

# 2020-2021

## 6/16/2020 ADDENDUM



**QUINSIGAMOND**  
Community College



**COLLEGE.**  
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## Dietary Management Certificate — DMC Certificate

### Connections:

Credits from this certificate can be applied to the following associate degree(s):

- Hospitality and Recreation Management - Foodservice Management Option, Hospitality and Recreation Management - Hospitality Management Option

### Program Goals:

The goal of the Dietary Management Certificate is to provide a short-term education and training program whose graduates will be prepared for certification, immediate employment, and/or continuing education in the fast growing field of dietary management. The QCC Dietary Management Certificate is a participant in the Association of Nutrition & Foodservice Professionals (ANFP); students can earn simultaneous credentialing with the ANFP. This program includes both classroom education and 150 hours of practical field experience.

### 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) will take the Certified Dietary Manager (CDM) credentialing exam through the ANFP.

### Admissions Process:

Admissions inquiries should be directed to [admissions@qcc.mass.edu](mailto: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](http://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 for students working at the Diner. Finger printing and drug testing are not required.

- The College is authorized by the Commonwealth's

Department of Criminal Justice Information Services to access CORI records. The College shall refer to regulations issued by the Commonwealth's Executive Office of Health and Human Services, 101 CMR 15.00-15.15, as guidance when assessing student CORI records.

- Sex Offender background checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P, with regulations at 803 CMR 1.01-1.37.

### Additional Cost:

See page 29 for Program Fees.

- Students enrolled in HRM 299 may incur an additional expense for professional liability insurance.
- 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.

### Location:

- All HRM-specific 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 requirements in HRM courses.

### Technical Performance Standards:

See page 15 for Technical Performance Standards. (Note: Not all programs have technical performance standards).

### Credit for Prior Learning:

Students enrolled in this program may be able to earn academic credit for prior learning. Please contact Career Services & Credit for Prior Learning (Room 272A) at [careerservices@qcc.mass.edu](mailto:careerservices@qcc.mass.edu) or 508.854.4439.

### Career Outlook:

Please consult the Massachusetts Career Information System at <https://masscis.intocareers.org/> or the Occupational Outlook Handbook at [www.bls.gov/ooh/](http://www.bls.gov/ooh/) for specific occupational information. The CIP code for this program is 19.0599.

### Transfer Articulations & Opportunities:

Prospective students may learn more about transfer articulation agreements at [www.QCC.edu/agreements](http://www.QCC.edu/agreements). More information regarding transfer opportunities is available at [www.QCC.edu/transfer](http://www.QCC.edu/transfer).

**Program Contact Email:** [hrm@qcc.mass.edu](mailto:hrm@qcc.mass.edu)

### Additional Information:

- Students completing the pathways (education plus experience) will take the Certified Dietary Manager (CDM) credentialing exam through the ANFP.



## Dietary Management Certificate — DMC

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1</b>				
<ul style="list-style-type: none"> <li>Apply and get accepted to this program (Program Code: DMC).</li> <li>Register for and successfully complete all courses to graduate in two semesters.</li> <li>Choose either HRM 112 (4 credits) or CUL 113 (2 credits) and CUL 114 (2 credits).</li> <li>Meet with a QCC Career Services Representative and attend Workshops. See <a href="http://www.QCC.edu/career-services">www.QCC.edu/career-services</a>.</li> <li>Meet with Program Coordinator to discuss pathway to ANFP certification.</li> <li>Meet with Program Coordinator to plan supervised field experience.</li> </ul>				
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Basic Foods: Mise En Place	HRM 110	F/S	3	
Basic Foods: Garde-Manager & Saucier <b>OR</b>	HRM 112	F/S	4	Coreq: HRM 110
Introduction to Vegetables, Fruits & Grains <b>AND</b>	CUL 113		2	
Introduction to Dairy, Salads & Sandwiches	CUL 114		2	
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
		<b>Total</b>	<b>14</b>	
<b>Semester 2</b>				
<ul style="list-style-type: none"> <li>Choose either HRM 111 (4 credits) or CUL 111 (2 credits) and CUL 112 (2 credits).</li> <li>Choose either HRM 298 (2 credits) or HRM 299 (2 credits). HRM 298 is a cooperative education practicum.</li> <li>Meet with a Career Services Representative for Job Search Assistance services.</li> <li>Meet with Academic Advisor to discuss associate degree (Program Code: HRFO, HRHO).</li> <li>Schedule exam prep course.</li> <li>Meet with Program Coordinator to schedule exam.</li> <li>Submit an Intent to Graduate Form, located on <i>The Q</i>.</li> </ul>				
Basic Foods: Basic Boucher & Patisserie <b>OR</b>	HRM 111	F/S	4	Coreq: HRM 110
Introduction to Meats <b>AND</b>	CUL 111		2	
Introduction to Poultry & Seafood	CUL 112		2	
Hospitality Law and Ethics	HRM 121	F/S	3	
Nutrition for Foodservice Management	HRM 216	F/S	3	Coreq: CUL 111 or CUL 112 or CUL 113 or CUL 114 or HRM 111 or HRM 112
Management in the Hospitality Industry	HRM 235	S	3	
Hotel/Restaurant Management Cooperative Education Practicum <b>OR</b>	HRM 298	F/S/SU	2	Approval of Program Coordinator
Hotel/Restaurant Management Cooperative Education Experience	HRM 299			
		<b>Total</b>	<b>15</b>	
<b>Total Credits Required:</b>			<b>29</b>	

- 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.

### Mandatory Health & Immunization Requirements:

Students must provide documentation of all of the following prior to enrolling in the field experience portion of this program:

- Current negative Tuberculin Skin Test and two-step follow-up with annual update or negative chest x-ray and yearly review.
- MMR or titers verifying immunity.
- Hepatitis B vaccination and positive titer or evidence provided in writing or health documentation as to receipt of the hepatitis B vaccine along with the numerical result of anti-hepatitis B testing. Students with an anti-hepatitis B level <10 will provide a letter from their PCP for review as to ongoing assessment of their hepatitis B status.
- Tetanus/Diphtheria vaccination within 10 years or Tdap.
- Varicella vaccination (two doses) or evidence of positive titer.
- Annual seasonal Influenza vaccine.
- Current CPR for the Health Care Provider or Professional Rescuer certification.
- Copy of current health insurance coverage.

## Foodservice Management Certificate — FM

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1</b>				
<ul style="list-style-type: none"> <li>Apply and get accepted to this program (Program Code: FM).</li> <li>Register for and successfully complete all courses to graduate in two semesters.</li> <li>Choose either HRM 111 (4 credits) or CUL 111 (2 credits) and CUL 112 (2 credits).</li> <li>Meet with a QCC Career Services Representative and attend Workshops. See <a href="http://www.QCC.edu/career-services">www.QCC.edu/career-services</a>.</li> </ul>				
Introduction to Hotel/Restaurant Management	HRM 101	F/S	3	
Basic Foods: Mise En Place	HRM 110	F/S	3	
Basic Foods: Basic Boucher & Patisserie <b>OR</b>	HRM 111	F/S	4	Coreq: HRM 110
Introduction to Meats AND	CUL 111		2	
Introduction to Poultry & Seafood	CUL 112		2	
Sanitation Certification	HRM 115	F/S/SU	1	
Hospitality Law and Ethics	HRM 121	F/S	3	
		<b>Total</b>	<b>14</b>	
<b>Semester 2</b>				
<ul style="list-style-type: none"> <li>Choose either HRM 112 (4 credits) or CUL 113 (2 credits) and CUL 114 (2 credits).</li> <li>Meet with a Career Services Representative for Job Search Assistance services.</li> <li>Meet with Academic Advisor to discuss associate degree (Program Code: HRFO, HRHO).</li> <li>Submit an Intent to Graduate Form, located on <i>The Q</i>.</li> </ul>				
Basic Foods: Garde-Manager & Saucier <b>OR</b>	HRM 112	F/S	4	Coreq: HRM 110
Introduction to Vegetables, Fruits & Grains <b>AND</b>	CUL 113		2	
Introduction to Dairy, Salads & Sandwiches	CUL 114		2	
Food and Beverage Cost Control	HRM 131	F/S	3	
Business Elective	---	F/S/SU	3	
English Elective	---	F/S/SU	3	
Hotel/Restaurant Management Elective	---	F/S/SU	3	
		<b>Total</b>	<b>13</b>	
<b>Total Credits Required:</b>			<b>27</b>	

**Hospitality and Recreation Management - Foodservice Management Option — HRFO — Associate in Science**

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1</b>				
<ul style="list-style-type: none"> <li>Apply and get accepted to this program (Program Code: HRFO).</li> <li>Register for and successfully complete all courses to graduate in four semesters.</li> <li>CORI/SORI checks required.</li> <li>Complete ENG 101.</li> <li>Choose either HRM 111 (4 credits) or CUL 111 (2 credits) and CUL 112 (2 credits).</li> </ul>				
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 & Patisier <b>OR</b>	HRM 111	F/S	4	Coreq: HRM 110
Introduction to Meats <b>AND</b>	CUL 111		2	
Introduction to Poultry & Seafood	CUL 112		2	
Sanitation Certification	HRM 115	F/S/SU	1	
Hospitality Law and Ethics	HRM 121	F/S	3	
		<b>Total</b>	<b>17</b>	
<b>Semester 2</b>				
<ul style="list-style-type: none"> <li>Choose either HRM 112 (4 credits) or CUL 113 (2 credits) and CUL 114 (2 credits).</li> <li>Meet with a QCC Career Services Representative and attend Workshops. See <a href="http://www.QCC.edu/career-services">www.QCC.edu/career-services</a>.</li> <li>If considering transfer, meet with a QCC Transfer Services Advisor. See <a href="http://www.QCC.edu/transfer">www.QCC.edu/transfer</a>.</li> </ul>				
Composition II	ENG 102	F/S/SU	3	ENG 101
Basic Foods: Garde-Manager & Saucier <b>OR</b>	HRM 112	F/S	4	Coreq: HRM 110
Introduction to Vegetables, Fruits & Grains <b>AND</b>	CUL 113		2	
Introduction to Dairy, Salads & Sandwiches	CUL 114		2	
Food and Beverage Cost Control	HRM 131	F/S	3	
Dining Room and Banquet Management	HRM 218	S	3	
Hotel/Restaurant Management Elective	---	F/S/SU	3	
		<b>Total</b>	<b>16</b>	
<b>Semester 3</b>				
<ul style="list-style-type: none"> <li>If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process.</li> <li>Meet with a Career Services Representative for Job Search Assistance services.</li> </ul>				
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Nutrition for Foodservice Management	HRM 216	F/S	3	Coreq: CUL 111 or CUL 112 or CUL 113 or CUL 114 or HRM 111 or HRM 112
Psychology of Interpersonal Relations <b>OR</b>	PSY 118	F/S	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	
		<b>Total</b>	<b>15-16</b>	

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 4</b>				
<ul style="list-style-type: none"> <li>Choose either HRM 298 (2 credits) or HRM 299 (2-6 credits).</li> <li>Continue with/complete the transfer application process.</li> <li>Submit an Intent to Graduate Form, located on <i>The Q</i>.</li> </ul>				
Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English, MAT 090 with a grade of "C" or higher or approp place score
Hotel/Restaurant Management Cooperative Education Practicum <b>OR</b>	HRM 298	F/S/SU	2	Approval of Program Coordinator
Hotel/Restaurant Management Cooperative Education Experience	HRM 299	F/S/SU	2-6	CPS 298, Approval of Program Coordinator
Business Elective	---	F/S/SU	3	
Hotel/Restaurant Management Elective	---	F/S/SU	3	
Liberal Arts Elective	---	F/S/SU	3	
		<b>Total</b>	<b>14-18</b>	
<b>Total Credits Required:</b>			<b>62-67</b>	

**Hospitality Management Certificate — HO**

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1</b>				
<ul style="list-style-type: none"> <li>Apply and get accepted to this program (Program Code: HO).</li> <li>Register for and successfully complete all courses to graduate in two semesters.</li> <li>Meet with a QCC Career Services Representative and attend Workshops. See <a href="http://www.QCC.edu/career-services">www.QCC.edu/career-services</a>.</li> </ul>				
Financial Accounting I	ACC 101	F/S/SU	3	Placement into college level English, MAT 090 with a grade of "C" or higher or approp place score
Introduction to Microcomputer Applications <b>OR</b>	CIS 111	F/S/SU	3	
Business Elective	---			
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Hospitality Law and Ethics	HRM 121	F/S	3	
Hospitality Accounting and Revenue Management	HRM 201	F/S	3	
		<b>Total</b>	<b>12</b>	
<b>Semester 2</b>				
<ul style="list-style-type: none"> <li>Meet with a Career Services Representative for Job Search Assistance services.</li> <li>Meet with Academic Advisor to discuss associate degree (Program Code: HRFO, HRHO).</li> <li>Submit an Intent to Graduate Form, located on <i>The Q</i>.</li> </ul>				
Front Office Management	HRM 136	S	3	
Management in the Hospitality Industry	HRM 235	S	3	
Hotel/Restaurant Management Cooperative Education Experience	HRM 299	F/S/SU	2-6	CPS 298, Approval of Program Coordinator
Psychology of Interpersonal Relations <b>OR</b>	PSY 118	F/S	3	Placement into college level English
Human Relations in Organizations	PSY 158	F/S/SU		
Business Elective	---	F/S/SU	3	
		<b>Total</b>	<b>14-18</b>	
<b>Total Credits Required:</b>			<b>26-30</b>	

## Computer Systems Engineering Technology - Computer Support Option — SECS — Associate in Science

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1</b>				
<ul style="list-style-type: none"> <li>Apply and get accepted to this program (Program Code: SECS).</li> <li>Register for and successfully complete all courses to graduate in four semesters.</li> <li>Meet with Academic Advisor about co-enrolling in CSET certificate.</li> <li>Complete CSC 141, CSC 234, and ENG 101.</li> <li>Complete the Mathematics Elective.</li> </ul>				
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	
		<b>Total</b>	<b>17</b>	
<b>Semester 2</b>				
<ul style="list-style-type: none"> <li>Meet with a QCC Career Services Representative and attend Workshops. See <a href="http://www.QCC.edu/career-services">www.QCC.edu/career-services</a>.</li> <li>If considering transfer, meet with a QCC Transfer Services Advisor. See <a href="http://www.QCC.edu/transfer">www.QCC.edu/transfer</a>.</li> <li>Complete CIS 111 and ENG 102.</li> </ul>				
Introduction to Microcomputer Applications	CIS 111	F/S/SU	3	
IT Help Desk Concepts	CSC 105	F/S/SU	2	
Computer Hardware and Support	CSC 233	F/S/SU	4	Coreq: CSC 141
Windows Server Operating Systems	CSC 241	F/S/SU	3	CSC 141
Composition II	ENG 102	F/S/SU	3	ENG 101
		<b>Total</b>	<b>15</b>	
<b>Semester 3</b>				
<ul style="list-style-type: none"> <li>Meet with Program Coordinator to discuss readiness for CST 299.</li> <li>If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process.</li> <li>Meet with a Career Services Representative for Job Search Assistance services.</li> </ul>				
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 approp place score
Introduction to Programming with C++ <b>OR</b>	CIS 121	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or approp place score, Coreq: CIS 111 or CIS 115
Introduction to Proramming using Python <b>OR</b>	CSC 101			MAT 099 with a grade of "C" or higher or approp place score
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/SU	3	MAT 100 or approp place score, Coreq: CSC 234



**Computer Systems Engineering Technology - Cybersecurity Option — SECY — Associate in Science**

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1</b>				
<ul style="list-style-type: none"> <li>Apply and get accepted to this program (Program Code: SECY).</li> <li>Register for and successfully complete all courses to graduate in four semesters.</li> <li>Meet with Academic Advisor about co-enrolling in CSET certificate.</li> <li>Complete CSC 141, CSC 234, and ENG 101.</li> <li>Complete the Mathematics Elective.</li> </ul>				
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	
		<b>Total</b>	<b>17</b>	
<b>Semester 2</b>				
<ul style="list-style-type: none"> <li>Meet with a QCC Career Services Representative and attend Workshops. See <a href="http://www.QCC.edu/career-services">www.QCC.edu/career-services</a>.</li> <li>If considering transfer, meet with a QCC Transfer Services Advisor. See <a href="http://www.QCC.edu/transfer">www.QCC.edu/transfer</a>.</li> <li>Complete CSC 241, CST 205, and ENG 102.</li> </ul>				
Computer Hardware and Support	CSC 233	F/S/SU	4	Coreq: CSC 141
Windows Server Operating Systems	CSC 241	F/S/SU	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
		<b>Total</b>	<b>16</b>	
<b>Semester 3</b>				
<ul style="list-style-type: none"> <li>Meet with Program Coordinator to discuss readiness for CST 299.</li> <li>If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process.</li> <li>Meet with a Career Services Representative for Job Search Assistance services.</li> <li>Complete CIS 121 or CSC 101 or CSC 201.</li> <li>Complete CST 231.</li> </ul>				
Introduction to Programming with C++ <b>OR</b>	CIS 121	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or approp place score, Coreq: CIS 111 or CIS 115
Introduction to Programming Using Python <b>OR</b>	CSC 101			MAT 099 with a grade of "C" or higher or approp place score
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
Advanced Topics in Security	CST 211	F/S	3	CST 205

Course Title	Course #	Semester Offered	Credits	Prerequisites
Internetworking Principles and Protocols	CST 231	F/S/SU	3	MAT 100 or approp place score, 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
		<b>Total</b>	<b>19</b>	
<b>Semester 4</b>				
<ul style="list-style-type: none"> <li>• If seeking employment, review industry certification requirements and opportunities.</li> <li>• Continue with/complete the transfer application process.</li> <li>• Complete CST 209 and CST 240.</li> <li>• Submit an Intent to Graduate Form, located on <i>The Q</i>.</li> </ul>				
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	
		<b>Total</b>	<b>15</b>	
<b>Total Credits Required:</b>			<b>67</b>	

**Computer Systems Engineering Technology - Enterprise Information Technology (IT) Option  
— SEIT — Associate in Science**

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1</b>				
<ul style="list-style-type: none"> <li>Apply and get accepted to this program (Program Code: SEIT).</li> <li>Register for and successfully complete all courses to graduate in four semesters.</li> <li>Meet with Academic Advisor about co-enrolling in CSET certificate.</li> <li>Complete CSC 141, CSC 234, and ENG 101.</li> <li>Complete the Mathematics Elective.</li> </ul>				
IT Help Desk Concepts	CSC 105	F/S/SU	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	
		<b>Total</b>	<b>19</b>	
<b>Semester 2</b>				
<ul style="list-style-type: none"> <li>Meet with a QCC Career Services Representative and attend Workshops. See <a href="http://www.QCC.edu/career-services">www.QCC.edu/career-services</a>.</li> <li>If considering transfer, meet with a QCC Transfer Services Advisor. See <a href="http://www.QCC.edu/transfer">www.QCC.edu/transfer</a>.</li> <li>Complete CSC 241 and ENG 102.</li> </ul>				
Storage Technologies	CSC 210	S/SU	3	Placement into college level English
Computer Hardware and Support	CSC 233	F/S/SU	4	Coreq: CSC 141
Windows Server Operating Systems	CSC 241	F/S/SU	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
		<b>Total</b>	<b>19</b>	
<b>Semester 3</b>				
<ul style="list-style-type: none"> <li>For the Technology Career Elective, choose one technical course from CIS, CSC, CST, ELM, ELT, IMD, or IMG course designations.</li> <li>Meet with Program Coordinator to discuss readiness for CST 299.</li> <li>If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process.</li> <li>Meet with a Career Services Representative for Job Search Assistance services.</li> <li>Complete CST 231.</li> </ul>				
Introduction to Programming with C++ <b>OR</b>	CIS 121	F/S	3	Placement into college level English, MAT 095 with a grade of "C" or higher or approp place score, Coreq: CIS 111 or CIS 115
Introduction to Programming Using Python <b>OR</b>	CSC 101			MAT 099 with a grade of "C" or higher or approp place score
Systems Programming and Scripting	CSC 201			CSC 141, Coreq: CST 245

Course Title	Course #	Semester Offered	Credits	Prerequisites
Pre Cooperative Education Seminar	CPS 298	F/S	0	
Internetworking Principles and Protocols	CST 231	F/S/SU	3	MAT 100 or approp place score, Coreq: CSC 234
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
CSET Elective	---	S/SU	1	
CSET Elective	---	S/SU	1	
Liberal Arts Elective	---	F/S/SU	3	
Technology Career Elective	---	S/SU	3	
		<b>Total</b>	<b>19</b>	
<b>Semester 4</b>				
<ul style="list-style-type: none"> <li>• If seeking employment, review industry certification requirements and opportunities.</li> <li>• Continue with/complete the transfer application process.</li> <li>• Complete CST 238 and CST 240.</li> <li>• Submit an Intent to Graduate Form, located on <i>The Q</i>.</li> </ul>				
Telecommunications in Business	CST 207	F/S	3	Placement into college level English
Enterprise Networking and 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	
		<b>Total</b>	<b>18</b>	
<b>Total Credits Required:</b>			<b>75</b>	

**Computer Systems Engineering Technology - UNIX Systems Administrator Certificate is closing, effective Fall 2020.**



**Computer Systems Engineering Technology - UNIX Systems Administrator Certificate is closing, effective Fall 2020.**

**Computer Systems Engineering Technology - Windows Systems Administrator Certificate is closing, effective Fall 2020.**

**Computer Systems Engineering Technology - Windows Systems Administrator Certificate is closing, effective Fall 2020.**

**Nurse Education — NUR — Associate in Science**

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1 (Summer I or II)</b>				
<ul style="list-style-type: none"> <li>Register for and successfully complete all courses to graduate in five semesters.</li> <li>Complete BIO 111 with a grade of "C" or higher.</li> <li>Complete ENG 101.</li> </ul>				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or HS AP Biology, Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		<b>Total</b>	<b>7</b>	
<b>Semester 2</b>				
<ul style="list-style-type: none"> <li>Complete BIO 112 with a grade of "C" or higher.</li> <li>Complete NUR 103 and NUR 104 with grades of "C+" or higher.</li> </ul>				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Current Concepts in Nursing & Health Care I	NUR 103	F/S	1	Passing BIO 111 with a "C" or higher, ENG 101, Coreq: BIO 112, NUR 104, PSY 101
Fundamentals of Nursing	NUR 104	F/S	7	Passing BIO 111 with a "C" or higher, ENG 101, Coreq: BIO 112, NUR 103, PSY 101
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		<b>Total</b>	<b>15</b>	
<b>Semester 3</b>				
<ul style="list-style-type: none"> <li>Meet with a QCC Career Services Representative and attend Workshops. See <a href="http://www.QCC.edu/career-services">www.QCC.edu/career-services</a>.</li> <li>If considering transfer, meet with a QCC Transfer Services Advisor. See <a href="http://www.QCC.edu/transfer">www.QCC.edu/transfer</a>.</li> <li>Complete BIO 232 with a grade of "C" or higher.</li> <li>Complete NUR 105 with a grade of "C+" or higher.</li> </ul>				
Medical Microbiology	BIO 232	F/S/SU	4	BIO 112 or CHM 105 or CHM 123
Medical Surgical Nursing I/Maternal Newborn	NUR 105	F/S	8	NUR 101 with a grade of "C+" or higher; or NUR 103 and NUR 104 with a grade of "C+" or higher, Coreq: BIO 232, PSY 121
Survey of Life Span Development	PSY 121	F/S/SU	3	PSY 101
		<b>Total</b>	<b>15</b>	
<b>Semester 4</b>				
<ul style="list-style-type: none"> <li>If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process.</li> <li>Meet with a Career Services Representative for Job Search Assistance services.</li> <li>Complete NUR 201 with a grade of "C+" or higher.</li> </ul>				
Composition II	ENG 102	F/S/SU	3	ENG 101
Medical Surgical Nursing II/Pediatric	NUR 201	F/S	10	BIO 112, BIO 232, PSY 121, a grade of "C+" or higher is required in NUR 105, Coreq: ENG 102, any HST, SOC 101 or SOC 111

Course Title	Course #	Semester Offered	Credits	Prerequisites
Introductory Sociology (Principles) <b>OR</b>	SOC 101	F/S/SU	3	Placement into college level English
Social Problems & Social Change	SOC 111			
History Elective	---	F/S/SU	3	
		<b>Total</b>	<b>19</b>	
<b>Semester 5</b>				
<ul style="list-style-type: none"> <li>• Continue with/complete the transfer application process.</li> <li>• Complete NUR 202 and NUR 203 with grades of "C+" or higher.</li> <li>• Submit an Intent to Graduate Form, located on <i>The Q</i>.</li> </ul>				
Advanced Medical Surgical Nursing III/ Mental Health	NUR 202	F/S	10	ENG 102, any HST, SOC 101 or SOC 111, a grade of "C+" or higher is required in NUR 201, Coreq: NUR 203, Humanities Elective
Current Concepts in Nursing & Health Care II	NUR 203	F/S	2	A grade of "C+" or higher is required in NUR 201, Coreq: NUR 202
Humanities Elective	---	F/S/SU	3	
		<b>Total</b>	<b>15</b>	
<b>Total Credits Required:</b>			<b>71</b>	



## Nurse Education - Evening — NUE — Associate in Science

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1 (Summer I or II)</b>				
<ul style="list-style-type: none"> <li>Register for and successfully complete all courses to graduate in five semesters.</li> <li>Complete BIO 111 with a grade of "C" or higher.</li> <li>Complete ENG 101.</li> </ul>				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or HS AP Biology, Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		<b>Total</b>	<b>7</b>	
<b>Semester 2 (Fall)</b>				
<ul style="list-style-type: none"> <li>Complete BIO 112 with a grade of "C" or higher.</li> <li>Complete NUR 103 and NUR 104 with grades of "C+" or higher.</li> </ul>				
Anatomy & Physiology II	BIO 112	F/S/SU	4	BIO 111
Current Concepts in Nursing & Health Care I	NUR 103	F/S	1	Passing BIO 111 with a "C" or higher, ENG 101, Coreq: BIO 112, NUR 104, PSY 101
Fundamentals of Nursing	NUR 104	F/S	7	Passing BIO 111 with a "C" or higher, ENG 101, Coreq: BIO 112, NUR 103, PSY 101
Introduction to Psychology	PSY 101	F/S/SU	3	Placement into college level English
		<b>Total</b>	<b>15</b>	
<b>Semester 3 (Spring)</b>				
<ul style="list-style-type: none"> <li>Meet with a QCC Career Services Representative and attend Workshops. See <a href="http://www.QCC.edu/career-services">www.QCC.edu/career-services</a>.</li> <li>If considering transfer, meet with a QCC Transfer Services Advisor. See <a href="http://www.QCC.edu/transfer">www.QCC.edu/transfer</a>.</li> <li>Complete BIO 232 with a grade of "C" or higher.</li> <li>Complete NUR 105 with a grade of "C+" or higher.</li> </ul>				
Medical Microbiology	BIO 232	F/S/SU	4	BIO 112 or CHM 105 or CHM 123
Medical Surgical Nursing I/Maternal Newborn (Jan-April)	NUR 105	F/S	8	NUR 101 with a grade of "C+" or higher; or NUR 103 and NUR 104 with a grade of "C+" or higher, Coreq: BIO 232, PSY 121
Survey of Life Span Development	PSY 121	F/S/SU	3	PSY 101
		<b>Total</b>	<b>15</b>	
<b>Semester 4 (Summer I &amp; II)</b>				
<ul style="list-style-type: none"> <li>If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process.</li> <li>Meet with a Career Services Representative for Job Search Assistance services.</li> <li>Complete NUR 201 with a grade of "C+" or higher.</li> </ul>				
Composition II	ENG 102	F/S/SU	3	ENG 101
Medical Surgical Nursing II/Pediatric (May-July)	NUR 201	F/S/SU	10	BIO 112, BIO 232, PSY 121, a grade of "C+" or higher is required in NUR 105, Coreq: ENG 102, any HST, SOC 101 or SOC 111

Course Title	Course #	Semester Offered	Credits	Prerequisites
Introductory Sociology (Principles) <b>OR</b>	SOC 101	F/S/SU	3	Placement into college level English
Social Problems & Social Change	SOC 111			
History Elective	---	F/S/SU	3	
		<b>Total</b>	<b>19</b>	
<b>Semester 5 (Fall)</b>				
<ul style="list-style-type: none"> <li>• Continue with/complete the transfer application process.</li> <li>• Complete NUR 202 and NUR 203 with grades of "C+" or higher.</li> <li>• Submit an Intent to Graduate Form, located on <i>The Q</i>.</li> </ul>				
Advanced Medical Surgical Nursing III/ Mental Health	NUR 202	F/S	10	ENG 102, any HST, SOC 101 or SOC 111, a grade of "C+" or higher is required in NUR 201, Coreq: NUR 203, Humanities Elective
Current Concepts in Nursing & Health Care II	NUR 203	F/S	2	A grade of "C+" or higher is required in NUR 201, Coreq: NUR 202
Humanities Elective	---	F/S/SU	3	
		<b>Total</b>	<b>15</b>	
<b>Total Credits Required:</b>			<b>71</b>	

## Nurse Education Advanced Placement LPN — NUL — Associate in Science

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1 (Summer I)</b>				
<ul style="list-style-type: none"> <li>Register for and successfully complete all courses to graduate in six semesters.</li> <li>Complete BIO 111 with a grade of "C" or higher.</li> <li>Complete ENG 101.</li> </ul>				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or HS AP Biology, Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		<b>Total</b>	<b>7</b>	
<b>Semester 2 (Summer II)</b>				
<ul style="list-style-type: none"> <li>Complete BIO 112 with a grade of "C" or higher.</li> </ul>				
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
		<b>Total</b>	<b>7</b>	
<b>Semester 3 (Fall)</b>				
<ul style="list-style-type: none"> <li>Complete NUR 101 with a grade of "C+" or higher.</li> </ul>				
Advanced Placement Nursing I (Oct to Dec)	NUR 101	F	1	Passing BIO 112 with a "C" or higher, PSY 101, NUR 100 or Admission to Advanced Placement Nurse Education LPN to ADN Program
Upon successful completion of NUR 101 (with a grade of "C+" or higher) and current license as a Practical Nurse, seven credits credentialed	NUR 888	F	7	
		<b>Total</b>	<b>8</b>	
<b>Semester 4 (Spring)</b>				
<ul style="list-style-type: none"> <li>Meet with a QCC Career Services Representative and attend Workshops. See <a href="http://www.QCC.edu/career-services">www.QCC.edu/career-services</a>.</li> <li>If considering transfer, meet with a QCC Transfer Services Advisor. See <a href="http://www.QCC.edu/transfer">www.QCC.edu/transfer</a>.</li> <li>Complete BIO 232 with a grade of "C" or higher.</li> <li>Complete NUR 105 with a grade of "C+" or higher.</li> </ul>				
Medical Microbiology	BIO 232	F/S/SU	4	BIO 112 or CHM 105 or CHM 123
Medical Surgical Nursing I/Maternal Newborn (Jan-April)	NUR 105	F/S	8	NUR 101 with a grade of "C+" or higher; or NUR 103 and NUR 104 with a grade of "C+" or higher, Coreq: BIO 232, PSY 121
Survey of Life Span Development	PSY 121	F/S/SU	3	PSY 101
		<b>Total</b>	<b>15</b>	

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 5 (Summer I &amp; II)</b>				
<ul style="list-style-type: none"> <li>If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process.</li> <li>Meet with a Career Services Representative for Job Search Assistance services.</li> <li>Complete NUR 201 with a grade of "C+" or higher.</li> </ul>				
Composition II	ENG 102	F/S/SU	3	ENG 101
Medical Surgical Nursing II/Pediatric (May-July)	NUR 201	F/S/SU	10	BIO 112, BIO 232, PSY 121, a grade of "C+" or higher is required in NUR 105, Coreq: ENG 102, any HST, SOC 101 or SOC 111
Introductory Sociology (Principles) <b>OR</b>	SOC 101	F/S/SU	3	Placement into college level English
Social Problems & Social Change	SOC 111			
History Elective	---	F/S/SU	3	
		<b>Total</b>	<b>19</b>	
<b>Semester 6 (Fall)</b>				
<ul style="list-style-type: none"> <li>Continue with/complete the transfer application process.</li> <li>Complete NUR 202 and NUR 203 with grades of "C+" or higher.</li> <li>Submit an Intent to Graduate Form, located on <i>The Q</i>.</li> </ul>				
Advanced Medical Surgical Nursing III/ Mental Health	NUR 202	F/S	10	ENG 102, any HST, SOC 101 or SOC 111, a grade of "C+" or higher is required in NUR 201, Coreq: NUR 203, Humanities Elective
Current Concepts in Nursing & Health Care II	NUR 203	F/S	2	A grade of "C+" or higher is required in NUR 201, Coreq: NUR 202
Humanities Elective	---	F/S/SU	3	
		<b>Total</b>	<b>15</b>	
<b>Total Credits Required:</b>			<b>71</b>	

## Nurse Education Advanced Placement Paramedic — NUP — Associate in Science

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1 (Summer I)</b>				
<ul style="list-style-type: none"> <li>Register for and successfully complete all courses to graduate in six semesters.</li> <li>Complete BIO 111 with a grade of "C" or higher.</li> <li>Complete ENG 101.</li> </ul>				
Anatomy & Physiology I	BIO 111	F/S/SU	4	BIO 101 or HS AP Biology, Coreq: ENG 101
Composition I	ENG 101	F/S/SU	3	Placement into college level English
		<b>Total</b>	<b>7</b>	
<b>Semester 2 (Summer II)</b>				
<ul style="list-style-type: none"> <li>Complete BIO 112 with a grade of "C" or higher.</li> </ul>				
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
		<b>Total</b>	<b>7</b>	
<b>Semester 3 (Fall)</b>				
<ul style="list-style-type: none"> <li>Complete NUR 100 with a grade of "C+" or higher.</li> <li>Complete NUR 101 with a grade of "C+" or higher.</li> </ul>				
Paramedic to ADN Bridge (Oct-Nov)	NUR 100	F	1	Passing both BIO 111 and BIO 112 with a "C" or higher, ENG 101, PSY 101
Advanced Placement Nursing I (Nov-Dec)	NUR 101	F	1	Passing BIO 112 with a "C" or higher, PSY 101, NUR 100 or Admission to Advanced Placement Nurse Education LPN to ADN Program
Upon successful completion of NUR 100 and NUR 101 (with grades of "C+" or higher) and successful completion of state or national Paramedic exam, six credits credentialed	NUR 888	F	6	
		<b>Total</b>	<b>8</b>	
<b>Semester 4 (Spring)</b>				
<ul style="list-style-type: none"> <li>Meet with a QCC Career Services Representative and attend Workshops. See <a href="http://www.QCC.edu/career-services">www.QCC.edu/career-services</a>.</li> <li>If considering transfer, meet with a QCC Transfer Services Advisor. See <a href="http://www.QCC.edu/transfer">www.QCC.edu/transfer</a>.</li> <li>Complete BIO 232 with a grade of "C" or higher.</li> <li>Complete NUR 105 with a grade of "C+" or higher.</li> </ul>				
Medical Microbiology	BIO 232	F/S/SU	4	BIO 112 or CHM 105 or CHM 123
Medical Surgical Nursing I/Maternal Newborn (Jan-April)	NUR 105	F/S	8	NUR 101 with a grade of "C+" or higher; or NUR 103 and NUR 104 with a grade of "C+" or higher, Coreq: BIO 232, PSY 121
Survey of Life Span Development	PSY 121	F/S/SU	3	PSY 101
		<b>Total</b>	<b>15</b>	



Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 5 (Summer I &amp; II)</b>				
<ul style="list-style-type: none"> <li>• If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process.</li> <li>• Meet with a Career Services Representative for Job Search Assistance services.</li> <li>• Complete NUR 201 with a grade of "C+" or higher.</li> </ul>				
Composition II	ENG 102	F/S/SU	3	ENG 101
Medical Surgical Nursing II/Pediatric (May-July)	NUR 201	F/S/SU	10	BIO 112, BIO 232, PSY 121, a grade of "C+" or higher is required in NUR 105, Coreq: ENG 102, any HST, SOC 101 or SOC 111
Introductory Sociology (Principles) <b>OR</b>	SOC 101	F/S/SU	3	Placement into college level English
Social Problems & Social Change	SOC 111			
History Elective	---	F/S/SU	3	
		<b>Total</b>	<b>19</b>	
<b>Semester 6 (Fall)</b>				
<ul style="list-style-type: none"> <li>• Continue with/complete the transfer application process.</li> <li>• Complete NUR 202 and NUR 203 with grades of "C+" or higher.</li> <li>• Submit an Intent to Graduate Form, located on <i>The Q</i>.</li> </ul>				
Advanced Medical Surgical Nursing III/ Mental Health	NUR 202	F/S	10	ENG 102, any HST, SOC 101 or SOC 111, a grade of "C+" or higher is required in NUR 201, Coreq: NUR 203, Humanities Elective
Current Concepts in Nursing & Health Care II	NUR 203	F/S	2	A grade of "C+" or higher is required in NUR 201, Coreq: NUR 202
Humanities Elective	---	F/S/SU	3	
		<b>Total</b>	<b>15</b>	
<b>Total Credits Required:</b>			<b>71</b>	

**Liberal Arts - Sociology Option — LASO — Associate in Arts**

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1</b>				
<ul style="list-style-type: none"> <li>Apply and get accepted to this program (Program Code: LASO).</li> <li>Register for and successfully complete all courses to graduate in four semesters.</li> <li>Complete ENG 101 and MAT 121.</li> </ul>				
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	MAT 095 with a grade of "C" or higher or approp place
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
		<b>Total</b>	<b>15</b>	
<b>Semester 2</b>				
<ul style="list-style-type: none"> <li>Meet with a QCC Transfer Services Advisor. See <a href="http://www.QCC.edu/transfer">www.QCC.edu/transfer</a>. Attend Transfer Services events.</li> <li>Complete ENG 102.</li> </ul>				
Cultural Anthropology <b>OR</b>	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	
		<b>Total</b>	<b>15-16</b>	
<b>Semester 3</b>				
<ul style="list-style-type: none"> <li>Meet with representatives of four-year schools to discuss/begin the transfer application process.</li> <li>Confirm that MassTransfer 34-credit general education transfer block can be completed.</li> <li>Complete MAT 122.</li> </ul>				
Statistics	MAT 122	F/S/SU	3	MAT 095 with a grade of "C" or higher or approp place
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	
		<b>Total</b>	<b>15</b>	
<b>Semester 4</b>				
<ul style="list-style-type: none"> <li>Consult with transfer institution regarding selection of Liberal Arts Electives.</li> <li>Continue with/complete the transfer application process.</li> <li>Submit an Intent to Graduate Form, located on <i>The Q</i>.</li> </ul>				
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	
		<b>Total</b>	<b>16</b>	
<b>Total Credits Required:</b>			<b>61-62</b>	

at <https://masscis.intocareers.org/> or the Occupational Outlook Handbook at [www.bls.gov/ooh/](http://www.bls.gov/ooh/) for specific occupational information. The CIP code for this program is 45.1101.

regarding transfer opportunities is available at [www.QCC.edu/transfer](http://www.QCC.edu/transfer).

**Program Contact Email:** [sociology@qcc.mass.edu](mailto:sociology@qcc.mass.edu)

**Transfer Articulations & Opportunities:**

Prospective students may learn more about transfer articulation agreements at [www.QCC.edu/agreements](http://www.QCC.edu/agreements). More information

**Fire Science — FS — Associate in Science**

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1</b>				
<ul style="list-style-type: none"> <li>Apply and get accepted to this program (Program Code: FS).</li> <li>Register for and successfully complete all courses to graduate in four semesters.</li> <li>Two Fire Science Electives can substitute for EMT 101.</li> <li>Meet with a Career Services Representative to credential for EMT. See <a href="http://www.QCC.edu/credit-prior-learning">www.QCC.edu/credit-prior-learning</a>.</li> <li>Complete ENG 101 and the Mathematics Elective.</li> </ul>				
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	
		<b>Total</b>	<b>16</b>	
<b>Semester 2</b>				
<ul style="list-style-type: none"> <li>Meet with a QCC Career Services Representative and attend Workshops. See <a href="http://www.QCC.edu/career-services">www.QCC.edu/career-services</a>.</li> <li>If considering transfer, meet with a QCC Transfer Services Advisor. See <a href="http://www.QCC.edu/transfer">www.QCC.edu/transfer</a>.</li> <li>Complete prerequisite(s) for the Lab Science Electives.</li> </ul>				
Introduction to Microcomputer Applications <b>OR</b>	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 approp place score
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
		<b>Total</b>	<b>15</b>	
<b>Semester 3</b>				
<ul style="list-style-type: none"> <li>For the Lab Science Electives (Semesters 3 and 4), BIO 101 and BIO 111 recommended for students planning to become a paramedic.</li> <li>If considering transfer, meet with representatives of four-year schools to discuss/begin the transfer application process.</li> <li>Meet with a Career Placement Representative for Job Search Assistance services.</li> </ul>				
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	
		<b>Total</b>	<b>16</b>	
<b>Semester 4</b>				
<ul style="list-style-type: none"> <li>Continue with/complete the transfer application process.</li> <li>Submit an Intent to Graduate Form, located on <i>The Q</i>.</li> </ul>				
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) <b>OR</b>	SOC 101			
Social Problems & Social Change	SOC 111	F/S/SU	3	Placement into college level English
Fire Science Elective	---	F/S	3	
Lab Science Elective	---	F/S/SU	4	
		<b>Total</b>	<b>16</b>	
<b>Total Credits Required:</b>			<b>63</b>	

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 099 with a grade of "C" or higher or appropriate placement score

### 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/SU

### CSC 108 Computer Science I

This course is the first in a two-course sequence that provides students with a foundation in computer science. The complete two-course sequence is designed in such manner that students progress in knowledge, proficiency and professional maturity in software engineering principles, professional,

and ethical conduct. Students develop fundamental programming skills using a language that supports an object-oriented approach, incorporating security awareness, human-computer interactions and social responsibility. This course emphasizes using a cyclic approach for program development by iterating through designing, coding, and testing program modules. Complemented by algorithm analysis, students are encouraged to think abstractly about problems and to begin developing processes for decomposing problems into organized parts. Encouraging clear documentation, good naming conventions and consistent secure coding style contribute to a disciplined approach to writing programs.

**Credits:** 4

**Semester Offered:** F/S

**Prerequisites:** CIS 111, Placement into college level English, MAT 100 or appropriate placement score

**Please Note:** Four hours lecture

### CSC 109 Computer Science II

This course is the second in a two-course sequence that provides students with a foundation in computer science. The progression of software engineering topics continues in CSC 108, where greater emphasis is placed on abstraction and sound software design principles, engaging students in the development of secure software components that solve a wide range of related problems and can be reused. The students determine the necessary elements of simple ADTs (such as a counter or a date) and then construct them; by their very nature, these components must be well-documented to encourage reuse. Additionally the students write assertions such as pre-conditions and post-conditions describing each class method, thereby encouraging students to think deeply about a simple problem before coding. After coding, the components must be well-tested, and therefore the use of test plans and test drivers are practiced. These activities reinforce the notion of constructing software from well-defined, independent pieces and complement the study of using existing library classes and APIs in software solutions.

**Credits:** 4

**Semester Offered:** F/S

**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

**Prerequisites:** CSC 141

**Corequisites:** CST 245

### CSC 208 Introduction to Architecture and Assembly Language

This course presents computers from the circuit level to higher levels of abstraction. Students work from logical gates, digital circuits, and memory, through the execution model, machine and assembly languages, and the interaction with high-level languages. Topics include the organization of computers,

## 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

### 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

### 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

### 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

### 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



**Credits:** 1

**Semester Offered:** F/S/SU

### HRM 121 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 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 111 or HRM 112

### 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 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 299 Hotel/Restaurant Management Cooperative Education Experience**

This course provides a blend of classroom theory and practical job experience through periods of on-campus instruction and supervised off-campus employment. Cooperative Education helps students decide if they have selected a profession to which they are willing to commit themselves. Bringing field experience into the classroom discussion takes a new relevancy, and learning is enhanced. Individualized outcomes are developed among the student, a faculty supervisor, and the employer.

**Credit Range:** 2-6

**Semester Offered:** F/S/SU

**Prerequisites:** CPS 298, Approval of Program Coordinator

### **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

## **Human Services**

### **HUS 101 Introduction to Human Services**

This course focuses on the historical, political and social aspects of human services. Students gain core knowledge of common problems in living, consumer populations, helping models. Students learn about the agencies and services available in the Worcester area and identify 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/SU

**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. The helping relationship is one that partners with and empowers others. Course material is built upon research about human behavior, life stage theory, intervention strategies and strength-based practice. Using demonstration, lecture, role-play and hands on experience, students learn the fundamentals of: basic helping skills, crisis intervention, behavior modification, case management and accurate recordkeeping.

**Credits:** 3

**Semester Offered:** F/S/SU

**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 experiential methods. 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 students the 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 mental retardation, 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/S/SU

**Prerequisites:** HUS 101

**Corequisites:** ENG 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 through the observation and "shadowing" of professionals. Students select three areas of interest within mental health, substance abuse, homeless/outreach, developmental disabilities, gerontology, adolescent behavior management and family/community based services. Visiting a minimum of three agencies during the semester increases students' awareness of community resources and understanding of

**SCI 108 Science of Technology: Hearing and Sound**

This course provides an introduction to the way that science, through technology, enhances human life. This course has a particular emphasis on innovations that impact hearing and allow humans to extend a person's natural ability to explore the world and exchange ideas through sound. Students learn scientific principles that underlie many technological devices that enhance human ability, as well as the complimentary roles of the Scientific Method and the Engineering Design Process. Students gain an understanding of methodologies used in scientific investigations through the laboratory portion of the course.

**Credits:** 4**Semester Offered:** S

**Prerequisites:** Placement into college level English, MAT 095 with a grade of "C" or higher or appropriate placement score

**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, MAT 095 with a grade of "C" or higher or appropriate placement

**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

**Prerequisites:** Placement into college level English, MAT 095 with a grade of "C" or higher or appropriate placement

**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

**Prerequisites:** ENG 101, MAT 090 with a grade of "C" or higher or appropriate placement score

**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

**Prerequisites:** Placement into college level English, MAT 099 with a grade of "C" or higher or appropriate placement score

**Social Science****SOS 211 Death & Dying**

This course examines the death and dying process within personal and professional frameworks. Students learn differences in cultural attitudes toward death and dying; the origins of death anxiety; the processes involved in dying, grieving, and mourning; and the community resources available to address these processes. Topics include cultural attitudes, models of dying and grieving, children and death, suicide, and euthanasia.

**Credits:** 3**Semester Offered:** F/S**Prerequisites:** ENG 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 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/S/SU**Prerequisites:** ENG 101

## Engineering - Pre-Engineering and Engineering Technology Certificate — PET Certificate

### Connections:

Credits from this certificate can be applied to the following associate degree(s):

- Engineering

### Program Goals:

The Engineering - Pre-Engineering and Engineering Technology Certificate program is designed to introduce Engineering students into Engineering Technology curriculum and hands-on skills while students complete mathematics and English prerequisites for the Engineering program.

### Student Learning Outcomes:

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

- Communicate effectively through verbal and written means.
- Apply the concepts and methods of mathematics to the solution of technical problems.
- Operate electronic test equipment, such as multi-meters, function generators, and oscilloscopes.
- Analyze basic electronics systems.
- Troubleshoot and repair basic electronics systems.
- Understand the process of product development through design and implementation.
- Apply accurate design methodology and use industry-standard CAD/CAM software to improve quality and production.
- Use modern tooling, skills, and techniques for effective manufacturing systems practice.
- Function on multidisciplinary teams
- Analyze a problem and design an appropriate algorithmic solution.
- Use the techniques, skills, and modern engineering technology tools necessary for applied engineering.

### Admissions Process:

Admissions inquiries should be directed to [admissions@qcc.mass.edu](mailto: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](http://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. Finger printing and drug testing are not required.

### Additional Cost:

See page 29 for Program Fees.

### Location:

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

### Technical Performance Standards:

See page 15 for Technical Performance Standards. (Note: Not all programs have technical performance standards).

### Credit for Prior Learning:

Students enrolled in this program may be able to earn academic credit for prior learning. Please contact Career Services & Credit for Prior Learning (Room 272A) at [careerservices@qcc.mass.edu](mailto:careerservices@qcc.mass.edu) or 508.854.4439.

### Career Outlook:

Please consult the Massachusetts Career Information System at <https://masscis.intocareers.org/> or the Occupational Outlook Handbook at [www.bls.gov/ooh/](http://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](http://www.QCC.edu/agreements). More information regarding transfer opportunities is available at [www.QCC.edu/transfer](http://www.QCC.edu/transfer).

### Program Contact Email:

[Engineering@qcc.mass.edu](mailto:Engineering@qcc.mass.edu)



**Engineering - Pre-Engineering and Engineering Technology Certificate — PET**

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1 (Fall)</b>				
<ul style="list-style-type: none"> <li>Apply and get accepted to this program (Program Code: PET).</li> <li>Register for and successfully complete all courses to graduate in two semesters.</li> <li>Meet with Program Coordinator.</li> <li>Complete ENG 101 and one college level MAT course.</li> </ul>				
Introduction to Programming Using Python	CSC 101	F/S	3	MAT 099 with a grade of "C" or higher or approp place score
Composition I	ENG 101	F/S/SU	3	Placement into college level English
Electronics I <b>OR</b>	ELT 103	F/S	4	Placement into college level English, MAT 095 with a grade of "C" or higher or approp place score
Digital Circuits	ELT 121			
College Algebra <b>OR</b>	MAT 100	F/S/SU	3	MAT 099 with a grade of "C" or higher or approp place score
College Mathematics I: Pre-Calculus <b>OR</b>	MAT 123			MAT 100 or approp place score
College Mathematics II: Trigonometry	MAT 124			MAT 123 or approp place score
		<b>Total</b>	<b>13</b>	
<b>Semester 2 (Spring)</b>				
<ul style="list-style-type: none"> <li>Meet with a QCC Transfer Services Advisor. See <a href="http://www.QCC.edu/transfer">www.QCC.edu/transfer</a>. Attend Transfer Services events.</li> <li>Complete ENG 102 and one college level MAT course.</li> <li>For the Science Elective, take one of the following suggested courses: BIO 100, BIO 107, CHM 101, CHM 123, PHY 101, or SCI 103.</li> <li>Submit an Intent to Graduate Form, located on <i>The Q</i>.</li> </ul>				
Composition II	ENG 102	F/S/SU	3	ENG 101
College Mathematics I: Pre-Calculus <b>OR</b>	MAT 123	F/S/SU	3-4	MAT 100 or approp place score
College Mathematics II: Trigonometry <b>OR</b>	MAT 124			MAT 123 or approp place score
Calculus I	MAT 233			MAT 124 or approp place score
Mechanical CAD I <b>OR</b>	MNT 101	F/S	3	MAT 095 with a grade of "C" or higher or approp place score
Basic Machine Operation	MNT 108			
Science Elective	---		3-4	
		<b>Total</b>	<b>12-14</b>	
<b>Total Credits Required:</b>			<b>25-27</b>	

## Culinary Arts Certificate

### *Certificate*

#### Connections:

Credits from this certificate can be applied to the following associate degree(s):

- Hospitality and Recreation Management - Foodservice Management Option

#### 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](mailto: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](http://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 for students working at the Diner. Finger printing and drug testing are not required.

- The College is authorized by the Commonwealth's Department of Criminal Justice Information Services to access CORI records. The College shall refer to regulations issued by the Commonwealth's Executive Office of Health and Human Services, 101 CMR 15.00-15.15, as guidance when assessing student CORI records.
- Sex Offender background checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P, with regulations at 803 CMR 1.01-1.37.

#### Additional Cost:

See page 29 for Program Fees.

#### Location:

- This program may be completed at QCC Worcester (Main Campus).
- All HRM-specific courses are offered at QCC at the Worcester Senior Center.
- This program may be completed face-to-face.

#### Technical Performance Standards:

See page 15 for Technical Performance Standards. (Note: Not all programs have technical performance standards).

#### Credit for Prior Learning:

Students enrolled in this program may be able to earn academic credit for prior learning. Please contact Career Services & Credit for Prior Learning (Room 272A) at [careerservices@qcc.mass.edu](mailto:careerservices@qcc.mass.edu) or 508.854.4439.

#### Career Outlook:

Please consult the Massachusetts Career Information System at <https://masscis.intocareers.org/> or the Occupational Outlook Handbook at [www.bls.gov/ooh/](http://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](http://www.QCC.edu/agreements). More information regarding transfer opportunities is available at [www.QCC.edu/transfer](http://www.QCC.edu/transfer).

#### Program Contact Email:

[hrm@qcc.mass.edu](mailto:hrm@qcc.mass.edu)

## Culinary Arts Certificate

Course Title	Course #	Semester Offered	Credits	Prerequisites
<b>Semester 1</b>				
<ul style="list-style-type: none"> <li>Apply and get accepted to this program (Program Code: TBD).</li> <li>Register for and successfully complete all courses to graduate in three semesters.</li> </ul>				
Today's Culinary Professional	HRM 100	SU/IN	1	
		<b>Total</b>	<b>1</b>	
<b>Semester 2</b>				
<ul style="list-style-type: none"> <li>Meet with a QCC Career Services Representative and attend Workshops. See <a href="http://www.QCC.edu/career-services">www.QCC.edu/career-services</a>.</li> </ul>				
Introduction to Meats	CUL 111	F/S	2	
Introduction to Poultry & Seafood	CUL 112	F/S	2	
Trawl to Table	CUL 141	F	1	
Basic Foods: Mise En Place	HRM 110	F/S	3	
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	
		<b>Total</b>	<b>11-12</b>	
<b>Semester 3</b>				
<ul style="list-style-type: none"> <li>Meet with a Career Services Representative for Job Search Assistance services.</li> <li>Submit an Intent to Graduate Form, located on <i>The Q</i>.</li> </ul>				
Introduction to Vegetables, Fruits & Grains	CUL 113	F/S	2	
Introduction to Dairy, Salads & Sandwiches	CUL 114	F/S	2	
Farm to Table	CUL 142	S	1	
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	---	F/S/SU	3	
		<b>Total</b>	<b>14-15</b>	
<b>Total Credits Required:</b>			<b>26-28</b>	