Sexuality

This course covers social, cultural, and psychological perspectives of human sexuality. Students explore differences related to gender role formation, sexual orientation, sexual attraction, premarital sex, teenage pregnancy, sexually-transmitted diseases, and other related topics within a context of multicultural diversity. Students study specific topics of human sexuality and the research and the professionals in that field. Students examine their own values, beliefs, and behaviors with respect to these topics, and establish ways of applying this information to their own sexuality.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

PSY 158 - Human Relations in Organizations

This course examines the nature of organizations to facilitate students' entry into, and success within, organizational settings. Topics include the factors that influence individual behavior in organizations and the interrelationships between psychological and other social sciences. Students learn how these sciences contribute to overall organizational experiences and self-development. They examine types of organizations, effective motivational techniques, communication essentials, team development, and leadership practices. Students also examine global and multicultural influences that contributing to the nature of organizations and organizational success.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

PSY 231 - Introduction to Counseling

This course provides an overview of the major theoretical approaches to conducting counseling and psychotherapy. Students critically examine the theories and research as it applies to counseling and psychotherapy. Topics include the basic skills necessary to be an effective counselor; assessment, goal setting and intervention; ethics; diversity; and self-awareness as a beginning professional. Students learn beginning counseling skills and develop an appreciation of the current and relevant issues in the field.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: PSY 101

PSY 250 - Psychological Statistics

This course covers how quantitative methods are used to answer questions in psychology. Students examine psychological applications of measures of central tendency, measures of variability, frequency distributions and standardization of scores (z-scores). Students learn to conduct, interpret, and report effect sizes and significance testing for comparing means (z-tests, t-tests and ANOVAs with one and two factors), and for assessing relationships (bivariate correlation and regression) within research scenarios commonly encountered in psychology. Special attention is given to identifying the appropriate statistics to use for a given research question and data set, to ethical issues in data analysis, and to the use of statistical software.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101, MAT 122, PSY 101

PSY 251 - Research Methods in Psychology

Through instruction in research design and the application of the scientific method to psychology, students learn to evaluate the validity of claims about behavior and mental processes as they appear in both popular media and the professional scientific literature, to design and conduct psychological research, and to report on the results of psychological investigations using APA style. Topics covered include measurement and validity, ethics, survey research, correlational research, experiments with one and with multiple independent variables, identification and control of confounds, and quasi-experiments. Students conduct hands-on psychological studies involving appropriate statistical analyses that will be written up as APA style reports.

Credits: 3

Semester Offered: F/S

Prerequisites: ENG 101, MAT 122, PSY 101

PSY 252 - Introduction to Cognition

This course serves as an introduction to the field of cognitive psychology, familiarizing students with theories and research regarding learning, memory, and thinking. Topics include: the history and foundations of cognitive psychology; neural bases; learning, memory and knowledge; language; reasoning and problem-solving; social and emotional influences, and changes in cognition across the lifespan.

Credits: 3

Prerequisites: ENG 101, PSY 101

PSY 253 - Social Psychology

This course introduces students to the scientific study of how humans influence, relate to, and think about each other as practiced in social psychology. Major topics covered include social cognition, attributions, the self, attitudes and persuasion, conformity, group dynamics, interpersonal relationships, helping behavior, aggression, and prejudice. Themes emphasized throughout the course include the role of culture in influencing social psychological phenomena, the application of the scientific method to the study of social behavior, and the use of social psychological theories to better understand behavior encountered in daily life and in the world around us.

Credits: 3

Semester Offered: F

Prerequisites: ENG 101, PSY 101

PSY 261 - Theories of Personality

This course introduces personality theories and theorists, definitions of personality, development and structure of personality, motivation, and concepts of self. Students examine various theories of structure and development of personality, human motivation, concepts of self, and the mature personality as proposed by Freud, Skinner, Jung, Fromm, Allport, Rogers, Frankl, and Perls.

Credits: 3

Semester Offered: F/S

Prerequisites: PSY 101

PSY 262 - Abnormal Psychology

This course focuses on issues of mental health and mental illness. Topics include examination of various symptoms and causes of mental illness, current trends in treatment, and new developments in community health resources. Students explore the various approaches used to define and treat abnormal behaviors, including the statistical and absolute models, in order to understand and adopt a sensitive approach toward individuals whose behaviors are symptomatic of a disorder.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: PSY 101

PSY 273 - Chemical Dependency

This course covers the biological, psychological, and social factors involved in licit and illicit drug use and abuse. Students examine the types of drugs most commonly used and abused; psychosocial consequences of prolonged drug use and abuse; Federal, state, and local regulations governing drug use; efforts made to deal with drug use and abuse and drug related problems; and the nature and varied patterns of drug use and abuse in today's society. The course emphasizes types of drug treatment and counseling and the probable effects of different treatments upon the drug-dependent client.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: PSY 101

Public Health

PHA 100 - Survey of Personal Health

This course examines the concept of health and how it relates to all aspects of life. Students gain perspective in assessing and promoting health and healthy lifestyles. Students learn methods to prevent violence and injury, along with reducing risks in specific diseases.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

PHA 101 - Introduction to Public Health

This course provides an initial overview of public health concepts and practice. The course examines the philosophy, purpose, history, organization, function, tools, and activities of public health practice. Case studies and a variety of practice related exercises serve as a basis for student participation and interaction. The course identifies problems and issues currently facing public health. This course aims at enhancing, facilitating and promoting the use of technologies for obtaining and sharing information.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

PHA 102 - Introduction to Global Health

This course guides students to the main concepts of global health and the critical links between public health and social and economic development. Students think about the determinants of health, how health status is measured, and what key factors influence disease burdens. This course introduces students to key concerns regarding reproductive health, child survival, nutrition, communicable diseases, and chronic diseases. The course stimulates interaction around problems and issues currently facing global health. This course aims at enhancing, facilitating and promoting the use of technologies for obtaining and sharing information.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

PHA 103 - Public Health Epidemiology

This course provides students with a general introduction to Epidemiology, the central research discipline in the field of public health. This course covers the methods used in Epidemiology and introduces students to the findings of epidemiological research in key aspects of health and disease. Students learn about problems and issues currently facing public health and Epidemiology and gain experience in reading and understanding basic Epidemiology articles.

Credits: 3

Semester Offered: F

Prerequisites: CHM 101, MAT 122, PHA 100, PHA 101, PHA 102

PHA 299 - Cooperative Work Experience

This course provides students with a structured learning experience while applying classroom theory to a practical work experience. Students develop a learning agreement that lists the objectives they will accomplish through their work experience. Evaluation is based on satisfactory completion of the learning agreement objectives and the demonstration of soft skills such as punctuality and attitude.

Credits: 3

Semester Offered: S

Prerequisites: BIO 241, CPS 298, PHA 103, PSC 201

Radiologic Technology

RDT 102 - Patient Care & Ethics in Radiology

This course introduces students to the professional, ethical, and legal framework of current radiology and healthcare practices, including the role of the radiographer within this system. Students learn to solve problems of possible ethical and/or legal situations through course activities. Students learn basic patient care principles and skills needed for their initial clinical experiences including monitoring breathing, heart rate and blood pressures; recognizing changes in a patient's well-being; safe transport of patients; effective communication with various types of patients; and current information on infection disease control and basic medications as they pertain to radiology.

Credits: 3

Semester Offered: F

Prerequisites: Accepted to RT Program

RDT 104 - Radiographic Medical Terminology

This course introduces students to the basic medical and technical terminology inherent to the profession of Radiologic Technology. The content includes radiographic positioning terminology, professional organization acronyms and purposes of these agencies, basic medical terminology and abbreviations. Students use this information to effectively communicate within the healthcare setting.

Credits: 1

Semester Offered: F

Prerequisites: Accepted to RT Program

RDT 110 - Fundamentals of Radiographic Equipment and Medical Imaging

This course introduces the principles of medical imaging with emphasis on basic radiation safety practices, the components of radiographic imaging equipment, how x-rays are produced and the selection of exposure factors. Lab sessions provide students with hands-on practice of the concept presented in class.

Credits: 3

Semester Offered: F

Prerequisites: Accepted to RT Program, MAT 121 or MAT 122 with a grade of "C" or higher

RDT 112 - Medical Imaging II

This course continues to instruct the student on the principles of medical imaging to include accessory imaging devices and the principles of digital image acquisition, processing and display, and fluoroscopy equipment components and operation principles. Image analysis methods are introduced and practiced to develop students' ability to recognize suboptimum images and determine appropriate corrective action(s). Lab activities allow students to implement the principles discussed in class and demonstrate the effects of correct and incorrect utilization of imaging equipment and techniques.

Credits: 3

Semester Offered: S

Prerequisites: RDT 110

RDT 121 - Radiographic Positioning & Anatomy I

This course provides initial information related to proper positioning of the human body for medical diagnostic imaging. Students study intricate anatomy and specific positioning procedures of the upper and lower extremities, chest, and abdomen. Students practice these skills through laboratory activities before performing them on live patients in their clinical assignments. Students learn the skeletal anatomy of specified body parts, identify specific structures within these anatomical regions, and simulate any exam procedure discussed during the course.

Credits: 3

Semester Offered: F

Corequisites: RDT 102, RDT 104

RDT 122 - Radiographic Positioning & Anatomy II

This course continues to develop students' positioning skills with focus on specific anatomy and positioning procedures of the pelvis, hip, bony thorax, lumbo-sacral, thoracic and cervical spine, GU and GI systems. Students practice these skills through laboratory activities before performing them on live patients in their clinical assignments. The course focuses on problem solving for atypical imaging conditions requiring modification to the usual positioning procedure. Students learn the skeletal anatomy of specified body parts, identify specific structures within these anatomical regions, and simulate any exam procedure discussed during the course.

Credits: 3

Semester Offered: S

Prerequisites: RDT 121, SPH 101

RDT 131 - Medical Radiography Clinic I

This course focuses on developing basic skills for the practice of radiography. Students learn proper methods to care for patients, operate radiographic and image processing equipment and perform radiographic exams of the extremities, chest, and abdomen. Students develop these skills at a clinical site under direct supervision of licensed radiographers through observation, assisting with procedures, and ultimately perform exams with indirect supervision. Students assess radiographic images for quality, accuracy, and suggest appropriate actions for improvement. Satisfactory completion of three (3) imaging competencies is required to pass this course and advance in the RT program.

Credits: 2

Semester Offered: F

Corequisites: RDT 110, RDT 121

RDT 132 - Medical Radiography Clinic II

This course expands students' clinical skills through their participation in more varied and complex radiographic procedures with emphasis on imaging the upper/lower extremities, pelvis, spinal column, bony thorax and GI systems. Students gradually advance to perform these procedures on more acute patients and under atypical conditions and continue to develop their ability to critique images they produce. Satisfactory completion of sixteen (16) imaging competencies is required to pass this course and advance in the RT program.

Credits: 3

Semester Offered: S

Prerequisites: RDT 131

RDT 133 - Medical Radiography Summer Clinic II

This course advances students' clinical skills through their participation in more varied and complex radiographic procedures. Students work more independently, assist with fluoroscopy exams of the GI system, and begin an introduction to mobile and surgical radiography procedures. Students gradually advance to perform procedures on more acute patients and under atypical conditions and continue to develop their ability to critique images they produce. Satisfactory completion of four (4) imaging competencies is required to pass this course and advance in the RT program.

Credits: 2

Semester Offered: SU

Prerequisites: RDT 132

RDT 141 - Radiation Science

This course covers the properties of particulate and electromagnetic radiations, sources of exposure, the biological implications of irradiation, the medical uses of radiation, and dose limitation methods. Students learn how to answer patients' questions regarding exposure and how to provide appropriate protection for themselves, their patients, the clinical staff, and the general public.

Credits: 2

Semester Offered: S

Prerequisites: RDT 110

RDT 230 - Medical Radiography Summer Clinic III

This course focuses on the development of students' clinical skills with emphasis on performing fluoroscopy, mobile, and surgical exams. Students expand their skills and assume independent care of stable and mildly acute patients and closely assist with more severely acute patients. Students use problem solving and critical thinking skills in the management of non-typical imaging situations and continue to enhance skills involved in the assessment of image quality.

Credits: 2

Semester Offered: SU

Prerequisites: RDT 133

RDT 231 - Medical Radiography Clinic III

This course focuses on the development of students' clinical skills with emphasis on performing fluoroscopy, mobile, and surgical exams, as well as imaging craniofacial structures. Students expand their skills to include trauma imaging procedures, are introduced to pediatric imaging, assume independent care of stable and mildly acute patients and closely assist with severely acute patients. Students use problem solving and critical thinking skills in the management of non-typical imaging situations and continue to enhance skills involved in the assessment of image quality. Satisfactory completion of twenty-two (22) imaging competencies is required to pass this course and advance in the RT program.

Credits: 3

Semester Offered: F

Prerequisites: RDT 230

RDT 232 - Medical Radiography Clinic IV

This course provides opportunities for students to refine their clinical skills as they complete demonstration of all mandatory and elective imaging procedures required for graduation and eventual employment as an entry-level radiographer. Students continue to perform imaging exams with indirect supervision, as they further develop their confidence and are able to observe advanced imaging procedures, including CT, MR, Interventional, Nuclear Medicine, Breast Imaging, Sonography, and Radiation Therapy. Satisfactory completion of sixteen (16) imaging competencies is required to pass this course.

Credits: 3

Semester Offered: S

Prerequisites: RDT 231

RDT 240 - Imaging Applications

This course integrates imaging concepts related to image assessment and the determination of corrective actions to achieve optimal image quality. Evidenced based learning strategies require students to demonstrate their problem solving skills in the process of modifying exam procedures to accommodate patient limitations as experienced with trauma, surgical, pediatric and mobile imaging. Additionally, students learn a full range of imaging protocols for craniofacial anatomy and are introduced to the concepts of cross-section anatomy.

Credits: 4

Semester Offered: F

Prerequisites: RDT 112, RDT 122

RDT 245 - Medical Radiographic Equipment & Quality Assurance

This course includes the principles of mechanics, electrostatics, electrodynamics, magnetism, electromagnetism, and circuitry. Students examine these concepts in detail and apply them to the design and operation of radiographic and fluoroscopic systems. Students also learn how radiologic quality assurance programs are developed and implemented and may include some hands-on demonstrations and/or assignments using the campus ionized radiographic unit to support the students' understanding of quality control test procedures.

Credits: 3

Semester Offered: F

Prerequisites: RDT 112

RDT 252 - Radiology Seminar

This course provides a series of discussions, presentations and group projects to further develop students' knowledge and skills as health care providers with an emphasis on medical ethics and cultural diversity related to healthcare delivery in the radiology setting. A capstone component requires students to integrate their practical skills and knowledge through image critiques, career exploration and professional development activities to clarify their professional responsibilities and awareness for life-long learning in preparation for employment as entry-level radiologic technologists.

Credits: 4

Semester Offered: S

Prerequisites: BIO 112, RDT 231, RDT 240

RDT 254 - Radiologic Pharmacology and Pathology

This course covers the basic concepts of health, illness and disease processes affecting various bodily systems with special emphasis on the nature of pathologic processes and the radiographic appearance commonly presented and experienced during medical imaging procedures. The fundamental pharmacology of medications and contrast agents routinely administered as part of imaging procedures is discussed.

Credits: 3

Semester Offered: S

Prerequisites: BIO 112, RDT 231, RDT 240

RDT 260 - CT & Cross-Section Anatomy

This course expands students' knowledge on imaging principles and equipment relative to computed tomography (CT) and provides instruction on anatomy in cross-section format. Students continue to develop their understanding of cross-section anatomy, enhancing their ability to differentiate between the transverse, sagittal and coronal appearance of head, chest, abdomen and pelvis anatomy. The fundamentals of venipuncture technique and related patient care skills are reviewed and practiced.

Credits: 2

Semester Offered: S

Prerequisites: ARRT Certification in Radiography and current license by the State of Massachusetts Radiation Control Program, Department of Public Health; or BIO 112 and RDT 231 and RDT 240

RDT 290 - Computed Tomography Clinical

This course expands students' knowledge on imaging principles and equipment relative to computed tomography (CT) and provides practice on anatomy in cross-section format. Students learn to apply CT imaging principles, patient care, and Radiation Safety in the clinical setting, while completing competency in a variety of CT examinations, according to the requirements of the American Registry of Radiologic Technologists (ARRT). The fundamentals of venipuncture technique and related patient care skills are refined and practiced.

Credits: 3

Semester Offered: SU

Prerequisites: ARRT Certification in Radiography and current license by the State of Massachusetts Radiation Control Program, Department of Public Health and RDT 260; or RDT 232 and RDT 252 and RDT 254 and RDT 260

Respiratory Care

RCP 125 - Essentials for Respiratory Care I

This course provides students with an introduction to the respiratory care profession. The course will explore the historical perspectives of the profession; professional and regulatory agencies; legal matters; professionalism; credentialing and continuing education; research techniques; and evaluation of evidence-based care. Students will also learn about the physical principals associated with respiratory care and an introduction to pharmacology and patient disease states. A student-directed medical terminology course is also included.

Credits: 3

Semester Offered: F

Prerequisites: BIO 111, ENG 101

RCP 126 - Respiratory Care Modalities I

This course introduces theoretical concepts and implementation, monitoring, and evaluation strategies for select therapeutic modalities employed in Respiratory Care. Topics include patient evaluation and assessment; professional communication; infection control; medical record evaluation and documentation; non-invasive monitoring; medical gas regulation, delivery, and therapeutics; gas therapy and analysis; humidity and aerosol therapy; aerosolized medication therapy, pulmonary mechanics; and an introduction to lung expansion therapies. Emphasis is placed on the practical application of skills, problem-solving and critical thinking. The lab component provides application of relevant theory, assembling, disassembling, and troubleshooting equipment, and practicing client care skills in a clinical simulation environment to prepare the student for clinical rotations in the Medical/Surgical, Respiratory, General Floor, and ER.

Credits: 5

Semester Offered: F

Prerequisites: BIO 111, ENG 101

RCP 127 - Cardiopulmonary Physiology

Students will pursue an in-depth study of cardiac and pulmonary anatomy and physiology as well as diagnostic procedures commonly used in the hospital to evaluate these systems. Topics include function of the respiratory system, ventilatory mechanics, gas transport in the blood, natural and chemical regulation of breathing, circulation, blood flow and pressure, and cardiac output and acid bases disturbances. The heart-lung relationship and clinical applications of the phenomena in the pulmonary system will be emphasized.

Credits: 3

Semester Offered: F

Prerequisites: BIO 111, ENG 101

RCP 135 - Essentials for Respiratory Care II

This course provides students with the etiology, manifestations, and treatment of respiratory failure including principles, techniques and equipment associated with advanced cardiopulmonary monitoring. The study includes, but is not limited to, ventilatory mechanics, gas transport, natural and chemical regulation of breathing, circulation, blood flow and pressure, cardiac output and the monitoring of each of these topics.

Credits: 3

Semester Offered: S

Prerequisites: BIO 112, RCP 125, RCP 126, RCP 127

RCP 136 - Respiratory Care Modalities II

This course introduces theoretical concepts and implementation, monitoring, and evaluation strategies for select therapeutic modalities employed in Respiratory Care. Topics include blood gas sampling, analysis, and interpretation; bronchopulmonary hygiene techniques, including positioning and manual techniques, mobilization, and exercise; breathing, coughing, and suctioning techniques; positive pressure therapies; lung expansion therapies; and non-invasive ventilation. The concept of mechanical ventilation is introduced and explored. Emphasis is placed on the practical application of skills, problem solving and critical thinking. The lab component provides application of relevant theory, assembling, disassembling, and troubleshooting equipment, and practicing client care skills in a clinical simulation environment to prepare them for clinical supervised rotations in the Medical/Surgical, Respiratory, General floor, ER, Homecare, and ICU environments.

Credits: 7

Semester Offered: S

Prerequisites: BIO 112, RCP 125, RCP 126, RCP 127

RCP 137 - Pharmacology

This course introduces the physiologic and pharmacologic basis of pulmonary and cardiac medications. Students will learn the preparation as well as the calculation of dosages and mixtures. General principles of pharmacology for bronchoactive, mucus controlling drugs, surfactant and aerosolized anti-infective agents and the drugs related to the cardiopulmonary system such as neuromuscular blocking agents, central nervous system depressants, cardiovascular agents, diuretics and antimicrobial agents will be included.

Credits: 2

Semester Offered: S

Prerequisites: BIO 112, RCP 125, RCP 126, RCP 127

RCP 246 - Critical Care I

The course provides a laboratory/clinical environment in which students will learn the theoretical foundations and practical skills necessary to provide Respiratory Care to an adult client in a critical care setting. Topics to be covered include: the initiation, maintenance and discontinuation of mechanical ventilatory support; airway care; and monitoring. Additional topics may be added as time permits. Part of the course will involve clinical time in the Intensive Care Unit (ICU).

Credits: 2

Semester Offered: SU

Prerequisites: RCP 135, RCP 136, RCP 137

RCP 255 - Advanced Patient Assessment

This course is designed to familiarize students with the following areas of medical assessment: physical examination (both chest and general); laboratory (including arterial blood gases); electrolytes; chemistry; hematology; chest radiography; ultrasound, preoperative; neurological and cardiovascular assessment to help develop a respiratory care plan.

Credits: 3

Semester Offered: F

Prerequisites: BIO 232, ENG 102, RCP 246

RCP 256 - Critical Care II

This course builds on the structural framework of the material covered in RCP 246. It examines a variety of topics relevant to critical, adult Respiratory Care practice. Topics include a review of techniques/protocols used in the initiation, monitoring, titration, and liberation from conventional and high-frequency mechanical ventilation using physical and physiological clinical data. Calculations and formulas relevant to ventilator management and credentialing examinations will be introduced. The effects of positive pressure ventilation on cardiopulmonary and other organ systems will be covered. This course also emphasizes the correction of patient-ventilator asynchrony and the interpretation of ventilator waveforms. Additional topics include chest tubes and pleural drainage systems; and a variety of advanced and emerging oxygenation and ventilation strategies for the critical care patient. The American Heart Association Advanced Cardiac Life Support certification (ACLS) is attained. Clinical rotations will be an advanced, supervised clinical experience in intensive medical, surgical, pediatric, and neonatal intensive care units. Students develop practical skills in all aspects of ventilatory management, monitoring, arterial blood gases, and all other therapeutic modalities provided in intensive care. The lab component provides the application of relevant theory and practice of client care skills in a clinical simulation environment to prepare them for supervised clinical rotations in the intensive care clinical environments.

Credits: 8

Semester Offered: F

Prerequisites: BIO 232, ENG 102, RCP 246

RCP 257 - Cardiopulmonary Diagnostics

This course covers pulmonary function testing, invasive and non-invasive diagnostic procedures, and techniques utilized to assess patients with pulmonary or cardiovascular diseases and sleep disorders. Topics include: therapeutic and diagnostic bronchoscopy procedures; spirometry; bronchoprovocation testing; diffusion studies; lung volumes, airway resistance, and gas distribution studies; ventilation and ventilatory control tests; blood gases and related tests; cardiopulmonary exercise testing including metabolic assessments; and sleep-disordered breathing. Quality control will also be discussed. The lab component provides the application of relevant theory and practice of client care skills in a clinical simulation environment.

Credits: 3

Semester Offered: F

Prerequisites: BIO 232, ENG 102, RCP 246

RCP 265 - Pulmonary Diseases and Conditions

This course explores the etiology, clinical presentation, pathologic features, diagnostics, and treatment of diseases and conditions of the adult patient commonly encountered in Respiratory Care practice. The patient interview, physical examination, diagnostics and pathophysiologic basis for common clinical manifestations of respiratory-related diseases and conditions will be reviewed. A systematic approach to the evaluation and management of the diseases and conditions is presented in this course. Emphasis is placed on the development of evidence-based protocolized respiratory care and patient education.

Credits: 3

Semester Offered: S

Prerequisites: RCP 255, RCP 256, RCP 257

RCP 266 - Neonatal and Pediatric Respiratory Care

This course covers the normal and pathophysiological events that affect the cardiopulmonary status of the fetus, infant, and child. Students study fetal development, the nature and physiology of neonatal and pediatric pathology, and the application of this information in the clinical setting. Neonatal resuscitation and advanced pediatric life support certifications are attained. Clinical rotations will allow students to acquire practical skills in critical care, pulmonary rehabilitation, neonatal, pediatrics, and other specialty areas. Students correlate theoretical principles to practical applications.

Credits: 8

Semester Offered: S

Prerequisites: RCP 255, RCP 256, RCP 257

RCP 267 - Respiratory Care Seminar

This course is intended to strengthen student skills and knowledge in the processes of Respiratory Care and to build proficiency, professionalism and community spirit. It is specifically designed to prepare the Respiratory Care student to take the N.B.R.C. credentialing examinations. Preparation for the clinical simulation component of the registry examination is provided through academic software. Students will complete a Senior Project meant to encourage student involvement in the Respiratory Care profession while promoting the importance of community service.

Credits: 2

Semester Offered: S

Prerequisites: RCP 255, RCP 256, RCP 257

Robot Operating System

ROS 108 - Introduction to Robotics

This course is an introductory course designed to immerse students in the fundamentals of robotics technology and its practical applications. This course offers hands-on experience with robotic systems, focusing on essential programming structures like variables, conditional statements, loops, and functions, along with key data structures such as arrays, vectors, linked lists, and hash tables. Using C++ as the primary programming language, students will learn basic programming concepts, sensor integration, and mechanical design principles. The course aims to develop practical skills applicable across various industries and serves as a stepping stone for advanced studies in robotics or computer science. Taught in a supportive and inclusive environment, ROS 108 encourages collaborative learning and active engagement, preparing students for a future in the evolving field of robotics.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: CSC 101 or prior AP Computer Science A (CSA) Exam with a score of "3" or higher, Placement into college level English, MAT 100 or appropriate placement score

ROS 109 - Intermediate Robotics

This course builds on the principles established in ROS 108, focusing on a deeper investigation of robotics and object-oriented programming (OOP). Students will delve into intermediate robotics topics as well as the implementation of OOP principles such as abstraction, inheritance, and polymorphism in robotic software development in this course. The course addresses intricate aspects of sensor integration and mechanical design in the context of OOP through hands-on projects and practical exercises. ROS 109 is designed to enhance students' technical proficiency in robotics, fostering a comprehensive understanding of critical computer science concepts and preparing them for further advancement in the dynamic field of robotics and computer science.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: ROS 108 with a grade of "C" or higher

Science

SCI 103 - Earth Science

This course is an introduction to the science of Earth. Students apply fundamental physics and chemistry to the study of Earth's composition, origin and development. Topics include geology, oceanography, hydrology, earthquakes, volcanoes and other natural hazards.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures

SCI 104 - Climate and Weather: Causes and Effects

The focus of this course is the science related to weather and climate, how humans affect weather and climate, and weather and climate's effect on humans. Students use basic laws and theories of physics and chemistry to describe and explain the composition, structure, and energy distribution of Earth's atmosphere plus atmospheric phenomena, such as global warming/cooling, the greenhouse effect, ozone depletion, air pollution, severe storms, rainbows, auroras, weather, and climate. Students examine climate change and techniques to measure climate change and compare Earth's atmosphere to that of other planets.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures

SCI 105 - Integrated Science: Earth and Space

This course focuses on the basic concepts of astronomy and earth science. Students apply fundamental physics and chemistry to the study of the physical world they live in, and, through the laboratory component, gain an understanding of the methods and applications of science. The course is designed for but not limited to students in Elementary and Early Childhood Education programs.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures

SCI 106 - Integrated Science: The Living World

This course covers the basic concepts of life science and examines the interactions of living organisms with the physical world they inhabit. Students apply fundamental physics and chemistry to various topics in biology and environmental science, and, through the laboratory component, gain an understanding of the methods and applications of science. This course is

designed for but not limited to students in Elementary and Early Childhood Education programs.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures

SCI 109 - Environmental Science: Biological Topics

This course covers selected biological topics of environmental science. Students learn about the interactions between humans and the environment and gain the ability to connect the issues to a framework of ideas and values that allow them to become part of the solution to environmental problems. Topics include the themes of environmental science, the definition, functioning and changing of ecosystems, human population, wild species and biodiversity and pests and their control. Lab exercises are designed to reinforce and expand on topics covered in lecture. Students are required to participate in off-campus field work for some of the class/laboratory activities.

Credits: 4

Semester Offered: F/S

Prerequisites: Placement into college level English

SCI 110 - Sustaining Earth's Environment

This course focuses on the basic concepts of environmental science. Students apply fundamental physics and chemistry to the study of the physical world they live in, and, through the laboratory component, gain an understanding of the methods and applications of science. Topics include consumption and conservation of Earth's natural resources, the impact of the humans on the environment, waste management and renewable energy sources.

Credits: 4

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

SCI 120 - The Ecology of Food

This course examines the environmental dimensions of agriculture and its social and economic implications. Students will explore the ecology of food production and the inherent challenges of climate change, growing populations, and resource depletion. Topics include ecosystem structure, energetics, climate change, population growth, nutrition, health, genetics and genetic engineering, food insecurity, sustainability and resilience, and environmental justice.

Credits: 3

Semester Offered: S

Prerequisites: Placement into college level English

SCI 135 - Introduction to Astronomy

This course consists of a survey of historical knowledge about astronomy, as well as recent developments in the field. Topics include constellations, coordinates, light, Solar System planets, the sun, stars, galaxies, and conditions for life on other planets. Students perform out-of-class projects including observational aspects of astronomy, such as the night sky, moon phases, and the seasons.

Credits: 3

Semester Offered: F/S

Prerequisites: ENG 101

SCI 140 - Astronomy I: Close to Home

This course emphasizes the scientific basis of introductory astronomy concepts, using labs and algebra to demonstrate the processes. Students learn physics concepts essential to continued study of astronomy, including Newtonian gravity, planetary motion, the electromagnetic spectrum, optics, and theories of the solar System and its contents. Labs are a mixture of daytime astronomy and physics related topics, and required night-time on-campus observational astronomy sessions. Students are required to observe on campus at night a minimum of (1) time during the semester; a choice of dates will be provided.

Credits: 4

Semester Offered: F/S

Prerequisites: Placement into college level English, MAT 095 with a grade of "C" or higher or equivalent placement measures

Social Science

SOS 260 - Introduction to Trauma Informed Care in Community Settings

This course explores theories of multiple impacts of trauma on the developing individual along with ways to build resiliency. The role of the professional, within the context of the individual's larger circle of protective factors, is developed in terms of social emotional support, family support, community engagement and advocacy, setting up physical environments, and self-care. An evidence-based approach, through trauma-informed best practices, guides the learning, where students will practice and apply course concepts to various settings within their profession.

Credits: 3

Prerequisites: ENG 101, PSY 101

Sociology

SOC 101 - Introductory Sociology (Principles)

This course introduces basic theories and vocabulary of sociology including its historical origins and research process. It examines the major principles that govern the structure and function of society, its institutions, groups, and processes. Students learn how societies meet or do not meet the social, psychological, economic and everyday needs of their members. The course emphasizes making connections between students' personal lives and the social change occurring around them.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

SOC 111 - Social Problems & Social Change

This course examines how social change in the United States produces social problems such as prejudice and poverty, and how these problems affect families and the quality of life in a multicultural society. Students learn to recognize and understand the relationship between on-going social change and the problems that accompany change. Students examine major problems facing society today, separate myth from fact, and analyze these problems and their solutions objectively.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

SOC 201 - Global Society and Global Culture

This course introduces students to social-science approaches to globalization. Students examine the challenges and opportunities of global society and culture

from particular perspectives of the Global South (Latin America and the Caribbean, most of Asia, or Africa). General topics include social problems and social change, difference and inequality, continuity and conflict. Students explore how sociologists examine global society and global culture through analysis and research. Students evaluate and use resources to analyze social phenomena, using what they have learned to contribute to sociological conversations. Students also explore what it means to be a global citizen with respect to various social institutions such as family, education, and work.

Credits: 3

Semester Offered: F

Prerequisites: ENG 101

SOC 211 - The Dynamics of Racial & Ethnic Relations

This course considers racial and ethnic relations and the major sociological theories used to analyze them, and provides an overview of assimilation and integration. Students explore how sociologists examine race and ethnicity through analysis and research. Students evaluate and use resources to analyze social phenomena, using what they have learned to contribute to sociological conversations. The course emphasizes multiculturalism and focuses on sociological explanations of dominant group/minority group encounters within the contexts of power, poverty, and segregation. Students study contemporary and historical examples of institutional discrimination, and discuss policies and issues related to improving race relations in the United States.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101

SOC 212 - Juvenile Delinquency & the Juvenile Justice System

This course explores the underlying causes of youth crime as they relate to contemporary methods of social control of delinquency. Students examine biological, psychological, and sociological factors affecting deviant behavior as a broad framework for understanding the response of the juvenile justice system to that behavior. Students learn how sociologists study juvenile delinquency and the juvenile justice system through analysis and research. Students evaluate and use resources to analyze social phenomena, using what they have learned to contribute to sociological conversations.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: ENG 101

SOC 215 - Gender and Sexuality

This course explores people's gender experiences from a sociological perspective. Students discover how gendered experiences are constructed within social institutions and, therefore, can be transformed through institutional change. Students explore how sociologists examine how gender and sexuality intersect with other dimensions of social stratification through analysis and research. Students evaluate and use resources to analyze social phenomena, using what they have learned to contribute to sociological conversations.

Credits: 3

Semester Offered: F/SU

Corequisites: ENG 101

SOC 221 - The Family

This course examines ideas about the nature and structure of the family and how they have changed over time. Students explore how economic and social forces affect families; and examine personal and social values about dating, mating, and family life. Students learn how sociologists study families through analysis and research. Students evaluate and use resources to analyze social phenomena, using what they have learned to contribute to sociological conversations.

Credits: 3

Semester Offered: S

Prerequisites: ENG 101

Spanish

SPN 111 - Beginning Spanish I

This course introduces the fundamentals of the Spanish language. Students examine brief readings on the everyday aspects of the contemporary Spanish-speaking world. Students use common conversation, tell time, make comparisons, discuss the weather, and recognize and use basic tenses for common verbs. Previous knowledge of Spanish is not necessary.

Credits: 3

Semester Offered: F/S

SPN 112 - Beginning Spanish II

This course is a continuation of SPN 111. Students continue to progress in the fundamentals of understanding, speaking, reading, and writing the Spanish language. The course emphasizes the development of reading skills through the study of enjoyable, short, and timely articles on contemporary life and culture in the Spanish-speaking world. The course covers more complex verb and pronoun forms.

Credits: 3

Semester Offered: F/S

Prerequisites: SPN 111

SPN 113 - Spanish for Health Professionals

In this course, students examine basic vocabulary and grammar needed to communicate with Spanish speakers in health professions, patients, and family members. Students learn to apply topics covered in each chapter to real-world conversations and situations related to the health field. Previous background or knowledge of the Spanish language is not required for the course.

Credits: 3

Semester Offered: F

Speech

SPH 101 - Speech Communication Skills

This course covers organization and delivery skills, and the development of confidence necessary for effective oral communication. Students organize speeches for both specific and general audiences; and prepare and present extemporaneous and impromptu speeches on a variety on contemporary issues. Students implement principles and practices of public communication through evaluated classroom activities including the use of PowerPoint® presentations.

Credits: 3

Semester Offered: F/S/SU

Prerequisites: Placement into college level English

Surgical Technology

SUR 131 - Surgical Procedures I

This course introduces a comprehensive overview of surgical technology, covering the history and evolution of surgery, the roles and responsibilities of surgical technologists, and the structure of healthcare facilities. Students learn about professional organizations, education and certification, legal and ethical issues, and patient care, including cultural and religious considerations. The curriculum also addresses emergency situations, disaster management, and the maintenance and quality control of surgical instruments. Students develop essential skills for effective teamwork, communication, and conflict resolution in surgical settings.

Credits: 3

Semester Offered: F

Prerequisites: BIO 101 or High School Advanced Placement Biology, Placement into college level English

SUR 132 - Surgical Procedures II

This course focuses on the critical principles of microbiology, asepsis, and infection control in the surgical environment. Students examine microbiology's impact on sterile technique and analyze immune responses while understanding the infectious process. The course also emphasizes the importance of asepsis and surgical conscience in patient care. Key topics include the roles of the surgical team, principles of safety, and medical terminology. Students develop practical skills in maintaining sterile fields, preparing instruments, and managing surgical supplies. The laboratory component allows students to observe and demonstrate principles and procedures, reinforcing their competencies in surgical techniques, patient positioning, and preoperative, intraoperative, and postoperative routines.

Credits: 8

Semester Offered: S

Prerequisites: BIO 111 with a grade of "C" or higher, SUR 131 with a grade of "C" or higher

SUR 231 - Surgical Procedures III

This course explores the diagnostic and surgical strategies of specialized surgeries, including General, OB/GYN, Ophthalmology, ENT, Plastic/Reconstructive, and GU procedures. This course also includes laparoscopic (MIS) and robotics for specific specialty procedures. The lab portion continues demonstrating the principles and procedures taught in a non-patient contact environment.

Credits: 12

Semester Offered: F

Prerequisites: BIO 112 with a grade of "C" or higher, SUR 132 with a grade of "C" or higher

SUR 232 - Clinical

This course involves the practical application of the skills, knowledge, and abilities developed in these courses. The clinical experience provides students with supervised applications of the theory, principles, and procedures taught in the class and lab room. Students experience patient contact as a member of the operating room team. This experience takes place in hospitals and surgical clinics and focuses on minimally complex to complex surgical cases. This clinical experience requires appropriate case scheduling. The clinical runs the first 10 weeks: Tuesday - Friday, 6:45 - 15:15; and then for the remaining five (5) weeks: Monday - Friday, 6:45 - 15:15.

Credits: 8

Semester Offered: S

Prerequisites: SUR 231 with a grade of "C" or higher

SUR 233 - Surgical Procedures IV

This course explores the diagnostic and surgical interventions of specialized surgeries, including Oral and Maxillofacial, Orthopedic, Cardiothoracic, Peripheral Vascular, and Neurosurgical procedures.

Credits: 3

Semester Offered: S

Prerequisites: SUR 231 with a grade of "C" or higher

Theater

THA 101 - Theater Production

This course covers the basic level of technical experience in various aspects of production design and emphasizes a working knowledge of the hands-on participation skills needed to mount and run theatrical productions. Students focus on crafting an industry-standard production book and work on that semester's theater productions in assigned areas.

Credits: 3

Semester Offered: F/S

Prerequisites: Placement into college level English

THA 102 - Stage Movement

This course examines the basic techniques of movement with emphasis on developing each student's potential for effective physicalization of character. This course focuses on tempo, rhythm, period movement, mask, Mythic Gesture; personal mannerisms and their essence are defined and explored.

Credits: 3

Semester Offered: F/S

THA 103 - Stage Voice

This course focuses on developing experience in various aspects of vocal performance techniques that include but are not limited to: International Phonetic Alphabet (IPA), diction, breathing, nerves, vocal constructs, personal atmosphere and isms. Students examine characteristics of vocal techniques that include: foundation, structure, emotion, vocal gesture, physical expression, delivery, eye-contact, continuity, and composition. Students study techniques used in public/professional presentation and/or performance.

Credits: 3

Semester Offered: F/S

THA 201 - Acting

This course covers the art and craft of acting, both as a participant and an observer. Students are introduced to the language, terms, and concepts of theater, as well as the process and techniques by which actors work. Students demonstrate their ability to use their "self" in an authentic way, as well as his/her willingness and resilience to transform that "self" beyond its pre-established boundaries.

Credits: 3

Semester Offered: F/S

THA 202 - Stage Management

This course focuses on principles, practices, industry vocabulary and standards of theatrical stage management. Students study the duties, responsibilities, procedures and

theater etiquette from pre-production to post-production that comprise stage management.

Credits: 3

Semester Offered: F/S

THA 203 - Playwriting

This course focuses on instructing students in the method of crafting plays for production. Students examine processes that include, but are not limited to: conceptualization, dramatic form and structure, and character development. Students study the method for creating a first through final draft process, casting, and staged-readings leading to formal play production.

Credits: 3

Semester Offered: F/S

Prerequisites: ENG 101

Utility Technology

UTT 101 - Introduction to Utilities: Electric, Gas, Communications

This course will provide students with an overview of the utilities industry. Students will be introduced to employment and career opportunities. Requirements for employment, including CDL driver information, and hoisting and rigging certification requirements, will also be discussed.

Credits: 3

Semester Offered: F

UTT 110 - Utility Installations/Principles I

This course will give students the basic understanding of electric circuits. Topics will include voltage, current, resistance, capacitance, and induction. Gas topics will include work methods and gas pipe installations. Communication topics will include fiber and cable installations.

Credits: 3

Semester Offered: F

Corequisites: UTT 101

UTT 111 - Utility Installations/Principles II

This course will give students a further introduction into utility work methods. Transmission and distribution topics will include transformers, substations, primary and secondary voltages, along with electric utility regulations and designs. Gas topics will include regulations and facility construction and standards. Communication topics will include regulations and facility installations.

Credits: 3

Semester Offered: S

Prerequisites: UTT 110

UTT 115 - OSHA 30/Safety/CPR/First Aid

This course provides an introduction into the principles of safety, guidelines for the design of equipment, and explanations of why certain practices should or should not be followed. Students evaluate human reactions in normal and abnormal conditions, and compare features required for safe working conditions to industry standards. Students will also receive an OSHA 30 General Industry Card if all course requirements are met. CPR/First Aid certification will also be required for course completion.

Credits: 3

Semester Offered: F

UTT 299 - Cooperative Work Experience

This course provides students with a structured learning experience while applying classroom theory to a practical work experience. Students develop a learning agreement that lists the objectives they will accomplish through their work experience. Evaluation is based on satisfactory completion of the learning agreement objectives and the demonstration of soft skills such as punctuality and attitude.

Credits: 3

Semester Offered: S

Corequisites: UTT 111, UTT 115

Faculty and Staff

TETTEH ABBEYQUAYE, Professor of Chemistry

B.S., The University of Birmingham, UK; Ph.D., Clark University

BENEDICTA ABOAGYE, Financial Aid Counselor

A.A., Quinsigamond Community College

JESSICA AHRENS, Special Assistant to the President for College Engagement and Initiatives

A.A., Florida SouthWestern State College; B.A., Thomas Edison State University; M.A., SIT Graduate Institute

FATIN ALKHALEDI, Assistant Professor of Engineering Technology

A.A., Quinsigamond Community College; B.A., Worcester Polytechnic Institute; M.S., Northcentral University

MICHAELA ALMEIDA, Associate Professor of Elementary Education Transfer Option/ Coordinator of the General Studies - Elementary Education Transfer Option

M.Ed., Worcester State University

SUSAN AMOS, Instructor, Instructional Designer, & Curriculum Specialist

B.A., Indiana University; M.F.A., Rutgers University

THOMAS ANDERSON, Painter II/Facilities

KARL ANDERSON, Professor of English

B.A., University Massachusetts-Lowell; M.A., Northeastern University

CLOVIS ANDREU, Systems Analyst/ Programmer

B.S., B.S., Fitchburg State University

LISA ANTONELLI, Professor of Biology/ Coordinator of the Healthcare Biology Program

A.B., Smith College; D.M.D., University of Pennsylvania

JEN ARNER WELSH, Professor of Psychology

B.A., Earlham College; M.A., Clark University; Ph.D., Clark University

JILL ARRELL, Lead Teacher/Early Childhood Education Lab School

A.S., Quinsigamond Community College; B.S., Worcester State University; M.Ed., American International College

BENJAMIN ASHU, Research Analyst

M.A., Southern University at New Orleans

BETH AUGER, Senior Director of Students Accounts & Grants

B.S., Worcester State University

JOSEPH BABU, Professor of Mathematics

B.Ed., Kenyatta University; B.S., Coppin State College; M.S., University of Massachusetts-Lowell

EMILY BACH, Career & Transfer Services Counselor (Academic Counselor)

B.A., Fitchburg State University; M.A., Metropolitan State University of Denver

KRISTIN BALUTIS, Academic Advisor

B.A., Emmanuel College M.Ed., Suffolk University;

BRIAN BANDALEWICZ, Microsoft Systems Administrator

A.S., Quinsigamond Community College

RICHARD BANKS, Clerk IV/ School of Healthcare

MENDRICK BANZUELA, Program Administrator/Office of Diversity, Equity, and Inclusion

B.S., Worcester State University

JAMES BARHAM, Assistant Professor of Nurse Education

M.S.N.Ed., Western Governors University

CONNOR BARKSI, Enrollment Counselor

B.S., University of San Francisco

SAMANTHA BASLER, Assistant Comptroller

B.S., Mount Ida College

MICHELLE BATES, Accounting Operations Manager/Business Office

B.S., Nichols College

MARK BATES, Professor of English

B.A., University of Leeds; M.F.A., Emerson College; Ph.D., Northeastern University

CHRISTINE BATTLE-OTFINOSKI, Professor of Biology

B.S., University of New Haven; M.S., University of Massachusetts-Amherst; Ph.D., University of Massachusetts-Amherst

AMY BEAUDRY, Professor of English

B.F.A., Emerson College; M.F.A., Sarah Lawrence College

ZACHARY BEHRMANN, Junior System Administrator

LAURIE BEHRMANN, Clerk V/Admissions

A.S., Quinsigamond Community College

ASHLEY BENNETT, Assistant Professor of Dental Hygiene

B.S., West Virginia University

BENJAMIN BENTON, Dean of the School of Math, Science, and Engineering

B.S., Michigan State University; Ph.D., Northwestern University

GAELAN BENWAY, Professor of Sociology

B.A., Middlebury College; M.A., Brown University; Ph.D., Brown University

ANTHONY BERNARDI, Maintainer I/ Facilities

KERRY BERRY, Early College Pathways Operations and Access Manager

B.A., University of Massachusetts-Amherst

DADBEH BIGONAHY, Professor of Engineering and Sciences/Coordinator of the Engineering and Biomedical Engineering Programs

B.S., Tehran Polytech University; M.S., Worcester Polytechnic Institute

MICHELLE BLAKENEY-COUTURE, Accountant II/Workforce Development and Grants

A.S., Quinsigamond Community College
B.A., Becker College

ELIZABETH BLAUE, Systems Analyst/ Programmer

A.S., Quinsigamond Community College; B.S., Worcester State University

VICTOR BOADU, Assistant Professor of Nurse Education

M.S., University of Massachusetts-Amherst; D.N.P., University of Massachusetts-Amherst

EDWARD BOATENG, Desktop Support Technician

A.S., Quinsigamond Community College

CAITLIN BOGUE, Enrollment Counselor

B.F.A., The Art Institute of Boston at Lesley College; M.B.A., Fitchburg State University

SHERI BOISSEAU, Professor of Nurse Education/Coordinator of Nurse Education Program

B.S., Rhode Island College; M.S., University of Phoenix; D.N.P., Regis College

SUSAN BOLAND SHEPHERD, Professor of Nurse Education

B.S., Western Connecticut State University; M.S., University of Massachusetts-Amherst; Ph.D., University of Massachusetts-Worcester

JAVAD BONYANI, Desktop Support Technician

DANA BOOKER, SUCCESS Scholars Coordinator

B.A., University of Connecticut; M.S., University of Rhode Island

AMY BOOTH, Professor of Healthcare/ Coordinator of Healthcare Program

C.D.A, R.D.H, A.S., University of Rhode Island; B.S., University of Rhode Island; M.Ed., Worcester State University

GEORGINA BORTE, Clerk IV/School of Healthcare

A.A., Peninsula College; B.A., University of Washington

JESSE BOTTCHER, Director of Network Infrastructure

A.S., Quinsigamond Community College

MICHAEL BOWMAN, Maintainer I/Facilities

JANINE BRADLEY, Associate Director of Advising

B.A., University of Massachusetts-Boston; M.Ed., Bridgewater State University

JILLIAN BRADY, Clerk IV/Program Assistant/Adult Community Learning Center

B.A., Worcester State University

JOYCE BRAZEE, Professor of Nurse Education

B.S., Framingham State University; M.S., Regis College; D.N.P., Regis College

MICHELLE BRENNAN, Parenting Student Navigator

B.A., Assumption University

JAMES BRENNAN, Professor of English

B.S., University of Massachusetts; M.S., Rivier College; M.A., Harvard University; M.F.A., Bennington College

MONIQUE BROOKS, Assistant Professor of Dental Hygiene

A.S., Quinsigamond Community College; B.S., Mount Ida College

KRISTINE BROWN, Clerk IV/Student Accessibility Services

MARY BRUNI, Professor of Nurse Education

B.S., University of Massachusetts-Boston; M.Ed., Fitchburg State University; M.S.N., Framingham State University

KRISTA BUNNELL, Administrative Assistant I/Health Care

B.S., Fitchburg State University

LEO BURGESS, Director of IT Services

A.A., Quinsigamond Community College; B.S., Clark University

DELLA BURKE, Academic Advisor/ SUCCESS Program

B.A., University of New Hampshire; M.A., University of New Hampshire;

Ph.D., University of New Hampshire

DANIEL CAHILL, Desktop Support Technician

A.S., Quinsigamond Community College

KARYSSA CALLAHAN, Human Resources Generalist

B.S., Johnson & Wales University; M.B.A., Johnson & Wales University

KRISTINE CAMPBELL, Coordinator of Records and Registration

B.A., University of Massachusetts-Amherst; M.A., Assumption College

AMY CARMACK, Executive Director of Advising, Testing, Career and Transfer Services

B.A., Truman State University; Ed.D., University of Southern California

MATTHEW CASAUBON, Director of Veteran Affairs

B.S., Fitchburg State University; M.B.A., Fitchburg State University

JOSE CASTILLO, Professor of Music

B. A., Berklee College of Music; M.B.A., University of Phoenix

SHANNA CAWLEY, Associate Professor of Biology

B.S., Springfield College; M.S., Boston University

DANIEL CECCHI, Audiovisual Equipment Technician II

FATOS CENOLLI, Institutional Security Officer II/Campus Police Department

JANINE CHALUPKA, Professor of Nurse Education

B.S., Worcester State College; B.S., Regents College; M.S., University of Massachusetts-Worcester

OSCAR CHAVEZ, Career & Transfer Services Counselor

B.S., Nichols College; M.A., Nichols College

KAZIMIERZ CHOJNOWSKI, Maintainer I/ Facilities

NANCY CHOSTA, Clerk V/Facilities

GARGI CHUG, Associate Professor of Computer Information System

B.S., Saurashtra University; M.S., Saurashtra University

YOUNG MI CHUN, Associate Director of Enrollment Processing

B.A., University of Ulsan, Korea; B.S., Arizona State University

YESENIA CIRILO, Clerk IV/Financial Aid Office

RACHEL CLARKE, Clerk V/Enrollment

VALARIE CLEMENTE-CRAIN, Professor of Psychology

B.A., University of Massachusetts-Amherst; M.Ed., Boston University; Ed.D., Boston University

JOSHUA COLE, Assistant Director of Athletics & Fitness Center

B.A., Assumption College; M.A., Endicott College

JUDY COLSON, Professor of Psychology

B.S., University of Massachusetts; M.Ed., University of South Carolina

GINA CONE, Marketing Manager

B.F.A., University of Massachusetts-Dartmouth

LISA CONNELLY COOK, Professor of History/Political Science

B.A., Clark University; M.A., Clark University; Ph.D., Clark University

ERIN CONNOR, Professor of Occupational Therapy Assistant Program

B.A., B.S., Worcester State University; M.A., Lesley University

MARI COONEY, Director of Apprenticeships and Corporate Training Initiatives

B.A., Worcester State University

KYLE CORDARO. Institutional Security Officer II

B.S., Mount Ida College

LIZETTE CORDEIRO, Professor of Psychology/Freshman Experience/ Coordinator of the First Year Experience Program

B.A., Wheelock College; M.A., New York University

LUCINDA COSTA, Executive Assistant to the President

A.A., Quinsigamond Community College

PATRICIA CREELMAN, Professor of Nurse Education/Clinical Coordinator/Coordinator of Health Certificates

B.S.N., University of Massachusetts; M.S.N., Anna Maria College

MICHAEL CRENSHAW, Maintenance Working Foreman/Facilities

DENISE CROSS, Coordinator of Library Technical Services and Systems

B.A., Connecticut College; M.S., Simmons College, GSLIS

EDWARD CROTTY, Custodial Area Supervisor/Facilities

JESSICA CROWLEY, Professor of Biology/ Coordinator of the Liberal Arts Biology Option

B.S., University of New Hampshire; Ph.D., University of Massachusetts Graduate School of Biomedical Sciences

GEOVANNI CRUZ, Enrollment Counselor

A.S., Quinsigamond Community College; B.S., Worcester State University

JOSE CURET, Campus Police Officer I

A.S., Quinsigamond Community College

GRACIE CURTIS, Communications Dispatcher I

A.S., Quinsigamond Community College

REBECCAH CYR, Student Accounts Manager

B.A., North Adams State College; M.S., Clark University

KEVIN DACRI, Desktop Support Technician

A.S., Quinsigamond Community College

KIRSTEN DAIGNEAULT, Professor of English

A.A., Quinsigamond Community College; B.A., Worcester State University; M.Ed., Worcester State University

PHILOMENA D'ALESSANDRO, Professor of Mathematics

B.S., Siena College; M.A., University at Albany, State University of New York

JUDITH D'ANGELO, Senior Admissions Counselor

B.A., Assumption College; M.A., Assumption College

CODY DAVENPORT, Skilled Laborer/ Facilities

DAWN DAVIS, Administrative Assistant I/ Office of Institutional Communications

SUELLEN DEAN, Senior Financial Aid Counselor (Senior Financial Aid Counselor Grade 4)

B.A., Assumption University; M.A., Boston College;

GUILHERME DE JESUS, Accountant I/Student Accounts

A.A., Quinsigamond Community College

IBAR DE LA CRUZ, Professor of Mathematics

B.S., National University of Engineering (PERU); M.S., Worcester Polytechnic Institute

DAMINDI DE SILVA, Assistant Professor of Accounting

B.A., University of Colombo; M.E. University of Colombo

DANIELE DEADDER, Lead Teacher/Early Childhood Education Lab School

A.A., Quinsigamond Community College; B.S., University of Massachusetts-Dartmouth; M.Ed., American International College

GINA DECAROLIS, Senior Research Analyst

B.A., Saint Anselm College; M.A., University of Massachusetts-Boston

CHERYL DECOFF, Associate Professor of Medical Assisting/Coordinator of the Medical Support Specialist Program

B.S., Worcester State University

CORINNE DELANEY, QCC at Southbridge Coordinator of Learning Resources

A.S., Springfield Technical Community College; B.A., Becker College; B.S., Becker College; M.S., Springfield College

NICOLE DELLASANTA, Learning Manager/ General Academic Areas

B.A., Assumption College; M.A. Clark University

CAMERON DELORME, Accountant II/ Business Office

SHIRLEY DEMPSEY, Assistant Director of Operations/External Affairs

A.S., Quinsigamond Community College; B.S., Southern New Hampshire University

PAMELA DEMPSEY-O'CONNELL, Coordinator of Instructional Technology & Assessment

A.S., University of New Hampshire; B.S., Plymouth State University; M.Ed., University of Massachusetts - Boston

ROSE D'ERRICO, Publications, Press, and Events Manager

B.A., New Mexico State University

LYNDA DESCHENES, Clerk IV/Enrollment

A.S., Quinsigamond Community College

ROBERT DESILETS, Professor of Computer Information Systems/Database Specialist

B.S., University of Massachusetts-Amherst; M.Ed., University of Massachusetts-Boston

VERONICA DEWOLFE, Administrative Assistant I/Office of Institutional Research & Planning

B.A., Flagler College

ANA DEXTER, Professor of Nurse Education

B.S., Worcester State University; M.S., Worcester State University

NEHA DHAWAN, Professor of Psychology

B.S., McMaster University; M.A., Harvard University;

JOHN DIETHELM, Assistant Professor of Automotive Technology/Coordinator of the Automotive Technology Program

A.S., Sterling College

STEPHEN DIGIOVANNI, Chief of Police/ Campus Police Department

B.S., Anna Maria College; M.S., Anna Maria College

ASHLEY DONNELLY, Hospitality & Recreation Management Program Food Service Lab Site Supervisor

A.S., Quinsigamond Community College

NANCY DONOHUE-BERTHIAUME, Professor of Psychology/Coordinator of Professional Development

B.A., Anna Maria College; M.A., Anna Maria College

LEE DUERDEN, Professor of Manufacturing Technology/Coordinator of the Manufacturing Technology Program

B.E., University of Manchester, UK; M.S., Worcester Polytechnic Institute

MICHELLE DUGAN, Teacher/Early Childhood Education Lab School

A.A., Quinsigamond Community College; B.A., Becker College

BEAU DUSTY, Skilled Laborer Trades/ Facilities

MALLORY DUTTON, Academic Counselor

B.A., Elon University; M.S., Southern Connecticut State University

MARK DUVALL, Professor of Environmental/ Physical Science

B.S., University of Massachusetts-Amherst; M.Ed., University of Massachusetts-Amherst

RICHARD ELLBEG, Associate Professor of Nurse Education

A.A., Worcester Junior College; B.S., Worcester State University; M.S., Norwich University

CASSANDRA ESTEY, Student Accessibility Services- MAICEI

B.S., University at Albany, SUNY; M.S., University at Albany, SUNY; M.S., Capella University

PATRICK FAMA, Academic Advising Coordinator/Health Programs

A.A., Nassau County Community College; B.A., Stony Brook University; M.S., Hofstra University

MELISSA FAMA, Dean of the School of Public Services, Education, & Social Sciences/Coordinator of General Studies Program

B.A., University of Massachusetts-Amherst; M.A., University of Connecticut; Ph.D., University of Connecticut

ROBERT FANNING, Audiovisual Equipment Technician I

B.S., Curry College;

TRISHA FAUBERT, Clerk IV/IT Services Desk Attendant

AMELIA FAZACKERLEY, Social Worker/ Mental Health Counselor

B.A., Anna Maria College; M.A., Westfield State University

ELENA FENICI, Professor of Mathematics

B.S., University of Petrosani; M.S., College of Charleston

SHERYL FICORILLI, Dental Clinic Operations and Facilities Manager

A.S., Tunxis Community College; B.S., Eastern Connecticut State University; M.B.A., Fitchburg State University

THERESA FINN, Maintainer I/Facilities

LARRY FLOWERS, Campus Police Officer II/Detective/Campus Police Department

B.A., University of Hawaii at Hilo; M.S., Anna Maria College

KATHLEEN FOLEY, Administrative Assistant I/Downtown

B.S., University of Massachusetts-Amherst

JACOB FONTANEZ, Storekeeper II/Central Receiving

A.S., Quinsigamond Community College

LUIS FONTANEZ, JR., Reproduction Services Supervisor/Print Shop

KWESI FOSTER, Grants Administrator

B.S. Springfield College

DEBORAH FRANCIS, Library Assistant III

A.S., Quinsigamond Community College

REBECCA FRANCOUER, Teacher/Early Childhood Education Lab School

B.A., Worcester State University;

DEBORAH FRATTURELLI, Administrative Assistant I/College & Career Pathways

A.A., Mount Wachusett Community College; B.A., Mount Holyoke College; M.B. A., Fitchburg State University

AMANDA FREGEAU, SUCCESS Scholars Academic Coordinator

B.A., Westfield State University; M.S., Fitchburg State University;

M. BETH FULLERTON, Coordinator of Transfer/Articulation

B.S., Central Missouri State University; M.A., Pittsburg State University

ELAINE GALVIN, Clerk IV/Financial Aid

A.S., Quinsigamond Community College; B.A., Clark University; M.A., Anna Maria College

STEVEN GAMBINO, Associate Professor of Mathematics

B.S., University of Hartford; M.S., University of Rhode Island

BRYAN GASKINS, Clerk IV/Auxiliary Services Department

B.A., University of Vermont

JANE GAUTHIER, Professor of Dental Hygiene/Coordinator of the Dental Hygiene Program

A.S., Quinsigamond Community College; B.A., University of Connecticut; M.Ed., Worcester State University

ANNA GAWEDZKI, Maintainer I/Facilities

IRENEUSZ GAWEDZKI, Maintainer I/Facilities

KRYSTYNA GAWRYCH, Maintainer I/Facilities

MATTHEW GELINAS, Head of Building Maintenance Section/Facilities

Certificate, Green School-UMASS Extension Program

JUDITH GIACOPPE, Professor of Nurse Education

B.S., St. Anselm College; M.S., Anna Maria College

ELAINE GILGIS, Library Assistant II

B.A., Northeastern University

JESSICA GIUMENTARO, Lead Teacher/Early Childhood Education Lab School

A.S., Quinsigamond Community College

ASHLEE GIVINS, Director of Student Life and Leadership

B.A., Nichols College; M.Ed., Suffolk University

KRISTY GLOVER, Professor of Criminal Justice

A.S., Atlanta Metropolitan College; B.S., Savannah State University; M.A., Argosy University Atlanta

ERIK GOLDEN, Carpenter II/Facilities

SYDNEY GOLDMAN, Academic Counselor

B.A., Mount Holyoke College M. Ed., Lesley University

DOMINIC GOMEZ, Institutional Security Officer II

A.S., Quinsigamond Community College

GEMMA GORANSON, Enrollment Counselor

B.S., Worcester State University M.Ed., Worcester State University

DIANA GORDON, Assistant Professor of Surgical Technology/Program Coordinator

B.S., Worcester State University

MICHAEL GORMLEY, Professor of English

B.S., University of Massachusetts; B.A., University of Massachusetts; M.A., University of Massachusetts

LAURA GOYETTE, Recruitment Counselor

B.S., Assumption University

LEON GRANADOS, Multimedia Producer/Photographer

B.S., The New England Institute of Art

KAREN GRANT, Director of Financial Aid

B.S., Eastern Connecticut State University; M.A., Framingham State University

JASON GRAVES, Network Administrator

A.S., Quinsigamond Community College; B.S., University of Massachusetts-Lowell

SUSAN GRAVES, Professor of Dental Hygiene & Dental Assisting

B.A., Tufts University; M.S., Simmons College; A.S., Middlesex Community College

ROGER GROVER, Desktop Support Technician

A.S., Quinsigamond Community College

BETSY GROVES, Associate Director of Financial Aid Technology and Operations

B.S., University of Massachusetts-Dartmouth

VERONICA GUAY, Executive Director, High School Dual Enrollment Programs and Partnerships

B.A., University of Vermont; M.B.A., Fitchburg State University

JACQUELINE GUITTAR, Director of Records and Registration

B.S., Worcester State University; M.B.A., Fitchburg State University

LISA GURNICK, Athletic Center Manager/Director of Athletics

A.A., Quinsigamond Community College; B.S., Worcester State University; M.P.H., University of Massachusetts-Amherst

JENNIFER GUZMAN-GAYFLOR, Advising Coordinator

B.S., B.A., Worcester State University; M.S., Fitchburg State University

RICCI HALL, Associate Professor of Emergency Medical Services/Coordinator of Emergency Medical Services Program

A.S., Mount Wachusett Community College; B.A., Clark University; M.A., Clark University; M.Ed., Worcester State University

DONNA HALL, Clerk IV - Welcome Center

BRADY HAMMOND, Dean of the School of English and Humanities/Coordinator of Media Communications Program

B.S., Drexel University; M.A., York University; M.Ed., Boston University; Ph.D., Victoria University of Wellington

JOANNE HARRINGTON, Clerk IV/Center for Workforce Development & Continuing Education

SEAN HARRIS, Director of Community Engagement

A.A., Quinsigamond Community College; B.S., Becker College; M.S., Mt. Ida College

JAMES HEFFERNAN, Professor of Electronics Engineering Technology/Coordinator of the Electronics Engineering Technology Programs

B.S.M., Assumption College; B.S.E.E., Worcester Polytechnic Institute; M.S., Fitchburg State University

NICOLE HELDENBERGH, Director of Grants Development

B.S., Northeastern University

SHIROMA HERATH, Junior System Analyst/Programmer

B.S., Sri Lanka Institute of Information Technology; A.S., Quinsigamond Community College

THOMAS HERBERT, Database Administrator

B.A., Berklee College of Music; M.S.I.T., Clark University

AMY HOGAN, Associate Professor of Respiratory Care

A.S., Quinsigamond Community College; B.S., Boise State University; M.S., Boise State University

JOHN HOLLOWAY, Executive Director of Access and Opportunity

B.A., SUNY College Old Westbury; M.A., Montclair State University;

KEARA HOLMES, Nurse Education Laboratory Coordinator

B.S., Worcester State University; M.S., Western Governors University

PATRICIA HUTCHINSON, Professor of Hospitality & Recreation Management/ Coordinator of the Hospitality & Recreation Management Program

B.A., University of Northern Colorado; M.S., Lesley College

KAREN HUTNER, Director of Strategic Communications & Public Relations

A.A., Quinsigamond Community College; B.A., Worcester State University

CHRISTIAN ILUSTRE, Professor of Nurse Education

B.S., University of Iloilo-Philippines; M.S., Walden University

ANTOINETTE INCORVAIA-MATISOO, Buyer II-Purchasing

B.S., Emanuel College

ANN MARIE INCUTTO, Clerk IV - Enrollment

A.S., Quinsigamond Community College

DAVID IRWIN, System Architect

B.S., Fitchburg State University

NT IZUCHI, Professor of Computer Systems/Engineering Technology/ Coordinator of the Computer Systems Engineering Technology Program

B.A., University of Massachusetts-Boston; M.B.A., Bryant College; M.S., Northeastern University

ANGEL JACKSON, IT Project Manager

B.S., University of Potomac; M.B.A., University of Maryland

JACQUELINE KACZOWKA, Program Manager/Center for Workforce Development and Continuing Education

B.S., Westfield State University

STACEY KADISH, Director/Institutional Research

B.S., University of Florida; M.Ed., Boston College; C.A.E.S, Boston College

DYMPNA KANE, Director of Project Finance and Account Payable

A.S., New England College of Business and Finance; B.S., Bentley University; M.B.A., Framingham State University

MARYANN KANIA, Professor of Business Administration, Business Support Specialist Programs/Coordinator of Business Administration Related Programs

B.S., Nichols College; M.B.A., Nichols College

PATRICIA KEHOE, Senior Systems Analyst

A.S., North Shore Community College; B.S., Anna Maria College; M.B.A., Anna Maria College

JEAN KENNEDY, Professor of Human Services/Coordinator of Honors Program

B.M., Anna Maria College; M.A., Anna Maria College

RITA KENNEDY, Buyer IV/Business Office

KERI KIEFER, Healthcare Educator and Program Manager

A.S., McIntosh College; B.S., Mercer University; M.S., Mercer University

CAROL KING, Dean of College and Career Pathways

B.A., Knox College; M.A., The Graduate Institute

NATHAN KOZACH, Academic Coach

B.A., Westfield State University;

BRENDA KUCHNICKI, Clerk IV/Career Services & Credit for Prior Learning

ANDREW KUPEC, High School to College Linkages Specialist

B.S., Bentley University M.S., C.W. Post College

JASON KURLAND, Assistant Dean of Students

B.A., Assumption College

TODD LABRANCHE, Campus Police Officer III - Sergeant/Campus Police Department

B.S., Becker College

COURTNEY LACEY, Clerk IV/Educational Partnerships and Early College Initiatives

A.S., Quinsigamond Community College

DEBRA LaFLASH, Associate Vice President for Finance

B.S., Worcester State University

PATRICIA LAFOUNTAINE, Online Learning Coach

A.S., Quinsigamond Community College B.S., Worcester State College M.Ed., Curry College

TIMOTHY LAFOUNTAINE, Professor of Developmental English/Coordinator of the Developmental English Program

A.A., Quinsigamond Community College; B.S., Worcester State University; M.Ed., University of Phoenix

LORI LAMOTHE, Assistant Professor of English

B.A., Cornell University; M.A., Fitchburg State University

VANESSA LANDYN, Events and Office Manager

B.A., St. John's University; M.B.A., St. John's University

DANIEL LARYEA, Clerk IV - Advising

BETTY LAUER, Professor of Computer System Engineering Technology

A.A., Johnson County Community College; B.A., MidAmerica Nazarene University; A.L.M., Harvard University

KAILEIGH LAVIN, Assistant Professor of Nurse Education

B.S., Quinnipiac University M.S., University of Massachusetts Worcester

GRETCHEN LAVIN, Accountant IV/Business Office

B.S., Worcester State University

AMY LAWSON, Associate Director of Financial Aid

B.A., Clark University; M.S., Bay Path University

PAUL LEDOUX, Healthcare Simulation Support Technician

A.S., Quinsigamond Community College

KIM LENNON, Clerk IV/Advising

A.S., Quinsigamond Community College

KIRSTIE LEONARD, Associate Director of Financial Aid for Student Services

B.A., Keene State College

QUINCY LESTER, Recruitment Counselor

B.Ed., University of Technology, Jamaica; M.S., Prairie View A&M University

KALAN LEWIS, Director of Mentoring and Special Programs

B.S., Providence College; M.Ed., Providence College

KEVIN LI, Associate Vice President of Academic Affairs

B.A., Roosevelt University; M.A., Roosevelt University

WAYNE LILYESTROM, Staff Associate of Network Services/Systems

B.S., University of Massachusetts-Amherst

JAMES LINCOLN, Enrollment Counselor

B.A., Gettysburg College; M.Ed., Bloomsburg University

ADRIENNE LINNELL, Program Administrator, STEM Initiatives

B.S., Cornell University; M.B.A., The University of Michigan

DANIEL LITCHFIELD, II, Campus Police Officer III - Sergeant/Campus Police Department

TEINA LOCHAN-DODD, Assistant Professor of Nurse Education

B.S., Becker College; M.S., Southern New Hampshire University

HAO LOI, Professor of Computer Science/ Coordinator of Computer Science Program

B.S., Trinity College; M.S., Rensselaer Polytechnic Institute; M.B.A., Rensselaer Polytechnic Institute

FRANCES LU, Clerk V/ Enrollment

B.A., Beijing Normal University

FLORENCE LUCCI, Professor of Business Administration

B.S., Lesley University; M.P.A., Clark University; M.B.A., Fitchburg State University; D.B.A., Argosy University

HEATHER LUKAS, Director of Health and Wellness

B.S., Utica College of Syracuse University

AMY MACARTHUR, Administrative Assistant I/School of English and Humanities

A.S., Quinsigamond Community College

ALVAH MACDONALD, Maintenance Equipment Operator I/Facilities

JANE MACHARIA, Professor of Nurse Education

B.S., Liberty University; M.S., University of Massachusetts-Amherst; D.NP., University of Massachusetts-Amherst

BRANDI MANCA, HRM Food Service Laboratory Technician I

ERIC MANIA, Professor of Psychology

A.A., Mohawk Valley Community College; B.A., Syracuse University; Ph.D., University of Delaware

KATHLEEN MANNING, Dean of Center for Workforce Development & Continuing Education

B.A., Northeastern University; M.A., Emmanuel College

BRENT MARCELONIS, Institution Security Officer II/Campus Police Department

A.S., Quinsigamond Community College

NICOLE MARCHAND, Campus Police Officer I/Campus Police Department

B.S., Anna Maria College

STEPHEN MARINI, COO/CFO and Vice President of Administrative Services

B.S., Emmanuel College; M.S., Anna Maria College

SHARON MARINI, Administrative Assistant I/Distance Learning and Professional Development

A.S., Quinsigamond Community College

CHARLES MARKARIAN, Maintainer I/ Facilities

CHERYL MARRINO, Storekeeper II/ Homeplate Food Pantry and Resource Center

A.S., Quinsigamond Community College

DANIEL MARSALA, Assistant Professor of Respiratory Care

B.S., Boise State University; M.S., Boise State University;

MEGHAN MARTIN, Professor of Early Childhood Education/Coordinator of the Early Childhood Education Bridge and Workforce Development Work Area

B.A., Framingham State University; M.Ed., Anna Maria College

HEXAN MARTINEZ DE JESUS, Maintainer I/Facilities

SHEIBA MAS-OUD, Professor of Mathematics

B.S., University of Science and Technology, Ghana; B.S., St. John's University; M.S., New York Medical College

KIMBERLY MAY, Administrative Assistant I/ School of Business, Computing, & Applied Technologies

A.A., Quinsigamond Community College

DONNA MCCABE, Hospitality/Culinary Program Manager and Educator

A.S., Quinsigamond Community College; B.S., Worcester State College;

JOHN MCCARTHY, Corporate Development Specialist

B.A., University of Massachusetts-Boston

WILLIAM MCCARTHY, Professor of Criminal Justice/Coordinator of the Criminal Justice Program

B.A., Anna Maria College; M.A., Clark University; Ph.D., Louisiana State University

MEGHAN MCCRILLIS, Professor of Nurse Education

B.S., Worcester State University; M.S., Walden University; D.NP., University of Massachusetts-Amherst

KARA MCDONALD, Accountant IV/ Business Office

B.A., College of the Holy Cross

CAROLYN MCGRATH, Assistant Professor of Interactive Media

A.A., Quinsigamond Community College; B.A., Framingham State University; M.Ed., Framingham State University

JENNIFER MCKEON, Professor of Dental Assisting/Hygiene/Coordinator of the Dental Assisting Program

A.S., Quinsigamond Community College; B.A., Assumption College; M.Ed., Worcester State University

---

JEAN MCLEAN, Professor of Business Administration/Entrepreneurship and Small Business Management Focus/Coordinator of the Business Administration Program

B.S., Northeastern University; M.B.A., Anna Maria College

KIMBERLY MCMANUS, Staff Assistant to Administrative Services

MONICA MCMULLAN, Associate Director of IT Services

SUSAN MCPHERSON, Professor of English

B.A., American International College; M.A., Bridgewater State University

---

CONNER MEECE, Human Resources Administrator

A.A., Quinsigamond Community College; B.S., Nichols College

NATHANIEL MELLO, Learning Manager, Interactive Media Design/Coordinator of the Interactive Media Program

B.A., Becker College

DEREK MENDES, Campus Police Officer I/ Campus Police Department

B.S., Worcester State University

SUSAN MEOLA, Administrative Assistant I/ Student Services

B.A., Framingham State University

TRACY MERCHANT, Admissions Healthcare Coordinator (Admissions Coordinator)

B.S., Worcester State University; M.Ed., Cambridge College

ERICA MERRILL, Administrative Assistant I/Academic Affairs

B.A., Atlantic Union College

KRISTEN MICHAUD, Associate Professor of Nurse Education

A.S., Castle Jr. College; A.S., Rivier College-St. Joseph's School of Nursing; B.S., Fitchburg State University; M.S., Rivier College-St. Joseph's School of Nursing

---

TENISHA MINCEY, Coordinator of Instructional Technology & Assessment

B.A., Worcester State University M.S., Capella University

ABDULLAH MOHAMMED, Junior Network Administrator

A.S., Quinsigamond Community College

KIMBERLY MOHAREB, Science Laboratory Coordinator

B.S., Worcester State University

JONATHAN MORAES, Counselor/TRIO Student Support Services Program

B.S., Worcester State University

CAROLYN MORSE, Dean of Library and Academic Support Services

B.S., Georgetown University; M.A., George Washington University; M.S., Simmons College

---

ARCHANA MUDBIDRI, Professor of Biology/Coordinator of Biotechnology Program

B.S., St. Xavier's College, Goa University; M.S., Goa University; Ph.D., Central Food Technological Research Institute

---

GREG MULLANEY, Professor of Early Childhood Education/Coordinator of Early Childhood Education

B.S., Bridgewater State University; M.Ed., Lesley University; Ed.D., Nova Southeastern University

---

PETER MUNENE, Academic Counselor for Gateway to College & Onsite Dual Enrollment

M.A., University of Massachusetts Lowell

FLORENCE MUNYIRI, Professor of Environmental/Physical Science

M.S., Kenyatta University; M.S., The University of Tokyo; Ph.D., The University of Tokyo

---

ANILA NAGLE, Enrollment Coach/ Welcome Center Coordinator

B.A., College of the Holy Cross; M.P.A., Anna Maria College

RICHARD NEVALSKY, Career and Education Specialist/Adult Community Learning Center

B.A., Worcester State University

ELSIE NEWMANE, Administrative Assistant I/Academic Affairs

A.S., Quinsigamond Community College

CHAU NGUYEN, Professor of Nurse Education

A.S., Mount Wachusett Community College; B.S., Framingham State University; M.S., Framingham State University

---

MY LE HUYNH NGUYEN, Associate Professor of Physics

A.A., Golden West College; B.S., University of California-Irvine; M.S., University of Wyoming

---

MARY ELLEN NIETUPSKI, Associate Professor/Clinical Coordinator of the Practical Nurse and Nurse Education Programs

B.S., University of New England; M.S., Massachusetts General Hospital Institute of Health Professions D.NP., MGH Institute of Health Professions

---

MICHELLE NOLAN, Financial Aid Coordinator for Federal Programs (Coordinator Financial Aid)

B.A., University of Massachusetts-Amherst M.A., University of Massachusetts- Lowell

---

KATHLEEN O'CONNOR, Director of Workforce Development Operations and Programming

B.S., Fitchburg State University

OPEYEMI ODEWALE, Professor of Biology

B.S., University of Rhode Island; M.A., University of Rhode Island; Ph.D., Walden University

---

LISA OLDAKER PALMER, Professor of English

B.A., West Virginia Wesleyan College; M.A., West Virginia University

---

BRIAN O'NEIL, Associate Director of Facilities

KAREN O'NEILL, Professor of Early Childhood Education

B.A., Rivier College; M.Ed., Lesley University

CHARLOTTE OPERACH, Manager of Homeplate Food Pantry and Resource Center

B.S., Massachusetts College of Liberal Arts; M.S., Worcester State University

ANIANJOLICE OQUENDO, Staff Assistant, Office of Strategic Enrollment

B.S., Anna Maria College

ELMER ORELLANA, Accountant IV/ Business Office

A.S., Quinsigamond Community College; B.S., Worcester State University

STEFANIE PARKER, Clerk V - School of Healthcare Program Assistant

A.S., Becker College; B.S., Fitchburg State University

J. LUKE PARKER, Assistant Professor of Mathematics

B.A., California State University; M.A., California State University

DILIP PATEL, Professor of Chemistry/ Coordinator of the General Studies-Pre-Pharmacy Option

L.L.B., Gjuarat University; B.S., Gujarat University; B.T.T., Gujarat University; M.S., Gujarat University

HIRUL PATEL, Professor of Chemistry/ Coordinator of the Liberal Arts-Chemistry Option

A.S., Mass Bay Community College; B.S., Northeastern University; M.B.A., Northeastern University;

KIRSTEN PATEY, Learning Manager/ Communication Skills Center

B.A., University of Massachusetts; M.A., University of Massachusetts

ARPI PAYASLIAN, Professor of English

B.A., Queens College; M.A., Queens College; M.S., City University of New York

NICOLE PAYEN, Professor of English

B.A., State University of New York at New Paltz; M.F.A., Sarah Lawrence College

CHRISTINE PAYSON, Assistant Professor of English

B.A., Brandeis University; M.A., Tufts University; Ph.D., Tufts University

LUIS PEDRAJA, President

B.A., Stetson University; M.A., The Southern Baptist Theological Seminary; Ph.D., University of Virginia

ANTHONY PENNY, Director of Purchases and Contracts

B.S. Worcester State University; M.S., Simmons College

CARLOS PEREZ, Financial Aid Outreach Coordinator

B.S., Salem State University

YOLANDA PEREZ, Maintainer I/Facilities

MICHAEL PERRO, Second Class Power Plant Engineer

CATHERINE PERRY, Assistant Professor of Nurse Education

B.S., Worcester State University; M.S., Framingham State University

JOAN PERRY, Computer Center Manager

A.S., Quinsigamond Community College; B.S., Worcester State University; M.B.A., Assumption College

AMBER PFEIFFER, Assistant Professor of Dental Hygiene

B.A., Bay Path University

AARON PHAN, Junior System Administrator

B.S., Rhode Island College

KRISTA PIAZZA, Project Management, Apprenticeship Degree Initiatives

B.S., Syracuse University; M.Ed., Harvard University

MAEGAN PITTSLEY, Teacher/Early Childhood Education Lab School

B.A., Worcester State University

PATRICIA POPE, Science Laboratory Coordinator

B.S., Worcester Polytechnic Institute; Ph.D., University of Massachusetts-Worcester

PATRICIA POTTLE, Coordinator of Library Services, Engagement, Student Success and Access Services

B.A., Southeastern Louisiana University; M.A., Simmons College

ULISES POYSER, Professor of Mathematics/Coordinator of Mathematics Program

B.S., Atlantic Union College; B.S.E.E., University of Massachusetts-Lowell; B.S.C.S., University of Massachusetts-Lowell; M.S.S.E., Brandeis University

MATTHEW PRESTON, Clerk IV/Welcome Center

A.S., Quinsigamond Community College

JOHN PRICE, Audiovisual Equipment Technician I

A.S., Quinsigamond Community College;

PATRICK PRINTZ, Chief Technology Officer

A.S., Quinsigamond Community College M.B.A., Fitchburg State University

KRISTEN PROCTOR, Director of Student Accessibility Services

B.S., Barrington College; M.A., San Jose State University

JAMES RACKI, Executive Director of Facilities Operations

EDUARDO RAMIREZ MARTINEZ, Associate Professor of Mathematics

B.S., The University of Texas Rio Grande Valley M.S., The University of Texas Rio Grande Valley

EDWARD RAMOS, Campus Police Officer III - Sergeant/Campus Police Department

DAVID RAND, Desktop Support Technician

A.S., Quinsigamond Community College

SPENSER RAPHAELSON, Institutional Security Officer II

B.S., Worcester State University

STEVEN RAYSHICK, Professor of English

B.A., Carnegie Mellon University; M.A.T., University of Pittsburgh

KATHLEEN RENTSCH, Vice President of Academic Affairs

B.A., Boston College; M.Ed., Worcester State University; Ed.D., Northeastern University

ALANA RICHARD, Academic Advisor

B.A., Springfield College; M.Ed., Springfield College

JEFFREY RICHARDSON, Program Coordinator for the Brothers and Keepers Program

M.Ed., Cambridge College

MAUREEN RICOTTA, Professor of Nurse Education/Coordinator of Practical Nursing-Evening Program

B.S.N., Simmons College; M.S.N.Ed., University of Phoenix

PAMELA RIENDEAU, Administrative Assistant I/Public Service and Social Sciences

B.S., Worcester State University

KEVIN RITACCO, Executive Director Police Academy Programs & Clery Compliance

A.S., Mount Wachusett Community College

EDUARDO RIVAS, Associate Professor of Accounting

B.A., Assumption College; M.B.A., Assumption College; B.S., Excelsior College

YANITSA RIVERA, Clerk IV/Financial Aid

A.S., Quinsigamond Community College
B.S., Worcester State University

JOSE RIVERA, Institution Security Officer IV (Lieutenant)/Campus Police Department

ERIN ROACHE, Director of the Children's School/Early Childhood Education Lab School

A.S., Quinsigamond Community College; B.A., Westfield State University M.A., Worcester State University

RYAN ROBINSON, Maintenance Working Foreman/Facilities

GLENDA RODRIGUEZ, Program Specialist, Gateway to College & Onsite Dual Enrollment

A.S., Quinsigamond Community College

REYNALDO RODRIGUEZ, Deputy Chief Administrative/Campus Police Department

B.S., Westfield State University

TERRI RODRIGUEZ, Associate Director of Student Accessibility Services

B.A., Regis College; M.A., University of Arizona

TAYLOR ROHENA, Student Accessibility Services Coordinator

B.A., Framingham State University; M.Ed., Salem State University

JULIA ROONEY, Campus Police Officer I/ Campus Police Department

A.S., Quinsigamond Community College
B.A., Worcester State University

SUSAN ROSA, Associate Professor of Nurse Education

B.S., Worcester State University; M.S., University of Hartford

MEREDITH ROSARIO, Associate Project Manager | Projects, Programs and Portfolio Management

B.S., Worcester State University;

ALBERTO ROSSY-VAZQUEZ, Institutional Security Officer II/Campus Police Department

ENGIE ROUFAIL, Administrative Assistant I/Library and Academic Support Services

B.S., Ain Sham University in Cairo, Egypt

COURTNEY RYDER, Staff Assistant/ Strategic Enrollment Development & Student Engagement

KEVIN RYDER, Clerk IV/Student Accessibility Services

A.S., Quinsigamond Community College

ERIC SACZAWA, Coordinator, Career and Academic Planning Services, Technology and Web-Based Services

B.A., Fitchburg State University; M.S., Clark University

CARMEN SANCHEZ, Financial Aid Systems Manager

MICHELLE SANTANA, Assistant Director of Student Life and Programming

B.A., College of Holy Cross; M. S., Clark University;

GABRIEL SANTNER, Project Director/TRIO Student Support Services Program

B.A., Clark University; M.A., Brown University

JOSEPHINE SANTOS, Clerk IV/Welcome Center

SAMUEL SAUVAGEAU, Junior System Analyst/Programmer

A.S., Quinsigamond Community College; B.S., University of Massachusetts-Amherst

MICHELLE SAVRANN, Professor of Occupational Therapy/Coordinator of the Occupational Therapy Program

B.S., University of New Hampshire; M.H.A., Suffolk University, Sawyer School of Management

JESSICA SCHAVRIEN, Human Resources Generalist

B.S., Fitchburg State University

C. PAT SCHMOHL, Dean for the School of Healthcare/Coordinator of Healthcare Practical Nursing and Pre-Nursing

A.S., Quinsigamond Community College; B.S., Anna Maria College; M.B.A., Anna Maria College

ANDRIA SCHWORTZ, Professor of Integrated Science and Physics/Coordinator of Psychics and Astronomy Programs

B.A., Alfred University; M.S., University of Massachusetts-Amherst; M.S., University of Wyoming Ph.D., University of Wyoming

DAVID SHAPIRO, Associate Director of Human Resources Operations

B.A., Clark University; M.A., Clark University

MICHELLE SHEEHAN, Administrative Assistant I/School of Math, Science, and Engineering

A.S., Quinsigamond Community College

SARAH SHELTON, Clerk IV/Enrollment

B.S., University of Massachusetts-Dartmouth; M.B.A., Lasell University

JENNIFER SHENK, Academic Advisor

B.S., Eastern Mennonite University M.A., Eastern Mennonite University

ANNE SHORE, Coordinator of Student Accessibility Services

B.A., Clark University; Ph.D., Brandeis University

ANNE SHULL, Professor of Developmental English/English as a Second Language/ Coordinator of the English as a Second Language Work Area

B.A., Oberlin College; M.Ed., Boston University

JENILEE SIMMONS, Associate Director of Human Resources/Talent Management

A.S., Quinsigamond Community College; B.A., Curry College; M.B.A., Fitchburg State University

SARA SIMMS, Executive Director of Human Resources

A.A., Mount Wachusett Community College; B.A., Fitchburg State University; M.A., Framingham State University

ANTHONY SIMO, Campus Police Officer II/ Campus Police Department

B.S., Anna Maria College

INGRID SKADBERG, Dean of Institutional Research and Planning

B.A., Gettysburg College; M.S., Villanova University; Ph.D., City University of New York

KATE SKORB, Data & Communications Systems Manager for Records & Registration

A.A., Greenfield Community College; B.A., University of Massachusetts-Amherst; M.S., Clark University

PAUL SLUCKIS, Computer Systems Engineering Technology Laboratory

A.S., Central New England College/ Worcester Industrial Technical Institute; B.S., Worcester State University

RICHARD SMALL, Mail Clerk II/Mail Room

A.S., Quinsigamond Community College

KATHERINE SOAL, Professor of Dental Hygiene

A.S., Quinsigamond Community College; B.S., Worcester State University; M.S. Mass College of Pharmacy and Health Science

JEFFREY SONNENBERG, Senior System Administrator

ANITA SORACCO, Professor Environmental/Physical Science/ Coordinator of the Natural Sciences Program

B.S., Worcester Polytechnic Institute; M.S., Worcester Polytechnic Institute

PETER SOUCY, Recruitment Counselor

B.A., Hofstra University; M.F.A., CUNY-Brooklyn College

DEBORAH SPOTTS, Chief Advancement Officer & Executive Director of Development

A.A., Mohave Community College; B.A., Northern Arizona University; M.S., University of Marylan

LAUREN STAFFORD, Senior Financial Aid Special Programs Coordinator

B.S., Point Park University; M.S., Mercyhurst University

KATHERINE STANO, Director of Student Recruitment and Outreach

B.A., Smith College; M.Ed., Springfield College; Ed.D., Argosy University

JOHN STAZINSKI, Professor of English/ Coordinator of the English Program

B.A., Boston University; M.A., Boston University

MICHAEL STEVENSON, Coordinator of Library Collection Development

B.A., Tufts University; M.S.L.I.S., Simmons College

VERNON STITT, HVAC Refrigeration Mechanic II/Facilities

A.S., Wentworth Institute of Technology

MEREDITH STONE, Professor of Nurse Education/Coordinator of the Nurse Education Advanced Placement Program

A.S.N., Massachusetts Bay Community College; B.S., Boston University; M.S.N., University of Massachusetts-Worcester

SHANAN STRATIS, Assistant Dean for the School of Healthcare

A.A., Quinsigamond Community College; B.S., Worcester State University; M.S.,Western Governors University

MATTHEW SULLIVAN, Hospitality and Recreation Management Learning Resource Coordinator

A.A., The Culinary Institute of America; B.A., The Culinary Institute of America

TIGER SWAN, Coordinator of Library Reference and Instruction

B.A., University of Illinois at Urbana-Champaign; M.Ed., University of Illinois at Urbana-Champaign; M.S., University of Illinois at Urbana-Champaign

BYRON THOMAS, Professor of Sociology/ Coordinator of the Sociology Program

A.A., Sinclair Community College; B.A., Wright State University; M.A., Indiana University

DEREK THOMAS, Director of Information Systems

B.S., Rensselaer Polytechnic Institute

RUTH THUO, Assistant Professor of Nurse Education

B.S., Worcester State University; M.S.N.Ed., Worcester State University

MAURA TIGHE STICKLES, Professor of Psychology/Coordinator of the Psychology Program

B.A., North Adams State College; M.A., Anna Maria College

LAURA TINO, Director of Testing

B.A., Clark University; M.Ed., University of Massachusetts-Amherst

CARL TIROCCHI, Communications Dispatcher II

B.S., Roger Williams College; M.A., Anna Maria College

DAVID TODD, Director of Projects, Programs, and Portfolio Management

B.S., Bentley University;

CRAIG TONEY, Professor of Nurse Education

A.A., Quinsigamond Community College; B.S., University of Massachusetts-Boston; A.S., Quinsigamond Community College; M.S., University of Massachusetts-Worcester

CARLOS TORRES, Maintainer I/Facilities

CHERYL TRAVERS, Administrative Assistant I/Information Technology

A.S., Quinsigamond Community College

CHARULATA TRIVEDI, Professor of Computer Information Systems/ Coordinator of Computer Information Systems

B.S., Central Connecticut State University; M.S., Rensselaer Polytechnic Institute

ELAINE TROTTIER, Professor of Dental Hygiene

A.S., University of Rhode Island; B.S., University of Rhode Island; M.Ed., Worcester State University

SHERINDA TRUDELL, Assistant Professor of Nurse Education

A.S., Quinsigamond Community College; B.S., Fitchburg State University; B.S., Chamberlain College of Nursing; M.S.,Southern New Hampshire University

ELIZABETH TRUE, Library Assistant I

B.A., St. Catherine University M.A., Fitchburg State University

M. MICHELLE TUFAU AFRIYIE, Vice President for Strategic Enrollment & Student Engagement

B.A., Wellesley College; M.S., Bay Path University

VENUS TWUM, Accountant I/Business Office

B.S., University of Massachusetts-Amherst

JULIE TZIPORI, Professor of Early Childhood Education

M.Ed., Worcester State University

CHRISTINA TZORTZINIS, Academic Counselor

B.A., University of Michigan; M.A., University of Chicago

THOMAS UNDERWOOD, Maintainer II/ Facilities

B.S., Anna Maria College

MARTHA UPTON, Learning Manager/ Mathematics Lab

B.A., University of Massachusetts-Amherst; M.Ed., Framingham State University

KATHY URIBE, Director of Payroll

MARY VALENTINE, Professor of Interactive Media Program

A.S., Quinsigamond Community College; B.A., Anna Maria College; M.A., The Institute for Educational Studies and Norwich University

KELLIE VANCOTT, Associate Director of Payroll

A.S., Quinsigamond Community College

TERESA VARRIALE GONZALEZ, Professor of Sociology

Ph.D., University of Naples Federico II Italy; M.A., University of Massachusetts-Lowell Ph.D., University of Massachusetts-Lowell

THERESA VECCHIO, Dean of Students

B.S., Southern Illinois University; M.S., University of Connecticut; Ed.D., Johnson & Wales University

JOSEPH VENCILE, Science Laboratory Technician

A.S., Quinsigamond Community College;

JENNIFER VENTURA, Professor of Nurse Education

A.S., Quinsigamond Community College; M.S., Framingham State University

FELICIA VIDITO, Clerk IV/Program Assistant, School of Healthcare

B.S., Assumption University M.A., Worcester Polytechnic Institute;

MICHAEL VIGEANT, Deputy Chief of Police Operations

M.A., Anna Maria College; M.A., Fitchburg State University

MICHELLE VIGNEUX, Director of Development

B.A., Lebanon Valley College; M.A., Clark University

GILMARIE VONGPHAKDY, Coordinator of Future Focus Program

B.A., Boston College; M.B.A., Assumption College

CHEYENNE WALKER, Campus Police Officer I/Campus Police Department

A.S., Quinsigamond Community College

TAYLOR WALKER, Maintainer III/Facilities

RACHEL WALLACE, Program Manager, Early Childhood Career Pathway

B.S., Plymouth State University; M.Ed., Salem State University

BETTY ANN WARNER, Evening Nurse Education Laboratory Coordinator

B.S., Anna Maria College M.S., Framingham State University

ANTHONY WASSEL, Facilities Manager

B.A., Fitchburg State University M.A., Fitchburg State University

TINA WELLS, Director of Counseling and Wellness

B.S., Lesley College; M.S., Simmons School of Social Work

BENJAMIN WENDORF, Professor of History

B.A., University of Wisconsin-Green Bay; M.A., University of Wisconsin-Milwaukee; Ph.D, University of Wisconsin-Milwaukee

SOPHIE WERNER, Clerk IV/Program Assistant, School of Healthcare

A.S., Quinsigamond Community College

KAREN WEST, Accountant III/Business Office

PENNY WEST, Administrative Assistant I/ Facilities

DOE WEST, Professor of Human Services

A.A., Dutchess Community College; B.S., SUNY; M.S., Boston University; Ph.D., Northeastern University

NICHOLE WHEELER, Coordinator, Career Services & Credit for Prior Learning

B.S., Fitchburg State University; M.B.A., Fitchburg State University

KIMBERLY WHITE, Director of the Adult Community Learning Center

B.S., Keene State College

SHANNON WHITTERS, Drupal Web Specialist/Graphic Designer

B.S., Rensselaer Polytechnic Institute

SUSAN WHITTIER, Professor of Radiologic Technology/Coordinator of Radiologic Technology Program

A.S., Quinsigamond Community College; B.S., Worcester State University; M.S., Southern New Hampshire University

CYNTHIA WHITTY, Grants Manager

B.A., University of Massachusetts-Amherst; M.S., Simmons University

BROOKS WINCHELL, Executive Director of Distance/Online Learning and Center for Academic Excellence

B.A., University of Massachusetts-Lowell; M.A., University of Massachusetts-Boston; M.F.A., Lesley University

RAYMOND WISNIEWSKI, Director/Systems Administrator for Academic and Online Applications

B.S., Fitchburg State University

STEPHEN WOJNOWSKI, Staff Associate of Network Services/Desktop Administration

A.S., Quinsigamond Community College

NICOLE WOLFRUM, Assistant Professor of Radiologic Technology

A.S., County College of Morris; B.S., University of Phoenix; M.S., University of Phoenix

BRANDON WON, Coordinator of On Campus Events and Recruitment

A.A., Quinsigamond Community College; B.S., Korea University of Technology and Education

KENNETH WONG, Professor of History/ Coordinator of Liberal Arts Program & Coordinator of History Program

B.A.,Tufts University; M.A., University of Michigan; M.B.A., University of Michigan; A.B.D., University of Michigan

MARGARET WONG, Professor of English

B.A., University of Utah; M.A., California State University, Fullerton; Ph.D., Rice University

ELIZABETH WOODS, Dean of Compliance

B.A., Elms College; M.A., American International College;

MAEGAN WRIGHT, Senior Financial Aid Special Programs Coordinator

B.A., The Art Institute of Boston; M.Ed., Northeastern University;

NICHOLAS YACUZZI, Campus Police Officer II/Community Resource Officer/ Campus Police Department

B.S., Mount Ida College

ERICA YEATON, Accountant I/Payroll

A.S., Quinsigamond Community College

CRYSTAL YELLE, Associate Professor of Nurse Education

A.S., Mount Wachusett Community College; M.S., Aspen University

ANTHONY YEULENSKI, Associate Director of Human Services

B.A., Becker College; M.A., Assumption College

MARGARET YODER, Professor of Nurse Education/Coordinator of the Practical Nursing Program

A.S., R.N., Quinsigamond Community College; B.S.N., University of Massachusetts-Amherst; M.H.A., Suffolk University; M.S.N., Walden University

ROBERT YOSCA, Professor of Mathematics

B.S., New York Institute of Technology; M.A., Villanova University;; M.S., Rensselaer Polytechnic Institute

AARON ZABKA, Graphic Arts Technician I

A.S., Quinsigamond Community College; B.A., Worcester State University;

BARBARA ZABKA, Staff Assistant/ Academic Affairs

A.S., Quinsigamond Community College

LIZETTE ZAJKO, Program Coordinator of Phi Theta Kappa and The Student Support Mentoring Center

B.A., Anna Maria College; M.S., University of Rhode Island;

BARBARA ZAWALICH, Dean of Enrollment and Registrar

B.S., Anna Maria College; M.B.A., Anna Maria College;

STEPHEN ZISK, Executive Director of Engineering, Energy, Environment, & Extension Campus Facilities

B.S., Central Connecticut State University;

STEPHEN ZONA, Professor of Mathematics

B.S., Fitchburg State University; M.Ed., Worcester State University;

Adjunct Faculty and Professional Staff

MARY ABBOTT, Applied Linguistics

M.A., University of Massachusetts Boston

SANDRA ACKERMAN, Practical Nursing Program

A.S., Mount Wachusett Community College; B.S., Anna Maria College; M.Ed., Worcester State University

KATELYN ADAMS, Nurse Education

B.S., Worcester State University; M.S., Worcester State University

DEMOLA DAN ADEYEMI, Humanities

B.A., University of Ibadan, Nigeria; M.S., Clark University

STELLA ADU-GYAMFI, Early College

R.N., University of Massachusetts-Amherst-School of Nursing

MARGARET AHEARN, Nurse Education

R.N., Saint Vincent Hospital School of Nursing; B.S.N., University of Massachusetts-Amherst; M.S.N., University of Massachusetts Graduate School of Nursing

SIMISOLA AKINDELE, Nurse Education

B.S., Worcester State University; M.S., Worcester State University

PRISCILLA AKUFFO, Nurse Education

B.S., College of Our Lady of the Elms; M.S., College of Our Lady of the Elms

PAUL ALBRIGHT, Accounting and Business

A.A., San Bernardino Valley College; B.A.A., B.A.E., California State University; M.B.A.A., M.S.A., Western New England College; M.B.A., American International College

DENISE ALEXANDER, Theater

B.A., University of Massachusetts-Amherst; M.Ed., Fitchburg State University

WILLIAM ALLEN, Emergency Medical Technician

A.S., Quinsigamond Community College

THOMAS ALLEN, Dental Hygiene

M.S, Dentistry

ALTHEA ALPINE, Practical Nursing

A.S.,Quinsigamond Community College; B.S.,Southern New Hampshire University

PETER ANDEREGG, Theater

B.A., Ithaca College; M.L.S., University of Maryland

JILL R. ANDERSON, English

B.A., Smith College; M.A., Simmons College

DEREK ANDRADE, Early Childhood Education

B.A., Bridgewater State University; M.Ed., University of Massachusetts-Boston

JUDY ANGELICO, Practical Nursing

B.S., College of Our Lady of the Elms

COLLEEN ANNANTUONIO, Nurse Education

B.S., Simmons College

LESLIE ARQUILLANO, Nurse Education

B.S., Southwestern University

VIRGINIA ASADOORIAN, Mathematics

B.A., Worcester State University; M.S., Worcester State University; M.M., Worcester Polytechnic Institute

NAVID ATOOFI, Engineering and Physics

B.S., Northeastern University; M.S., M.B.A., Northeastern University

JOANNA BACHOUR, Nurse Education

A.S., Quinsigamond Community College; B.S., Worcester State University; M.S., Framingham State University

ANDREW BAKER, Emergency Medical Technician

B.S., University of Maryland

ANGELA BARNES, Speech

B.A., Curry College; M.S., Clark University

JENNIFER BARRETT, Nurse Education

B.S., Chamerlain University

RYAN BARRY, Public Health

B.S., University of Massachusetts; M.P.H., University of Massachusetts

CONSTANZA BARTHOLOMAE, Spanish

M.A., Worcester State University; M.B.A., Fitchburg State University

BRIAN BARTOLOMEI, Sociology

B.A., University of Houston; M.U.A., Boston University

MARK BASHOUR, Political Science and History

B.A., University of Lowell; M.Ed., University of Lowell

GRACES BATISTA, Biology

B.S., University of Massachusetts; M.Ed., Western Governors University

CHRISTINE BATTLE (OTFINOSKI), Molecular and Cellular Biology

M.S., University of Massachusetts Amherst

LEIGHA BAUER, Nursing

B.S., Southern New Hampshire University

CHRISTIAN BEATO-MELENDEZ, Biology

B.S., University of Puerto Rico at Humacao; M.S., University of Massachusetts-Lowell

KATIE BEER, Nursing

M.A., Regis College;

ETHAN BELDING, Sociology and Geography

A.S., Quinsigamond Community College; B.A., University of Massachusetts; M.S., Macquarie University

ERIC BELISLE, Respiratory Care

A.S., Springfield Technical Community College

ASHLEY BENNETT, Dental Hygiene

B.S., West Virginia University

JAY BENOTTI, Early College

M.S., Fitchburg State University

AMY BERG, Science

B.S., Worcester State University; M.S.S.E., Montana State University

CHRISTINA BERGENHOLTZ, Speech, English and Business

B.S., Clark University; M.Ed., Cambridge College

ROSHANAK BIGONAH, Applied Arts

A.S., Quinsigamond Community College; B.A., Worcester State University

TIMOTHY BLEECKER, English

B.A., The King's College; M.A., Tufts University; Ph.D., Tufts University

SCOTT BOOSAHDA, Liberal Arts

A.A., Quinsigamond Community College; B.S., Worcester State University; M.Ed., Cambridge College

SHEILA BOOTH, English

B.A., College of New Rochelle; M.A., University of Wisconsin; M.L.S., University of Rhode Island

ERINN BOROWIEC, Nurse Education

B.S., Fitchburg State University; M.S., Worcester State University

NICHOLAS BOSTOCK, English

B.A., University of Massachusetts-Amherst; M.Ed., University of Massachusetts-Amherst

CAROL BOSWORTH, Nurse Education

B.S.N., Fitchburg State University; M.B.A., Lesley College; M.S., Fitchburg State University

JONATHAN BOYAR, Early College

M.S., Clark University, Boston University

CRAIG BOYLE, Business

B.S., University of Rhode Island

JOANNE BRAAM, Psychology

B.A., Lewis University; M.A., The University of Chicago

ELENA BRANAGAN, Mathematics

B.S., Moscow State University of Printing Arts; M.S., Moscow State University of Printing Arts

KRISTINA BRAND, Management

B.S., Fitchburg State University; M.B.A., Simmons College

ASHLEY BREGMAN, Science

B.S.M.E., Worcester Polytechnic Institute; M.S., University of Connecticut

HEATHER BRIERE, Nurse Education

B.S., Fitchburg State University; M.S., University of Massachusetts Medical School

AMIE BROOKS-LACROIX, Public Health

B.A., Massachusetts College of Pharmacy and Health Sciences;

M.P.H., Massachusetts College of Pharmacy and Health Sciences

JENNIFER BROWNELL, Nurse Education

B.S., Worcester State University

BETH BRYANT, English and Speech

B.A., Massachusetts College of Liberal Arts; M.A., Suffolk University

LYDIA BUCKLEY, English as a Second Language

B.A., Wellesley College; M.A., Kansas State University

DAWN BUDDINGTON, Social Science

M.S., University of Connecticut;

DANA BURKETT, Dental Hygiene

B.A., College of the Holy Cross D.M.D., Tufts University Dental School

MARINA BURR, English, Reading and Writing

B.A., Assumption College; M.S., Central Connecticut State University

ZACHARY BUSCHER, English

B.A., Emerson College; M.F.A., University of Arizona

DOUGLAS BUSHMAN, Criminal Justice

B.A., Central Connecticut State University; J.D., Western New England College

KAILEE BYRNES-GOIS, Nursing

B.S., MCPHS University

MARK CADY, Fire Science

A.S., Quinsigamond Community College; B.A., Worcester State University; B.S., Anna Maria College

GERTRUDE CAHILL, Allied Health and Surgical Technology

A.S., Becker Jr. College; B.S., Becker College; M.S., Anna Maria College

VALERIE CAIRNS, Cellular Biology and Electrophysiology

B.S., University of Montpellier; Ph.D., University of Tours

BRANDON CAIRO, Dental Assisting

B.S., Saint Michael's College; D.M.D., Boston University Goldman School of Medicine

MARY ANN CAMOSSE, Nurse Education

R.N., New England Deaconess Hospital; B.S., Worcester State University; M.S., Anna Maria College; M.S., University of Massachusetts

MARIA CANCEL, Nurse Education

A.S., Quinsigamond Community College; B.S., Anna Maria College

JASON CANTARA, Fire Science

B.A., Anna Maria College; M.A., Anna Maria College

EMILY CAPERS, Dental Hygiene

B.S., Vermont Technical College;

DANIEL CAPUANO, Automotive Technology

A.S., Quinsigamond Community College

LAWRENCE CARDANI, Computer Systems Engineering Technology

B.S., Worcester Polytechnic Institute; M.S., Worcester Polytechnic Institute

LOUIS CARMINE, Computer Science

A.S., Johnson & Wales University; B.S., Johnson & Wales University

KAREN CARPENTER, Nursing and Interdisciplinary

A.S., Quinsigamond Community College; B.S., University of Massachusetts-Amherst; M.S., University of Massachusetts-Lowell; J.D., Massachusetts School of Law

EMILY CARROLL, Interactive Media Design

B.A., Becker College

THOMAS JAMES CARRON, Computer Systems Engineering Technology

B.A., University of Massachusetts; M.Ed., Framingham State University

MICHELLE CARTAGENA, Mathematics

B.S., University of the West Indies; M.Ed., American Intercontinental University; Ph.D., Capella University

COLLEEN CASEY, Biology

B.A., Rivier College; M.S., University of New England

JODIE CASTANZA, Nurse Education

B.S.N., Western Governors University; M.S.N., Western Governors University

RICARDO CATON, History

B.A., University of Pacific; M.A., University of California; Ph.D., University of California

JOHN CEPPETELLI, Accounting, Economics

B.A., University of Massachusetts-Amherst; M.B.A., Nichols College

PAUL CHAMBERLIN, Biology

B.S., Suffolk University; M.S., University of New Hampshire; Ed.D., University of Massachusetts

GILMORE CHAMBERS, International Education

M.A., The George Washington University

SUSAN CHAREST, Nurse Education

A.S., Quinsigamond Community College; B.S.N., Worcester State University

MEREDITH CHARLES, Theatre Education

B.A., Hofstra University; M.A., Emerson College

ROBIN CHENEY, Computer Information Systems

A.A., Worcester Junior College; A.S., Becker Junior College; B.E.T., Central New England College; M.S., Worcester State University

DORENE CHEVALIER, Mathematics

B.S., San Diego State University; M.Ed., Anna Maria College

ANTHONY CHIARADONNA, Computer Information Systems

B.A., Curry College;

FAITH CHICHESTER-NICKOLAS, Early Childhood Education

B.S., Lesley College; M.Ed., Salem State University; Ed.D., Regist College

ALEXIS CHIN, French

B.A., Duquesne University; M.A., Lesley University

RAJESH CHUG, Computer Systems Engineering Technology

B.S., The Maharaja Sayajirao University; M.B.A., University of Phoenix

LYNN CLIFFORD, Human Services, Criminal Justice and Social Science

B.S., Fitchburg State University; M.P.A., Clark University

KATHLEEN COGGINS, Art

B.A., Anna Maria College

MATTHEW COGSWELL, English and Humanities

B.A., Franklin Pierce University; M.A., Fitchburg State University

NICOLETTE COJOCARU, Nurse Education

B.S., Massachusetts College of Pharmacy and Health Sciences; M.S.N., Massachusetts College of Pharmacy and Health Sciences

SUZANNE COLLINS, Nurse Education

B.S., Russell Sage College; M.S., University of Massachusetts-Amherst

BETHANN CORMIER, English

B.A., Worcester State University; M.Ed., Worcester State University

DOUGLAS COTE, Accounting

B.S., Atlantic Union College; M.B.A., Andrews University

ERIN COTHRAN, Biology

B.S., The University of Tampa; M.A., Fitchburg State University

DOUGLAS COUNTS, Social Science

B.A., Boston College; M.S., Baker University

EMILIO CRUZ, Interdisciplinary Studies

B.S., University of Massachusetts Dartmouth; M.S., Suffolk University; M.Ed., Cambridge College

BRIAN CUMMINGS, Manufacturing

VICTORIA CURTIS, Nurse Education

A.S., Mount Wachusett Community College; B.S., University of Massachusetts- Amherst; M.S., Missouri State University

JOHN CUTONE, Economics, Marketing and Business

B.S., Worcester State University; M.B.A., Anna Maria College

DANIEL DALY, Computer Information Systems

B.S., University of Massachusetts; M.B.A., Bryant College; C.H.A., Educational Institute of the American Hotel and Motel Association; C.H.A.E., International Association of Hospitality Accountants

JOAN D'ARGENIS, English

B.A., Worcester State University; M.A., Anna Maria College

THOMAS DAVIS, English

M.Ed., Worcester State University

TARA DAVIS, Mathematics and Orientation

B.S., University of Massachusetts

MICHAEL DE SOCIO, English as a Second Language

B.A., University of Cincinnati; M.A., University of Cincinnati

WILLIAM DEAN, Chemistry and Science

B.A., Boston University; M.A., Fitchburg State University

JOHN DEEDY, English

B.A., Assumption College; M.A., Emerson College

CAROLINE DEHAAN, Education

B.A., Clark University M.A.T., Clark University

DANIELLE DELGADO, First Year Experience

B.A., Fitchburg State University

ERIC DESMOND, Accounting

B.A., Northeastern University; M.A., Benedictine University

RYAN DESROCHES, Computer Information Systems

B.A., Assumption College; M.A., Emerson College

RICHARD DEVINE, Sociology and Social Sciences

B.A., St. John's University; M.A., University of Minnesota; Ph.D., University of Minnesota

NANCY DILEO, Mathematics and Computer Science

B.S., Worcester State University; M.A., Anna Maria College; M.S., Worcester State University

ELIZABETH DILORETO, Psychology

B.A., Assumption University

DAMIEN DOHENY, Computer Systems Engineering Technology

M.S., National College of Ireland

DONNA DOMINGUEZ, Mathematics

B.S., State University of New York at Albany; M.B.A., Clark University;

LUCAS DONOHUE, Educational Leadership

B.S., Roger Williams University; M.A.T, Oregon State University; E.d.D., Endicott College;

PAMELA DONOVAN, Oral Health Career Pathway

M.S., Worcester State University

ESPERANZA DONOVAN-PENDZIC, Psychology

B.A., Anna Maria College; M.Ed, Cambridge College; M.Ed., Worcester State University; Ed.D., Cambridge College

KEITH DOOLEY, English

A.A., Quinsigamond Community College; B.A., Worcester State University M.A., Worcester State University

JANE DOWD, First Year Experience

B.A., Assumption College

BARBARA DRAKE, Allied Health

B.S., University of Massachusetts-Amherst; M.S., Anna Maria College

THOMAS DRIGGS, Criminal Justice

B.S., Westfield State University; J.D., New England Law

MEGAN DUMAS, Psychology

B.A., Framingham State University; M.A., William James College

BARBARA DUNN, Practical Nursing

B.S., Assumption College; M.S.N., Anna Maria College

JOHN DUNN, American Sign Language

B.S., University of Massachusetts-Amherst; Certified Interpreter for Massachusetts

HEATHER DURAM, Biology

B.S., Simmons College; M.S., Northeastern University

GEORGE DUVAL, Electronics Technology

A.S., Southern Maine Technical College; B.S., Johnson and Wales University; M.S., Worcester Polytechnic Institute

LUANN ELLSESSAR, Dental Hygiene

B.S., Ohio State University

LAUREN ESPER, Theater

B.S., Fitchburg State University

ELMER EUBANKS, Marketing and Economics

A.S., Walla Walla College; B.A., Walla Walla College; M.B.A., Anna Maria College

JOANNE EVANS, Applied Arts and Art

A.A., Quinsigamond Community College; B.A., Worcester State University

KAYLEY FANTASIA, Radiologic Technology

A.A., Quinsigamond Community College; A.S., Quinsigamond Community College

LYNN FANTELLI, Biology

B.A., University of Massachusetts- Dartmouth M.A., Northeastern University

BETHANN FATCHERIC, Radiologic Technology

A.S., Quinsigamond Community College

RACHEL FAUGNO, English and Speech

B.S., Worcester State University; M.A., Clark University

MARY FEGREUS-REYNOLDS, Biology and Allied Health

B.A., Clark University; M.P.H., Boston University of Public Health

DRIZMARIE FELICIANO TORRES, Nurse Education

A.S., Quinsigamond Community College

JACLYN FIELDS, Psychology

B.A., Southern New Hampshire University;

ALAN FINKEL, Psychology

B.A., George Mason University; M.A., Northeastern University

CHERYL FINN, Emergency Medical Services

B.A., Annhurst College

KARYN FINNERON, Allied Health and Psychology

B.S., Worcester State University; M.S., Anna Maria College

MICHAEL FISHER, English

B.A., Anna Maria College; M.F.A., New England College

DANIEL FITZPATRICK, Mathematics

A.S., Quinsigamond Community College; B.S., Worcester State University; M.Ed., Worcester State University

EDWARD FLANAGAN, English

B.A., University of Masschusetts-Amherst; M.F.A., Southern New Hampshire University

ROBERT FLINK, Respiratory

A.S., Quinsigamond Community College

DIANE FLYNN, Biology and Science

B.S., University of Massachusetts-Amherst; M.Ed., Cambridge College

JON FOREMAN, Criminal Justice

B.A., Anna Maria College; M.S., Anna Maria College

NICOLE FORTIN, Psychology

B.S., DePaul University; M.A., University of Massachusetts-Boston

CHERYL FOSTER, Allied Health

B.S., Massachusetts College of Pharmacy

DIMITRIOS FOTIADIS, Mathematics and Computer Information Systems

B.S., Northeastern University; M.S., Northeastern University

ASSAD FOTOVATIAN, Physics

M.S., University of Massachusetts-Lowell; Ph.D., University of Massachusetts-Lowell

STACY FOULIS, Mathematics

B.A., Mount Holyoke College M.A., University of Massachusetts- Amherst M.Ed., Worcester State University

TRIADA FRANGOU-APOSTOLOU, Psychology

B.A., Boston University; M.A., Assumption College Ed.D., Walden University

KATHY FREDERICKSON, English

B.S., Fitchburg State University; M.A., University of Massachusetts

LOLA FREITAS, Dental Hygiene

A.S., Quinsigamond Community College B.A., University of New Mexico

FRANCES FRIEDMAN, French

B.S., Worcester State University M.A., Assumption University

KENNETH FRIEDMAN, Finance

B.A., University of California at Berkeley

PAUL GAFFNEY, Mathematics

B.S., Worcester State University; M.Ed., Worcester State University

ROBERT GARCEAU, Management, Orientation and Psychology

A.A., Quinebaug Valley Community College; B.S., Nichols College; M.B.A., Nichols College

PATRICIA GARFOLI, Business & Technology

B.S., Salem State University; M.Ed., Salem State University

MANDY GAUDREAU, Biology

B.S., University of Massachusetts-Amherst; M.S., Antioch University

CHRISTINA GENATOSSIO, Dental Hygiene

A.S., Quinsigamond Community College; B.A., Southeastern Massachusetts University

ERIN GERRARD-HILL, Radiologic

A.S., Quinsigamond Community College

ERIC GERVAIS, Business & Technology

B.A., Pennsylvania State University; M.Ed., Michigan State University

SOHINI GHOSHROY, Biology

M.S., University of Connecticut; Ph.D., Clark University

MAUREEN GIACOBBE, Business & Technology

B.A., University of Massachusetts- Lowell; M.S., Worcester Polytechnic Institute M.Ed., Lesley University

ANTHONY GIGLIOTTI, Criminal Justice

A.S., Quinsigamond Community College; B.S., Anna Maria College; M.S., Fitchburg State University

JULIE GIL, Nursing

B.S., Anna Maria College;

MICHAEL GILCHREST, HVAC

HVAC, Worcester Technical Institute

JEFFREY GILLIS, Respiratory Therapy

A.S., Quinsigamond Community College

PRISCILLA GIMAS, Marketing, Management and Mathematics

M.B.A., Anna Maria College; C.A.G.S., Westfield State University

JOANNE GLEASON, Respiratory Care

A.S., Quinsigamond Community College; B.S., Worcester State University; M.B.A., Nichols College; J.D., Massachusetts School of Law

SABRINA GLOVER, Humanities/Education

B.S., Rochester Institute of Technology M.S., Saint Joesph's University

MELANIE GLYNN, Occupational Therapy

A.S., Quinsigamond Community College

MARGARET GNIADEK, Radiologic Technology

A.S., Quinsigamond Community College; B.S., Assumption College

GINA GOGGINS, Nurse Education

B.S., North Park University; M.S., Worcester State University

ALEXIS GOMEZ, Early College Pathways

A.S., Quinsigamond Community College; B.S., Framingham State University

ROBIN GOODELL, Computer Systems Engineering

B.S., Worcester State University; M.S., Worcester Polytechnic Institute

DEREK GOULD, History

B.A., College of St. Joseph; M.A., Webster University

SUZANNE GRAHAM ANDERSON, Business Administration/Organizational Leadership

B.S., Nichols College; M.B.A., Nichols College

DANIEL GRAZULIS, Computer Information Systems

B.S., Central New England College of Technology

LINDA GRENACHE, Nurse Education and Health Sciences

B.S.N., University of Massachusetts-Amherst; M.S.N., Worcester State University

NICOLE GRENSAVITCH, Nurse Education

B.S., Northeastern University; A.S., Quinsigamond Community College; M.S., Worcester State University

DENISE GRIFFIN, Science and Mathematics

B.S., Northeastern University

TATIANA GRITSKO, Biology

M.S., Moscow State University; Ph.D., Blokhin Cancer Research Center

PAWAN GUPTA, Computer Information Systems

B.S., University of Massachusetts-Lowell; M.S., Northeastern University

KATHERINE HACKETT, English

B.A., College of Our Lady of the Elms; M.A., Clark University

LOUISE HAMELIN, Speech

B.S., Worcester State College; M.A., University of Rhode Island

SUSAN HANLY, Nursing

B.S., Boston College M.S., Sacred Heart University

MARK HAUVER, Computer Information Systems

B.S., Worcester State University; M.A., Framingham State University

DEIRDRE HEALY, ESQ, Business Law

B.A., Boston University; J.D., New England School of Law

JESSICA HELLIWELL, Radiologic Technology

A.S., Quinsigamond Community College

DIANE HENDRICKSON, Mathematics and Computer Information Systems

A.B., Worcester State University; M.S., Worcester State University

KAREN HESSELBERG, Nurse Education Laboratory

L.P.N., Montachusett Regional Technical Vocational School; A.D.N., Quinsigamond Community College; B.S.N., Assumption College

SANDRA HINDS, Sociology

B.S., Atlantic Union College; M.S., Boston University

MATT HOCHKEPPEL, American Sign Language

B.F.A., Rochester Institute of Technology; M.S., Rochester Institute of Technology; M.A., Gallaudet University

JOHN HOGAN, Respiratory Care

B.A., Boise State University

ANNE HOLLAND, Nursing

B.A., Assumption College; M.S., Boston University

AMANDA HOLTON, Mathematics

B.S., Bryant College; M.S., Worcester Polytechnic Institute

NICHOLAS HOWORTH, Business & Technology

B.S., Northeastern University; M.A., University of Pittsburgh

JOSEPH HURLEY, Biology

B.A., College of the Holy Cross; M.A., Suffolk University; M.Ed., Columbia University

JUNEA HUTCHINS, Nursing

B.S., Anna Maria College; M.S., Anna Maria College

JAMES HUTH, Emergency Medical Technician

EMT Paramedic Certificate, Mass Bay Community College

ANNE JECROIS, Biochemistry & Molecular Pharmacology

B.S., University of Massachusetts at Amherst; Ph.D., University of Massachusetts Chan Medical School

SANDRA JENKINS-BRYANT, Business Law

B.A., Siena College; J.D., Western New England University

JERRY JETTE, Emergency Medical Technician

A.S., Quinsigamond Community College; B.S., Emerson College; M.A., Anna Maria College

CATHY JEWELL, Nurse Education

B.S., Assumption College M.S., Worcester State University

SHELESE JOHNSON, Early Childhood Education

A.S., Quinsigamond Community College; B.S., Worcester State University; M.Ed., Worcester State University

CARRIE JOHNSON, Interdisciplinary

B.A., California State University; M.A., Northeastern University

SUSAN JOHNSON, Nurse Education

B.S.N., Anna Maria College; M.S.N., Worcester State University

KATIE JONES, First Year Experience

B.S., Illinois State University; M.A., Aurora University; Ph.D., Northeastern University

MONIQUE JOSEPH, Hotel, Restaurant & Travel Administration

B.S., University of Massachusetts-Amherst

SCOTT JOUBERT, Criminal Justice

B.A., Worcester State University; M.S., Boston University

JANE JUNE, First Year Experience

R.N., St. Vincent School of Nursing; B.S., Anna Maria College; M.S.N., Anna Maria College; Ph.D., Warren National University; D.N.P., Chatham University

JENNIFER KALLIN, Biology

B.S., University of Massachusetts-Amherst; M.S., University of Massachusetts-Amherst

JAN KANIA, Manufacturing

B.S., Nichols College; M.B.A., Nichols College

BRIAN KAPITULIK, Sociology

B.A., University of Massachusetts; M.A., New Mexico State University; Ph.D., University of Massachusetts-Amherst

LINDA KAUFMAN, Mathematics

B.S., Worcester State University

NICOLE KAZARIAN, Nurse Education

B.S.,Worcester State University; M.S., Worcester State University

CATHY KEEFE, Early Childhood Education

A.S., Merritt College; B.A., Worcester State University; M.Ed., Cambridge College

NICOLE KEENAN, Nursing

B.S., Worcester State University

LORRI KEENAN, Nursing

A.S., Quinsigamond Community College; B.S., Bentley University; B.S., Southern New Hampshire University; M.S., Framingham State University

MEGHAN KELLEY, Healthcare

M.S., Southern New Hampshire University

AUSTIN KEMP, English

B.A., Cumberland University; M.A., Brandeis University

JEFFREY KENDALL, Accounting and Business

B.A., University of Massachusetts; M.B.A., Babson College

DENISE KHALILI, Nursing

A.S., Quinsigamond Community College; B.S., University of Massachusetts-Amherst; M.S., Framingham State University

KERI KIEFER, Human Services

B.S., Mercer University M.S., Mercer University

DAMIAN KIERAN, Manufacturing Technology

B.S., National University of Ireland; M.S., University of Massachusetts-Lowell

BRETT KING, Mathematics

B.A., Holy Cross College; M.B.A., Assumption College

SUZANNE KINIRY, Nursing

B.S., Georgetown University M.S., State University of New York

THOMAS KIRKLAUSKAS, Mathematics

A.S., Wentworth Institute; B.S., Fitchburg State University; M.Ed., Worcester State University

COLLEEN KIRLEY, Radiologic Technology

A.S., Massachusetts Bay Community College; B.S., Assumption College

SHERI KLINE, Practical Nursing

B.S., Worcester State University; M.S., Walden University

LAUREN KLOSOWSKI, Biology

B.A., Quinnipiac University; M.A., Fitchburg State University

ROBERT KNOX, Computer Information Systems

B.A., Worcester State University

DEBRA KNUTSON-BEZERRA, English as a Second Language

B.S., Atlantic Union College; M.Ed., Atlantic Union College

MIKEALA KOZLOWSKI, Nursing

B.A., Southern New Hampshire University

JAMES KRAPF, Automotive Technology

A.S., Quinsigamond Community College

ANNA KRZYWICKA-RACKA, Biology

B.S., Warsaw University; M.S., Warsaw University; Ph.D., Universite Paris Sud

VESEL KUCUKU, Mathematics

B.S., University of Tirana

KALPANA KUMAR, Biology

B.S., University of Poona; M.S., University of Poona; Ph.D., Indian Institute of Science, Bangalore

PAUL LACAVA, Psychology

A.A., Quinsigamond Community College; B.A., Worcester State University; M.B.A., Anna Maria College

LORI LACINA, Nurse Education

B.S., University of Massachusetts

MICHAEL LACY, Computer Information Systems, Management and Marketing

B.B.A., Eastern Michigan University; M.B.A., Assumption College; Ph.D., Capella University

MAGNOURY LAMA, Individualized Genomics and Health

M.S., John Hopkins University

ELIZABETH LAMBERT, English

B.A., Bridgewater State University M.A., Bridgewater State University

JENNIFER LANDGREN, Mathematics

B.A., University of Massachusetts-Amherst

KELLY LANDINE, English

A.A., Quinsigamond Community College; B.A., Worcester State University

MARY LANG, Nursing

B.S., Rutgers University; M.S., University of Minnesota; D.N.P., Loyola University

HANNAH LAPLANTE, Radiologic Technology

A.S., Quinsigamond Community College

PATRICIA LAROCHELLE, Mathematics and Speech

B.S., Clark University; M.S., Clark University

PETER LATINO, Nursing

A.S., Atlantic Union College; B.A., Framingham State University; M.S., Walden University

KAILEIGH LAVIN, Nursing

B.S., Quinnipiac University M.S., University of Massachusetts-Chan Medical School

RAYMOND LAWLESS, Economics

B.S., Wentworth Institute of Technology; M.A., Framingham State University

DEBORAH LAWS, Art

B.A., Endicott College; M.A., Framingham State University

JASON LEBOEUF, Business and Technology

B.S., Worcester Polytechnic Institute; M.B.A., Babson College

CHERYL LEE, Biology

B.A., Clark University; M.S., Tufts University

JIN LENG, Math and Science

B.S., Nankai University; Ph.D., Cornell University

JOSEPH LENTINO, Math and Science

M.Ed., The Ohio State University

LORI LEONARD, Computer Information Systems

A.S., Quinsigamond Community College; B.S., Worcester State University; M.S., Northeastern University;

DEBORAH LEONARD, English

B.A., Atlantic Union College; M.A., Andrews University; M.Ed., Boston University

DAVID LEVEILLE, Radiologic Technology

A.S., Quinsigamond Community College

DEBORAH LEVIN, Psychology

B.S., University of Massachusetts; M.A., Anna Maria College; M.A., Fitchburg State University

TODD LEVINSON, Mathematics

B.S., Plymouth State College; M.Ed., Worcester State University

RAYNOLD LEWIS, Mathematics

B.A., The University College of the West Indies; M.A., Worcester State University; Ph.D., Illinois State University

BOQUAN LI, Physics

B.S., Anhui University; M.S., University of Science and Technology of China; Ph.D., University of Science and Technology of China

JESSE LIMANEK, History

B.A., Worcester State University; M.Ed., Worcester State University; J.D., Massachusetts School of Law

STEPHEN LINDE, English and English as a Second Language, Philosophy

B.S., Boston State College; M.Ed., Worcester State University

NICOLE LONERGAN, Nurse Education

A.S., Quinsigamond Community College; B.S., Southern New Hampshire University

RACHEL LOPEZ, Nurse Education

B.S., Cedarville University; M.S., University of Massachusetts Lowell

LINDSAY LOZEAU, Math and Science

B.S., The University of Rhode Island; Ph.D., Worcester Polytechnic Institute

FRANCOIS LUBIN, Economics

A.S., Lehigh Valley College; B.S., University of Montreal; B.S., Cedar Crest College; M.B.A., Kutztown University; M.S., Worcester Polytechnic Institute

MICHELLE MACARUSO, Respiratory Care

A.S., Quinsigamond Community College

MORIAH MACLEAN, Nursing

B.S., Southern New Hampshire University

HEATHER MADISON, Practical Nursing Program

A.S., Quinsigamond Community College; B.S., Boise State University

HOJATOLLAH MAJIDI, Mathematics

B.S., NWFP University of Engineering & Technology-Pakistan

LISA MANIATIS, Radiologic Technology

A.S., Quinsigamond Community College; B.S., Worcester State University

IRENA MANXHARI, Mathematics

B.S., University of Tirana; M.B.A., Assumption College

TRICIA MANZARO, Practical Nursing

B.S., MCPHS University

PATRICK MARA, Mathematics

B.S., Framingham State University; M.Ed., Cambridge College

DANIEL MARSALA, Respiratory Care

B.S., Boise State University

CATHERINE MARTIN, Orientation

B.S., Worcester State University; M.Ed., Worcester State University

DAVID MATSON, Dental Hygiene

B.A., Assumption College; DMD, Tufts University School of Dental Medicine

CATHERINE MAYNARD, Microcomputer Applications

M.B.A., Fitchburg State University;

JAMES MCARTHY, Business Administration

M.B.A., Fitchburg State University

DONNA MCCABE, Hotel & Restaurant Management

A.S., Quinsigamond Community College; B.S., Worcester State University

KAREN MCCARTHY, Occupational Therapy

A.A., Quinsigamond Community College; A.S., O.T., Quinsigamond Community College

WILLIAM MCCARTHY II, Psychology and Sociology

B.A., University of Massachusetts M.A., Worcester State University

KELLY MCDONALD, Computer Information Systems

A.S., Quinsigamond Community College; B.S., Anna Maria College; M.Ed., Framingham State University

WILLIAM MCGOVERN, Management, Marketing

B.A., St Francis College; M.A., Anna Maria College

MARGARET MCGRATH, Nurse Education

R.N., Worcester Memorial Hospital School of Nursing; B.S., Worcester State University; M.S.N., Anna Maria College

MICHELE MCGRATH-STAFANSKI, Nurse Education

A.S., Quinsigamond Community College; B.S., University of Massachusetts-Amherst; M.S., University of Massachusetts-Worcester

KRISTINE MCGUINN, Psychology

B.S., Worcester State University; M.A., University of Connecticut; Ph.D., University of Connecticut

LINDA MCINERNY, Nursing

A.D.N., Quinsigamond Community College; B.S.N., University of Massachusetts-Amherst; M.B.A., Anna Maria College

MARYKATE MCMASTER, English and Humanities

B.A., College of the Holy Cross; M.A., Boston College; Ph.D., College of William and Mary

MICHAEL MEAGHER, Electronics Engineering Technology

A.S.E.E., Thames Valley State Technical College; B.S.E.E., Northeastern University; M.E.S.E., Worcester State University

KATHLEEN MEAGHER, English

B.S., Worcester State College; M.Ed., Worcester State University

SUSAN MELLACE, Finance

B.S., University of Massachusetts; M.S., Bentley University

MICHAEL MEYER, Dental Hygiene

B.S., University of Massachusetts-Amherst; D.M.D., University of Pennsylvania School of Dental Medicine

ROBERT MEYERS, Allied Health

B.A., Boston University; J.D., Quinnipiac College School of Law

ROBBIN MILLER, Human Services

B.S., University at Albany; M.S., College of St. Rose; M.S., Worcester State University

KENNETH MILLIGAN, Fire Science

A.S., Quinsigamond Community College; A.S., Quinsigamond Community College; B.S., Anna Maria College

DENISE MINOR, Accounting

B.S., College of Insurance; J.D., Benjamin N. Cardozo School of Law; M.S., Boston University

LAUREN MISALE, Criminal Justice

B.A., Curry College; M.A., Clark University

KEVIN MOLT, Emergency Medical Technician

A.S., Quinsigamond Community College

NATHANIEL MONKS, Computer Science

A.S., Middlesex Community College; B.A., Northeastern University

JAMES MOORE, Criminal Justice

B.S., Anna Maria College; M.S., Western New England College

TIMOTHY MORAN, Mathematics

B.A., Hartwick College; M.Ed., Fitchburg State University; M.S., Worcester State University

KELLY MORGAN, American Sign Language/ Coordinator of the Deaf Studies/Theater Programs

B.A., Viterbo College; M.F.A., Western Reserve University

HANNA MORRIS, Spanish

B.A., University of Massachusetts-Amherst; M.A., Worcester State University

BARBARA MORRIS, Mathematics

B.S., Fairfield University; M.A., Fairfield University

CARLO MORRISSEY, Criminal Justice, Psychology and Sociology

B.S., Worcester State University; B.S., Clark University; M.A., Anna Maria College; Ed.D, Clark University

CAROLINE MUIRHEAD, Biological Sciences

B.A., Smith College

JEAN MUKHERJEE, Biology

B.A., Hamline University; Ph.D, Yeshiva University

CALLIE MULCAHY, Art

B.A., Anna Maria College; M.A., Rhode Island School of Design

BRIGID MULLEN-RICHARDS, Spanish

B.A., Saint Bonaventure University; M.A., Simmons College

MILUZKA MUNOZ-NORIEGA, Early Childhood Education

B.Ed., San Agustin University; M.Ed., Cambridge College

JESSICA MURPHY, Nurse Education

B.A., University of Massachusetts; M.A., Anna Maria College; B.S., University of Massachusetts

CAROL MURPHY, Accounting

B.A., Assumption College; M.B.A., Nichols College

CATHERINE MURPHY, Practical Nursing Program

B.S., Worcester State College

SHAUN MURPHY, Education Studies

M.A., Wilmington University

JAYE-ERIN MURPHY, Nurse Education

B.S., University of Massachusetts-Boston; M.S., Fitchburg State University

CYNTHIA MURPHY, English and Speech

B.A., Albertus Magnus College; M.A., Trinity College

ARSINELA MUSHA, English as a Second Language

B.A., University "Fan S. Noli"; M.A., Sofia University St. Kliment Ohridski; Ph.D., Sofia University St. Kliment Ohridski

MARY ANN NALBANDIAN, Psychology

B.A., Clark University; M.A., Assumption College

LAURIE NELSON, Human Services, Psychology and Gerontology

B.S., Framingham State University; M.S., Worcester State University

DONNA MARIE NELSON, English

B.A., University of New Hampshire; M.A., New York University

SAMUEL NEWTON, Electrical Engineering

M.S., New York University

MINDY NGUYEN, Psychology

B.S., Nova Southeastern University; M.S., Barry University

CATHERINE NOURSE, Hospitality & Recreation Management

B.S., The University of Georgia; M.P.H., The University of Alabama at Birmingham

JACOB NUNNEMACHER, Fire Science

B.A., Assumption College; B.S., Worcester Polytechnic Institute

RICHARD NYDAM, Emergency Medical Technician

A.S., Quinsigamond Community College

BENJAMIN NYLEN, Kinesiology

B.S., University of Massachusetts Amherst;

WILLIAM O'BRIEN, Business Law

B.A., George Washington University; J.D., State University of New York

TIMOTHY O'CONNOR, Criminal Justice

A.S., Quinsigamond Community College; B.S., Westfield State University; M.S., Clark University

KATHLEEN A. O'CONNOR, Mathematics

B.A., Clark University

MADELYN O'FARRELL, Physics

B.S., University of Pittsburgh; M.S., University of Pittsburgh

KATHRYN OHMAN, Nursing

B.S., University of Massachusetts Boston; M.S., Framingham State University

JENNIFER O'LEARY, History

B.A., Worcester State University; M.A., Worcester State University

FLORENCE OPPONG, Nursing

B.S., Framingham State University; M.S., Framingham State University

PATIENCE OSEI-WAREE, Nursing

B.S., College of Our Lady of the Elms

MICHAEL O'SULLIVAN, English

B.A., Boston University; M.Ed., Worcester State University

SUSAN PALMER-HOWES, Finance

B.S., Colby-Sawyer College

MARILYN PAPULIS, Mathematics

B.S., Worcester State University; M.Ed., University of Nevada in Las Vegas

JUDY PAVAO, Biology

B.S., University of Massachusetts-Amherst; M.Ed., University of Massachusetts-Amherst

ALAN PEARLMUTTER, Music

B.A., Brooklyn College; M.A.,Brooklyn College DMA, Peabody Conservatory of Music

MARJORIE PECHET, English and English as a Second Language

B.A., Ohio State College; M.A., Simmons College

ANTHONY PELLEGRINI, JR., Criminal Justice

B.A., College of the Holy Cross; M.Ed., Boston University School of Education

KEVIN PELLETIER, Business

B.S., Nichols College; M.B.A., Nichols College

MICHAEL D. PERRO, History

B.A., Worcester State University

KYLE PICKERING, Kinesiology/Exercise Physiology

B.S., University of Rhode Island

FLOR PIEDRASANTA, Dental Hygiene

A.S., Quinsigamond Community College

AMY PIETREWICZ, English

B.A., Fitchburg State University; M.Ed., Arizona State University; M.Ed., Worcester State University

JOHN PIGNATARO, Automotive Technology

A.S., Quinsigamond Community College

FRANCIS PISEGNA, Criminal Justice

B.A., Assumption College; M.A., Anna Maria College

MATTHEW PITTMAN, Medicine

M.D., East Carolina University - Brody School of Medicine

ROBERT PLANT, Emergency Medical Technician

Paramedic Program, Northeastern University

KAREN PLANT, Emergency Medical Technician

DEAN POLNEROW, Distance Education

B.S.E., University of Michigan; M.S., University of Massachusetts-Lowell

MICHAEL POPIK, Radiologic Technology

B.S., Rensselaer Polytechnic Institute; M.D., College of Medicine and Dentistry of New Jersey

STEPHEN PORCARO, English and Liberal Arts

B.A., Assumption College; M.E., Worcester State University

AMANDA POTASZNIK, French

Ph.D., University of Massachusetts-Boston

EILEEN POTVIN, Mathematics

B.S., Worcester State University; M.Ed., Worcester State University

MAURA POWER, Biology

B.S., Bridegwater State University M.A., University of Connecticut

DEVIKA PRASAD, Psychology

B.A., University of Connecticut; M.A., Assumption College

SAMANTHA PROVENCHER, Nursing

B.S., Southern New Hampshire University

JONATHAN PRYOR, Business & Technology

B.A., Stony Brook University M.Ed., Westfield State University

ERIKA PUCCIO, Psychology/Orientation

B.A., University of Connecticut; M.A., University of Massachusetts

ALI PUSKULCU, Music

M.A., University of Southern California

LORRAINE QUINN, Developmental English

B.A., State University of New York; M.Ed., Anna Maria College

OLIVIA RACHON, Communication Media

B.S., Fitchburg State University

KARI RADFORD, Nursing

M.S., University of Massachusetts Medical School; Ph.D., The University of Rhode Island

EDWARD RADIVONYK, Dental Hygiene

B.S., Northeastern University; D.M.D., Tufts University School of Dental Medicine

JONATHAN RANDALL, History, Political Science and Government

B.A., Denison University; M.P.S., Clark University

EILEEN RECORE, Practical Nursing

A.S., Becker College; B.S., Worcester State University

DANIEL REDDY, Computer Information Systems

B.A., Tufts University; M.Ed., Worcester State University

DENNIS REGELE, Energy Utility Technology

B.S., Worcester State University

JOANNE REIDY, Nursing

B.S., Boston University; M.P.H., Boston University; M.S., Worcester State University

CYNTHIA RETAMOZO, Psychology

B.S., Northeastern University; M.S., Boston University

DENNIS RICCI, Political Science and History

B.A., Framingham State University; M.A., University of Connecticut

STELLA RICHARD, Biology

Ph.D., Clark University

JUSTIN RICHARDS, Mathematics

B.A., Assumption College; M.A., Providence College

SETH RIDINGER, History

B.A., Worcester State University; M.Ed., Worcester State University

JOSEPH RINALDI, Mathematics

B.A., Worcester State University; M.S., University of Lowell

CAROL RINALDI, Mathematics

B.A., Worcester State University; M.A., University of Lowell

RENEE ROBICHAUD, Public Service & Social Sciences

B.A., Clark University M.A., Clark University

CYNARA ROBINSON, Sociology

B.A., Howard University; M.A., Howard University; M.A., University of Massachusetts-Amherst

SUZANNE RODENHISER, Human Services/ Science

A.S., Essex Agricultural & Technical Institute; B.S., University of Massachusetts; M.S. University of Massachusetts

NATALIE RODRIGUEZ, Hospitality & Recreation Management

A.S., Quinsigamond Community College;

BEVERLY ROEDER, Biology

B.A., Wittenberg University; D.V.M., Ohio State University; M.S., Kansas State University; Ph.D., Pennsylvania State University

DONNA ROLLO, Dental Hygiene

A.S., Quinsigamond Community College; B.S., Worcester State University; M.Ed., Worcester State University

WILFREDO ROMAN, HVAC

KATHRYN ROZANSKI, Nurse Education

R.N., Quinsigamond Community College; B.S.N., University of Massachusetts; M.S.N., Anna Maria College

LAURIE ROZELL, Nurse Education

A.S., Becker College; B.S., Walden University;

DONALD RUDGE, Computer Information Systems

B.S., Clark University; M.Ed., Worcester State University

GERALDINE RUSSELL, Nurse Education

A.S.N, Northern Essex Community College; B.S.N, Worcester State University; M.S.N, University of Massachusetts-Amherst

ALIMATU SAADIA ACHEAMPONG, Biology

B.S., Kwame Nkrumah University of Science and Technology; M.S., University of Hull; Ph.D., Northeastern University

ANTHONY SABATINELLI, Computer Information Systems

B.A., University of Massachusetts-Amherst

RAMKRISHNA SADHUKHAN, Biology

B.S., University of Calcutta, India; M.S., University of Calcutta, India; Ph.D., University of Calcutta, India

BRENDA SAFFORD, Human Services

A.S., Quinsigamond Community College; B.S., Assumption College;

M.S., Assumption College

MELANIE SANTA, Accounting

A.S., Quinsigamond Community College; B.S., Bay Path University; M.B.A., Bay Path University

DONNA SAUCIER, Business Office Support Specialist, Accounting, Computer Information Systems

B.S., University of Connecticut; M.A., Assumption College

KIMBERLEY SAUNDERS, Practical Nursing

B.S., University of Massachusetts, Dartmouth

KAREN SCHELL, Nurse Education

B.S., Worcester State University

SHARON SCHLIAPA, Business

A.S., Quinsigamond Community College; B.S., Salem State University; M.Ed., Worcester State University; M.Ed., Framingham State University

MARIE SCICHILONE, Psychology and Social Science

A.A., Quinsigamond Community College; B.S., Worcester State University; M.S., Worcester State University

JESSICA SCIOLETTI, Biology

B.S., Framingham State University

REBECCA SELBY, Health Sciences

B.S., Southern New Hampshire University

POLINA SHAPIRO, Mathematics

B.S., University of North Carolina at Wilmington

ANA SHARRY, Orientation

B.A., College of the Holy Cross; M.S., Northeastern University

JOAN SHEA, Radiologic Technology

A.S., Quinsigamond Community College; B.S., Worcester State University

BRIANNA SHEEHAN, Nurse Education

B.S., Worcester State University

SUSAN SHERIDAN, Biology and Social Science

A.S., Becker Junior College; B.S., Westfield State University; M.S., Bridgewater State University

LINDA SHUBERT, Nursing

B.S., Anna Maria College; M.S., Framingham State University

HEATHER SILEO, Mathematics

B.A., Middlebury College; M.S.T., Boston College

ERIN SILVEIRA, English

B.A., Rice University; M.A., Framingham State University

MARY SIMONE, Hotel & Restaurant Management

A.S., Paul Smith's College; B.S., SUNY College of Technology

NIRMAL SINGH, Biology and Chemistry

B.A., Bhagalpur University; M.A., Bhagalpur University; Ph.D., University of Delhi in India

CHRISTOPHER SLOCUM, Nurse Education

A.S., Massachusetts Bay Community College B.S., Framingham State University; M.S.N., Framingham State University

LISA SMITH, Allied Health and Surgical Technology

Surgical Technology Certification, Worcester Technical Institute

CYNTHIA SNYDER, Allied Health

A.S., Excelsior College

EDWARD SOCHA, Management and Marketing

A.A., Quinsigamond Community College; B.S., Fitchburg State University; M.B.A., Anna Maria College

MARIA SOJA, Emergency Medical Technician

B.S., Nichols College

JOHN SOLAPERTO, Art

A.A., Quinsigamond Community College; B.A., Clark University; M.F.A., Vermont College of Norwich University

GINA SOMERS, Nurse Education

B.S., Western Governors University

LARAINE SOMMELLA, English and Humanities

B.A., Antioch College; M.A., State University of New York at Stony Brook; Ph.D., State University of New York at Stony Brook

CARISSA SOUCIE, Nurse Education

A.S., Quinsigamond Community College; B.S., Worcester State University; M.S., Western Governors University

RICHARD SPOOL, Computer Information Systems

B.S., University of Florida; M.S., University of Florida; M.A., Brandeis University

RAYMOND ST. PETER, Nursing

A.S., Quinsigamond Community College; B.S., University of Phoenix; M.S., University of Phoenix

TOMI STEFANI, Engineering

M.S., Worcester Polytechnic Institute; B.S., Worcester Polytechnic Institute

NADINE STEWART, Sociology, Psychology and Orientation

B.A., Assumption College; M.Ed., Boston University

TORIAN STINNETTE, Biology

B.S., University of North Carolina at Chapel Hill; M.S., Thomas Jefferson University

MICHELLE STRONG RICOTTA, Nurse Education

B.A., St. Lawrence University; B.S., Massachusetts College of Pharmacy and Health Sciences

ARIELLE STRZELEWICZ, Clinical Research

M.S., Massachusetts College of Pharmacy and Health Sciences

KEVIN SULLIVAN, Computer Science

A.S., Quinsigamond Community College; B.A., Nichols College

TRAVIS SULLIVAN, First Year Experience

M.A., Assumption College

DANIELLE SURRETTE, First Year Experience

B.A., Middlebury College; M.Ed., Clark University

RICHARD SURRETTE, Business Law

B.A., University of Massachusetts-Amherst; J.D., Western New England University School of Law

KIMBERLY SURRETTE, Education

M.A.T., Clark University

MARK SZYMCIK, English

M.S., Bay Path College

KAREN TADRY, Respiratory Care

A.S., Quinsigamond Community College

LINDA TAVANO, Nursing

A.S., Labouré College of Healthcare B.S., Labouré College of Healthcare

WAYNE TAYLOR, Psychology

B.A., Boston College; M.A., Boston College

JAMES TEDESCO, HVAC

SUSAN TETREAULT, Allied Health

A.A., Quinsigamond Community College

BRIAN TEVES, Nursing Education

M.S., Southern New Hampshire University

STEVEN THIBODEAU, Occupational Therapy

B.S., University of Massachusetts-Amherst; B.S., Worcester State University

ROBYN THOMAS, Painting

M.A., University of Plymouth; Ph.D., University of Plymouth;

CHRISTOPHER THOMPSON, Marketing

B.S., University of Phoenix; M.B.A., University of Phoenix

DEWEY TIBERII, Dentistry

B.A., St. Michael's College; D.M.D., Tufts University School of Dental Medicine

SHAWN TINSLEY, Org Leadership

M.S., Nicholas College

DAWN TOOMEY, Biology

B.S., Worcester State University

KEYLA TORRES, Marketing

B.S., Southern New Hampshire University

ADRIANE TRUE, Nursing

A.S., Labouré College of Healthcare

KATE TULASI, Nurse Education

B.A., University of Ghana; A.S., Quinsigamond Community College; M.S., Worcester State University

PATRICIA TUPAJ, Accounting

B.S., University of Massachusetts; M.B.A., Nichols College

SWATHI ANURADHA TURLAPATI, Biology

B.S., Nagarjuna University; M.S., University of Hyderabad; Ph.D., University of Hyderabad

LISA TURNER, Nursing

B.S., Southern New Hampshire University

PRISCILLA UNDERWOOD, English

B.A., Worcester State University; M.Ed., Worcester State University; C.A.G.S., Worcester State University

LYNN VALERI, Nurse Education

A.S., Mount Wachusett Community College; B.S., Fitchburg State University M.S., Sacred Hear University

MICHAEL VALLANTE, Psychology and Sociology

A.A., Northern Essex Community College; B.A., University of Massachusetts; M.A.T., University of Massachusetts; M.A.T., University of Massachusetts

JAIME VALLEJOS, Biology/Coordinator of the Public Health Program

B.S., National Autonomous University of Nicaragua; M.D., National Autonomous University of Nicaragua; M.P.A., University of Massachusetts

ELLEN VANGEL-BROUSSEAU, Nurse Education

A.S., Quinsigamond Community College; B.S.N., Worcester State University; M.S., Boston College

PRISCILLA VAZQUEZ, Arts Administration

B.A., University of Massachusetts-Amherst

HEIDI VEROCK, Emergency Medical Technician

A.A., Quinsigamond Community College;

KEITH VEZEAU, English

B.A., Worcester State University; M.F.A., University of Iowa; M.L.I.S., Simmons College

TEUTA VEZULI, Biology

B.S., University of Tirana-Albania; Ph.D., University of Tirana-Albania

RAFAEL VICENTE, Mathematics

B.S., University of Santiago; M.S., University of Massachusetts

DAVID VILANDRE, English

B.A., Assumption College; M.A.T., Assumption College

MARIA VITA CALKINS, Psychology, General Studies, Sociology and Orientation

B.A., Amherst College; M.A., Anna Maria College; Ed.D., University of Massachusetts-Amherst

MARY VREELAND, American Sign Language

B.A., American University; M.F.A., Virginia Commonwealth University

LINDSEY WALCZAK, Nursing

B.S., Worcester State University

CAROLL WALDEN, English As A Second Language

B.A., Stony Brook University; M.A., Slippery Rock University; M.A., Framingham State University

GAIL WALL, Psychology and Social Sciences

B.S., Clark University; L.N.H.C., Framingham State University

MELISSA WALLS, Biology and Science

B.S., Utica College of Syracuse University; M.S., State University of New York at Courtland;

MARY WARREN, Accounting

A.A., University of Phoenix; B.S., University of Phoenix; M.S., University of Phoenix

FREDERICK WASSEL, Psychology

A.A., Quinsigamond Community College; B.S., Fitchburg State University; M.A., Anna Maria College; Ed.D., Boston University

STELA WASSON, English Language

B.A., Konstantin Preslavsky University of Shumen M.A., Plovdiv University Paissii Hilendarski

MARIA WATERHOUSE, Nursing

B.S., Masschusetts College of Pharmacy and Health Sciences

RYAN WEBSTER, Interactive Media and Game Design

M.S., Worcester Polytechnic Institute

TRACY WELDON, Dental Hygiene

A.S., Palm Beach Community College; B.S., Masschusetts College of Pharmacy & Health Sciences

WINONA WENDTH, Humanities

B.A., Atlantic Union College; M.F.A., Bennington College

NORMAN WENDTH, Humanities

B.A., Atlantic Union College; M.A., Loma Linda University; Ph.D., Claremont Graduate School

LISA WHITCOMB, Mathematics

B.S., University of Pittsburgh; M.S., Syracuse University; M.S., Worcester Polytechnic Institute

BONNIE WICKLUND, Mathematics

A.S., Mount Wachusett Community College; B.S., Fitchburg State University; M.Ed., Fitchburg State University

SANATH WIJERATHNA, Biology

B.S., University of Peradeniya; Ph.D., Case Western Reserve University

STEPHEN WILLAND, Marketing

B.A., College of the Holy Cross; Ph.D., University of Massachusetts

SARAH WILLIAMS, Art

B.F.A., Massachusetts College of Arts; M.A., San Francisco Art Institute

ANNEMARIE WINSLOW, Public Services and Social Sciences

B.S., Worcester State University; M.P.H., University of Massachusetts

MONICA WIRICKX, EMT

A.S., Quinsigamond Community College;

MARY ELLEN WOLFE, Mathematics

B.S., Arizona State University; M.A.T., Manhattanville College

PHILLIP WONG, Biology

B.A., State University of New York at Binghamton; D.C., New York Chiropractic College

---

MAUREEN WOOLHOUSE, Mathematics

B.A., Anna Maria College; M.Ed., Worcester State University; M.M., Worcester Polytechnic Institute

---

JENNIFER WRIGHT, Respiratory Care

A.S., Quinsigamond Community College;

DAVID YACAVACE, English

B.A., Assumption College; M.A., Assumption College

DAGNE YESIHAK, Criminal Justice

B.S., University of Massachusetts; M.S., Northeastern University; J.D., Massachusetts School of Law

---

RICHARD ZAJCHOWSKI, Human Services

B.A., Amherst College; M.A., Claremont Graduate School and University Center

---

RANDEEN ZANCA, Developmental English and English

B.A., University of British Columbia; M.Ed., Framingham State University

---

ELDA ZEKO-UNDERWOOD, Psychology and Orientation

B.A., Tirana University; M.A., Assumption College

KELLEN ZOLLO, Early College

B.A., Rhode Island College;

BETSY ZUEGG, Developmental English

B.A., Newton College of the Sacred Heart; M.Ed., Lesley College

Program Advisory Committees

Automotive Technology

- Dan Capuano, Assabet Valley Regional Technical High School
- Nicholas Faoro, Ford Motor Company
- Michelle Hoey-Sloan, Hoey Tire
- Jim Kelley, Sentry Lincoln-Mazda
- George Panagioto, Suburu of New England
- John Paul, AAA Southern New England

Business Administration

- Terry Burke, Human Resource Recruiter/ Associate
- Shirley Dempsey, QCC
- Anastasia Garcia, CL IT Business Analyst & Chair of Women at Hanover
- Marshall Gaye, UPS
- Jennifer Ginsburg, JD, Worcester District Court - Associate Justice
- Suzanne Graham Anderson, MBA MSOL, Positively Suzanne! - CEO & Owner
- James Hoogasian, Spencer Financial
- John Hulton, TriMark, USA
- Betsy Landry, Mirick, O'Connell, DeMallie & Lougee, LLP - Human Resources Director
- David Mayotte, CPA, Greenberg, Rosenblatt, Kull & Bitsoli, PC
- Ryan McKetchnie, Cumberland Farms - Manager of Financial Reporting
- Larry Sasso, Larry Sasso Insurance & Financial Services
- Amy Sciannameo, Hanover Insurance Group - Senior Multinational Underwriter
- Brian Smith, Habitat for Humanity MW/GW - Finance Associate/Office Coordinator
- James Trice, Worcester SCORE & Fisher College - Adjunct Professor
- Carmen Valle, Main South CDC - Finance Director
- Marnie Weir, Worcester Art Museum - Education & Experience Director
- Leigh Woodruff, JD, MA, Community Legal Aid - Litigation Director

Children's School: QCC's Early Childhood Education Lab School

- Michelle Brennan, QCC
- Melissa Fama, QCC
- Karen Grant, QCC
- Nicole Heldenbergh, QCC
- Jason Kurland, QCC
- Kevin Lovaincy, QCC
- Heather Lukas, QCC
- Greg Mullaney, QCC
- Kevin Ritacco, QCC
- Erin Roache, QCC
- Sara Simms, QCC

Computer Information Systems

- Kerry Berry, QCC
- John Coppola, Mode - Software Engineer
- Rahul Gomez, Strom Petrel - Customer Support Lead
- Scott Pilate, Reliant Medical Group - Applications & Business Intelligence Director
- Tu Tong, RedHawk On-Demand Insurance-Related Services - Software Engineer

Computer Science

- Dr. Gordon Anderson, UMass Amherst - Computer Science Department
- Dr. Elena Braynova, Worcester State University
- Dr. David Adams, UMass Lowell - Computer Science Department
- Dr. Craig Shue, Worcester Polytechnic Institute (WPI)

Computer Systems Engineering Technology

- Andrew Pierce, Saint-Gobain
- John Reed, Worcester Public Schools
- Joshua Trombley, Hanover Insurance

Criminal Justice

- Douglas Bushman, Attorney
- Thomas Duffy, Local Police Officer - Retired
- John Graham, Corrections Consultant
- Lauren Misale, Clark University - Police Chief
- Reynaldo Rodriguez, QCC
- Michael Sampson, MA State Police Department - Retired
- Paul Salvadore, Worcester County Sheriff's Office - Detective
- QCC Criminal Justice Program - Student Representative(s)
- QCC Criminal Justice Program - Recent Graduate(s)

Dental Programs

- Julie Cady, QCC DH Alumni Representative
- Dr. Brandon Cairo, QCC
- Kyliegh Corey, QCC DH Class of 2025 - Student Representative
- Jane Crocker, Registered Dental Hygienist from the Community
- Rene Cummings, QCC
- Dr. Mary Dalton, Worcester District Dental Society - Chair Elect
- Sydney Ecklund, Licensed/Registered CDA from the Community
- Jane Gauthier, QCC
- Dr. Robert Gauthier, General Dental Practitioner from the Community
- Dr. David Handsman, Specialist Dentist from the Community
- Destiny Ingersoll, QCC DA Class of 2023 - DA Alumni
- Dr. David Matson, QCC
- Jennifer McKeon, QCC
- Lexy Mendez, Licensed/Registered CDA from the Community
- Sandra Nichols, Massachusetts Dental Hygienists' Association - President
- Gina Saucier, Licensed/Registered CDA

from the Community
- Tracey Sbrogna, Worcester District Dental Assistants Association - President
- Pat Schmohl, QCC
- Elizabeth Swenson, QCC DH Class of 2025 - Student Representative

Early Childhood Education

- Darlene Belliveau, YWCA Central MA - Early Education and Care
- Michelle Brennan, QCC
- Kim Davenport, Edward Street Child Services
- Carol Donnelly, Worcester State University
- Kathy Dow, Southbridge Head Start
- Eve Gilmore, Edward Street Child Services
- Joanne Gravell, Family Service for Central MA
- Shelese Johnson, Worcester Technical High School/Preschool - Early Childhood Education Department
- Jenny Mare, Guild of St. Agnes
- Joe Martin, Pakachoag Acres
- Erin Roache, QCC
- Carlene Sherbourne, Worcester Child Development - Head Start Program
- Kim Sullivan, First Friends Early Education Center
- Dina Tayler, Worcester Technical High School - Early Childhood Education Department

Electronics Engineering Technology

- Mike Barone, Live Automation
- Christopher Bonni, Galvion
- Mike Bouckaert, Valmet
- Thomas Comerford, IPG Photonics
- Russell Dumas, ABM Health
- Tommy Estevez, IPG Photonics
- Jim Guimarra, Northeastern University - College of Professional Studies
- Cody Hamilton, Valmet
- John Kennedy, Valmet
- Mike Meagher, Worcester Technical High School
- Robert Orasz, Bay Path Regional Vocational Technical High School
- Nick Peluso, Valmet

Emergency Medicine

- Gary Cherest, Vital Ambulance
- Steve Coleman, Auburn Fire
- Cheryl Finn, QCC
- Ricci Hall, QCC
- Paul Normadin, Southbridge Fire
- Richard Nydam, QCC
- Karen Plant, Ashburnham Fire and QCC
- Mark Restuceia, Medical Director
- Pat Schmohl, QCC

Engineering

- Connie Armento, Worcester Polytechnic Institute (WPI)
- Nadine Delisle, Tantasqua Regional High School
- Jorgo Gushi, MATWORK
- Nikita Igoshin, Worcester Polytechnic Institute (WPI) and QCC Alumni
- Sokol Lushllari, QCC Alumni
- Robert MacRae, MA Materials Research, Inc.
- Joel Malaver, Shrewsbury Electric & Cable Operations (SELCO)
- Jenna Noel-Grinshteyn, Worcester Polytechnic Institute (WPI)
- Jacob Shore, MA Materials Research, Inc.
- Kennedy Udechukwu, QCC Alumni
- Armela Xhindole, Worcester Polytechnic Institute (WPI) and QCC Alumni

Heating Ventilation Air Conditioning

- Mark Buzzell, Siemens Industry, Inc.
- Manny Chaves, Chaves HVAC
- David Kempskie, AET Labs
- George Lanthier, Firedragon Academy
- Mark Meacham, Mark E. Meacham, Inc.

Honors Program

- Gaelan Benway, QCC
- Bonnie Coleman, QCC
- Kathy Frederickson, QCC
- Beth Fullerton, QCC
- Jean Kennedy, QCC
- Susan McPherson, QCC
- John Stazinski, QCC
- Michael Stevenson, QCC
- Tiger Swan, QCC
- Margaret Wong, QCC

Hospitality and Recreation Management

- Michael Banks, Montachusett Regional Vocational Technical School
- Kelsey Charron, Worcester Public Schools, South High School - Culinary/Hospitality Teacher
- Lisa Ciarametaro, Anderson Nutrition Services, LLC - Dietitian
- Orlando Fowling, QCC Alumni - Culinary Training
- Mark Hawley, VIA Italian Table
- Pat Hutchinson, QCC
- Kathy Kirk, Roedel Companies, LLC - Sales and Marketing Area Director
- Catherine Kling Nourse, QCC
- Anne Kruse, DCU Center - Convention Sales Manager
- Suki Lapin, Worcester Senior Center
- Tina Litwinetz, Salmon Health and Retirement - Dining Operations Manager
- Donna Lombardi, Worcester Public Schools - Nutrition
- Stephanie Conrad, Polar Park - Hospitality for Professional Sports Catering Vice President
- Russ Mangsen, Assabet Valley Regional Technical High School
- Donna McCabe, QCC
- Kerry Miller, Restaurant Association
- Adam Pacenka, QCC Alumni - Employment Options
- Amarilys Saluk, New London Rehab and Care - Certified Dietary Manager
- Mark Sansoucy, Bay Path Regional Vocational Technical High School
- Mary Simone, QCC
- Peter Tamulis, QCC
- Mark Waxler, Waxler Hospitality Group - Principal
- Paul Wilson, Nashoba Valley Technical High School

Human Services

- Lisa Brennan, Genesis Club
- Marissa Brown, Seven Hills
- Michelle Bryson, Bay Path University
- Lynn Clifford, Worcester District Court
- Joanne Fowling, Boys & Girls Club of Worcester
- Beth Fullerton, QCC
- Christine Gaze, New Hope
- Darlene Heywosz, YWCA of Central MA
- Jean Kennedy, QCC
- Heidi Sue LeBoeuf, Pathways for Change, Inc.
- Sam Martin, Worcester Youth Center
- Emily Mew, Disaster Relief for Salvation Army
- Susan Moriarty, QCC
- Karen Oberg, MSW, Open Sky/Community Health Link and QCC Alumni - Human Services
- Dianna Rebello, Center of Hope Foundation
- Alana Richard, QCC
- Lenore Rust, Anna Maria College Graduate Studies and QCC
- Pamela Suprenant, YMCA of Central MA
- Erika Travinski, Center for Hope
- Josefina Velez, Friendly House
- Doe West, QCC
- Nichole Wheeler, QCC
- Erin Wilson, Worcester Housing Authority
- Linda Wincek-Moore, Worcester Senior Center
- Anthony Yeulenski, QCC

Interactive Media

- Todd Adams, Marketing Drive Worldwide
- John Brissette, IMakeNews (IMN)
- Sheila Davis, Community Advocate
- Mauro DePasquale, Multimedia Solutions
- Joseph Gardner, Curry Printing
- Peter Gardner, Curry Printing
- Joseph Gonzalez-Dufresne, JGD Design & Photography
- David Gorham, David Gorham Graphic Designer
- Irma Karpaviciute, Irma K Design
- Rebecca Larson, Bay Path Regional Vocational Technical High School
- Carolyn McGrath, Holden Public Schools
- Paul Melo, Worcester Public Schools
- Mary Richinik, Mary Richinik Graphic Design
- Luis Rodriguez, Framingham State University
- Wendy Sandman, Fidelity Investments

Manufacturing Technology

- Meaghan Abella-Bowen, Massachusetts Technology Collaborative
- John Allard, Assabet Valley Regional Technical High School
- Toby Bergstrom, Worcester Polytechnic Institute (WPI)
- Jay Blauser, Montachusett Regional Vocational Technical School
- Nicholas Bold, Worcester Polytechnic Institute (WPI)
- Joel Butke, Emuge
- Tomi Casali, NyproMold, Inc.
- Richard Cobiski, C&C Metals
- Todd Cournoyer, Prime Metals
- Brian Cummings, Worcester Public Schools
- Danielle Deschene, JT Machine
- Michael Detarando, Incom
- Rafael Encarnacion, Atech Turbine
- Stephanie Farmer, David Clark
- Jim Hall, Wirefab, Inc.
- Robert Jaques, A&M Tool & Die
- Mike Jones, CoorsTek
- Jan Kania, JP Manufacturing, Inc.
- Amar Kapur, Aimtek
- Scott Kibe, Rolls Royce
- John Kotarba, A&M Tool & Die
- Dick Lempicki, United Lens
- John Looney, Dexter-Russell, Inc.
- Michael McCarthy, David Clark
- Jeff Moineau, Wirefab, Inc.
- Tate Ostiguy, Bay Path Regional Vocational Technical High School
- Kevin Pelletier, MA Materials Research, Inc.
- Cathy Phillips, Philips Precision, Inc.
- Steven Phillips, Philips Precision, Inc.
- Dan Rediger, Rolls Royce
- Ray Rousseau, Tantasqua Regional High School
- Chad Runions, CoorsTek
- Nicole Ryan, Lampin
- James Samsel, Wirefab, Inc.
- Steven Savage, AIS
- Chris Sullivan, Xponent Global, Inc.

Medical Assisting

- Georgina Borte, QCC
- Sarah Brown, Public/Community Member
- Lynn D'Angelo, UMass Memorial Medical Group - Clinical Partner
- Cheryl DeCoff, QCC
- Jessica Foley, Reliant Medical Group - Clinical Partner
- Patricia Gancorz, Reliant Medical Group - Clinical Partner
- Linda Grenache, QCC
- Dawn Jordan, MA Society of Medical Assistants - President
- Keri Kiefer, QCC
- Brittany Kosiba, Milford Regional Medical Group - Employer Representative
- Janira Sanchez, QCC Graduate
- Pat Schmohl, QCC
- Shanan Stratis, QCC

Nurse Education

- Mary Kay Alexander (Chair), UMass Graduate School of Nursing
- James Barham, QCC
- Lucy Bibiu, QCC RN 2012 Graduate, QCC PN and QCC RN Alumni
- Sheri Boisseau, QCC
- Kerry Burrill, Harrington Hospital
- Katherine Carelli, Milford Hospital
- William Chadbourne, Worcester State University
- Pat Creelman, QCC
- Nicole Croteau, Beaumont Nursing and Rehabilitation
- Carol Kapolka, Notre Dame Health Care
- Paul MacKinnon, HealthAlliance Hospital and QCC Alumni
- Michael Moore, State Senator

- Chau Nguyen, QCC
- MaryEllen Nietupski, QCC
- Michelle O'Rourke, CNO, UMMHC
- Jay Prosser, Nursing Council on Workforce Sustainability
- Ann Marie Reynolds, Worcester Public Schools
- Maureen Ricotta, QCC
- Tina Sanford, Assabet Valley Regional Technical High School
- Pat Schmohl, QCC
- Meredith Stone, QCC
- Jill Terrien, PhD ANP-BC, UMass Medical School - GSN
- Meg Yoder, QCC

Occupational Therapy Assistant

- Amy Booth, RDH, CDA, M.Ed, QCC
- Melanie Glynn, OTA, COTA, QCC Alumni and QCC
- Julie Anne Gonynor, OTA, COTA, Northbridge Public Schools and QCC Alumni
- Rachel Horan, OTA, COTA, Odd Fellows Home and QCC Alumni
- Jacklyn Kerrins, OTA, COTA, Quabbin Valley Healthcare and QCC Alumni
- Susan Krikorian, OT, OTD, New Bedford Public Schools
- Karen McCarthy, OTA, LPN, CDP, COTA, Salmon Healthcare and QCC
- Tammy Murray, OT, OTD, Central MA Collaborative, QCC Alumni, and former member of QCC Board of Trustees
- Ian Nolan, OT, MS, OTR, Barrett Family Wellness
- Alissa Rivard, OTA, COTA, Seven Hills Aspire!
- Steven Thibodeau, OT, Bayda Home Care Services and QCC
- QCC Occupational Therapy Freshman Class - Student Representative(s)
- QCC Occupational Therapy Senior Class - Student Representative(s)

Radiologic Technology

- Marcia Amaral, RT(R), UMass Memorial Medical Center - Memorial Campus - Diagnostic Imaging
- Stephen Beaudoin, RT(R), UMass Memorial Medical Center - University Campus - Diagnostic Imaging
- Darren Bonneau, RT(R), Heywood Hospital - Diagnostic Imaging
- Philip Bottone, MPH, RT(R)(CT)(N), CNMT, Colorado Mesa University
- Taunja Canedy, RT(R)(CT), UMass Memorial Health - Harrington Hospital - Diagnostic Imaging
- Lux Caraballo, RT(R), St. Vincent Medical Center - Diagnostic Imaging
- Laura Chapman, BS, RT(R)(CT), Milford Regional Medical Center - Diagnostic Imaging
- Michael Popik, M.D., QCC
- Kevin Reynolds, MHA, RT(R)(CT), UMass Memorial Medical Center - University Campus
- Paul Riggieri, UMass Memorial Health - HealthAlliance and Marlborough Hospital - Diagnostic Imaging
- QCC Radiologic Technology Program - Student Representative(s)
- QCC Radiologic Technology Program - Faculty Representative(s)

Respiratory Care

- Georgina Borte, QCC
- Rachel Carragher, UMass Memorial Medical Center
- Brittany Casasanta, RRT, Heywood Hospital
- Lisa Corneau, RRT, St. Vincent Hospital
- Daniel Fisher, RRT, Milford Regional Medical Center
- Amy Hogan, MET, RRT, QCC
- Morgan Lindsey, RRT, Tufts Medical Center and QCC RCP Alumni
- Scott Maclean, RRT, Harrington Healthcare System
- Heather Madison, RRT, Children's Hospital, QCC RCP 2014 Alumni, and QCC
- Tonya Morrill, RRT, Tufts Medical Center and QCC RCP Alumni
- Jason Moury, RRT, Heywood Healthcare
- Richard Rosiello, MD, St. Vincent Hospital
- Kim Shell, RRT, St. Vincent Hospital and QCC
- Tempe Staples, Healthy Greater Worcester - Public/Community Member
- Shanan Stratis, QCC
- Karen Tadry, RRT, St. Vincent Hospital and QCC
- QCC Respiratory Care Freshman Class - Student Representative(s)
- QCC Respiratory Care Sophomore Class - Student Representative(s)

Surgical Technology

- Michelle Aquadro, Harrington Hospital - Assistant Director of Surgical Services
- Amy Averbeck, UMass Workforce
- Sarah Brown, Public Member
- Mary Camosse, UMass Memorial - O.R. Educator
- Dr. Nicole Cherng, UMass Memorial - Physician
- Diana Gordon, QCC
- Julie Milner, Graduate QCC Student
- Kathleen Mondor, UMass University - Director of Surgical Services
- Karen Morell, UMass Memorial - Director of Surgical Services
- Nicole Parella, QCC Current Student
- Shanan Stratis, QCC
- Jessica Suarez, QCC Graduate Representative

Utility Technology

- Maurice Bracken, Tantasqua Regional High School - Retired
- Michael Flagg, Holden Municipal Light Department
- Patrick Hallihan, National Grid
- John Laverty, Shrewsbury Electric & Cable Operations (SELCO)
- Scott Mansfield, Tantasqua Regional High School
- William McDonald, National Grid
- Dennis Regele, QCC
- James Robinson, Holden Municipal Light Department
- Steven Socoby, Northeast Public Power Association (NEPPA)
- Jody Stockwell-Jersyk, Irby Tool & Safety
- Edward Tillgren, Hydron, Inc.

All visitors and those seeking Admissions should start at the Welcome Center

1. Welcome Center

2. Administration Building (A)

Lower Level

Bookstore	Lower Level - A
Business Office	B07A
Cafeteria	Lower Level - A
Counseling & Wellness	56A
I.T. Service Desk	B62A

First Floor

Dental Hygiene Clinic	126A
President's Office	132A
Registrar	152A
TRiO Student Support Services	170A
VP of Academic Affairs	103A
VP of Strategic Enrollment Management & Student Engagement	133A

Second Floor

Gateway to College	209/217A
Student Accessibility Services	246A
Veteran Affairs Office	258A
Human Resources	222A
Center for Career & Transfer Services	272A

Third Floor

Dean of Students	365A
Placement Testing	376A
Harrington Academic Computing Center	379A
Assistant Dean of Students	383A
High School Equivalency Testing	384A

3. Surprenant Hall (S)

Hebert Auditorium

4. Ahlfors Hall (ALF)

Office of Distance Learning & Professional Development

5. Athletic Center (AC)

Fitness Center
Gymnasium
Campus Police 136AC

6. Campus Police 136AC

7. Child Study Center (CSC)

8. Fuller Student Center

Student Life
Wyvern Word Newspaper
Student Senate

9. Harrington Learning Center (HLC)

Second Floor - Student Success Center

Academic Advising
Admissions
Financial Aid
Subject Tutoring Center
Math Center
Writing Center

Third Floor

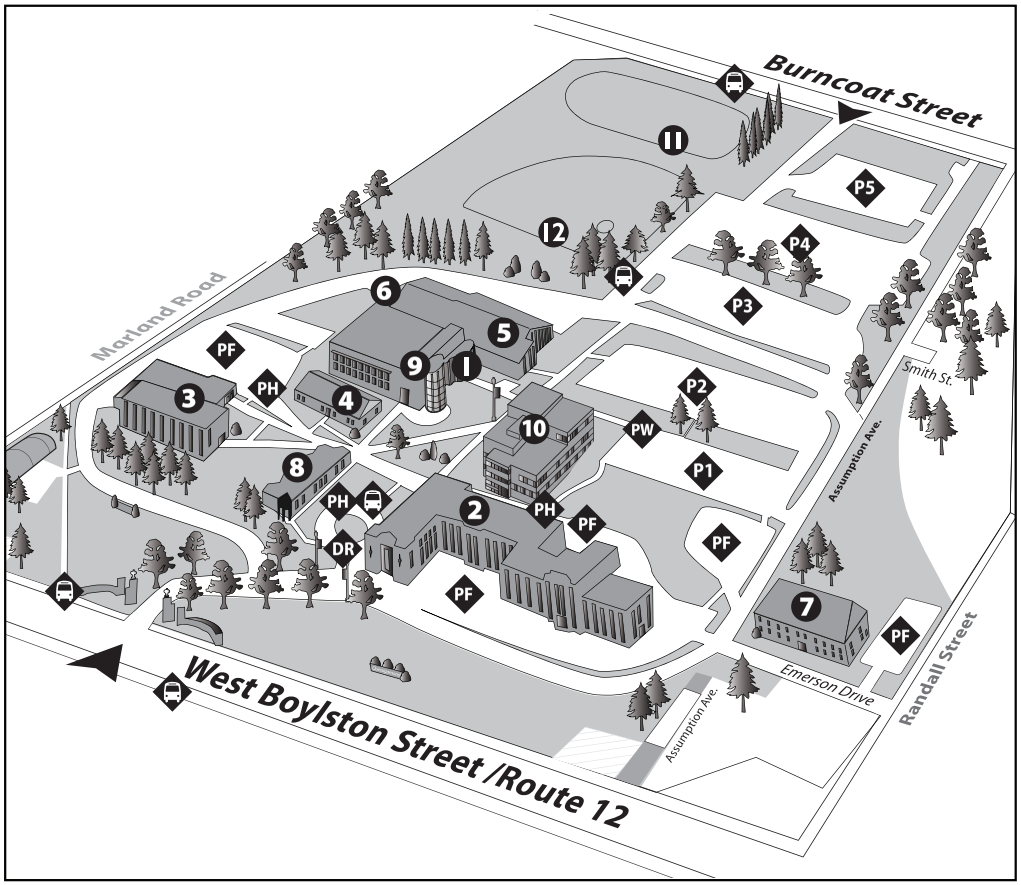
Alden Library

10. QuEST Center

Fab Lab 113Q

11. Athletic Field & Track

12. Chupka Baseball Field



Parking

DR	Drop Off/Pickup
PW	Welcome Center Parking
P1-5	Student & Visitor Parking
PF	Faculty & Staff Parking
PH	Handicapped Parking

Class Locations - Main Campus

A	Administration Building
ALF	Ahlfors Hall
AC	Athletic Center
CSC	Child Study Center
HLC	Harrington Learning Center
Q	QuEST Center
S	Surprenant Hall

Off-Campus Class Locations

BURN	QCC at Burncoat
CWDCE	Center for Workforce Development and Continuing Education
D	Healthcare and Workforce Development Center
QSB	QCC at Southbridge
SRCT	QCC at the Worcester Senior Center

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