Final approval has been given to the academic matters acted upon at the November 8, 2016 meeting of the Learning Council.

**School of Business, Engineering & Technology - Kathy Rentsch**

1. **Course Revision Proposal – CSC 108 – Administrative Professional Option – Computer Science I**
   a. Change MAT 100 co-requisite to MAT 100 pre-requisite
   b. Change the words “three course sequence” to “two course sequence”
   c. Effective Date: Fall 2017
   d. Course description (as it will appear in catalog)

   **CSC 108 Computer Science I  4 credits**
   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.

   **Prerequisite: CIS 111, ENG 091 with a grade of “C” or higher, ENG 096 with a grade of “C” or higher; or appropriate placement score, MAT 100 or appropriate placement score.**

   **F/S/SU**

   **Note:** Four hours lecture
2. Course Revision Proposal – CSC 109 – Computer Science II
   a. Remove prerequisite CSC 106
   b. Change prerequisite CSC 108 to CSC 109 with a grade of “C” or higher
   c. Effective Date: Fall 2017
   d. Course description (as it will appear in catalog)

   **CSC 109 Computer Science II**
   4 credits
   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.

   **Prerequisite:** CSC 108 with a grade of “C” or higher. F/S/SU

   **Note:** Four hours lecture

3. Course Revision Proposal – CSC 208 – Introduction to Architecture and Assembly Language
   a. Remove prerequisite CSC 211
   b. Add prerequisite CSC 109 with a grade of “C” or higher
   c. Move course from Semester 4 to Semester 3
   d. Effective Date: Fall 2017
   e. Course description (as it will appear in catalog)

   **CSC 208 Introduction to Architecture and Assembly Language**
   4 credits
   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, number representatives, assembly language instruction sets and addressing modes, procedure calling and the stack, low-level input/output, and linkers and loaders. Students write and debug programs in assembly language.

   **Prerequisite:** CSC 109. F/S/SU

4. Course Revision Proposal – CSC 211 – Programming with Data Structure
   a. Remove prerequisite CSC 107
   b. Change CSC 109 to CSC 109 with a grade of “C” or higher
   c. Move course from Semester 3 to Semester 4
   d. Effective Date: Fall 2017
   e. Course description (as it will appear in catalog)

   **CSC 211 Programming with Data Structures**
   4 credits
This course introduces data structures using object-oriented programming techniques and basic algorithm analysis. It covers basic structures such as lists, queues, and stack; binary trees and balanced trees; hash tables and priority queues; and set and graph representation. Students use algorithms to survey and apply recursion techniques; apply common sorting and searching algorithms such as MergeSort; graph traversal algorithms such as Floyd’s and Dijkstra’s; and explore depth-first traversals, divide and conquer, backtracking, and greedy algorithms. Students develop and test a variety of programs in the languages chosen for the course.

**Prerequisite: CSC 109 with a grade of “C” or higher or CIS 225. F/S/SU**

3. Course Revision Proposal – CSC 212 – Introduction to Software Engineering
   a. Remove prerequisite CSC 211
   b. Add prerequisite CSC 109 with a grade of “C” or higher
   c. Effective Date: Fall 2017
   d. Course description (as it will appear in catalog)

   **CSC 212 Introduction to Software Engineering**
   4 credits

   The progression of software engineering topics from the previous computer science courses conclude in CSC 212, where students are asked to step beyond the programmer role and take a broader view of software development; to consider its lifecycle from problem description to maintenance. Students first practice with analysis and design of medium-sized systems. Standard modeling tools are introduced and the students complete the phases of analysis, design, implementation and testing of a medium-sized team project that includes documents such as UML diagrams or CRC cards in addition to test plans. The software engineering topics are integrated with professionalism and ethics, as well as software and information assurance topics, such as security concerns and liabilities of computer-based systems.

   **Prerequisite: CSC 109 with a grade of “C” or higher. F/S/SU**

   **Note:** Four hours lecture

---

**School of Humanities and Education - Clarence Ates**

1. New Course Proposal – MUS 102 – Music Appreciation
   a. Approve new course
   b. Effective Date: Fall 2017
   c. Course description (as it will appear in catalog)

   **MUS 102 Music Appreciation**
   3 credits

   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.

   **Prerequisite: ENG 091. F/S/SU**

2. New Course Proposal – ECE 250 – Using Observation for Authentic Assessment of Young Children
   a. Approve new course
   b. Effective Date: Fall 2017
c. Course description (as it will appear in catalog)

**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.

**Prerequisites: ECE 101, 102, 112. F/S**

3. New Course Proposal – ECE 258 – Early Childhood Curriculum
   a. Approve new course
   b. Effective Date: Fall 2017
   c. Course description (as it will appear in catalog)

**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.

**Prerequisite: ECE 250. F/S**

4. New Course Proposal – ECE 259 – Seminar and Field Experience: Classroom Teaching in Early Education and Care
   a. Approve new course
   b. Effective Date: Fall 2017
   c. Course description (as it will appear in catalog)

**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.

**Prerequisite: ENG 102 and ECE 250. F/S**

   a. Approve new certificate Early Childhood Education Birth through Eight Years Old Certificate and its requirements as a new certificate in Early Childhood Education.
   b. Effective Date: Fall 2017
   c. See grid – page 70

   a. Approve new certificate Early Childhood Education Certificate and its requirements as a new certificate in Early Childhood Education.
   b. Effective Date: Fall 2017
   c. See grid – page 76
7. New Degree Option – Early Childhood Education - Birth through Eight Years Old Associate Degree Option
   a. Approve new degree Early Childhood Education - Birth through Eight Years Old Option and its requirements as a new associate degree program option in Early Childhood Education.
   b. Effective Date: Fall 2017
   c. See grid – page __83___

   a. Close the Infant Toddler Training Certificate
   b. Effective Date: September 2016

   a. Close the Preschool Assistant Teacher Certificate
   b. Effective Date: September 2016

School of Math & Science – Leslie Bolinger Horton

1. New Course Proposal – BTT 211 Techniques in Biotechnology I
   a. Approve new course
   b. Effective Date: Summer 2017
   c. Course description (as it will appear in catalog)

   **BTT 211 Techniques in Biotechnology I**  
   3 credits
   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.

   **Prerequisites:** BIO 259, BIO 260, BIO 231. S/SU

2. New Course Proposal – BTT 212 Techniques in Biotechnology II
   a. Approve new course
   b. Effective Date: Summer 2017
   c. Course description (as it will appear in catalog)

   **BTT 212 Techniques in Biotechnology II**  
   3 credits
   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.

   **Prerequisites:** BIO 259, BIO 260, BIO 231. SU

   a. Add BIO 107 Principles of Biology I as a program requirement
b. Remove CIS 111 Introduction to Microcomputer Applications as a program requirement  
c. Move BIO 259 Cell Biology from semester 1 to semester 2  
d. Move CHM 105 General Chemistry I from semester 2 to semester 1  
e. Remove BTT 201 Techniques in Biotechnology as a program requirement  
f. Add BTT 211 Techniques in Biotechnology I as a program requirement to semester 3  
g. Add BTT 212 Techniques in Biotechnology II as a program requirement to semester 3  
h. Change program credit requirements from 28 to 29.  
i. Effective Date: Fall 2017  
j. See grid – page 111

4. Program Revision Proposal – General Studies – Biotechnology Option  
a. Move HUM 101 Critical Thinking and Problem Solving from semester 1 to semester 2  
b. Move “Behavioral Science Elective” from semester 2 to semester 4  
c. Move BIO 231 General Microbiology from semester 4 to semester 3  
d. Move SPH 101 Speech Communication Skills from semester 4 to semester 3  
e. Move “Humanities Elective” from semester 5 to semester 4  
f. Change “Science Elective” in semester 4 to BIO 260 Molecular Biology and move to semester 3.  
g. Change “Mathematics Elective or Science Elective” in semester 5 to BTT 211 Techniques in Biotechnology I and move to semester 4.  
h. Change “Mathematics Elective or Science Elective” in semester 5 to BTT 212 Techniques in Biotechnology II  
i. Remove Social Science Elective from semester 5  
j. Change program credit requirements from 66-70 credits to 63 credits  
k. Effective Date: Fall 2017  
l. See grid – page 119

School of Public Service and Social Sciences – Jen Arner

1. New Degree Program Option – Liberal Arts History Option Associate in Arts Degree  
a. Approve Liberal Arts History Option Associate in Arts Degree program  
b. Effective Date: Fall 2017  
c. See grid – page 127
2016-2017
QUINSIGAMOND COMMUNITY COLLEGE

COURSE REVISION PROPOSAL

1. Course Number and Name (current) : CSC 108 – Computer Science I

2. Originator: Hao Loi Date: 8/16/2016

3. School Dean: Kathy Rentsch Date: 8/16/2016

4. The requested change (motion) for governance consideration is as follows:
   
   - Change MAT 100 co-requisite to MAT 100 pre-requisite
   - Change the words “three course sequence” to “two course sequence”

The following programs are affected by this change and the academic maps will be revised (list program names and program codes as they appear in the college catalog):

Computer Science Transfer - Associate in Science (Program Code: CS)

5. Effective Date: FA 2017

6. Recommended by the School of Business, Engineering & Technology Date: 10.20.16

   Comments:

7. AA Leadership Team: ____________________________ Date: __________________

   Recommended: __________ Not Recommended: __________
   Comments: __________

8. VP/Academic Affairs: ____________________________ Date: __________________

   Recommended: __________ Not Recommended: __________
   Comments: __________

9. Learning Council: ________________________________ Date: __________________

   Recommended: __________ Not Recommended: __________
   Comments: __________

10. VP/Academic Affairs: ____________________________ Date: __________________

    Approved: __________ Not Approved: __________
    Comments: __________

Signatures on file in office of Academic Affairs
COURSE REVISION PROPOSAL

Type of Revision:

- X Description  
- X Prerequisite  
- Corequisite  
- Number  
- Name  
- #credits

Elective Type
other (explain)

Course Discipline or Department: Computer Science
School: School: Business, Engineering, and Technology

Current Course Number: CSC 108
Current Course Name: Computer Science I

Current Course Description (as it appears in the college catalog including course three letter designation and number, title, credits, semesters offered and prerequisites/corequisites):

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

Prerequisite: CIS 111, ENG 091 with a grade of “C” or higher, ENG 096 with a grade of “C” or higher; or appropriate placement score

Corequisite: MAT 100 or appropriate placement score

Semester Offered: F/S/SU

Note: Four hours lecture

Proposed Description (include all proposed changes):

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

Prerequisite: CIS 111, ENG 091 with a grade of “C” or higher, ENG 096 with a grade of “C” or higher; or appropriate placement score, MAT 100 or appropriate placement score

Semester Offered: F/S/SU

Note: Four hours lecture
<table>
<thead>
<tr>
<th>Rationale for the change:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on the 2016 APR review, data show high failure rate for CSC 108. The Computer Science Program requires</td>
</tr>
<tr>
<td>students with proficient in Math solving skills in order to be successful in the program. There is even</td>
</tr>
<tr>
<td>higher failure rate in CSC 109. The co-requisite with MAT 100 just were not enough to prepare the students to</td>
</tr>
<tr>
<td>do well in the program. That’s why we propose to raise the Math requirement from Co-requisite MAT 100 -</td>
</tr>
<tr>
<td>College Algebra. to pre-requisite MAT 100 - College Algebra.</td>
</tr>
<tr>
<td>The phrase “three course sequence” is a typo and should read “two course sequence” to match the first</td>
</tr>
<tr>
<td>sentence and the actual number courses in the sequence.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Provide a description of any change in course content.</th>
</tr>
</thead>
<tbody>
<tr>
<td>None.</td>
</tr>
</tbody>
</table>

| Does the course revision affect another department? Please confer with the coordinator of the affected      |
| department.                                                                                               |
| Affected department(s) N/A                                                                                  |

<table>
<thead>
<tr>
<th>Attach current and proposed academic maps for all affected programs (listed on page 1 of this proposal).</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Please submit a generic syllabus to your dean with all of the revisions included.</th>
</tr>
</thead>
<tbody>
<tr>
<td>On file.</td>
</tr>
</tbody>
</table>
1. Course Number and Name (current) : CSC 109 – Computer Science II

2. Originator: Hao Loi Date: 8/16/2016

3. School Dean: Kathy Rentsch Date: 8/16/2016

4. The requested change (motion) for governance consideration is as follows:
   - Remove prerequisite CSC 106.
   - Change prerequisite CSC 108 to CSC 108 with a grade of “C” or higher

   The following programs are affected by this change and the academic maps will be revised (list program names and program codes as they appear in the college catalog):
   
   Computer Science Transfer - Associate in Science (Program Code: CS)

5. Effective Date: Fall 2017

6. Recommended by the School of Business, Engineering & Technology Date: 10.20.16
   Comments:

7. AA Leadership Team: _______________________________ Date: _________________

   Recommended: ________ Not Recommended: ________

   Comments:

8. VP/Academic Affairs: _______________________________ Date: _________________

   Recommended: ________ Not Recommended: ________

   Comments:

9. Learning Council: _______________________________ Date: _________________

   Recommended: ________ Not Recommended: ________

   Comments:

10. VP/Academic Affairs: _______________________________ Date: _________________

    Approved: ________ Not Approved: ________

    Comments:

2016 - 2017
<table>
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<tr>
<th>Type of Revision:</th>
<th>Description</th>
<th>Prerequisite</th>
<th>Corequisite</th>
<th>Number</th>
<th>Name</th>
<th>#credits</th>
<th>Elective Type</th>
<th>other (explain)</th>
</tr>
</thead>
</table>

Course Discipline or Department: Computer Science  
School: Business, Engineering, and Technology

Current Course Number: CSC 109

Current Course Name: Computer Science II

Current Course Description (as it appears in the college catalog including course three letter designation and number, title, credits, semesters offered and prerequisites/corequisites):

**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**

**Prerequisite:** CSC 106 or CSC 108

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

**Note:** Four hours lecture

Proposed Description (include all proposed changes):

**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**

**Prerequisite:** CSC 108 with a grade of "C" or higher

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

**Note:** Four hours lecture
<table>
<thead>
<tr>
<th><strong>Rationale for the change:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Students that took CSC 108 with a grade lower than “C” will have problem to pass CSC 109. Also, any grade lower than “C” will not be transferred to another four-year institution. CSC 109 also has the same math prerequisite as CSC 108.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th><strong>Provide a description of any change in course content.</strong></th>
</tr>
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<tbody>
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<tbody>
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<tr>
<td>On file.</td>
</tr>
</tbody>
</table>
COURSE REVISION PROPOSAL

1. Course Number and Name (current) : CSC 208 Introduction to Architecture and Assembly Language

2. Originator: Hao Loi Date: 8/16/2016

3. School Dean: Kathy Rentsch Date: 8/16/2016

4. The requested change (motion) for governance consideration is as follows:
   - Remove prerequisite CSC 211
   - Add prerequisite CSC 109 with a grade of “C” or higher
   - Move course from Semester 4 to Semester 3

   The following programs are affected by this change and the academic maps will be revised (list program names and program codes as they appear in the college catalog):

   COMPUTER SCIENCE TRANSFER - Associate in Science (Program Code: CS)

5. Effective Date: Fall 2017

6. Recommended by the School of Business, Engineering & Technology Date: 10.20.16
   Comments:

7. AA Leadership Team: __________________________ Date: ____________
   Recommended: ________ Not Recommended: ________
   Comments: 

8. VP/Academic Affairs: __________________________ Date: ____________
   Recommended: ________ Not Recommended: ________
   Comments: 

9. Learning Council: __________________________ Date: ____________
   Recommended: ________ Not Recommended: ________
   Comments: 

10. VP/Academic Affairs: __________________________ Date: ____________
    Approved: ________ Not Approved: ________
    Comments: 

Signatures on file in office of Academic Affairs
<table>
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<tr>
<th>Type of Revision:</th>
<th>___ Description</th>
<th>X___ Prerequisite</th>
<th>___ Corequisite</th>
<th>___ Number</th>
<th>___ Name</th>
<th>___ #credits</th>
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<tbody>
<tr>
<td></td>
<td>Elective Type</td>
<td>other (explain)</td>
<td></td>
<td></td>
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</tbody>
</table>

**Course Discipline or Department:** Computer Science Transfer  
**School:** Business, Engineering, and Technology

<table>
<thead>
<tr>
<th>Current Course Number:</th>
<th>CSC 208</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Course Name:</td>
<td>Introduction to Architecture and Assembly Language</td>
</tr>
</tbody>
</table>

**Current Course Description (as it appears in the college catalog including course three letter designation and number, title, credits, semesters offered and prerequisites/corequisites):**

**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, number representatives, assembly language instruction sets and addressing modes, procedure calling and the stack, low-level input/output, and linkers and loaders. Students write and debug programs in assembly language.

**Credits:** 4

**Prerequisite:** CSC 211

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

**Proposed Description (include all proposed changes):**

**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, number representatives, assembly language instruction sets and addressing modes, procedure calling and the stack, low-level input/output, and linkers and loaders. Students write and debug programs in assembly language.

**Credits:** 4

**Prerequisite:** CSC 109

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

**Rationale for the change:**

The course content will cover more basic C language can help students make a smoother transition from Java to C++ by taking this class first. So this course is moved from semester 4 to semester 3 to let students take this class first. CSC 211 is not needed as a prerequisite.

Please provide a description of any change in course content.

**Does the course revision affect another department? Please confer with the coordinator of the affected department.**

Affected department(s): N/A

Attach current and proposed academic maps for all affected programs (listed on page 1 of this proposal).

Please submit a generic syllabus to your dean with all of the revisions included.
COURSE REVISION PROPOSAL

1. Course Number and Name (current): CSC 211 – Programming with Data Structure

2. Originator: Hao Loi Date: 8/16/2016

3. School Dean: Kathy Rentsch Date: 8/16/2016

4. The requested change (motion) for governance consideration is as follows:

   - Remove prerequisite CSC 107
   - Change CSC 109 to CSC 109 with a grade of “C” or higher
   - Move course from semester 3 to semester 4.

The following programs are affected by this change and the academic maps will be revised (list program names and program codes as they appear in the college catalog):

   COMPUTER SCIENCE TRANSFER - Associate in Science (Program Code: CS)

5. Effective Date: Fall 2017

6. Recommended by the School of Business, Engineering & Technology School Date: __10.20.16____

   Comments:

7. AA Leadership Team: _______________________________ Date: _________________

   Recommended: __________ Not Recommended: __________

   Comments:

8. VP/Academic Affairs: _______________________________ Date: _________________

   Recommended: __________ Not Recommended: __________

   Comments:

9. Learning Council: _________________________________ Date: _________________

   Recommended: __________ Not Recommended: __________

   Comments:

10. VP/Academic Affairs: _______________________________ Date: _________________

    Approved: __________ Not Approved: __________

    Comments:

    2016 - 2017
### COURSE REVISION PROPOSAL

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<th>Type of Revision:</th>
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<tbody>
<tr>
<td><em>X</em> Description</td>
<td><em>X</em> Prerequisite</td>
</tr>
<tr>
<td>___ Elective Type</td>
<td>___ other (explain)</td>
</tr>
</tbody>
</table>

| Course Discipline or Department: | Computer Science Transfer |
| School: | Business, Engineering, and Technology |

| Current Course Number: | CSC 211 |
| Current Course Name: | Programming with Data Structure |

<table>
<thead>
<tr>
<th>Current Course Description (as it appears in the college catalog including course three letter designation and number, title, credits, semesters offered and prerequisites/corequisites):</th>
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<tbody>
<tr>
<td>CSC 211 Programming with Data Structures</td>
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This course introduces data structures using object-oriented programming techniques and basic algorithm analysis. It covers basic structures such as lists, queues, and stack; binary trees and balanced trees; hash tables and priority queues; and set and graph representation. Students use algorithms to survey and apply recursion techniques; apply common sorting and searching algorithms such as MergeSort; graph traversal algorithms such as Floyd's and Dijkstra's; and explore depth-first traversals, divide and conquer, backtracking, and greedy algorithms. Students develop and test a variety of programs in the languages chosen for the course.

Credits: 4

Prerequisite: CSC 107 or CSC 109 or CIS 225

Semester Offered: F/S/SU

<table>
<thead>
<tr>
<th>Proposed Description (include all proposed changes):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 211 Programming with Data Structures</td>
<td></td>
</tr>
</tbody>
</table>

This course introduces data structures using object-oriented programming techniques and basic algorithm analysis. It covers basic structures such as lists, queues, and stack; binary trees and balanced trees; hash tables and priority queues; and set and graph representation. Students use algorithms to survey and apply recursion techniques; apply common sorting and searching algorithms such as MergeSort; graph traversal algorithms such as Floyd's and Dijkstra's; and explore depth-first traversals, divide and conquer, backtracking, and greedy algorithms. Students develop and test a variety of programs in the languages chosen for the course.

Credits: 4

Prerequisite: CSC 109 with a grade of “C” or higher or CIS 225

Semester Offered: F/S/SU

Rationale for the change:

Students with a grade less than “C” from CSC 109 will have difficulty to pass this course. This course uses C++ extensively for the homework assignments so it’s recommended to take CSC 208 first but it’s not required. So this course is move from semester 3 to semester 4.

Provide a description of any change in course content. N/A

Does the course revision affect another department? Please confer with the coordinator of the affected department.

Affected department(s) N/A

Attach current and proposed academic maps for all affected programs (listed on page 1 of this proposal). Please submit a generic syllabus to your dean with all of the revisions included.

On file.
2016-2017
QUINSIGAMOND COMMUNITY COLLEGE

COURSE REVISION PROPOSAL

1. Course Number and Name (current) : CSC 212 – Introduction to Software Engineering

2. Originator: Hao Loi Date: 8/16/2016

3. School Dean: Kathy Rentsch Date: 8/16/2016

4. The requested change (motion) for governance consideration is as follows:

   - Remove prerequisite CSC 211
   - Add prerequisite CSC 109 with a grade of “C” or higher

The following programs are affected by this change and the academic maps will be revised (list program names and program codes as they appear in the college catalog):

   
   COMPUTER SCIENCE TRANSFER - Associate in Science (Program Code: CS)

5. Effective Date: Fall 2017

6. Recommended by the School of Business, Engineering & Technology Date: 10.20.16

   Comments:

7. AA Leadership Team: _______________________________ Date: _________________

   Recommended: ________ Not Recommended: ________

   Comments:

8. VP/Academic Affairs: _________________________________ Date: _________________

   Recommended: ________ Not Recommended: ________

   Comments:

9. Learning Council: _____________________________________ Date: _________________

   Recommended: ________ Not Recommended: ________

   Comments:

10. VP/Academic Affairs: _________________________________ Date: _________________

    Approved: ________ Not Approved: ________

    Comments:
Course Revision Proposal

Type of Revision: 
___ Description    _X__ Prerequisite    ___Corequisite    ___ Number   ___ Name   ___ #credits 
___ Elective Type       ___ other (explain)

Course Discipline or Department: Computer Science Transfer  
School: Business, Engineering, and Technology

Current Course Name: Introduction to Software Engineering

Current Course Number: CSC 212

Current Course Description (as it appears in the college catalog including course three letter designation and number, title, credits, semesters offered and prerequisites/corequisites):

CSC 212 Introduction to Software Engineering

The progression of software engineering topics from the previous computer science courses conclude in CSC 212, where students are asked to step beyond the programmer role and take a broader view of software development; to consider its lifecycle from problem description to maintenance. Students first practice with analysis and design of medium-sized systems. Standard modeling tools are introduced and the students complete the phases of analysis, design, implementation and testing of a medium-sized team project that includes documents such as UML diagrams or CRC cards in addition to test plans. The software engineering topics are integrated with professionalism and ethics, as well as software and information assurance topics, such as security concerns and liabilities of computer-based systems.

Credits: 4

Prerequisite: CSC 211

Semester Offered: F/S/SU

Note: Four hours lecture

Proposed Description (include all proposed changes):

CSC 212 Introduction to Software Engineering

The progression of software engineering topics from the previous computer science courses conclude in CSC 212, where students are asked to step beyond the programmer role and take a broader view of software development; to consider its lifecycle from problem description to maintenance. Students first practice with analysis and design of medium-sized systems. Standard modeling tools are introduced and the students complete the phases of analysis, design, implementation and testing of a medium-sized team project that includes documents such as UML diagrams or CRC cards in addition to test plans. The software engineering topics are integrated with professionalism and ethics, as well as software and information assurance topics, such as security concerns and liabilities of computer-based systems.

Credits: 4

Prerequisite: CSC 109 with a grade of “C” or higher

Semester Offered: F/S/SU

Note: Four hours lecture

Rationale for the change:
Students passed CSC 109 with a grade of “C” or better should be allowed to take this class without first have to take CSC 211.

Provide a description of any change in course content.

N/A

Does the course revision affect another department? Please confer with the coordinator of the affected department.
Affected department(s) ____________N/A_____________

Attach current and proposed academic maps for all affected programs (listed on page 1 of this proposal).

Please submit a generic syllabus to your dean with all of the revisions included.

On file.
<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course #</th>
<th>Offered</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1 (Fall)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composition I</td>
<td>ENG 101</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 091 with a grade of “C” or higher, ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Register for and successfully complete all courses to graduate in four semesters.</td>
</tr>
<tr>
<td>Calculus I</td>
<td>MAT 233</td>
<td>F/S/SU</td>
<td>4</td>
<td>MAT 124</td>
<td>Apply and get accepted to this program (program code is CS).</td>
</tr>
<tr>
<td>Computer Science I</td>
<td>CSC 108</td>
<td>F/S/SU</td>
<td>4</td>
<td>CIS 111, ENG 091 with a grade of “C” or higher, ENG 096 with a grade of “C” or higher; or approp place score, Coreq: MAT 100 or approp place score</td>
<td>Complete ENG 101, MAT 233, and CSC 108.</td>
</tr>
<tr>
<td>Lab Science Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>4</td>
<td></td>
<td>Contact the Program Coordinator for laptop requirements.</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
<td></td>
<td>Attend Transfer Services events. For information see <a href="http://www.qcc.mass.edu/transfer/">http://www.qcc.mass.edu/transfer/</a>.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Semester 2 (Spring)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composition II</td>
<td>ENG 102</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 101</td>
<td>Complete CSC 109.</td>
</tr>
<tr>
<td>Calculus II</td>
<td>MAT 234</td>
<td>F/S/SU</td>
<td>4</td>
<td>MAT 233</td>
<td>Meet with a QCC Transfer Services Advisor (Room 272A). See <a href="http://www.qcc.mass.edu/transfer/">http://www.qcc.mass.edu/transfer/</a></td>
</tr>
<tr>
<td>Computer Science II</td>
<td>CSC 109</td>
<td>F/S/SU</td>
<td>4</td>
<td>CSC 106 or CSC 108</td>
<td>Attend Transfer Services events.</td>
</tr>
<tr>
<td>Lab Science Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Semester 3 (Fall)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Programming with Data Structures</td>
<td>CSC 211</td>
<td>F/S/SU</td>
<td>4</td>
<td>CSC 107 or CSC 109 or CIS 225</td>
<td>Complete CSC 208.</td>
</tr>
<tr>
<td>Discrete Mathematics</td>
<td>MAT 125</td>
<td>F/S</td>
<td>3</td>
<td>MAT 123 or approp place score</td>
<td>Meet with representatives of four-year schools to discuss/begin the transfer application process.</td>
</tr>
<tr>
<td>Speech Communication Skills</td>
<td>SPH 101</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 091 with a grade of “C” or higher, ENG 096 with a grade of “C” or higher; or approp place score</td>
<td></td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
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</tr>
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<td><strong>Total</strong></td>
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<td></td>
<td>16</td>
<td></td>
<td></td>
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<tr>
<td><strong>Semester 4 (Spring)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction to Software Engineering</td>
<td>CSC 212</td>
<td>F/S/SU</td>
<td>4</td>
<td>CSC 211</td>
<td>Complete CSC 211 and CSC 212.</td>
</tr>
<tr>
<td>Probability &amp; Statistics for Engineers and Scientists</td>
<td>MAT 237</td>
<td>F/S/SU</td>
<td>3</td>
<td>MAT 234</td>
<td>Continue with/complete the transfer application process.</td>
</tr>
<tr>
<td>Introduction to Architecture and Assembly Language</td>
<td>CSC 208</td>
<td>F/S/SU</td>
<td>4</td>
<td>CSC 211</td>
<td>CSC 212 is a capstone course. Students will complete a project of their choice or instructor-assigned project.</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
<td></td>
<td>Submit an Intent to Graduate Form, located on The Q.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<tr>
<td><strong>Total Credits Required</strong></td>
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</tbody>
</table>
## Semester 1 (Fall)

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course #</th>
<th>Offered</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composition I</td>
<td>ENG 101</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 091 with a grade of &quot;C&quot; or higher, ENG 096 with a grade of &quot;C&quot; or higher;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>or approp place score</td>
</tr>
<tr>
<td>Calculus I</td>
<td>MAT 233</td>
<td>F/S/SU</td>
<td>4</td>
<td>MAT 124</td>
</tr>
<tr>
<td>Computer Science I</td>
<td>CSC 108</td>
<td>F/S/SU</td>
<td>4</td>
<td>CIS 111, ENG 091 with a grade of &quot;C&quot; or higher, ENG 096 with a grade of &quot;C&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>or higher; or approp place score, MAT 100 or approp place score</td>
</tr>
<tr>
<td>Lab Science Elective</td>
<td>---</td>
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<td></td>
</tr>
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<td>---</td>
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</tr>
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<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

**Milestones**
- Register for and successfully complete all courses to graduate in four semesters.
- Apply and get accepted to this program (program code is CS).
- Complete ENG 101, MAT 233, and CSC 108.
- Contact the Program Coordinator for laptop requirements.
- Attend Transfer Services events. For information see http://www.qcc.mass.edu/transfer/.

## Semester 2 (Spring)

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course #</th>
<th>Offered</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composition II</td>
<td>ENG 102</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 101</td>
</tr>
<tr>
<td>Calculus II</td>
<td>MAT 234</td>
<td>F/S/SU</td>
<td>4</td>
<td>MAT 233</td>
</tr>
<tr>
<td>Computer Science II</td>
<td>CSC 109</td>
<td>F/S/SU</td>
<td>4</td>
<td>CSC 108 with a grade of &quot;C&quot; or higher</td>
</tr>
<tr>
<td>Lab Science Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>18</td>
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</tr>
</tbody>
</table>

**Milestones**
- Complete CSC 109.
- Meet with a QCC Transfer Services Advisor (Room 272A). See http://www.qcc.mass.edu/transfer/.
- Attend Transfer Services events.

## Semester 3 (Fall)

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course #</th>
<th>Offered</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Architecture and Assembly Language</td>
<td>CSC 208</td>
<td>F/S/SU</td>
<td>4</td>
<td>CSC 109 with a grade of &quot;C&quot; or higher</td>
</tr>
<tr>
<td>Discrete Mathematics</td>
<td>MAT 125</td>
<td>F/S</td>
<td>3</td>
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</tr>
<tr>
<td>Speech Communication Skills</td>
<td>SPH 101</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 091 with a grade of &quot;C&quot; or higher, ENG 096 with a grade of &quot;C&quot; or higher;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>or approp place score</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

**Milestones**
- Meet with representatives of four-year schools to discuss/begin the transfer application process.

## Semester 4 (Spring)

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course #</th>
<th>Offered</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming with Data Structures</td>
<td>CSC 211</td>
<td>F/S/SU</td>
<td>4</td>
<td>CSC 109 with a grade of &quot;C&quot; or higher or CIS 225</td>
</tr>
<tr>
<td>Introduction to Software Engineering</td>
<td>CSC 212</td>
<td>F/S/SU</td>
<td>4</td>
<td>CSC 109 with a grade of &quot;C&quot; or higher</td>
</tr>
<tr>
<td>Probability &amp; Statistics for Engineers and Scientists</td>
<td>MAT 237</td>
<td>F/S/SU</td>
<td>3</td>
<td>MAT 234</td>
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<td>Social Science Elective</td>
<td>---</td>
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<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

**Milestones**
- Complete CSC 208 and CSC 212.
- Continue with/complete the transfer application process.
- CSC 212 is a capstone course. Students will complete a project of their choice or instructor-assigned project.
- Submit an Intent to Graduate Form, located on The Q.
### NEW COURSE PROPOSAL

1. **Course Number and Name:** MUS 102: Music Appreciation

2. **Originator:** Jose Castillo  
   **Date:** July 11, 2016

3. **School Dean:** Clarence Ates  
   **Date:** July 11, 2016

4. **The requested change (motion) for governance consideration is as follows:**

   The School of Humanities and Education move MUS 102: Music Appreciation to be adopted as a new course.

5. **Effective Date:** Fall 2017

6. **Recommended by the Humanities and Education School**  
   **Date:** September 15, 2016

7. **AA Leadership Team:** ___________________________  
   **Date:** ________________

   **Recommended:** ________  
   **Not Recommended:** ________

   **Comments:**

8. **VP/Academic Affairs:** ___________________________  
   **Date:** ________________

   **Recommended:** ________  
   **Not Recommended:** ________

   **Comments:**

9. **Learning Council:** ___________________________  
   **Date:** ________________

   **Recommended:** ________  
   **Not Recommended:** ________

   **Comments:**

10. **VP/Academic Affairs:** ___________________________  
    **Date:** ________________

    **Approved:** ________  
    **Not Approved:** ________

    **Comments:**

*Signatures on file in office of Academic Affairs*
NEW COURSE PROPOSAL

<table>
<thead>
<tr>
<th>Course Discipline/Department: Humanities</th>
<th>School: Humanities and Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Number:</td>
<td>MUS 102</td>
</tr>
<tr>
<td>Course Name:</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>Prerequisites and/or corequisites (confer with affected department coordinator):</td>
<td>ENG 091</td>
</tr>
<tr>
<td>CIP code (check with IRaP Office):</td>
<td>50.0901</td>
</tr>
<tr>
<td>Effective Term/year:</td>
<td>Fall 2017</td>
</tr>
</tbody>
</table>

Give a rationale for the new course. Be sure to indicate whether this course replaces another course. This course is the first step for students who would like to learn the basic of music evolution, creation, and notation.

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.

Is the course content similar to other courses now offered? Yes ___ No **X**
If yes, attach a statement for the coordinator of the department offering the similar course.

Please indicate if this course will serve as any of the following types of electives

**X** Elective (any college level course can serve as an elective)

___ Specific Type (indicate Business, Multiple Perspectives*, Liberal Arts, Humanities, Foreign Language, Social Science, Behavioral Science, Mathematics, Science, Lab Science, Social Science Foundational*, Literature, Philosophy or Language*, Creative Arts* )

___ Program specific (name the program)

*confer with the Liberal Arts Coordinator

Is this course required for a program? If yes, submit a separate DEGREE PROGRAM OR CERTIFICATE REVISION PROPOSAL. If the course is required for a new program, submit a separate NEW DEGREE PROGRAM, OPTION OR CERTIFICATE PROPOSAL. Please list all affected programs here.

Expected enrollment per term: 18
Expected enrollment per year: 54
Will any of the following be required:

- Additional staff ___
- Additional space ___
- Additional equipment ____

Provide a rationale for any needs indicated above and include approximate cost of equipment.

Library print and non-print resources in support of this course: $500

## Course Materials

<table>
<thead>
<tr>
<th>Course number:</th>
<th>MUS 102</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course name:</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>Credits:</td>
<td>3</td>
</tr>
<tr>
<td>Lecture Hours:</td>
<td>45</td>
</tr>
<tr>
<td>Lab hours:</td>
<td></td>
</tr>
<tr>
<td>Clinic Hours:</td>
<td></td>
</tr>
</tbody>
</table>

General course description and prerequisites (as it will appear in the college catalog including course three letter designation and number, title, credits, semesters offered and prerequisites/corequisites):

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.

3 credits

Prerequisite: ENG 091

F/S/SU

All required texts and paperbacks, including information on publisher and edition used (provide a suggested text):

**Book:** MUSIC2

**Author:** Michael Campbell

**Publisher:** Schimer; 2 edition

**ISBN-13:** 9781285454054

Instructional Objectives (list):

- Prepare student to critically examine and enjoy the music.
- Prepare student to develop basic aural skills in order to identify music periods and elements.
- Prepare student to recognize and identify composers and their works.
- Prepare the student to understand the basic use of notation in different styles of music.
- Provide students with basic concepts and vocabulary to help them understand the music.
- Provide a basic understanding of how music is develop.
- Provide a fundamental knowledge on different instruments used to create music.
- Provide the essentials basic element to advance to other music courses.
Teaching procedures: (provide suggested teaching methodology):
This course is taught using a variety of instructional method and procedures. Students will listen to lectures; engage in class discussions, cooperative learning activities, online music exercises, recordings, video/film presentation, demonstration, writing drills activities, live performance, and visiting Artist.

<table>
<thead>
<tr>
<th>Course topics and/or assignments and/or required and/or supplemental reading (provide a list of suggested course topics):</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COURSE OUTLINE, READINGS AND ASSIGNMENTS</strong></td>
</tr>
<tr>
<td><strong>Week 1</strong> Welcome, Introductions, Syllabus and Course Requirements</td>
</tr>
<tr>
<td>Music Intro</td>
</tr>
<tr>
<td><strong>Assignments:</strong></td>
</tr>
<tr>
<td>Reading: Chapters 1-2</td>
</tr>
<tr>
<td><strong>Week 2</strong> Medieval Music, Renaissance Music</td>
</tr>
<tr>
<td><strong>Assignments:</strong></td>
</tr>
<tr>
<td>Reading: Chapters 3-4</td>
</tr>
<tr>
<td><strong>Week 3</strong> Baroque Opera, Instrumental Music</td>
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<tr>
<td><strong>Assignments:</strong></td>
</tr>
<tr>
<td>Reading: Chapters 5-6</td>
</tr>
<tr>
<td><strong>Week 4</strong> Late Baroque, Classical Style</td>
</tr>
<tr>
<td><strong>Quiz #1</strong></td>
</tr>
<tr>
<td><strong>Assignments:</strong></td>
</tr>
<tr>
<td>Reading: Chapters 7-8</td>
</tr>
<tr>
<td><strong>Week 5</strong> Classical Orchestra, Mozart</td>
</tr>
<tr>
<td><strong>Assignment:</strong></td>
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<tr>
<td>Reading: Chapters 9-10</td>
</tr>
<tr>
<td><strong>Week 6</strong> Beethoven, Romantic Era</td>
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<tr>
<td><strong>Assignments:</strong></td>
</tr>
<tr>
<td>Reading: Chapters 11-12</td>
</tr>
<tr>
<td><strong>Week 7</strong> Romantic Choral, Romantic Piano</td>
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<tr>
<td><strong>Mid-Term</strong></td>
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<tr>
<td><strong>Assignments:</strong></td>
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<tr>
<td>Reading: Chapters 13-14</td>
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</tbody>
</table>

Other information:

- Suggested basis for student grading and criteria for evaluating student performance

  Grading for this course will be based on the following criteria: attendance, active participation, quizzes, mid-term, and final exam.
Assignments | Percent
--- | ---
- Attendance, Participation and Attitude | 15%
- Quiz #1 | 10%
- Quiz #2 | 10%
- Quiz #3 | 10%
- Midterm Exam | 25%
- Final Exam | 30%

100%

Extra Credit:
No extra credit will be offered

- college attendance policy (see current Student Handbook)
  Students are expected to attend their scheduled classes. Instructors will disseminate attendance requirements in writing to their students during the first week of class. See syllabus attached.

- college plagiarism statement (see current Student Handbook)
  College wide plagiarism policy will be used. See syllabus attached.

- Suggested assessment methodologies
  Assessment will be based on attendance, active participation, attitude/behavior, quizzes, mid-term, and final exam. The quizzes and exams are based on the lectures, readings, listening, and class discussions covered during the semester.

Please attach a generic syllabus for this new course.

Quinsigamond Community College

Course Information

Instructor:

Course Title: Music Appreciation

Course Number: MUS 102

Email:

Phone:

Office hours:

Course Description: 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.

Prerequisite: ENG 091

Course Goals and Outcomes:

Upon completion of this course, students will be able to:

- Display basic use of music vocabulary and concepts.
- Display basic aural skills by identifying music periods.
- Display knowledge on composers and their representative works.
- Display knowledge on the instruments used throughout the development of music.
- Describe basic music concepts like sound, wave, timber, dynamics, meter, melody, and harmony.
- Recognize the different notations and rhythms used during the development of music.
- Compare and contrast European classical music, American folk music, and World music.
- Demonstrate aesthetic appreciation to the evolution of music in its historical context.

General Education Learning Goals:

- Communication Skills: Students will be able to write and speak effectively.
- Information Literacy: Students will be able to locate, evaluate and apply reliable and appropriate information.
- Quantitative Reasoning: Students will apply the concepts and methods of mathematics to solve problems.
- Technical Literacy: Students will utilize computer and emerging technologies effectively.
- Aesthetics: Students will appreciate the variety of human experiences as expressed through the arts.
- Multiple Perspectives: Students will demonstrate knowledge and appreciation of diverse cultures.
- Impact of Technology: Students will reflect on the impact of scientific and technological advances on the individual, society and the environment.

Teaching procedures:

Methodology: This course is taught using a variety of instructional method and procedures. Students will listen to lectures; engage in class discussions, cooperative learning activities, online music exercises, recordings, video/film presentation, demonstration, writing drills activities, live performance, and visiting Artist.

Course Texts and Reading:

Book: Music2
Author: Michael Campbell
Publisher: Schimer; 2 edition

Course Requirements:
Grading and evaluation:
Grading for this course will be based on the following criteria: attendance, active participation, quizzes, mid-term, and final exam. The quizzes and exams are based on the lectures, readings, listening, and class discussions covered during the semester.

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Attendance, Participation and Attitude</td>
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<tr>
<td>- Quiz #1</td>
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<tr>
<td>- Quiz #2</td>
<td>10%</td>
</tr>
<tr>
<td>- Quiz #3</td>
<td>10%</td>
</tr>
<tr>
<td>- Midterm Exam</td>
<td>25%</td>
</tr>
<tr>
<td>- Final Exam</td>
<td>30%</td>
</tr>
<tr>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Extra Credit: No extra credit will be offered

PLAGIARISM:
The following is QCC’s official policy on plagiarism:

“Our purpose in the classroom is to seek the truth; this work requires trust and honesty between teacher and student. If we are not honest about what we know and don’t know, our learning will always be impaired. Because our teaching and learning depends on this honest communication, we expect all students to understand what plagiarism is and why it is unacceptable. Plagiarism means taking someone else's ideas or words and presenting them as one's own. The offense can take many forms including cheating on a test, passing in a paper taken from the Internet or from another student, or failing to properly use and credit sources in an essay. Sometimes the issue is subtle, involving getting too much help on an assignment from someone else. In every instance, plagiarism means cheating both oneself and the owner of the source. Since the cheating sabotages a student's learning experience, consequences range from no credit for the assignment to failure for the course and possible expulsion from the college.

Any student considering plagiarism should recognize the consequences and consider alternatives. Students uncertain about what constitutes plagiarism may request help from faculty or from appropriate college services.”

LEARNING NEEDS
Every effort will be made to meet the individual needs and various learning styles of students in this course.

It is of the utmost importance that you inform me at the beginning of the semester of your particular needs. If you have concerns about this course, please see me during my office hours or make an appointment to see me.

If your concerns are about a learning disability or another specific need, please see me or a learning specialist at Learning Disability Services, Room 246A. All information is strictly confidential.

CHILDREN ON CAMPUS
We are an open and welcoming campus, understanding that many of our students come from diverse backgrounds and have family responsibilities along with those of being a college student. We understand that occasionally students may be required to bring children to campus. At the same time, students should...
understand the parameters that are important to adhere to when young children are on campus.

- Children can only be allowed in the classroom with prior approval of the faculty member.
- A parent or guardian must supervise children at all times on the QCC campus, including in classrooms.

COURSE OUTLINE, READINGS AND ASSIGNMENTS

Week 1       Welcome, Introductions, Syllabus and Course Requirements
              
              Music Intro
              Assignments:
              Reading: Chapters 1-2

Week 2       Medieval Music, Renaissance Music
Assignments:
Reading: Chapters 3-4

Week 3  Baroque Opera, Instrumental Music

Assignments:
Reading: Chapters 5-6

Week 4  Late Baroque, Classical Style

Quiz #1
Assignments:
Reading: Chapters 7-8

Week 5  Classical Orchestra, Mozart

Assignments:
Reading: Chapters 9-10

Week 6  Beethoven, Romantic Era

Assignments:
Reading: Chapters 11-12

Week 7  Romantic Choral, Romantic Piano

Mid-Term
Assignments:
Reading: Chapters 13-14

Week 8  Romantic Opera, Romantic Symphony

Assignments:
Reading: Chapters 15-16

Week 9  Romantic Orchestra, Twentieth Century

Assignments:
Reading: Chapters 17-18

Week 10  European Concert, Modern Music

Assignments:
Reading: Chapters 19-20

Week 11  National Music, America Music
Quiz #2  
**Assignments:**  
Reading: Chapters 21-22

Week 12  
The Avant-Garde,  
**Assignments:**  
Reading: Chapters 23

Week 13  
Jazz,  
**Assignments:**  
Reading: Hand outs

Week 14  
Rock Revolution  
**Quiz #3**  
**Assignments:**  
Reading: Chapters 24

Week 15  
World Music, Review, and Final Exam  
**Assignments:**  
Reading: Chapters 26

The syllabus is a contract between student and instructor. The policies in this document apply to every student. You need to decide if you can handle the requirements and responsibilities outlined in this document.  
**Note:** This syllabus may be subject to change.

List the Student Learning Outcomes for this course in the table below. Recommendations for writing SLOs can be found in the *General Education Outcomes Assessment Handbook* that is available on the QCC’s Intranet under Frequently Used Forms (Academic Governance Forms).

<table>
<thead>
<tr>
<th>COURSE STUDENT LEARNING OUTCOMES FOR MUS 102: Music Appreciation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon completion of the course, students will be able to:</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Display basic use of music vocabulary and concepts.</td>
</tr>
<tr>
<td>2</td>
<td>Display basic aural skills by identifying music periods.</td>
</tr>
<tr>
<td></td>
<td>Display knowledge on composers and their representative works.</td>
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<td>---</td>
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</tr>
<tr>
<td>4</td>
<td>Display knowledge on the instruments used throughout the development of music.</td>
</tr>
<tr>
<td>5</td>
<td>Describe basic music concepts like sound, wave, timber, dynamics, meter, melody, and harmony.</td>
</tr>
<tr>
<td>6</td>
<td>Recognize the different notations and rhythms used during the development of music.</td>
</tr>
<tr>
<td>7</td>
<td>Compare and contrast European classical music, American folk music, and World music.</td>
</tr>
<tr>
<td>8</td>
<td>Demonstrate aesthetic appreciation to the evolution of music in its historical context.</td>
</tr>
</tbody>
</table>

How does the course support general education? Using the chart below, indicate the degree or level of connection between the course and outcome as indicated here.

I – Introductory/Background – There is an indirect relationship between the course and the outcome. The outcome itself is not the focus of the course but at least one element of the course serves as a building block to the achievement of the final outcome. For example, course elements may provide the knowledge, skills or attitudes necessary for the ultimate achievement of the outcome.

M – Intermediate/Transitional - There is more of a direct relationship between the course and the outcome than Introductory. A mixture of course elements supports the final achievement of the outcome, but the final integration
of knowledge, skills and attitudes necessary for its achievement is not accomplished in this course. For example, knowledge, skills and/or attitudes (at least 2 of the 3) required for achievement of the outcome may be the focus of the course or course element, but the integration of all three is not.

E – Emphasized – There is a direct relationship between the course and the outcome. At least one element of the course focuses specifically on the complex integration of knowledge, skills and attitudes necessary to perform the outcome.

NA – This is not a learning outcome for this course.

| CONNECTION OF MUS 102: MUSIC APPRECIATION TO GENERAL EDUCATION STUDENT LEARNING OUTCOMES | I, M, E, NA |
| Communication Skills: Students will write and speak effectively. | I |
| Information Literacy: Students will locate, evaluate and apply reliable and appropriate information. | I |
| Quantitative Reasoning: Students will apply the concepts and methods of mathematics to solve problems. | I |
| Scientific Reasoning: Students will relate scientific methods of inquiry to the acquisition of knowledge. | I |
| Technical Literacy: Students will utilize computer an emerging technologies effectively. | I |
| Aesthetics: Students will appreciate the variety of human experiences as expressed through the arts. | I |
| Multiple Perspectives: Students will demonstrate knowledge and appreciation of diverse cultures. | I |
| Ethics: Students will develop an awareness of personal obligations and responsibilities in one’s community of influence. | I |
| Impact of Technology: Students will reflect on the impact of scientific and technological advances on the individual, society and the environment. | I |
| **Civic Literacy: Students will demonstrate awareness of the responsibilities of local, national and international citizenship. | NA |

**CIVIC LITERACY**

If civic learning or civic literacy is a component of this course (within the course description, course topics and/or student learning outcomes), please consult the “Guide for Designating Civic Learning Courses” from the Department of Higher Education, available on Frequently Used Forms (with the other Academic Governance Forms). Utilizing the DHE definitions, please indicate whether this course can be designated as one of the following:

___ Civic Learning (CL)
___ Civic Learning with Engagement Required (CLER)
___ Civic Learning with Engagement Optional (CLEO)
___ Civic Learning is not a component of this course (NA)
1. Course Number and Name: ECE 250 Using Observation for Authentic Assessment of Young Children

2. Originator: Meghan Martin Date: August 16, 2016

3. School Dean: Dr. Clarence Ates Date: August 16, 2016

4. The requested change (motion) for governance consideration is as follows:

   ECE 250 Using Observation for Authentic Assessment of Young Children to be adopted as a new course.

5. Effective Date: Fall 2017

6. Recommended by the Humanities & Education School Date: September 15, 2016

   Comments:

7. AA Leadership Team: ____________________________ Date: ________________
   Recommended: __________ Not Recommended: __________
   Comments: 

8. VP/Academic Affairs: ____________________________ Date: ________________
   Recommended: __________ Not Recommended: __________
   Comments: 

9. Learning Council: ____________________________ Date: ________________
   Recommended: __________ Not Recommended: __________
   Comments: 

10. VP/Academic Affairs: ____________________________ Date: ________________
    Approved: __________ Not Approved: __________
    Comments:

Signatures on file in office of Academic Affairs
### NEW COURSE PROPOSAL

<table>
<thead>
<tr>
<th>Course Discipline/Department: Early Childhood Education</th>
<th>School: Humanities and Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Number: ECE 250</td>
<td></td>
</tr>
<tr>
<td>Course Name: Using Observation for Authentic Assessment of Young Children</td>
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<tr>
<td>Prerequisites and/or corequisites (confer with affected department coordinator): ECE 101, 102, 112</td>
<td></td>
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<tr>
<td>CIP code (check with IRAP Office): 13.1210</td>
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<tr>
<td>Effective Term/year: Fall 2017</td>
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</table>

Give a rationale for the new course. Be sure to indicate whether this course replaces another course. This course is designed to meet the ECE field’s need for the appropriate use and understanding of assessment and how to complete assessment in a more authentic manner. This course is a requirement of new degree option. Adds to the ECE electives.

Is the course content similar to other courses now offered? Yes ___ No ___ XX__

If yes, attach a statement for the coordinator of the department offering the similar course.

Please indicate if this course will serve as any of the following types of electives

- XX__ Elective (any college level course can serve as an elective)
- Specific Type (indicate Business, Multiple Perspectives*, Liberal Arts, Humanities, Foreign Language, Social Science, Behavioral Science, Mathematics, Science, Lab Science, Social Science Foundational*, Literature, Philosophy or Language*, Creative Arts* )
- XX__ Program specific (name the program) Early Childhood Education

*confer with the Liberal Arts Coordinator

Is this course required for a program? If yes, submit a separate DEGREE PROGRAM OR CERTIFICATE REVISION PROPOSAL. If the course is required for a new program, submit a separate NEW DEGREE PROGRAM, OPTION OR CERTIFICATE PROPOSAL. Please list all affected programs here.

Early Childhood Birth through Eight Years Old Certificate
Associates in Arts Early Childhood Education—Birth through Eight Years Old Option

Expected enrollment per term: 20 Expected enrollment per year: 40
Will any of the following be required:

- Additional staff ___
- Additional space ___
- Additional equipment ____

Provide a rationale for any needs indicated above and include approximate cost of equipment.

Library print and non-print resources in support of this course: $500

## Course Materials

<table>
<thead>
<tr>
<th>Course number: ECE 250</th>
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<tbody>
<tr>
<td>Course name: Using Observation for Authentic Assessment of Young Children</td>
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<tr>
<td>Credits: 3</td>
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<tr>
<td>Lecture Hours: 45</td>
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</table>

General course description and prerequisites (as it will appear in the college catalog including course three letter designation and number, title, credits, semesters offered and prerequisites/corequisites):

**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.

Prerequisites: ECE 101, 102, 112

F/S

All required texts and paperbacks, including information on publisher and edition used (provide a suggested text):


### Instructional Objectives (list):

- **Describe and document children’s growth patterns and individual needs through a variety of observation methods.**
- **Connect observations and documentations to the developmental spectrum of young children.**
- **Review and application of observation and documentation tools.**
- **Apply the use of anecdotal records to document children’s behavior in a preschool setting.**
- **Interpret observations as they relate to typical and atypical development.**
- **Understand the goals, benefits, and uses of assessment**
- **Know about and using observation, documentation, and other appropriate assessment tools and approaches**
- **Understand and practice responsible assessment**
- **Know about assessment partnerships with families and other professionals**
Teaching procedures: (provide suggested teaching methodology):

*Methods of instruction for this course will be (but are not limited to): lecture, group discussion, small group work, individual work, video viewing, guest speakers, and active student engagement.*

Course topics and/or assignments and/or required and/or supplemental reading (provide a list of suggested course topics):

*See attached Syllabus*

Other information:

- Suggested basis for student grading and criteria for evaluating student performance
- college attendance policy (see current Student Handbook)
- college plagiarism statement (see current Student Handbook)
- Suggested assessment methodologies

Please attach a generic syllabus for this new course.

*Attached*

List the Student Learning Outcomes for this course in the table below. Recommendations for writing SLOs can be found in the General Education Outcomes Assessment Handbook that is available on the QCC’s Intranet under Frequently Used Forms (Academic Governance Forms).

<table>
<thead>
<tr>
<th>COURSE STUDENT LEARNING OUTCOMES FOR ECE 250 Using Observation for Authentic Assessment of Young Children</th>
<th>Upon completion of the course, students will be able to:</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Describe and document children’s growth patterns and individual needs through a variety of observation methods.</em></td>
</tr>
<tr>
<td>2</td>
<td><em>Know about and using observation, documentation, and other appropriate assessment tools and approaches</em></td>
</tr>
<tr>
<td>3</td>
<td><em>Review and application of observation and documentation tools.</em></td>
</tr>
<tr>
<td>4</td>
<td><em>Apply the use of anecdotal records to document children’s behavior in a preschool setting.</em></td>
</tr>
<tr>
<td>5</td>
<td><em>Interpret observations as they relate to typical and atypical development.</em></td>
</tr>
<tr>
<td>6</td>
<td><em>Understand the goals, benefits, and uses of assessment</em></td>
</tr>
<tr>
<td>7</td>
<td><em>Understand and practice responsible assessment</em></td>
</tr>
<tr>
<td>8</td>
<td><em>Know about assessment partnerships with families and other professional</em></td>
</tr>
<tr>
<td>9</td>
<td><em>Connect observations and documentations to the developmental spectrum of young children.</em></td>
</tr>
<tr>
<td>10</td>
<td><em>Demonstrated self—assessment and self-advocacy</em></td>
</tr>
<tr>
<td>11</td>
<td><em>Apply foundational concepts from general education while making connections between prior knowledge/experience and new learning</em></td>
</tr>
<tr>
<td>12</td>
<td><em>Demonstrate college level written and verbal skills</em></td>
</tr>
</tbody>
</table>
How does the course support general education? Using the chart below, indicate the degree or level of connection between the course and outcome as indicated here.

I – Introductory/Background – There is an indirect relationship between the course and the outcome. The outcome itself is not the focus of the course but at least one element of the course serves as a building block to the achievement of the final outcome. For example, course elements may provide the knowledge, skills or attitudes necessary for the ultimate achievement of the outcome.

M – Intermediate/Transitional - There is more of a direct relationship between the course and the outcome than Introductory. A mixture of course elements supports the final achievement of the outcome, but the final integration of knowledge, skills and attitudes necessary for its achievement is not accomplished in this course. For example, knowledge, skills and/or attitudes (at least 2 of the 3) required for achievement of the outcome may be the focus of the course or course element, but the integration of all three is not.

E – Emphasized – There is a direct relationship between the course and the outcome. At least one element of the course focuses specifically on the complex integration of knowledge, skills and attitudes necessary to perform the outcome.

NA – This is not a learning outcome for this course.

| CONNECTION OF ECE 250 Using Observation for Authentic Assessment of Young Children TO GENERAL EDUCATION STUDENT LEARNING OUTCOMES | I, M, E, NA |
| Communication Skills: Students will write and speak effectively. | I, M, E, |
| Information Literacy: Students will locate, evaluate and apply reliable and appropriate information. | I, M, E, |
| Quantitative Reasoning: Students will apply the concepts and methods of mathematics to solve problems. | I |
| Scientific Reasoning: Students will relate scientific methods of inquiry to the acquisition of knowledge. | I |
| Technical Literacy: Students will utilize computer an emerging technologies effectively. | I, M, E, |
| Aesthetics: Students will appreciate the variety of human experiences as expressed through the arts. | I, M |
| Multiple Perspectives: Students will demonstrate knowledge and appreciation of diverse cultures. | I, M, E |
| Ethics: Students will develop an awareness of personal obligations and responsibilities in one’s community of influence. | I, M, E |
| Impact of Technology: Students will reflect on the impact of scientific and technological advances on the individual, society and the environment. | I, M, E, |
| **Civic Literacy: Students will demonstrate awareness of the responsibilities of local, national and international citizenship. | I, M, E, |

**CIVIC LITERACY
If civic learning or civic literacy is a component of this course (within the course description, course topics and/or student learning outcomes), please consult the “Guide for Designating Civic Learning Courses” from the Department of Higher Education, available on Frequently Used Forms (with the other Academic Governance Forms). Utilizing the DHE definitions, please indicate whether this course can be designated as one of the following:

_XX__ Civic Learning (CL)
___ Civic Learning with Engagement Required (CLER)
___ Civic Learning with Engagement Optional (CLEO)
___ Civic Learning is not a component of this course (NA)

**Syllabus**

Instructor: TBD       Office: TBD
Email: TBD        Phone: TBD

Days and Times of class: TBD

**ECE 250 Using Observation for the Authentic Assessment of Young Children- 3 Credits**

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.

Perquisites: ECE 101, 102, 112

**Course Outcomes:** Upon completion of this course students will be able to:

- Describe and document children’s growth patterns and individual needs through a variety of observation methods.
- Connect observations and documentations to the developmental spectrum of young children including examine young children’s behavior on an ongoing basis, classify young children’s behavior into developmental domains and analyze behavior according to developmental theory.
- Know about and use observation, documentation, and other appropriate assessment tools and approaches
- Review and apply of observation and documentation tools.
- Understand and practicing responsible assessment

**Teaching Procedures:**

Teaching procedure includes but is not limited to lecture, group work, readings, in class observation, videos vignettes, and outside observations.
Required Textbook:

Attendance Policy: The faculty will provide an attendance policy at the first class meeting.

Concerning students with special needs (adapted from QCC Student Handbook)

Every effort will be made to meet the individual needs and various learning styles of students in this course. It is of the utmost importance that you inform me at the beginning of the semester of your particular needs. If you have concerns about this course, please see me after class. If your concerns are about a learning disability or another specific need, please see me privately or contact a learning specialist at Disability Services, Room 246A. All information is strictly confidential.

Plagiarism and student discipline policies (adapted from the QCC Student Handbook)

ACADEMIC DISHONESTY, PLAGIARISM AND CHEATING

**College-wide policy on plagiarism:** “Our purpose in the classroom is to seek the truth; this work requires trust and honesty between teacher and student. If we are not honest about what we know and don't know, our learning will always be impaired. Because our teaching and learning depends on this honest communication, we expect all students to understand what plagiarism is and why it is unacceptable.”

“Plagiarism means taking someone else's ideas or words and presenting them as one’s own. The offense can take many forms including cheating on a test, passing in a paper taken from the internet or from another student, or failing to properly use and credit sources in an essay. Sometimes the issue is subtle, involving getting too much help on an assignment from someone else. In every instance, plagiarism means cheating both oneself and the owner of the source. Since the cheating sabotages a student’s learning experience, consequences range from no credit for the assignment to failure for the course and possible expulsion from the college.

Any student considering plagiarism should recognize the consequences and consider alternatives. Students uncertain about what constitutes plagiarism may request help from faculty or from appropriate college services.”

**HOW TO AVOID PLAGIARISM:** (Taken from the QCC Student Handbook)

1. Always give credit to any sources that you’ve used to write a paper.
2. Always use quotation marks around any words you use that are exactly the same as in the source you read.
3. When you paraphrase or summarize, always use your own syntax and words, not just synonyms for words that are in the original source.
4. Use the MLA Style of Documentation to show me where you’ve summarized, paraphrased or quoted.
5. Always do your own work.
6. Do not submit a paper for this class that you have submitted for another class.
7. If you have questions about how to paraphrase, summarize or quote someone else’s words or ideas in your own writing, please talk with me, and I can help you.
Classroom Conduct

In an effort to create a class atmosphere conducive to a productive academic environment Quinsigamond Community College supports the following steps to promote civility in our classroom.

Ten Steps to Promote Positive Classroom Etiquette

1. Students are expected to attend all scheduled classes.
2. Students are expected to be in class on time.
3. Students are expected to remain in class for the entire instructional period.
4. Students are expected to remain alert throughout the entire instructional period.
5. Students are expected to come to class free of alcohol or drugs.
6. Students are expected to be respectful of opposing opinions.
7. Students are expected not to interrupt a faculty member or other students when they are speaking.
8. Students are expected to address student specific concerns prior to or after the instructional period.
9. Students are expected to use respectful language throughout the instructional period.
10. Students are expected to receive the faculty’s permission prior to using cell phones, laptops, or other electronic equipment.

Basis for student grades

The general breakdown on the course is as follows:

<table>
<thead>
<tr>
<th>Attendance and Participation</th>
<th>10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coursework</td>
<td>90%</td>
</tr>
</tbody>
</table>

Further breakdown is below.

The 90% breakdown on your assignments is as follows:

<table>
<thead>
<tr>
<th>Article Reviews (6 total)</th>
<th>15%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Presentation</td>
<td>10%</td>
</tr>
<tr>
<td>Student Made Assessment Tool</td>
<td>15%</td>
</tr>
<tr>
<td>Anecdotal Records (minimum of 10)</td>
<td>15%</td>
</tr>
</tbody>
</table>
Grades will be determined according to the following:

<table>
<thead>
<tr>
<th>Points</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>95+</td>
<td>A</td>
</tr>
<tr>
<td>87-89</td>
<td>B+</td>
</tr>
<tr>
<td>77-79</td>
<td>C+</td>
</tr>
<tr>
<td>67-69</td>
<td>D+</td>
</tr>
<tr>
<td>59 or less</td>
<td>F</td>
</tr>
<tr>
<td>90-94</td>
<td>A-</td>
</tr>
<tr>
<td>83-86</td>
<td>B</td>
</tr>
<tr>
<td>73-76</td>
<td>C</td>
</tr>
<tr>
<td>63-66</td>
<td>D</td>
</tr>
<tr>
<td>80-82</td>
<td>B-</td>
</tr>
<tr>
<td>70-72</td>
<td>C-</td>
</tr>
<tr>
<td>60-62</td>
<td>D-</td>
</tr>
</tbody>
</table>

Please come and talk with me if you need further clarification on the grading process for this course.

Note that a passing grade of C or better is required to receive credit for this course.

Class Schedule and Topics

Week 1
Introduction to the Course
Your Expectations, my Expectations, the Syllabus, the Assignment Packet, Guides to Speech and Action, and Textbook
Fill out Preschool Behavior Support Self-Assessment
What is authentic assessment and why is it important?
Writing a proper anecdote

Week 2
Class Topics: Styles of Care Giving/Guidance Style, Observation, Anecdotal Records
Reliability and Validity and Role of documentation.

Week 3 First anecdote due
Class Topics: Developing teacher made assessments and Early Childhood Environmental Scales.

Week 4
Class Topics:
Utilizing technology to: a) Access observation and assessment tools b) Record children’s behaviors c) Organize assessment data d) Create assessment documents

Week 5
Class Topics: Massachusetts’ uses of assessments, scales, and quality assurance (QRIS, NAEYC)
Major assessment systems- Part I Purpose, Target Audience, Application: Teaching Strategies Gold

Week 6
Class Topics: Major assessment systems: Part II Purpose, Target Audience, Application: High Scope and Work Sampling

Week 7
Class Topics: Checklists for Physical Development, Review of fine and gross motor development
Review of stages of handwriting and Evaluate physical development areas from each assessment system
Week 8
Class Topics: Complete Running Records and Frequency Counts (Social/Emotional Development) in class, Addressing social/emotional needs of children through curriculum/schedules and Evaluate social/emotional areas from each assessment system

Week 9
Class Topics: Assessing Cognitive Development, Standardized Tests vs. Authentic Assessment, Evaluate cognitive related areas from assessment system and Complete Time Sampling in class on focus child’s interests

Week 10
Class Topics: Applying assessment tools to teachers work—CLASS and Arnett Caregiver Scale NAEYC Code of Ethics

Week 11
Class Topics: Dynamic Indicators of Basic Early Literacy Skills (DIBELS)

Week 12
Class Topics: Standardized Testing: What Early Childhood Teachers Should Know

Week 13
Class Topics: Communicating and Collaborating Using Assessment

Week 14
Class Topics: Using assessment and documentation for parent conferences

Week 15
Class Topics: Wrap-up
NEW COURSE PROPOSAL

1. Course Number and Name: ECE 258 Early Childhood Curriculum

2.Originator: Meghan Martin Date: August 16, 2016

3. School Dean: Dr. Clarence Ates Date: August 16, 2016

4. The requested change (motion) for governance consideration is as follows:

   ECE 258 Early Childhood Curriculum to be adopted as a new course.

5. Effective Date: Fall 2017

6. Recommended by the Humanities & Education School Date: September 15, 2016

   Comments:

7. AA Leadership Team: __________________________ Date: _________________

   Recommended: _______ Not Recommended: _______

   Comments:

8. VP/Academic Affairs: __________________________ Date: _________________

   Recommended: _______ Not Recommended: _______

   Comments:

9. Learning Council: ____________________________ Date: _________________

   Recommended: _______ Not Recommended: _______

   Comments:

10. VP/Academic Affairs: _________________________ Date: _________________

    Approved: _______ Not Approved: _______

    Comments:
Course Discipline/Department: Early Childhood Education
Course Number: ECE 258
Course Name: Early Childhood Curriculum
Prerequisites and/or corequisites (confer with affected department coordinator):
ECE 250 Using Observation for Authentic Assessment of Young Children
CIP code (check with IRaP Office): 13.0301
Effective Term/year: Fall 2017

Give a rationale for the new course. Be sure to indicate whether this course replaces another course.
This course is designed to meet the ECE field’s need for appropriate curriculum that relates to and supports children’s development while meeting national/state standards. Required in new degree option. Adds to the ECE electives.

Is the course content similar to other courses now offered? Yes ___ No ___XX__
If yes, attach a statement for the coordinator of the department offering the similar course.

Please indicate if this course will serve as any of the following types of electives
___XX__ Elective (any college level course can serve as an elective)
___ Specific Type (indicate Business, Multiple Perspectives*, Liberal Arts, Humanities, Foreign Language, Social Science, Behavioral Science, Mathematics, Science, Lab Science, Social Science Foundational*, Literature, Philosophy or Language*, Creative Arts*)
___XX__ Program specific (name the program) Early Childhood Education

*confer with the Liberal Arts Coordinator

Is this course required for a program? If yes, submit a separate DEGREE PROGRAM OR CERTIFICATE REVISION PROPOSAL. If the course is required for a new program, submit a separate NEW DEGREE PROGRAM, OPTION OR CERTIFICATE PROPOSAL. Please list all affected programs here.

Early Childhood Birth through Eight Years Old Certificate
Associates in Arts Early Childhood Education—Birth through Eight Years Old Option

Expected enrollment per term: 20  Expected enrollment per year: 40
Will any of the following be required:

Additional staff ___  Additional space ___  Additional equipment ____

Provide a rationale for any needs indicated above and include approximate cost of equipment.

Library print and non-print resources in support of this course: $500

Course Materials

Course number: ECE 258

Course name: Early Childhood Curriculum

Credits: 3

Lecture Hours: 45  Lab hours:  Clinic Hours:

General course description and prerequisites (as it will appear in the college catalog including course three letter designation and number, title, credits, semesters offered and prerequisites/corequisites):

**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.

Prerequisite: ECE 250

F/S

All required texts and paperbacks, including information on publisher and edition used (provide a suggested text):

- *Guidelines for Preschool Learning Experiences* Early Childhood Advisory Council to the Massachusetts Board of Education, (provided in class)

- *Massachusetts Early Learning Guidelines for Infants and Toddlers*. Massachusetts Department of Early Education and Care(provided in class)

- **ARTICLES** From *Young Children*, National Association for the Education of Young Children

Instructional Objectives (list):

1. Demonstrate an understanding of content knowledge and resources in academic disciplines as related to curriculum development. (STD 5a)
2. Demonstrate knowing and using the central concepts, inquiry tools and structures of content areas or academic disciplines as related to curriculum development and delivery. (STD 5b)
3. Demonstrate using their own knowledge, appropriate early learning standards, and other resources to design, implement and evaluate meaningful, challenging curricula for each child. (STD 5c)
4. Identify the stages of development of thinking and learning in young children and apply these stages using the anti-bias method of developmentally appropriate curriculum for preschool. (NAEYC Stds. 1,3,5)
5. **Outline characteristics of an appropriate learning environment for preschool and apply these characteristics to classroom organization and design. (NAEYC Stds. 1,3,5)**

6. **Explain materials, equipment and activities that are culturally and developmentally appropriate for young children, including children with special needs and children who are English Language Learners. (NAEYC Stds. 1,3,4,5,6)**

7. **Compare and contrast the effectiveness of curriculum for young children using the Massachusetts Guidelines for Preschool Learning Experiences. (NAEYC Stds. 1,3,4,5,6)**

Teaching procedures: (provide suggested teaching methodology):

1. **Lecture**

2. **Inquiry: a process of discussing ideas in small groups and then sharing with the whole class**

3. **Workshops--active investigation of materials and equipment used with young children**

4. **Audiovisual materials: slides, films**

Course topics and/or assignments and/or required and/or supplemental reading (provide a list of suggested course topics):

See attached Syllabus

Other information:

- Suggested basis for student grading and criteria for evaluating student performance
- college attendance policy (see current Student Handbook)
- college plagiarism statement (see current Student Handbook)
- Suggested assessment methodologies

Please attach a generic syllabus for this new course.

Attached

List the Student Learning Outcomes for this course in the table below. Recommendations for writing SLOs can be found in the General Education Outcomes Assessment Handbook that is available on the QCC’s Intranet under Frequently Used Forms (Academic Governance Forms).

<table>
<thead>
<tr>
<th>COURSE STUDENT LEARNING OUTCOMES FOR ECE 258 Early Childhood Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon completion of the course, students will be able to:</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>
4 Identify the stages of development of thinking and learning in young children and apply these stages using the anti-bias method of developmentally appropriate curriculum for preschool. (NAEYC Stds. 1,3,5)

5 Outline characteristics of an appropriate learning environment for preschool and apply these characteristics to classroom organization and design. (NAEYC Stds. 1,3,5)

6 Explain materials, equipment and activities that are culturally and developmentally appropriate for young children, including children with special needs and children who are English Language Learners. (NAEYC Stds. 1,3,4,5,6)

7 Compare and contrast the effectiveness of curriculum for young children using the Massachusetts Guidelines for Preschool Learning Experiences and Massachusetts Guidelines for Early Learning experiences for Infants and Toddlers. (NAEYC Stds. 1,3,4,5,6)

8 Demonstrated self –assessment and self-advocacy

9 Apply foundational concepts from general education while making connections between prior knowledge/experience and new learning

10 Demonstrate college level written and verbal skills

How does the course support general education? Using the chart below, indicate the degree or level of connection between the course and outcome as indicated here.

I – Introductory/Background – There is an indirect relationship between the course and the outcome. The outcome itself is not the focus of the course but at least one element of the course serves as a building block to the achievement of the final outcome. For example, course elements may provide the knowledge, skills or attitudes necessary for the ultimate achievement of the outcome.

M – Intermediate/Transitional - There is more of a direct relationship between the course and the outcome than Introductory. A mixture of course elements supports the final achievement of the outcome, but the final integration of knowledge, skills and attitudes necessary for its achievement is not accomplished in this course. For example, knowledge, skills and/or attitudes (at least 2 of the 3) required for achievement of the outcome may be the focus of the course or course element, but the integration of all three is not.

E – Emphasized – There is a direct relationship between the course and the outcome. At least one element of the course focuses specifically on the complex integration of knowledge, skills and attitudes necessary to perform the outcome.

NA – This is not a learning outcome for this course.

| CONNECTION OF ECE 258 Early Childhood Curriculum TO GENERAL EDUCATION STUDENT LEARNING OUTCOMES | I, M, E, NA |
| Communication Skills: Students will write and speak effectively. | I, M, E, |
| Information Literacy: Students will locate, evaluate and apply reliable and appropriate information. | I, M, E, |
| Quantitative Reasoning: Students will apply the concepts and methods of mathematics to solve problems. | I, |
| Scientific Reasoning: Students will relate scientific methods of inquiry to the acquisition of knowledge. | I |
Technical Literacy: Students will utilize computer and emerging technologies effectively.

Aesthetics: Students will appreciate the variety of human experiences as expressed through the arts.

Multiple Perspectives: Students will demonstrate knowledge and appreciation of diverse cultures.

Ethics: Students will develop an awareness of personal obligations and responsibilities in one’s community of influence.

Impact of Technology: Students will reflect on the impact of scientific and technological advances on the individual, society and the environment.

**Civic Literacy: Students will demonstrate awareness of the responsibilities of local, national and international citizenship.

**CIVIC LITERACY
If civic learning or civic literacy is a component of this course (within the course description, course topics and/or student learning outcomes), please consult the “Guide for Designating Civic Learning Courses” from the Department of Higher Education, available on Frequently Used Forms (with the other Academic Governance Forms). Utilizing the DHE definitions, please indicate whether this course can be designated as one of the following:

- XX Civic Learning (CL)
- ___ Civic Learning with Engagement Required (CLER)
- ___ Civic Learning with Engagement Optional (CLEO)
- ___ Civic Learning is not a component of this course (NA)

SYLLABUS
COURSE DESCRIPTION

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.

Prerequisite: ECE 250

Course Outcomes:

After completing this course, students will be able to:

- Demonstrate an understanding of content knowledge and resources in academic disciplines as related to curriculum development. (STD 5a)
- Demonstrate knowing and using the central concepts, inquiry tools and structures of content areas or academic disciplines as related to curriculum development and delivery. (STD 5b)
- Demonstrate using their own knowledge, appropriate early learning standards, and other resources to design, implement and evaluate meaningful, challenging curricula for each child. (STD 5c)
- Identify the stages of development of thinking and learning in young children and apply these stages using the anti-bias method of developmentally appropriate curriculum for preschool. (NAEYC Std. 1,3,5)
✓ Outline characteristics of an appropriate learning environment for preschool and apply these characteristics to classroom organization and design. (NAEYC Stds. 1,3,5)

✓ Explain materials, equipment and activities that are culturally and developmentally appropriate for young children, including children with special needs and children who are English Language Learners. (NAEYC Stds. 1,3,4,5,6)

✓ Compare and contrast the effectiveness of curriculum for young children using the Massachusetts Guidelines for Preschool Learning Experiences and Massachusetts Guidelines for Early Learning experiences for Infants and Toddlers. (NAEYC Stds. 1,3,4,5,6)

COURSE REQUIREMENTS

• Regular attendance and active participation in class
• Completion of all assigned reading and reading homework (graded Credit/No Credit)
• Written Assignment: Multiple Intelligences Test (graded Credit/No Credit)
• Written Assignment: Analysis of a Children’s Book (graded Credit/No Credit)
• Written Assignment: Checklist for Assessing the Visual Material Environment (graded Credit/No Credit)
• Written Assignment: Analysis of an Open Ended Learning Experience (Rubric)
• Written Assignment: Children’s Interest Sheet (Rubric)
• Written Assignment: Planning for a Specific Child Paper (Rubric)
• Written Assignment: Planning Prep Paper (Rubric)
• Written Assignment: Documentation Board (Rubric)
• Oral Presentation: Documentation Board Presentation (Rubric)

TEXTS REQUIRED:

Guidelines for Preschool Learning Experiences Early Childhood Advisory Council to the Massachusetts Board of Education, (provided in class)

Massachusetts Early Learning Guidelines for Infants and Toddlers. (provided in class)

ARTICLES REQUIRED READING: handed out in class

From Young Children, National Association for the Education of Young Children

CLASS PROCEDURES AND TECHNIQUES

1. Lecture

2. Inquiry: a process of discussing ideas in small groups and then sharing with the whole class

3. Workshops--active investigation of materials and equipment used with young children

4. Audiovisual materials: slides, films

ATTENDANCE POLICY: Faculty will provide attendance policy at first class meeting

STUDENTS WITH SPECIAL NEEDS

Every effort will be made to meet the individual needs and various learning styles of students in this course. It is of the utmost importance that you inform me at the beginning of the course as to your particular needs and submit
documentation from Disability Services if available. If you have concerns about this course please share those concerns with me. If your concerns are about a learning disability or another specific need, please make an appointment with me or a learning specialist at Quinsigamond Community College Disability Services, Room 246A. All information is strictly confidential.

**TEN STEPS TO PROMOTE POSITIVE CLASSROOM ETIQUETTE:**

The following classroom etiquette guidelines were developed by Quinsigamond Community College to provide faculty and students with a positive and respectful learning environment to foster optimum teaching and learning. The purpose of these guidelines is to provide both students and faculty with a positive atmosphere in the classroom and to promote honesty and integrity in the classroom. As a student in this class, I expect you to adhere to the guidelines below:

- Students are expected to attend all scheduled classes.
- Students are expected to be in class on time.
- Students are expected to remain in class for the entire instructional period.
- Students are expected to remain alert throughout the entire instructional period.
- Students are expected to come to class free of alcohol or drugs.
- Students are expected to be respectful of opposing opinions.
- Students are expected not to interrupt a faculty member or other students when they are speaking.
- Students are expected to address student specific concerns prior to or after the instructional period.
- Students are expected to use respectful language throughout the instructional period.
- Students are expected to receive the faculty’s permission prior to using cell phones, laptops or other electronic equipment.

Plagiarism and student discipline policies (adapted from the QCC Student Handbook)

**ACADEMIC DISHONESTY, PLAGIARISM AND CHEATING**

**College-wide policy on plagiarism:** “Our purpose in the classroom is to seek the truth; this work requires trust and honesty between teacher and student. If we are not honest about what we know and don’t know, our learning will always be impaired. Because our teaching and learning depends on this honest communication, we expect all students to understand what plagiarism is and why it is unacceptable.”

“Plagiarism means taking someone else’s ideas or words and presenting them as one’s own. The offense can take many forms including cheating on a test, passing in a paper taken from the internet or from another student, or failing to properly use and credit sources in an essay. Sometimes the issue is subtle, involving getting too much help on an assignment from someone else. In every instance, plagiarism means cheating both oneself and the owner of the source. Since the cheating sabotages a student’s learning experience, consequences range from no credit for the assignment to failure for the course and possible expulsion from the college.

Any student considering plagiarism should recognize the consequences and consider alternatives. Students uncertain about what constitutes plagiarism may request help from faculty or from appropriate college services.”

**HOW TO AVOID PLAGIARISM:** (Taken from the QCC Student Handbook)

1. Always give credit to any sources that you’ve used to write a paper.
2. Always use quotation marks around any words you use that are exactly the same as in the source you read.
3. When you paraphrase or summarize, always use your own syntax and words, not just synonyms for words that are in the original source.
4. Use the MLA Style of Documentation to show me where you’ve summarized, paraphrased or quoted.
5. Always do your own work.
6. Do not submit a paper for this class that you have submitted for another class.
7. If you have questions about how to paraphrase, summarize or quote someone else’s words or ideas in your own writing, please talk with me, and I can help you.

**METHOD OF EVALUATION**

The general breakdown on the course is as follows:

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<tr>
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<th>10%</th>
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<tbody>
<tr>
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<td>90%</td>
</tr>
</tbody>
</table>

Further breakdown is below.

The 90% breakdown on your assignments is as follows:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework (MI Test, Visual Materials Checklist, Analysis of Children’s Book)</td>
<td>10%</td>
</tr>
<tr>
<td>Documentation Board Presentation</td>
<td>5%</td>
</tr>
<tr>
<td>Interest Sheet</td>
<td>5%</td>
</tr>
<tr>
<td>Planning for Specific Child Paper</td>
<td>10%</td>
</tr>
<tr>
<td>Planning Prep Paper</td>
<td>20%</td>
</tr>
<tr>
<td>Analysis of an Open Ended Learning Experience</td>
<td>20%</td>
</tr>
<tr>
<td>Documentation Board</td>
<td>20%</td>
</tr>
</tbody>
</table>

Grades will be determined according to the following:

<table>
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<tbody>
<tr>
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<td>60-62</td>
<td>D-</td>
</tr>
<tr>
<td>59 or less</td>
<td>F</td>
</tr>
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Please come and talk with me if you need further clarification on the grading process for this course.

**Note that a passing grade of C or better is required to receive credit for this course.**

**COURSE SCHEDULE**

**Week 1 Introductions, Learning and Developmentally Appropriate Practice**

**Writing** HOMEWORK Multiple Intelligences Test. Please bring copy of last page results
Articles—“PLAY in the Early Childhood Years” Peter Pizzolongo

Topics: Syllabus, Personal Learning Experiences, Characteristics of How Young Children Learn, and How you learn

Assignments:


Week 2  Role of Educator, Observation, Documentation, and State Guidelines

Topics: Using the 3M method of observation and applying MA Preschool Guidelines

Assignments:

Reading—“Where Do the Bears Go? The Value of Child Directed Play” Genan T. Anderson, Anita Rae Spainhower, and Ann C. Sharp

“Lifelike Pedagogy: The Project Approach with a Brasilian Twist” Franics Wardle

“Transparent Curtains and Teensy-Weensy Dots: Reflecting on Emmergent Curriculum and the Project Approach” Dana Frantz Bentley

Week 3  Play and Emergent Curriculum

Topics: Role of Educator, Importance of Play and Theories at play, Emergent Curriculum

Assignments:

Reading—“Which Toys Promote High Quality Play? Reflections on the Five Year Anniversary of the TIMPANI study” Jeffrey Trawick-Smith, Jennifer Wolff, Marley Koschel, and Jamie Vallarelli

“From Cinder Blocks to Building Blocks: Creating Beautiful Places in Challenging Spaces” Takiema Bunche Smith and Louise Ammentorp

Week 4  Learning environments for young children

Topics: Learning Environments Inside

Assignments: Reading—“The Mud Center: Recapturing Childhood” by Becky J. Jensen and Julie A. Bullard

“Meeting the Sensory Needs of Young Children” Stacy D. Thompson and Jill M. Raisor

Week 5 Sensory Learning

Topics Sensory Learning Workshop

Assignments: Reading- Guide 8 and “Talking With Young Children About Their Art”
Week 6 Two Dimensional Art and Guide #8: Workshop

Topics: Creativity, open-ended activities, two dimensional

Assignments:

“Wired for Sound: The Essential Connection Between Music and Development”

“Musical Play in Early Childhood Classrooms: Taking It One Step Further” Ellen G. Cerniglia

Week 7 MUSIC

Topics: MUSIC and Movement

Assignments:

READING- “Expanding the Powers of Read-Alouds” Cynthia Dollins and “Children’s Literature: A Window to Understanding Self and Others.” Feeney and Moravcik

“Rap and Young Children: Encouraging Emergent Literacy” Barbara Rando, Evelyn A. O’Connor, Karen Steuerwalt, and Michelle Bloom

“Interactive Writing: Developmentally Appropriate Practice in Blended Classroom” Anne H. Hall

Week 8 Literacy—Reading and Writing

Topics: Literature, Reading aloud to children, storytelling

Assignments:

READING- Reading- “What Children’s Play Tells Us About Teaching Mathematics” and “Preschool and Kindergarten Classroom Strategies for the Young Scientist” Ann Gadzikowski

Week 9 STEM

Topics: Math and Science

Assignments:

“Supporting the Scientific Thinking and Inquiry of Toddlers and Preschoolers through Play” Maria Hamlin and Debora Wisneski

“STEM Comes to Preschool” Sally Moomaw and Jaumall Davis

Week 10 STEM Cont.

Topics: Engineering and Technology

Reading: “Using Blocks to Develop 21st Century Skills” Karen Wise Lindeman and Elizabeth McKendry Anderson
Week 11 Block Play

Topic: Three Dimensional Construction

Assignments:
Reading Articles: “A Sense of Place: Human Geography in the Early Childhood Classroom” Pamela Brillante and Sue Mankiw, “Pushing Up the Social Studies from Early Childhood Education the World” Gayle Mindes and “Bunny Ears and Cupcakes for All—Are Parties Developmentally Appropriate”

Week 12 Diversity and Social Studies

Topics: Diversity within the classroom and Social Studies

Reading Articles: “Early Sprouts: Establishing Health Food Choices for Young Children”

Week 13 Cooking with Children

Topics: Cooking

Assignments:
De-Souza and Radell, “Superheroes: An Opportunity for Prosocial Play”

Week 14 Big Body Play

Topics: Big Body Play

Assignments:
READING Drew and Rankin. “Promoting Creativity for Life Using Open-Ended Materials” and Gather materials to use in class

Week 15 Beautiful Stuff

Topic: Creativity and connecting it all together
1. Course Number and Name:
   ECE 259 Seminar and Field Experience: Classroom Teaching in Early Education and Care

2. Originator: Meghan Martin Date: August 16, 2016

3. School Dean: Dr. Clarence Ates Date: August 16, 2016

4. The requested change (motion) for governance consideration is as follows:
   
   ECE 259 Seminar and Field Experience: Classroom Teaching in Early Education and Care to be adopted as a new course.

5. Effective Date: Fall 2017

6. Recommended by the Humanities & Education School Date: September 15, 2016

   Comments:

7. AA Leadership Team: ___________________________ Date: ______________
   Recommended: ________ Not Recommended: __________
   Comments: ________________________________

8. VP/Academic Affairs: ___________________________ Date: ______________
   Recommended: ________ Not Recommended: __________
   Comments: ________________________________

9. Learning Council: ______________________________ Date: ______________
   Recommended: ________ Not Recommended: __________
   Comments: ________________________________

10. VP/Academic Affairs: ___________________________ Date: ______________
    Approved: ________ Not Approved: __________
    Comments: ________________________________
### NEW COURSE PROPOSAL

<table>
<thead>
<tr>
<th>Course Discipline/Department: Early Childhood Education</th>
<th>School: Humanities and Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Number:</td>
<td></td>
</tr>
<tr>
<td>ECE 259</td>
<td></td>
</tr>
<tr>
<td>Course Name: ECE 259 Seminar and Field Experience: Classroom Teaching in Early Education and Care</td>
<td></td>
</tr>
</tbody>
</table>

Prerequisites and/or corequisites (confer with affected department coordinator):
- ECE 250 Using Observation for Authentic Assessment of Young Children
- ENG 102 English Composition II

CIP code (check with IRAP Office): 13.1210

Effective Term/year: Fall 2017

Give a rationale for the new course. Be sure to indicate whether this course replaces another course.

This course is designed to meet the ECE field's need for an appropriate field supervision class for the more experienced classroom teacher. **Required in the new degree option.**

Is the course content similar to other courses now offered? Yes ___ No XX___

If yes, attach a statement for the coordinator of the department offering the similar course.

Please indicate if this course will serve as any of the following types of electives
- XX___ Elective (any college level course can serve as an elective)
- ___ Specific Type (indicate Business, Multiple Perspectives*, Liberal Arts, Humanities, Foreign Language, Social Science, Behavioral Science, Mathematics, Science, Lab Science, Social Science Foundational*, Literature, Philosophy or Language*, Creative Arts*)
- XX___ Program specific (name the program) Early Childhood Education

*confer with the Liberal Arts Coordinator

Is this course required for a program? If yes, submit a separate DEGREE PROGRAM OR CERTIFICATE REVISION PROPOSAL. If the course is required for a new program, submit a separate NEW DEGREE PROGRAM, OPTION OR CERTIFICATE PROPOSAL. Please list all affected programs here.

Associates in Arts Early Childhood Education—Birth through Eight Years Old Option

| Expected enrollment per term: 15 | Expected enrollment per year: 30 |

Will any of the following be required:

- Additional staff ___
- Additional space ___
- Additional equipment ___

Provide a rationale for any needs indicated above and include approximate cost of equipment.
Course Materials

<table>
<thead>
<tr>
<th>Library print and non-print resources in support of this course: $500</th>
</tr>
</thead>
</table>

Course number: ECE 259

Course name: *Seminar and Field Experience: Classroom Teaching in Early Education and Care*

Credits: 3

<table>
<thead>
<tr>
<th>Lecture Hours: 30 hours</th>
<th>Lab hours:</th>
<th>Field Hours: 60 hours</th>
</tr>
</thead>
</table>

General course description and prerequisites (as it will appear in the college catalog including course three letter designation and number, title, credits, semesters offered and prerequisites/corequisites):

ECE 259 Seminar and Field Experience: Classroom Teaching in Early Education and Care - 3 Credits

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.

Prerequisite: ENG 102 and ECE 250

F/S

All required texts and paperbacks, including information on publisher and edition used (provide a suggested text):

*Environmental Rating Scale appropriate for age level student is working with*

Teachers College Columbia University. New York, NY 10027

Instructional Objectives (list):

1. **Identify and involve oneself with the early childhood field**
2. **Know about and upholding ethical standards and other professional guidelines**
3. **Engage in continuous, collaborative learning to inform practice**
4. **Integrate knowledgeable, reflective, and critical perspectives on early education**
5. **Engage in informed advocacy for children and the profession**
6. **Know about, use and understand effective strategies and tools for early education**
7. **Use a broad repertoire of developmentally appropriate teaching/learning approaches**
8. **Reflect on their own practice to promote positive outcomes for each child.**
9. **Know about and use observation, documentation, and other appropriate assessment tools and approaches**

Teaching procedures: (provide suggested teaching methodology):

1. **Lecture**
2. **Inquiry: a process of discussing ideas in small groups and then sharing with the whole class**
3. **Self Reflection**
4. **Field Visit Evaluations and feedback**

Course topics and/or assignments and/or required and/or supplemental reading (provide a list of suggested course topics):
See attached Syllabus

Other information:

- Suggested basis for student grading and criteria for evaluating student performance
- College attendance policy (see current Student Handbook)
- College plagiarism statement (see current Student Handbook)
- Suggested assessment methodologies

Please attach a generic syllabus for this new course.

Attached

List the Student Learning Outcomes for this course in the table below. Recommendations for writing SLOs can be found in the General Education Outcomes Assessment Handbook that is available on the QCC’s Intranet under Frequently Used Forms (Academic Governance Forms).

<table>
<thead>
<tr>
<th>COURSE STUDENT LEARNING OUTCOMES FOR ECE 259 Seminar and Field Experience: Classroom Teaching in Early Education and Care - 3 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon completion of the course, students will be able to:</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
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<tr>
<td>5</td>
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<tr>
<td>6</td>
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<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
</tbody>
</table>

How does the course support general education? Using the chart below, indicate the degree or level of connection between the course and outcome as indicated here.

I – Introductory/Background – There is an indirect relationship between the course and the outcome. The outcome itself is not the focus of the course but at least one element of the course serves as a building block to the achievement of the final outcome. For example, course elements may provide the knowledge, skills or attitudes necessary for the ultimate achievement of the outcome.

M – Intermediate/Transitional - There is more of a direct relationship between the course and the outcome than Introductory. A mixture of course elements supports the final achievement of the outcome, but the final integration of knowledge, skills and attitudes necessary for its achievement is not accomplished in this course. For example, knowledge,
skills and/or attitudes (at least 2 of the 3) required for achievement of the outcome may be the focus of the course or course element, but the integration of all three is not.

E – Emphasized – There is a direct relationship between the course and the outcome. At least one element of the course focuses specifically on the complex integration of knowledge, skills and attitudes necessary to perform the outcome.

NA – This is not a learning outcome for this course.

<table>
<thead>
<tr>
<th>CONNECTION OF ECE 259 Seminar and Field Experience: Classroom Teaching in Early Education and Care - 3 Credits</th>
<th>TO GENERAL EDUCATION STUDENT LEARNING OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Skills: Students will write and speak effectively.</td>
<td>M, E,</td>
</tr>
<tr>
<td>Information Literacy: Students will locate, evaluate and apply reliable and appropriate information.</td>
<td>M, E,</td>
</tr>
<tr>
<td>Quantitative Reasoning: Students will apply the concepts and methods of mathematics to solve problems.</td>
<td>M, E,</td>
</tr>
<tr>
<td>Scientific Reasoning: Students will relate scientific methods of inquiry to the acquisition of knowledge.</td>
<td>I, M, E</td>
</tr>
<tr>
<td>Technical Literacy: Students will utilize computer an emerging technologies effectively.</td>
<td>I, M, E</td>
</tr>
<tr>
<td>Aesthetics: Students will appreciate the variety of human experiences as expressed through the arts.</td>
<td>I, M, E</td>
</tr>
<tr>
<td>Multiple Perspectives: Students will demonstrate knowledge and appreciation of diverse cultures.</td>
<td>I, M, E</td>
</tr>
<tr>
<td>Ethics: Students will develop an awareness of personal obligations and responsibilities in one’s community of influence.</td>
<td>I, M, E</td>
</tr>
<tr>
<td>Impact of Technology: Students will reflect on the impact of scientific and technological advances on the individual, society and the environment.</td>
<td>I, M, E</td>
</tr>
<tr>
<td><strong>Civic Literacy: Students will demonstrate awareness of the responsibilities of local, national and international citizenship.</strong></td>
<td>I, M, E</td>
</tr>
</tbody>
</table>

**CIVIC LITERACY**

If civic learning or civic literacy is a component of this course (within the course description, course topics and/or student learning outcomes), please consult the “Guide for Designating Civic Learning Courses” from the Department of Higher Education, available on Frequently Used Forms (with the other Academic Governance Forms). Utilizing the DHE definitions, please indicate whether this course can be designated as one of the following:

- XX__ Civic Learning (CL)
- ___ Civic Learning with Engagement Required (CLER)
- ___ Civic Learning with Engagement Optional (CLEO)
- ___ Civic Learning is not a component of this course (NA)

SYLLABUS
Please note:
The instructor reserves the right to make changes to these course materials when appropriate or necessary.

COURSE DESCRIPTION

ECE 259 Seminar and Field Experience: Classroom Teaching in Early Education and Care - 3 Credits
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.
Prerequisite: ENG 102 and ECE 250

C. OUTCOMES

After completing this course, students will be able to:

- Identify and involve oneself with the early childhood field
- Know about and upholding ethical standards and other professional guidelines
- Engage in continuous, collaborative learning to inform practice
- Integrate knowledgeable, reflective, and critical perspectives on early education
- Engage in informed advocacy for children and the profession
- Know about, use and understand effective strategies and tools for early education
- Use a broad repertoire of developmentally appropriate teaching/learning approaches
- Reflect on their own practice to promote positive outcomes for each child.
- Know about and use observation, documentation, and other appropriate assessment tools and approaches

COURSE REQUIREMENTS

Homework

QCC Visits

Oral Presentation (Findings from Project)

Documentation Board (Evidence)

Written Assignment—Classroom Problem Proposal (Environmental Rating Scales)

Written Assignment—Implementation, Obstacles, Outcomes

Classroom Demonstration Evaluation 1

Classroom Demonstration Evaluation 2

TEXTS REQUIRED:

Environmental Rating Scale appropriate for age level student is working with Teachers College Columbia University. New York, NY 10027

Supplemental Materials to Be Used
Guidelines for Preschool Learning Experiences Early Childhood Advisory Council to the Massachusetts Board of Education, (provided in class)

Massachusetts Early Learning Guidelines for Infants and Toddlers. (provided in class)

CLASS PROCEDURES AND TECHNIQUES: Observations, constructive feedback, seminar discussion, lecture, inquiry: a process of discussing ideas in small groups and then sharing with the whole class

STUDENTS WITH SPECIAL NEEDS (adapted from QCC Student Handbook)

Every effort will be made to meet the individual needs and various learning styles of students in this course. It is of the utmost importance that you inform me at the beginning of the course as to your particular needs and submit documentation from Disability Services if available. If you have concerns about this course please share those concerns with me. If your concerns are about a learning disability or another specific need, please make an appointment with me or a learning specialist at Quinsigamond Community College Disability Services, Room 246A. All information is strictly confidential.

TEN STEPS TO PROMOTE POSITIVE CLASSROOM ETIQUETTE

The following classroom etiquette guidelines were developed by Quinsigamond Community College to provide faculty and students with a positive and respectful learning environment to foster optimum teaching and learning. The purpose of these guidelines is to provide both students and faculty with a positive atmosphere in the classroom and to promote honesty and integrity in the classroom. As a student in this class, I expect you to adhere to the guidelines below:

- Students are expected to attend all scheduled classes.
- Students are expected to be in class on time.
- Students are expected to remain in class for the entire instructional period.
- Students are expected to remain alert throughout the entire instructional period.
- Students are expected to come to class free of alcohol or drugs.
- Students are expected to be respectful of opposing opinions.
- Students are expected not to interrupt a faculty member or other students when they are speaking.
- Students are expected to address student specific concerns prior to or after the instructional period.
- Students are expected to use respectful language throughout the instructional period.
- Students are expected to receive the faculty’s permission prior to using cell phones, laptops or other electronic equipment.

METHOD OF EVALUATION

The general breakdown on the course is as follows:

<table>
<thead>
<tr>
<th>Attendance and Participation</th>
<th>10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coursework</td>
<td>90%</td>
</tr>
</tbody>
</table>

Further breakdown is below.

The 90% breakdown on your assignments is as follows:

<table>
<thead>
<tr>
<th>Homework</th>
<th>5%</th>
</tr>
</thead>
</table>
### Grades will be determined according to the following:

<table>
<thead>
<tr>
<th>Points</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>95+</td>
<td>A</td>
</tr>
<tr>
<td>87-94</td>
<td>A-</td>
</tr>
<tr>
<td>80-82</td>
<td>B-</td>
</tr>
<tr>
<td>77-79</td>
<td>B</td>
</tr>
<tr>
<td>73-76</td>
<td>C</td>
</tr>
<tr>
<td>70-72</td>
<td>C-</td>
</tr>
<tr>
<td>67-69</td>
<td>D+</td>
</tr>
<tr>
<td>63-66</td>
<td>D</td>
</tr>
<tr>
<td>60-62</td>
<td>D-</td>
</tr>
<tr>
<td>59 or less</td>
<td>F</td>
</tr>
</tbody>
</table>

Please come and talk with me if you need further clarification on the grading process for this course.

**Note that a passing grade of C or better is required to receive credit for this course.**

**Note: The instructor reserves the right to make changes in these course materials when necessary.**

### Outline of Course

Student will meet a minimum of four times (three hours class block) during the semester for seminar discussion and presentations. Topics included will be: Professionalism, Advocacy, Guidance and Classroom Management, Co-Workers, Families, the Community, and Teaching

Students will be observed a minimum of two times by the Evening Workforce Coordinator at the site of their employment.

Students will attend a minimum of two Lab Session with the Evening Workforce Coordinator at Quinsigamond’s Children’s School

Students will track their in classroom time and must meet a total of 60 hours to receive a passing grade for class.
NEW DEGREE PROGRAM, OPTION OR CERTIFICATE PROPOSAL

1. Program Name: Early Childhood Birth through Eight Years Old Certificate

2. Originator: Meghan Martin Date: August 16, 2016

3. School Dean: Dr. Clarence Ates Date: August 16, 2016

4. The requested change (motion) for governance consideration is as follows:

   To accept new certificate Early Childhood Birth through Eight Years Old Certificate and its requirements as a new certificate in Early Childhood Education.

5. Effective Date: Fall 2017

6. Recommended by the Humanities & Education School Date: September 15, 2016

   Comment:

7. AA Leadership Team: ____________________________ Date: _________________

   Recommended: ________ Not Recommended: ________

   Comments:

8. VP/Academic Affairs: ____________________________ Date: _________________

   Recommended: ________ Not Recommended: ________

   Comments:

9. Learning Council: ____________________________ Date: _________________

   Recommended: ________ Not Recommended: ________

   Comments:

10. VP/Academic Affairs: ____________________________ Date: _________________

    Approved: ________ Not Approved: ________

    Comments:
FOR NEW PROGRAM/OPTION/CERTIFICATE

President: __________________________  Date: ________________
Approved: ________  Not Approved: ________

Board of Trustees: __________________________  Date: ________________
Approved: ________  Not Approved: ________
2016 - 2017
QUINSIGAMOND COMMUNITY COLLEGE

NEW DEGREE PROGRAM, OPTION OR CERTIFICATE PROPOSAL

Program: Early Childhood Education Birth through Eight Years Old Certificate

School: Humanities and Education

Degree type: Certificate

CIP code for the degree program or certificate (check with IRaP Office): 13.1210

Attachments:
Proposed program Academic Map (including milestones)
Submit separate proposals for any new courses or revised courses in the program. Please list here the new courses or revised courses for which separate proposals will be submitted.
ECE 250 Using Observation for Authentic Assessment of Young Children
ECE 258 Early Childhood Curriculum

List the program goals. See page 5

Provide a rationale for the proposed new program including a narrative for each of the following:

- How the need for this new program or certificate was determined:
  Massachusetts has attempted to increase the quality of Early Care and Education by implementing a Quality Rating Increase System (QRIS). With this implementation came a heavy push for currently working teachers and Family Child Care providers to raise their education levels. The previous system had allowed candidates who had graduated from high school or earned a GED, taken a three credit college level Child Development Course, and had nine months of work experience to act as a classroom teacher for children ages birth through 5. School Age (5 years+) children who need care before or after school could be watched in a licensed program by someone who is a minimum of 20 years old and has experience with children with no further education required. Family Child Care providers needed a licensed area, CPR/First Aid and a training orientation to offer care in their home. With the QRIS the education levels have been raised significantly to include a Child Development Associate Credential, EEC Lead Teacher licensing level, Associates degree, and eventually a Bachelor's or Masters degree in Early Childhood Education. With this push and our own work within the field itself it has become clear that Certificate in ECE can bridge a wide gap for people currently working in the field.

- How the program was designed:
  The program was designed to take into consideration the currently working ECE teacher and licensed Family Child Care providers. Courses provide a foundation to work with young children while keeping providers up to date in their practice of teaching.

- How the new program or certificate was reviewed, approved, or developed through a QCC APR process and/or in conjunction with an advisory board or other external agency:
  The certificate was designed using feedback from the Massachusetts Department of Early Education and Care, the QRIS system requirements, and feedback from community agencies. The certificate can be considered a product of both the our community work with the Department of Early Care and Education and community advisory board. Our advisory board provides feedback on both student who comes through the day program and those that attend the evening classes. Their feedback regarding the program has been invaluable. We learned that teachers who come during the evening need less of the classroom experience (as they already have it) and more of the educational background in assessment, guidance, special needs, and curriculum.

- If a program goal is employment upon completion, please comment on job titles,
demonstrated regional employer interest in hiring graduates, and wage analysis (consult with IRaP office).

Upon completion students will have raised their employment possibilities by raising their EEC licensing levels. The average “Child Care Worker” in Worcester makes $23,490.00. By raising their education levels students are raising their salaries as well. Job titles that will be applied after a student has received this degree could be: Lead Teacher Preschool, Lead Teacher Infant Toddler, Program Director, Paraprofessional, Classroom Teacher, and Classroom Aide in Public School.

- If a program goal is transfer upon completion, please consult with the Coordinator of Transfer Affairs and Articulation and provide a plan for transfer/articulations with baccalaureate institutions.

The program goal of this certificate is for students to continue on and complete their Associates Degree. This certificate is completely stackable into the proposed ECE Birth through 8 yrs option.

Does any aspect of the proposed program affect another department? Please confer with the coordinators of affected departments.

Affected department(s):

For an associate degree program, does the proposed program meet the general education credit requirement for MassTransfer? N/A

If no, please provide a rationale.

Does the program or certificate qualify for financial aid? Check with the Director of Financial Aid and fill out the Gainful Employment Form as needed. Yes.

Will any of the following be required:
- Additional staff ___
- Additional space ___
- Additional equipment ___

Provide a rationale for any needs indicated and include approximate cost of equipment.

Start-up collection of library resources in support of this program: $2,500

List the PROGRAM STUDENT LEARNING OUTCOMES in the table below. Indicate the course or courses that will fulfill each outcome and indicate the degree or level of connection between the course and outcome as indicated here.

I – Introductory/Background – There is an indirect relationship between the course and the outcome. The outcome itself is not the focus of the course but at least one element of the course serves as a building block to the achievement of the final outcome. For example, course elements may provide the knowledge, skills or attitudes necessary for the ultimate achievement of the outcome.

M – Intermediate/Transitional - There is more of a direct relationship between the course and the outcome than Introductory. A mixture of course elements supports the final achievement of the outcome, but the final integration of knowledge, skills and attitudes necessary for its achievement is not accomplished in this course. For example, knowledge, skills and/or attitudes (at least 2 of the 3) required for achievement of the outcome may be the focus of the course or course element, but the integration of all three is not.

E – Emphasized – There is a direct relationship between the course and the outcome. At least one element of the course focuses specifically on the complex integration of knowledge, skills and attitudes necessary to perform the outcome.

<table>
<thead>
<tr>
<th>PROGRAM STUDENT LEARNING OUTCOMES FOR Early Childhood Education Birth through Eight Years Old Certificate</th>
<th>Supporting course(s)</th>
<th>I, M, E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Describe children’s developmental characteristics and needs and the multiple influences on development and learning.</td>
<td>ECE 101, 102, 112, 255, 250, 258</td>
<td>I,M</td>
</tr>
<tr>
<td>2 Apply knowledge of development to support healthy, respectful, supportive, and challenging learning environments.</td>
<td>ECE 101, 112, 255, 250, 258</td>
<td>I,M</td>
</tr>
</tbody>
</table>
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.  

For a DEGREE PROGRAM, indicate the courses that fulfill the General Education Student Learning Outcomes.  

N/A  

Education  

Early Childhood Education Certificate Birth through Eight Years Old (Program Code TBD)  

Program Goals  
The Early Childhood Education Certificate program provides students with both the theoretical knowledge and practical skills training necessary for working with typical and atypical children from birth through eight years old.  

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.  
- 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/admissions/enrollment-steps.  

Admissions Requirements  
Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.  
- High School Diploma or GED/High School Equivalency.  
- Students taking this certificate should have either a current Child development Associate Credential or a letter verifying employment in an ECE program. This program does not offer or provide verification of students’ classroom experience. No classroom experience is given with this certificate.
CORI/SORI, Finger Printing & Drug Testing
Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and Department of Children & Families (DCF) checks are required.

Additional Cost
See the Program Fees section. (Note: Not all programs have program fees).

Location
- This program may be completed at the QCC Worcester campus.
- Many courses are offered at the Southbridge location.
- This program may be completed face-to-face.

Technical Performance Standards
See the Technical Performance Standards section. (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 the Student Employment and Transfer Center (Room 272A) at 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/ for specific occupational information. The CIP code for this program is 13.1209.

Transfer Articulations & Opportunities
Prospective students may learn more about transfer articulation agreements at www.qcc.mass.edu/transfer/ArticPathways.html. More information regarding transfer opportunities is available at www.qcc.mass.edu/transfer.

Program Contact
earlychildhood@qcc.mass.edu

Additional Program Information
For the most up to date information, go to the program website at www.qcc.edu/academics.
- Students must pass all ECE courses with a grade of “C” or higher.
- Students cannot take any ECE course more than twice.
- This program does not offer or provide verification of students’ classroom experience. No classroom experience is given with this certificate.
- Many of the required courses can be applied to the Associate Degree option(s).

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course #</th>
<th>Offered</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1 (Fall)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction to Early Childhood Education</td>
<td>ECE 101</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Apply and get accepted to this program. Meet with ECE advisor to discuss requirements of program.</td>
</tr>
<tr>
<td>Growth &amp; Development of the Young Child</td>
<td>ECE 102</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td></td>
</tr>
<tr>
<td>Family Issues &amp; Dynamics</td>
<td>ECE 112</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Take Accuplacer exam for English.</td>
</tr>
<tr>
<td>Using Observation for Authentic Assessment of Young Children</td>
<td>ECE 250</td>
<td>F/S</td>
<td>3</td>
<td>ECE 101, ECE 102, ECE 112</td>
<td>Register for and successfully complete all courses to graduate in two semesters.</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semester 2 (Spring)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Childhood Curriculum</td>
<td>ECE 258</td>
<td>F/S</td>
<td>3</td>
<td>ECE 250</td>
<td>Meet with ECE advisor to register and discuss entry into degree program.</td>
</tr>
<tr>
<td>Discipline: Guiding Children’s Behavior</td>
<td>ECE 255</td>
<td>F/S</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Submit an Intent to Graduate Form, located on the Q.</td>
</tr>
<tr>
<td>ECE Elective</td>
<td></td>
<td>F/S</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits Required | 21 |
NEW DEGREE PROGRAM, OPTION OR CERTIFICATE PROPOSAL

1. Program Name: Early Childhood Education Certificate

2. Originator: Meghan Martin Date: August 16, 2016

3. School Dean: Dr. Clarence Ates Date: August 16, 2016

4. The requested change (motion) for governance consideration is as follows: To accept new certificate Early Childhood Education Certificate and its requirements as a new certificate in Early Childhood Education.

5. Effective Date: Fall 2017

6. Recommended by the Humanities & Education School Date: September 15, 2016
   
   Comment:

7. AA Leadership Team: ________________________________ Date: ________________
   
   Recommended: __________ Not Recommended: __________
   
   Comments:

8. VP/Academic Affairs: ________________________________ Date: ________________
   
   Recommended: __________ Not Recommended: __________
   
   Comments:

9. Learning Council: ________________________________ Date: ________________
   
   Recommended: __________ Not Recommended: __________
   
   Comments:

10. VP/Academic Affairs: ________________________________ Date: ________________
   
   Approved: __________ Not Approved: __________
   
   Comments:

Signatures on file in office of Academic Affairs
NEW DEGREE PROGRAM, OPTION OR CERTIFICATE PROPOSAL

Program: Early Childhood Education Certificate

School: Humanities and Education

Degree type: Certificate

CIP code for the degree program or certificate (check with IRaP Office):
13.1210

Attachments:
Proposed program Academic Map (including milestones)

Submit separate proposals for any new courses or revised courses in the program. Please list here the new courses or revised courses for which separate proposals will be submitted.

List the program goals. See page 5

Provide a rationale for the proposed new program including a narrative for each of the following:

- How the need for this new program or certificate was determined-

  Massachusetts has attempted to increase the quality of Early Care and Education by implementing a Quality Rating Increase System (QRIS). With the QRIS the education levels have been raised significantly to include a Child Development Associate Credential, EEC Lead Teacher licensing level, Associates degree, and eventually a Bachelors or Masters degree in Early Childhood Education. With this push and our own work within the field itself it has become clear that a new Certificate in ECE can bridge a wide gap for students looking to enter the field prior to receiving their Associates degree. This certificate can be seen as an entry level certificate to working with children at the Infant/Toddler, Preschool, or School Age level.

- How the program was designed

  The program was designed to take into consideration the needs of the field while preparing candidates with a solid foundation of knowledge to begin working with young children. Coursework alongside the field experience will provide candidates the necessary beginning skills needed to enter a classroom.

- How the new program or certificate was reviewed, approved, or developed through a QCC APR process and/or in conjunction with an advisory board or other external agency

  The certificate was designed using feedback from the Massachusetts Department of Early Education and Care, the QRIS system requirements, and feedback from community agencies. The certificate can be considered a product of both the community work with the Department of Early Care and Education and community advisory board. Our advisory board provides feedback on both students who comes through the day program and those that attend the evening classes. Their feedback regarding the program has been invaluable. We have learned that there is a need for a basic entry level certificate to get needed teaching staff in the classroom.

- If a program goal is employment upon completion, please comment on job titles, demonstrated regional employer interest in hiring graduates, and wage analysis (consult with IRaP office).

  Upon completion students will have raised their employment possibilities by raising their EEC
licensing levels. The average “Child Care Worker” in Worcester makes $23,490.00. By raising their education levels students are raising their salaries as well. Job titles that will be applied after a student has received this certificate could be: Teacher Infant/Toddler or Preschool, Lead Teacher Preschool, Lead Teacher Infant Toddler, Program Director (School Age), Paraprofessional, Classroom Teacher, and Classroom Aide in Public School.

- If a program goal is transfer upon completion, please consult with the Coordinator of Transfer Affairs and Articulation and provide a plan for transfer/articulations with baccalaureate institutions.

The program goal of this certificate is for student employment and to continue to their Associates Degree. This certificate is completely stackable into the proposed ECE Birth through 8 years old option.

Does any aspect of the proposed program affect another department? Please confer with the coordinators of affected departments.

Affected department(s):

For an associate degree program, does the proposed program meet the general education credit requirement for MassTransfer? N/A

If no, please provide a rationale.

Does the program or certificate qualify for financial aid? Check with the Director of Financial Aid and fill out the Gainful Employment Form as needed. Yes.

Will any of the following be required:
- Additional staff ___
- Additional space ___
- Additional equipment ___

Provide a rationale for any needs indicated and include approximate cost of equipment.

Start-up collection of library resources in support of this program: $2,500

List the PROGRAM STUDENT LEARNING OUTCOMES in the table below. Indicate the course or courses that will fulfill each outcome and indicate the degree or level of connection between the course and outcome as indicated here.

I – Introductory/Background – There is an indirect relationship between the course and the outcome. The outcome itself is not the focus of the course but at least one element of the course serves as a building block to the achievement of the final outcome. For example, course elements may provide the knowledge, skills or attitudes necessary for the ultimate achievement of the outcome.

M – Intermediate/Transitional - There is more of a direct relationship between the course and the outcome than Introductory. A mixture of course elements supports the final achievement of the outcome, but the final integration of knowledge, skills and attitudes necessary for its achievement is not accomplished in this course. For example, knowledge, skills and/or attitudes (at least 2 of the 3) required for achievement of the outcome may be the focus of the course or course element, but the integration of all three is not.

E – Emphasized – There is a direct relationship between the course and the outcome. At least one element of the course focuses specifically on the complex integration of knowledge, skills and attitudes necessary to perform the outcome.

<table>
<thead>
<tr>
<th>PROGRAM STUDENT LEARNING OUTCOMES FOR Early Childhood Education Certificate</th>
<th>Supporting course(s)</th>
<th>I, M, E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Describe children’s developmental characteristics and needs and the multiple influences on development and learning.</td>
<td>ECE 101, 102, 112, 255, 221, 123, 202</td>
<td>I,M</td>
</tr>
<tr>
<td>2 Apply knowledge of development to support healthy, respectful, supportive, and challenging learning environments.</td>
<td>ECE 101, 112, 255, 221, 123, 202</td>
<td>I,M</td>
</tr>
<tr>
<td>3 Demonstrate knowledge and understanding of family and community</td>
<td>ECE 101, 102, 112,</td>
<td>I, M</td>
</tr>
<tr>
<td></td>
<td>Characteristics and describe methods for involving families and communities in their children’s development and learning.</td>
<td>255, 221, 123, 202</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>4</td>
<td>Employ positive guidance strategies that are developmentally appropriate.</td>
<td>ECE 101, 102, 112, 255, 221, 202, 123</td>
</tr>
<tr>
<td>5</td>
<td>Integrate content knowledge with other disciplines to support the development, implementation, and evaluation of curriculum that promotes positive outcomes for children.</td>
<td>ECE 101, 102, 112, 255, 221, 202, 123</td>
</tr>
<tr>
<td>6</td>
<td>Demonstrate knowledge and appreciation of diverse cultures.</td>
<td>ECE 101, 102, 112, 255, 221, 123, 202</td>
</tr>
<tr>
<td>7</td>
<td>Engage in continuous, collaborative learning to inform practice.</td>
<td>ECE 101, 102, 112, 255, 221, 202</td>
</tr>
<tr>
<td>8</td>
<td>Value ethical standards and professional guidelines.</td>
<td>ECE 101, 102, 112, 255, 221, 123, 202</td>
</tr>
<tr>
<td>9</td>
<td>Demonstrate informed advocacy for children and the profession.</td>
<td>ECE 101, 102, 112, 255, 221</td>
</tr>
<tr>
<td>10</td>
<td>Identify and utilize professional resources.</td>
<td>ECE 101, 102, 112, 255, 221, 123, 202</td>
</tr>
<tr>
<td>12</td>
<td>Demonstrate ability to write and speak effectively.</td>
<td>ECE 101, 102, 112, 255, 221</td>
</tr>
</tbody>
</table>

For a DEGREE PROGRAM, indicate the courses that fulfill the General Education Student Learning Outcomes.

N/A

**Education**

**Early Childhood Education Certificate (Program Code: TBD)**

**Program Goals**
The Early Childhood Education Certificate program provides students with both the theoretical knowledge and practical skills training necessary for working with typical and atypical children from birth through eight years old.

**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.
- 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/admissions/enrollment-steps.

**Admissions Requirements**
Students should note that some first semester courses carry minimum prerequisites. Refer to the program grid.
- High School Diploma or GED/High School Equivalency.

**CORI/SORI, Finger Printing & Drug Testing**
Criminal Offender Record Information (CORI), Sex Offender Registry Information (SORI), and Department of Children & Families (DCF) checks are required.
Additional Cost
See the Program Fees section. (Note: Not all programs have program fees).

Location
• This program may be completed at the QCC Worcester campus.
• Many courses are offered at the Southbridge location.
• This program may be completed face-to-face.

Technical Performance Standards
See the Technical Performance Standards section. (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 the Student Employment and Transfer Center (Room 272A) at 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/ for specific occupational information. The CIP code for this program is 13.1209.

Transfer Articulations & Opportunities
Prospective students may learn more about transfer articulation agreements at www.qcc.mass.edu/transfer/ArticPathways.html. More information regarding transfer opportunities is available at www.qcc.mass.edu/transfer.

Program Contact
earlychildhood@qcc.mass.edu

Additional Program Information
For the most up to date information, go to the program website at www.qcc.edu/academics.
• Students must pass all ECE courses with a grade of “C” or higher.
• Students cannot take any ECE course more than twice.
• Field placement (ECE 123) will be held at an approved off-campus infant and toddler program.
• Field placement (ECE 202) will be held on campus at the Children’s School.
• Many of the required courses can be applied to the Associate Degree option(s).

Education
Early Childhood Education Certificate (Program Code: TBD)

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course #</th>
<th>Offered</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Early Childhood Education</td>
<td>ECE 101</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Apply and get accepted to this program.</td>
</tr>
<tr>
<td>Growth &amp; Development of the Young Child</td>
<td>ECE 102</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Meet with ECE advisor to discuss requirements of program.</td>
</tr>
<tr>
<td>Family Issues &amp; Dynamics</td>
<td>ECE 112</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Take Accuplacer exam for English.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Register for and successfully complete all courses to graduate in two semesters.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semester 2 (Spring)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fieldwork with Infants and Toddlers (Observation and Experience) or ECE 123</td>
<td>S</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Meet with ECE advisor to register and complete paperwork for field placement.</td>
<td></td>
</tr>
<tr>
<td>Fieldwork with Young Children I</td>
<td>ECE 202</td>
<td></td>
<td></td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Submit an Intent to Graduate Form, located on the Q.</td>
</tr>
<tr>
<td>Infant &amp; Toddler Curriculum and Development</td>
<td>ECE 221</td>
<td>F/S</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Meet with a Career Placement Representative for Job Search Assistance services.</td>
</tr>
<tr>
<td>Discipline: Guiding Children’s Behavior</td>
<td>ECE 255</td>
<td>F/S</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits Required</strong></td>
<td></td>
<td></td>
<td>18</td>
<td></td>
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</tr>
</tbody>
</table>
NEW DEGREE PROGRAM, OPTION OR CERTIFICATE PROPOSAL

1. Program Name: Early Childhood Education – Birth through Eight Years Old Option

2. Originator: Meghan Martin Date: August 16, 2016

3. School Dean: Dr. Clarence Ates Date: August 16, 2016

4. The requested change (motion) for governance consideration is as follows: To accept new degree option Early Childhood Education- Birth through Eight Years Old option and its requirements as a new program option in Early Childhood Education.

5. Effective Date: Fall 2017

6. Recommended by the Humanities & Education School Date: September 15, 2016

Comment:

7. AA Leadership Team: _______________________________ Date: _________________

   Recommended: ________ Not Recommended: ________

    Comments:

8. VP/Academic Affairs: _________________________________ Date: _________________

   Recommended: ________ Not Recommended: ________

    Comments:

9. Learning Council: ____________________________________ Date: _________________

   Recommended: ________ Not Recommended: ________

   Comments:

10. VP/Academic Affairs: _________________________________ Date: _________________

    Approved: ________ Not Approved: ________

    Comments:

Signatures on file in office of Academic Affairs
FOR NEW PROGRAM/OPTION/CERTIFICATE

President: ___________________________ Date: _______________
Approved: _______ Not Approved: _______

Board of Trustees: ___________________________ Date: _______________
Approved: _______ Not Approved: _______
NEW DEGREE PROGRAM, OPTION OR CERTIFICATE PROPOSAL

Program: Early Childhood Education

School: Humanities and Education

Degree type: Associates in Arts

CIP code for the degree program or certificate (check with IRaP Office):

13.1210

Attachments:

- Proposed program Academic Map (including milestones)

Submit separate proposals for any new courses or revised courses in the program. Please list here the new courses or revised courses for which separate proposals will be submitted.

- ECE 250 Using Observation for Authentic Assessment of Young Children
- ECE 258 Early Childhood Curriculum
- ECE 259 Seminar and Field Experience: Classroom Teaching in Early Education and Care

List the program goals. See page 5

Provide a rationale for the proposed new program including a narrative for each of the following:

- How the need for this new program or certificate was determined:
  After working for over five years with students from the workforce it has become increasingly evident that the traditional ECE program that is run during the day does not meet the needs of the working student who is currently a classroom teacher. In this time the state of Massachusetts has attempted to increase the quality of Early Care and Education by implementing a Quality Rating Increase System (QRIS). With this implementation came a heavy push for currently working teachers to raise their education levels. The previous system had allowed candidates who had graduated from high school or earned a GED, taken a three credit college level Child Development Course, and had nine months of work experience to act a classroom teacher for children ages birth through 5. School Age (5years+) children who need care before or after school could be watched in a licensed program by someone who is a minimum of 20 years old and has experience with children with no further education required. With the QRIS the education levels have been raised significantly to include a Child Development Associate Credential, Associates degree, and eventually a Bachelors or Masters degree in Early Childhood Education. With this push and our own work within the field itself it has become clear that an Early Childhood Birth through 8 yrs. Degree option would meet a significant need in the community.

- How the program was designed:
  The program was designed to take into consideration the experience and knowledge a classroom teacher comes with. In addition thought was given to what our previous evening students struggled with, how they managed EEC expectations, and their feedback regarding the QCC program. The degree was designed to meet Mass Transfer while still maintaining the integrity of our educational philosophy.

- How the new program or certificate was reviewed, approved, or developed through a QCC APR process and/or in conjunction with an advisory board or other external agency:
  The degree can be considered a product of both the NAEYC accreditation process and our community advisory board. The NAEYC Accreditation process was helpful in that it confirmed that our evening students were a different population with different needs than a novice day student with no classroom experience. Our advisory board provides feedback on both students who come through the day program and those that attend the evening classes. Their feedback regarding the program has been invaluable. We learned that teachers who come during the evening need less of the classroom experience (as they already have it) and more of the educational background in
assessment, guidance, special needs, and curriculum. With this feedback we designed a program that still required some classroom or field review but had more of the educational background. In addition we survey our evening students annually to gain their feedback regarding what is needed to improve the program. The feedback is often positive however they did confirm that the field experience was not very useful as they already have it.

- If a program goal is employment upon completion, please comment on job titles, demonstrated regional employer interest in hiring graduates, and wage analysis (consult with IRaP office).

Upon completion students will have raised their employment possibilities by raising their EEC licensing levels. An Associate’s degree education level alone will make a candidate more desirable to employers. The average “Child Care Worker” in Worcester makes $23,490.00 however a “Preschool Teacher” (non special education) with a degree makes $27,990.00 (US Dept. of Labor). By raising their education levels students are raising their salaries as well. Job titles that will be applied after a student has received this degree could be: Lead Teacher Preschool, Lead Teacher Infant Toddler, Program Director, Paraprofessional, Classroom Teacher, and Classroom Aide in Public School.

- If a program goal is transfer upon completion, please consult with the Coordinator of Transfer Affairs and Articulation and provide a plan for transfer/articulations with baccalaureate institutions

The Early Childhood Education Department has always maintained a close relationship to Worcester State University and will continue this relationship with its new degree. More recently QCC has entered into an articulation agreement with Fitchburg State University’s Birth through 8 years degree option and will seek an articulation agreement for this degree. In addition the ECE department will establish an additional articulation agreement with Becker College to ensure the Birth through 8 yrs option is accepted into their Bachelors of Arts in Early Childhood and Youth Education as is the current ECE degree.

Does any aspect of the proposed program affect another department? Please confer with the coordinators of affected departments.

Affected department(s):

For an associate degree program, does the proposed program meet the general education credit requirement for MassTransfer? Yes the program meets the general education credit for MassTransfer.

If no, please provide a rationale.

Does the program or certificate qualify for financial aid? Check with the Director of Financial Aid and fill out the Gainful Employment Form as needed.

Will any of the following be required:  
  Additional staff _____  Additional space _____  Additional equipment _____

Provide a rationale for any needs indicated and include approximate cost of equipment.

Start-up collection of library resources in support of this program: $2,500

List the PROGRAM STUDENT LEARNING OUTCOMES in the table below. Indicate the course or courses that will fulfill each outcome and indicate the degree or level of connection between the course and outcome as indicated here.

I – Introductory/Background – There is an indirect relationship between the course and the outcome. The outcome itself is not the focus of the course but at least one element of the course serves as a building block to the achievement of the final outcome. For example, course elements may provide the knowledge, skills or attitudes necessary for the ultimate achievement of the outcome.
M – Intermediate/Transitional - There is more of a direct relationship between the course and the outcome than Introductory. A mixture of course elements supports the final achievement of the outcome, but the final integration of knowledge, skills and attitudes necessary for its achievement is not accomplished in this course. For example, knowledge, skills and/or attitudes (at least 2 of the 3) required for achievement of the outcome may be the focus of the course or course element, but the integration of all three is not.

E – Emphasized – There is a direct relationship between the course and the outcome. At least one element of the course focuses specifically on the complex integration of knowledge, skills and attitudes necessary to perform the outcome.

<table>
<thead>
<tr>
<th>PROGRAM STUDENT LEARNING OUTCOMES FOR Early Childhood Education – Birth through Eight Years Old Option</th>
<th>Supporting course(s)</th>
<th>I, M, E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Describe children’s developmental characteristics and needs and the multiple influences on development and learning.</td>
<td>ECE 101, 102, 112, 255, 242, 221, 250,258, 259</td>
<td>I,M,E</td>
</tr>
<tr>
<td>2. Apply knowledge of development to support healthy, respectful, supportive, and challenging learning environments.</td>
<td>ECE 101, 112, 255, 242, 221, 250,258, 259</td>
<td>I,M,E</td>
</tr>
<tr>
<td>3. Demonstrate knowledge and understanding of family and community characteristics and describe methods for involving families and communities in their children’s development and learning.</td>
<td>ECE 101, 102, 112, 242, 221, 250,258, 259</td>
<td>I, M,E</td>
</tr>
<tr>
<td>4. Employ positive guidance strategies that are developmentally appropriate.</td>
<td>ECE 101, 102, 112, 242, 255, 221, 250,258, 259</td>
<td>I,M,E</td>
</tr>
<tr>
<td>5. Integrate content knowledge with other disciplines to support the development, implementation, and evaluation of curriculum that promotes positive outcomes for children.</td>
<td>ECE 101, 102, 112, 255, 242, 221, 250,258, 259</td>
<td>I,M,E</td>
</tr>
<tr>
<td>6. Demonstrate knowledge and appreciation of diverse cultures.</td>
<td>ECE 101, 102, 112, 255, 242, 221, 250,258, 259</td>
<td>I,M,E</td>
</tr>
<tr>
<td>10. Identify and utilize professional resources.</td>
<td>ECE 101, 102, 112, 255, 242, 221, 250,258, 259</td>
<td>I,M,E</td>
</tr>
<tr>
<td>12. Demonstrate ability to write and speak effectively.</td>
<td>ECE 101, 102, 112, 255, 242, 221, 250,258, 259</td>
<td>I,M,E</td>
</tr>
</tbody>
</table>

For a DEGREE PROGRAM, indicate the courses that fulfill the General Education Student Learning Outcomes.

<table>
<thead>
<tr>
<th>GENERAL EDUCATION STUDENT LEARNING OUTCOMES FOR Early Childhood Education – Birth through Eight Years Old Option</th>
<th>Supporting course(s)</th>
<th>I,M,E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Skills: Students will write and speak effectively.</td>
<td>ENG 101,102, 200 Social Science Electives</td>
<td>I,M,E</td>
</tr>
</tbody>
</table>

Academic Matters - November 8, 2016
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Credits</th>
<th>Core Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>History Elective</td>
<td>Humanities Electives</td>
<td>ECE 101, 102, 112, 255, 242, 221, 250, 258, 259</td>
<td>I, M, E</td>
</tr>
<tr>
<td>Information Literacy</td>
<td>Students will locate, evaluate and apply reliable and appropriate information.</td>
<td>ECE 101, 102, 112, 255, 242, 221, 250, 258, 259</td>
<td></td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>Students will apply the concepts and methods of mathematics to solve problems.</td>
<td>MAT 111</td>
<td>E, M</td>
</tr>
<tr>
<td>Scientific Reasoning</td>
<td>Students will relate scientific methods of inquiry to the acquisition of knowledge.</td>
<td>Lab Science Electives</td>
<td>I, M, E</td>
</tr>
<tr>
<td>Technical Literacy</td>
<td>Students will utilize computer and emerging technologies effectively.</td>
<td>ECE 101, 102, 112, 255, 242, 221, 250, 258, 259</td>
<td>I, M, E</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MAT 111</td>
<td></td>
</tr>
</tbody>
</table>
Education

Early Childhood Education - Birth through Eight Years Old Option - Associate in Arts (Program Code: TBD)

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course #</th>
<th>Offered</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Early Childhood Education</td>
<td>ECE 101</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Meet with ECE Evening Coordinator to discuss eligibility and requirements of program.</td>
</tr>
<tr>
<td>Composition I</td>
<td>ENG 101</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 091 with a grade of “C” or higher, ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Apply and get accepted to this program.</td>
</tr>
<tr>
<td>Introduction to Psychology</td>
<td>PSY 101</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 091 with a grade of “C” or higher, ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Complete ENG 101 and MAT 111.</td>
</tr>
<tr>
<td>Mathematics for Educators</td>
<td>MAT 111</td>
<td>F/S/SU</td>
<td>3</td>
<td>MAT 099 or appropriate placement score</td>
<td>CORI/SORI checks are required of all students taking ECE classes.</td>
</tr>
<tr>
<td>Lab Science Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>4</td>
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<tr>
<td><strong>Total</strong></td>
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</table>

Semester 1 (Fall)

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course #</th>
<th>Offered</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth &amp; Development of the Young Child</td>
<td>ECE 102</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>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.</td>
</tr>
<tr>
<td>Family Issues &amp; Dynamics</td>
<td>ECE 112</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td></td>
</tr>
<tr>
<td>Composition II</td>
<td>ENG 102</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 101</td>
<td>Students seeking EEC Infant Toddler Lead Teacher license should take ECE 221.</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
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<td></td>
</tr>
<tr>
<td>Lab Science Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>4</td>
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<td><strong>Total</strong></td>
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</table>

Semester 2 (Spring)

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course #</th>
<th>Offered</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Using Observation for Authentic Assessment of Young Children</strong></td>
<td>ECE 250</td>
<td>F/S</td>
<td>3</td>
<td>ECE 101, ECE 102, ECE 112</td>
<td></td>
</tr>
<tr>
<td>Discipline: Guiding Children's Behavior</td>
<td>ECE 255</td>
<td>F/S</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>schools to discuss/begin the transfer application process.</td>
</tr>
<tr>
<td>Children’s Literature</td>
<td>ENG 200</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 102</td>
<td></td>
</tr>
<tr>
<td>ECE Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
<td></td>
<td>Students seeking EEC Infant Toddler Lead Teacher license should take ECE 221.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td>15</td>
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</table>

Semester 3 (Fall)

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course #</th>
<th>Offered</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Childhood Curriculum</td>
<td>ECE 258</td>
<td>F/S</td>
<td>3</td>
<td>ECE 250</td>
<td></td>
</tr>
<tr>
<td>Seminar and Field Experience: Classroom Teaching in Early Education and Care</td>
<td>ECE 259</td>
<td>F/S</td>
<td>3</td>
<td>ECE 250, ENG 102</td>
<td></td>
</tr>
<tr>
<td>Infant &amp; Toddler Curriculum and Development* or</td>
<td>ECE 221</td>
<td>F/S</td>
<td>3</td>
<td>ENG 096 with a grade of “C” or higher; or approp place score</td>
<td></td>
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<tr>
<td>Young Children with Special Needs</td>
<td>ECE 242</td>
<td>F/S</td>
<td></td>
<td>ENG 096 with a grade of “C” or higher; or approp place score, ECE 102 or PSY 123</td>
<td></td>
</tr>
<tr>
<td>History Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>15</td>
<td></td>
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</tr>
</tbody>
</table>

**Total Credits Required** 62

Program Notes:
1. Program Name: Infant Toddler Training Certificate

2. Originator: Meghan Martin Date: April 13th, 2016


4. The requested change (motion) for governance consideration is as follows:

   Motion to close the Infant Toddler Training Certificate.

5. Rationale for the proposed program or certificate closure:

   This certificate no longer meets the needs of the Early Childhood Field or the students of Early Childhood Education. Students currently enrolled will be able to complete their certificate or transfer to degree program.

6. Effective Date: September 2016

7. Recommended by the Humanities & Education School Date: September 15, 2016

   Comment:

8. AA Leadership Team: _______________________________

   Recommended: ________  Not Recommended: ________ Date: October 25, 2016

   Comments:

9. VP/Academic Affairs: ________________________________ Date: ______________

   Recommended: ________  Not Recommended: ________

   Comments:

10. Learning Council: ________________________________ Date: ______________

    Recommended: ________  Not Recommended: ________

    Comments:

11. VP/Academic Affairs: ________________________________ Date: ______________

    Approved: ________  Not Approved: ________

    Comments:

Signatures on file in office of Academic Affairs
FOR PROGRAM/CERTIFICATE CLOSURE

President: ___________________________   Date: __________

Approved: ________   Not Approved: ________

Board of Trustees: ___________________________   Date: __________

Approved: ________   Not Approved: ________
1. Program Name: Preschool Assistant Teacher Certificate

2. Originator: Meghan Martin Date: April 13th, 2016


4. The requested change (motion) for governance consideration is as follows:

   Motion to close the Preschool Assistant Teacher Certificate.

5. Rationale for the proposed program or certificate closure:

   This certificate no longer meets the needs of the Early Childhood Field or the students of Early Childhood Education. Students currently enrolled will be able to complete their certificate or transfer to degree program.

6. Effective Date: September 2016

7. Recommended by the Humanities & Education School Date: September 15, 2016

   Comment:

8. AA Leadership Team: __________________________ Date: ________________

   Recommended: _________ Not Recommended: __________

   Comments:

9. VP/Academic Affairs: ___________________________ Date: ________________

   Recommended: __________ Not Recommended: __________

   Comments:

10. Learning Council: ______________________________ Date: ________________

    Recommended: __________ Not Recommended: __________

    Comments:

11. VP/Academic Affairs: ___________________________ Date: ________________

    Approved: __________ Not Approved: __________

    Comments:
FOR PROGRAM/CERTIFICATE CLOSURE

President: ___________________________       Date: _______________

Approved: _________       Not Approved: _________

Board of Trustees: ________________________       Date: _______________

Approved: _________       Not Approved: _________
1. Course Number and Name: BTT 211 Techniques in Biotechnology I

2. Originator: Benjamin Benton  Date: September 15, 2016


4. The requested change (motion) for governance consideration is as follows:
   Approve a new course BTT 211 Techniques in Biotechnology I

5. Effective Date: Summer 2017

6. Recommended by the School of Math and Science  Date: 10/20/2016
   Comments:

7. AA Leadership Team: ________________________________  Date: ________________
   Recommended: ________  Not Recommended: ________
   Comments: __________

8. VP/Academic Affairs: ________________________________  Date: ________________
   Recommended: ________  Not Recommended: ________
   Comments: __________

9. Learning Council: ________________________________  Date: ________________
   Recommended: ________  Not Recommended: ________
   Comments: __________

10. VP/Academic Affairs: ________________________________  Date: ________________
    Approved: ________  Not Approved: ________
    Comments: __________
### 2016-2017
QUINSIGAMOND COMMUNITY COLLEGE

**NEW COURSE PROPOSAL**

<table>
<thead>
<tr>
<th>Course Discipline/Department:</th>
<th>School:</th>
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</thead>
<tbody>
<tr>
<td>Biotechnology/Natural Sciences</td>
<td>Math and Science</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Number:</th>
<th>Course Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTT 211</td>
<td>Techniques in Biotechnology I</td>
</tr>
</tbody>
</table>

**Prerequisites and/or corequisites (confer with affected department coordinator):**
- BIO 231, BIO 259, and BIO 260

**CIP code (check with IRaP Office):**
- 26.1201

**Effective Term/year:**
- Summer 2017

**Give a rationale for the new course. Be sure to indicate whether this course replaces another course.**

BTT 211 and BTT 212 (see new course proposal) will replace BTT 201. With the opening of QuEST and the increased demand for the Techniques in Biotechnology course, we propose to divide the 6-credit BTT 201 into two new 3-credit Techniques in Biotechnology courses, BTT 211 and BTT 212. Since we now possess several pieces of equipment to support biomanufacturing training in QuEST, the BTT 211 course will focus on theory and training on basic laboratory equipment and techniques used in the biotechnology industry and will be held in the QuEST center. The BTT 212 course will provide training in Good Manufacturing Practices (GMP), quality control, process development, and environmental monitoring in a production environment at a biotechnology company.

Secondly, The previous BTT 201 course was limited to the Biotechnology Technician certificate program due to the limitations on enrollment at the biotechnology company and the requirement that it run over two summer semesters. Since these BTT courses are now 3-credit they can be run in both Summer I and Summer II, which will provide more enrollment opportunities. This is important since these courses will now be required for both the Biotechnology Certificate and General Studies-Biotechnology Option Associate Degree program.

**Is the course content similar to other courses now offered?**

Yes _X__ No ___

If yes, attach a statement for the coordinator of the department offering the similar course.

I am the coordinator of the affected department and recommend that QCC retire the BTT 201 course after approval of BTT 211 and BTT 212.

**Please indicate if this course will serve as any of the following types of electives**

- _X_ Elective (any college level course can serve as an elective)
- ___Specific Type (Lab Science)
- ___ Program specific (name the program)

*confer with the Liberal Arts Coordinator

**Is this course required for a program?**

YES. If yes, submit a separate DEGREE PROGRAM OR CERTIFICATE REVISION PROPOSAL. If the course is required for a new program, submit a separate NEW DEGREE PROGRAM, OPTION OR CERTIFICATE PROPOSAL. Please list all affected programs here.
Biotechnology Technician Certificate (BI)
General Studies—Biotechnology Option (GSBT)

Expected enrollment per term: 8-10
Expected enrollment per year: 16-20

Will any of the following be required:

- Additional staff ___
- Additional space ___
- Additional equipment ____

Provide a rationale for any needs indicated above and include approximate cost of equipment.

Library print and non-print resources in support of this course: $500

Course Materials

Course number:
BTT 211

Course name:
Techniques in Biotechnology I

Credits: 3

Lecture Hours: 15 | Lab hours: 90 | Clinic Hours:

General course description and prerequisites (as it will appear in the college catalog including course three letter designation and number, title, credits, semesters offered and prerequisites/corequisites):

**BTT 211 Techniques in Biotechnology I - 3 credits**

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.

**Prerequisites:** BIO 259, BIO 260, BIO 231. S/SU

All required texts and paperbacks, including information on publisher and edition used (provide a suggested text): None.

Instructional Objectives (list):

**Introduce the theory and protocol for the following methods:**
- Mammalian Cell Culture
- Protein Purification
- Protein Expression
- Protein Analysis
- Molecular Cloning
Teaching procedures: (provide suggested teaching methodology):
The course meets every week for a one-hour lecture and two 3-hour laboratory sessions. The lecture session will cover the theory and background behind the techniques performed that week in the laboratory. Laboratory sessions will be performed in groups of 1-4 students depending on the equipment.

Course topics and/or assignments and/or required and/or supplemental reading (provide a list of suggested course topics):

1. Immunodetection methods for analysis of proteins
2. Enzyme assay development
3. Fluorescence spectrometry
4. Maintenance of mammalian cell lines
5. Transfection of mammalian cell lines
6. Principles of bioreactors
7. Principles of protein chromatography for purification
8. Principles of molecular cloning: from genome to cloned gene

Other information: See attached syllabus.

Please attach a generic syllabus for this new course. (see below)

List the Student Learning Outcomes for this course in the table below. Recommendations for writing SLOs can be found in the General Education Outcomes Assessment Handbook that is available on the QCC’s Intranet under Frequently Used Forms (Academic Governance Forms).

COURSE STUDENT LEARNING OUTCOMES FOR BTT 211 TECHNIQUES IN BIOTECHNOLOGY I
Upon completion of the course, students will be able to:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Describe and perform routine immunodetection techniques such as enzyme-linked immunosorbent assay (ELISA) and western blotting.</td>
</tr>
<tr>
<td>2</td>
<td>Describe and perform an optimization assay for enzyme activity.</td>
</tr>
<tr>
<td>3</td>
<td>Perform basic cell culture techniques including culturing, sub-culturing, thawing and freezing stocks, and transfection.</td>
</tr>
<tr>
<td>4</td>
<td>Describe and perform cell culturing in a bioreactor to express proteins.</td>
</tr>
<tr>
<td>5</td>
<td>Describe and perform column chromatography to purify proteins using affinity, ion exchange, and size exclusion procedures.</td>
</tr>
<tr>
<td>6</td>
<td>Perform analysis of protein purification protocol using SDS-polyacrylamide gel electrophoresis.</td>
</tr>
<tr>
<td>7</td>
<td>Describe and perform recombinant DNA techniques to clone a gene.</td>
</tr>
</tbody>
</table>
How does the course support general education? Using the chart below, indicate the degree or level of connection between the course and outcome as indicated here.

I – Introductory/Background – There is an indirect relationship between the course and the outcome. The outcome itself is not the focus of the course but at least one element of the course serves as a building block to the achievement of the final outcome. For example, course elements may provide the knowledge, skills or attitudes necessary for the ultimate achievement of the outcome.

M – Intermediate/Transitional - There is more of a direct relationship between the course and the outcome than Introductory. A mixture of course elements supports the final achievement of the outcome, but the final integration of knowledge, skills and attitudes necessary for its achievement is not accomplished in this course. For example, knowledge, skills and/or attitudes (at least 2 of the 3) required for achievement of the outcome may be the focus of the course or course element, but the integration of all three is not.

E – Emphasized – There is a direct relationship between the course and the outcome. At least one element of the course focuses specifically on the complex integration of knowledge, skills and attitudes necessary to perform the outcome.

NA – This is not a learning outcome for this course.

| CONNECTION OF BTT 211 TECHNIQUES IN BIOTECHNOLOGY I TO GENERAL EDUCATION STUDENT LEARNING OUTCOMES | I, M, E, NA |
| Communication Skills: Students will write and speak effectively. | M |
| Information Literacy: Students will locate, evaluate and apply reliable and appropriate information. | I |
| Quantitative Reasoning: Students will apply the concepts and methods of mathematics to solve problems. | M |
| Scientific Reasoning: Students will relate scientific methods of inquiry to the acquisition of knowledge. | M |
| Technical Literacy: Students will utilize computers and emerging technologies effectively. | E |
| Aesthetics: Students will appreciate the variety of human experiences as expressed through the arts. | NA |
| Multiple Perspectives: Students will demonstrate knowledge and appreciation of diverse cultures. | NA |
| Ethics: Students will develop an awareness of personal obligations and responsibilities in one’s community of influence. | NA |
| Impact of Technology: Students will reflect on the impact of scientific and technological advances | E |
on the individual, society and the environment.

**Civic Literacy:** Students will demonstrate awareness of the responsibilities of local, national and international citizenship.

**CIVIC LITERACY**
If civic learning or civic literacy is a component of this course (within the course description, course topics and/or student learning outcomes), please consult the “Guide for Designating Civic Learning Courses” from the Department of Higher Education, available on Frequently Used Forms (with the other Academic Governance Forms). Utilizing the DHE definitions, please indicate whether this course can be designated as one of the following:

___ Civic Learning (CL)
___ Civic Learning with Engagement Required (CLER)
___ Civic Learning with Engagement Optional (CLEO)
___ Civic Learning is not a component of this course (NA)
Course Description
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.

Prerequisites: BIO 259, BIO 260, BIO 231. S/SU

Student Learning Objectives
After completing this course students should:
1. Describe and perform routine immunodetection techniques such as enzyme-linked immunosorbent assay (ELISA) and western blotting.
2. Describe and perform an optimization assay for enzyme activity.
3. Perform basic cell culture techniques including culturing, sub-culturing, thawing and freezing stocks, and transfection.
4. Describe and perform cell culturing in a bioreactor to express proteins.
5. Describe and perform column chromatography to purify proteins using affinity, ion exchange, and size exclusion procedures.
7. Describe and perform recombinant DNA techniques to clone a gene.

Required Course Materials
- None, all materials will be provided as handouts.

Teaching Methodology
The course meets every week for a one-hour lecture and two 3-hour laboratory sessions. The lecture session will cover the theory and background behind the techniques performed that week in the laboratory. Laboratory sessions will be performed in groups of 1-4 students depending on the equipment.

Attendance Policy
Students are expected to attend their scheduled classes. Instructors will disseminate attendance requirements in writing to their students during the first week of class. Based on departmental agreement, absence from more than one (1) laboratory will result in a failing grade for the course.

Communications
It is expected that students daily access their QCC email or the course page on Blackboard Learn for important announcements. I will also post homework assignments and other pertinent information on Blackboard Learn. If you need to contact me, please do so by email or phone. I am usually accessible via email throughout the day/night and weekends and by phone during the day (leave a voice mail).

Grading Policy
Students will be graded on their ability to accurately complete the student learning outcomes of the course. While this is primarily a laboratory course, both lecture and laboratory work will be used in the formulation of the course grade with 30% for lecture work and 70% for lab work. Final grades will be determined by the official QCC grade policy which can be found in the Student Handbook.

The laboratory portion of the course is an essential tool to understanding the material and therefore attendance is mandatory. Based on departmental agreement, a student with more than one (1)
absence of a laboratory session will automatically fail the entire course. Make-ups are at the discretion of the instructor.

**Laboratory sessions**
Students are expected to follow all safety precautions in the laboratory as demonstrated by the professor (see your lab manual and the *Lab Safety Contract*). Lab coats and gloves will be provided.

Many labs will have assigned pages in the lab manual for students to complete for credit. These assigned pages will contribute to your lab grade.

Students will be required to maintain a student lab notebook which will be assessed periodically by the instructor.

Many laboratory exercises require multiple days after which students will provide a written summary of the lab along with conclusions.

**Academic Honesty and Plagiarism**
A student shall be subject to disciplinary action under the Student Code of Conduct policy for acts of academic dishonesty or plagiarism. Acts of academic dishonesty, include but not are limited to the following: use of any unauthorized assistance in taking quizzes, tests, or examinations; dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or the acquisition, without permission, of tests or other academic material belonging to a member of the College faculty or staff. Plagiarism is defined as the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgement. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials, taking credit for work done by another person or doing work for which another person will receive credit, copying or purchasing other’s work, or arranging for others to do work under a false name.

**Disability Services:**
If you have a disability which may require an accommodation, please notify me as soon as possible. You are responsible for forwarding your Accommodation Letter to me and discussing arrangements for this course. Your accommodations for this course begin upon my receipt of your Accommodation Letter; accommodations are not retroactive. You may request accommodations at any time during the semester, but instructors must be provided with reasonable notice prior to exams or deadlines. Disability Services works to promote access to ensure an accessible college experience for students. If you have further questions, contact Disability Services. All discussions are confidential.

Contact Information for Disability Services & Assistive Technology:
Call: 508-854-4471
Sorenson Video Phone: 508-502-7647
Email: disabilityservices@qcc.mass.edu
### Representative Lecture and Laboratory Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Review of Previous Techniques/Immunodetection</td>
<td>ELISAs</td>
</tr>
<tr>
<td></td>
<td>Methods</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Immunodetection Methods</td>
<td>Western Blotting</td>
</tr>
<tr>
<td>3</td>
<td>Principles of fluorescence spectrophotometry</td>
<td>Spectromax fluorescent assays</td>
</tr>
<tr>
<td>4</td>
<td>Assay Development</td>
<td>Optimizing Enzyme activity in multiwell plates</td>
</tr>
<tr>
<td>5</td>
<td>Mammalian Cell Culture</td>
<td>Aseptic Technique/Harvesting and passing suspension Cells</td>
</tr>
<tr>
<td>6</td>
<td>Mammalian Cell Culture</td>
<td>Harvesting and passing adherent cells/Thawing frozen stocks</td>
</tr>
<tr>
<td>7</td>
<td>Mammalian Cell Culture</td>
<td>Transfection--assays of efficiency</td>
</tr>
<tr>
<td>8</td>
<td>Mammalian Cell Culture</td>
<td>Subculturing/Freezing Cell Stocks</td>
</tr>
<tr>
<td>9</td>
<td>Bioreactor--Cell Culture</td>
<td>Hybridoma culturing</td>
</tr>
<tr>
<td>10</td>
<td>Protein Purification</td>
<td>Affinity purification</td>
</tr>
<tr>
<td>11</td>
<td>Protein Purification</td>
<td>Ion exchange and size exclusion</td>
</tr>
<tr>
<td>12</td>
<td>SDS gel electrophoresis</td>
<td>Analysis of fractions</td>
</tr>
<tr>
<td>13</td>
<td>Recombinant DNA Cloning</td>
<td>DNA prep and PCR</td>
</tr>
<tr>
<td>14</td>
<td>Recombinant DNA Cloning</td>
<td>Ligation, Transformation</td>
</tr>
<tr>
<td>15</td>
<td>Recombinant DNA Cloning</td>
<td>Clone verification</td>
</tr>
</tbody>
</table>
NEW COURSE PROPOSAL

1. Course Number and Name: BTT 212 Techniques in Biotechnology II

2. Originator: Benjamin Benton Date: September 15, 2016


4. The requested change (motion) for governance consideration is as follows:

   Approve a new course BTT 212 Techniques in Biotechnology II

5. Effective Date: Summer 2017

6. Recommended by the School of Math and Science Date: 10/20/2016
   Comments:

7. AA Leadership Team: ___________________________ Date: ________________
   Recommended: ________ Not Recommended: ________
   Comments: ________________

8. VP/Academic Affairs: ___________________________ Date: ________________
   Recommended: ________ Not Recommended: ________
   Comments: ________________

9. Learning Council: ______________________________ Date: ________________
   Recommended: ________ Not Recommended: ________
   Comments: ________________

10. VP/Academic Affairs: ___________________________ Date: ________________
    Approved: __________ Not Approved: __________
    Comments: ________________

Signatures on file in office of Academic Affairs
## NEW COURSE PROPOSAL

<table>
<thead>
<tr>
<th>Course Discipline/Department:</th>
<th>Biotechnology/Natural Sciences</th>
<th>School:</th>
<th>Math and Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Number:</td>
<td>BTT 212</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Name:</td>
<td>Techniques in Biotechnology II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisites and/or corequisites (confer with affected department coordinator):</td>
<td>BIO 231, BIO 259, and BIO 260</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIP code (check with IRaP Office):</td>
<td>26.1201</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective Term/year:</td>
<td>Summer 2017</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Give a rationale for the new course. Be sure to indicate whether this course replaces another course. BTT 212 along with BTT 211 (see new course proposal) will replace BTT 201. With the opening of QuEST and the increased demand for the Techniques in Biotechnology course, we propose to divide the 6-credit BTT 201 into two new 3-credit Techniques in Biotechnology courses, BTT 211 and BTT 212. The BTT 212 course will provide training in Good Manufacturing Practices (GMP), quality control, process development, and environmental monitoring in a production environment at a biotechnology company. Since we now possess several pieces of equipment to support biomanufacturing training in QuEST, the BTT 211 course will focus on theory and training on basic laboratory equipment and techniques used in the biotechnology industry and will be held in the QuEST center.

Secondly, The previous BTT 201 course was limited to the Biotechnology Technician certificate program due to the limitations on enrollment at the biotechnology company and the requirement that it run over two summer semesters. Since these BTT courses are now 3-credit they can be run in both Summer I and Summer II, which will provide more enrollment opportunities. This is important since these courses will now be required for both the Biotechnology Certificate and General Studies-Biotechnology Option Associate Degree program.

Is the course content similar to other courses now offered? **Yes** X **No**

If yes, attach a statement for the coordinator of the department offering the similar course.

I am the coordinator of the affected department and recommend that QCC retire the BTT 201 course after approval of BTT 211 and BTT 212.

Please indicate if this course will serve as any of the following types of electives

- **X** Elective (any college level course can serve as an elective)
- ___ Specific Type (Lab Science)
- ___ Program specific (name the program)

*confer with the Liberal Arts Coordinator

Is this course required for a program? **YES.** If yes, submit a separate DEGREE PROGRAM OR CERTIFICATE REVISION PROPOSAL. If the course is required for a new program, submit a separate NEW DEGREE PROGRAM, OPTION OR CERTIFICATE PROPOSAL. Please list all affected programs here.

**Biotechnology Technician Certificate (BI)**
### General Studies—Biotechnology Option (GSBT)

<table>
<thead>
<tr>
<th>Expected enrollment per term:</th>
<th>Expected enrollment per year:</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-10</td>
<td>16-20</td>
</tr>
</tbody>
</table>

Will any of the following be required:
- Additional staff ___
- Additional space ___
- Additional equipment ____

Provide a rationale for any needs indicated above and include approximate cost of equipment.

Library print and non-print resources in support of this course: $500

## Course Materials

**Course number:**
**BTT 212**

**Course name:**
**Techniques in Biotechnology II**

**Credits:** 3

<table>
<thead>
<tr>
<th>Lecture Hours: 15</th>
<th>Lab hours: 90</th>
<th>Clinic Hours:</th>
</tr>
</thead>
</table>

General course description and prerequisites (as it will appear in the college catalog including course three letter designation and number, title, credits, semesters offered and prerequisites/corequisites):

**BTT 212 Techniques in Biotechnology II - 3 credits**

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.

**Prerequisites:** BIO 259, BIO 260, BIO 231. SU

All required texts and paperbacks, including information on publisher and edition used (provide a suggested text): **None.**

**Instructional Objectives (list):**
- Explore good manufacturing practices in a biomanufacturing production environment
- Explore quality control processes and their role in biomanufacturing
- Explore environmental monitoring processes and their role in biomanufacturing
- Explore the role of process development in biomanufacturing
- Explore various drug discovery laboratory functions such as pharmacology and protein analysis
- Demonstrate the proper use and maintenance of equipment in a biomanufacturing production suite
- Explore criteria for good documentation practices and their importance in biomanufacturing
- Develop resumes and cover letters for employment search
- Explore employment search tools
Teaching procedures: (provide suggested teaching methodology):

Material will be presented through lectures, facility tours, laboratory demonstrations and exercises, simulations, and class discussions.

Course topics and/or assignments and/or required and/or supplemental reading (provide a list of suggested course topics):

- Overview of Process and Production in Biomanufacturing
- Good manufacturing practices (GMP) and documentation
- Biomanufacturing Production Suite Tour and Demonstration
- Introduction to Animal Pharmacology
- Analysis of Proteins by Mass Spectrometry and enzyme-linked immunosorbent assays (ELISA)
- Fermentation Production in Biomanufacturing
- Use of Disposable Suites in Biomanufacturing
- Employment Search Strategies: Resumes, Cover Letters, and Job Databases
- Analytical Quality Control
- Microbiological Quality Control
- Environmental Monitoring in Biomanufacturing
- Small Molecule Drug Discovery and Validation
- Introduction to Drug Discovery in Cellular Immunology
- Protein Purification and Process Development
- Engineering in a Biomanufacturing Suite

Other information: See attached syllabus.

Please attach a generic syllabus for this new course. (see below)
List the Student Learning Outcomes for this course in the table below. Recommendations for writing SLOs can be found in the *General Education Outcomes Assessment Handbook* that is available on the QCC’s Intranet under Frequently Used Forms (Academic Governance Forms).

<table>
<thead>
<tr>
<th>COURSE STUDENT LEARNING OUTCOMES FOR BTT 212 TECHNIQUES IN BIOTECHNOLOGY II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon completion of the course, students will be able to:</td>
</tr>
<tr>
<td>1</td>
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<td>2</td>
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<tr>
<td>3</td>
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<td>4</td>
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<td>7</td>
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<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
</tbody>
</table>
How does the course support general education? Using the chart below, indicate the degree or level of connection between the course and outcome as indicated here.

I – Introductory/Background – There is an indirect relationship between the course and the outcome. The outcome itself is not the focus of the course but at least one element of the course serves as a building block to the achievement of the final outcome. For example, course elements may provide the knowledge, skills or attitudes necessary for the ultimate achievement of the outcome.

M – Intermediate/Transitional - There is more of a direct relationship between the course and the outcome than Introductory. A mixture of course elements supports the final achievement of the outcome, but the final integration of knowledge, skills and attitudes necessary for its achievement is not accomplished in this course. For example, knowledge, skills and/or attitudes (at least 2 of the 3) required for achievement of the outcome may be the focus of the course or course element, but the integration of all three is not.

E – Emphasized – There is a direct relationship between the course and the outcome. At least one element of the course focuses specifically on the complex integration of knowledge, skills and attitudes necessary to perform the outcome.

NA – This is not a learning outcome for this course.

| CONNECTION OF BTT 212 TECHNIQUES IN BIOTECHNOLOGY II TO GENERAL EDUCATION STUDENT LEARNING OUTCOMES | I, M, E, NA |
| Communication Skills: Students will write and speak effectively. | M |
| Information Literacy: Students will locate, evaluate and apply reliable and appropriate information. | I |
| Quantitative Reasoning: Students will apply the concepts and methods of mathematics to solve problems. | M |
| Scientific Reasoning: Students will relate scientific methods of inquiry to the acquisition of knowledge. | M |
| Technical Literacy: Students will utilize computers and emerging technologies effectively. | E |
| Aesthetics: Students will appreciate the variety of human experiences as expressed through the arts. | NA |
| Multiple Perspectives: Students will demonstrate knowledge and appreciation of diverse cultures. | NA |
| Ethics: Students will develop an awareness of personal obligations and responsibilities in one’s community of influence. | NA |
| Impact of Technology: Students will reflect on the impact of scientific and technological advances on the individual, society and the environment. | E |
| **Civic Literacy: Students will demonstrate awareness of the responsibilities of local, national and international citizenship. | NA |

**CIVIC LITERACY**
If civic learning or civic literacy is a component of this course (within the course description, course topics and/or student learning outcomes), please consult the “Guide for Designating Civic Learning Courses” from the Department of Higher Education, available on Frequently Used Forms (with the other Academic Governance Forms). Utilizing the DHE definitions, please indicate whether this course can be designated as one of the following:

___ Civic Learning (CL)
___ Civic Learning with Engagement Required (CLER)
___ Civic Learning with Engagement Optional (CLEO)

**X** Civic Learning is not a component of this course (NA)
SYLLABUS

Techniques in Biotechnology II
BTT 212

Course Description
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.

Prerequisites: BIO 259, BIO 260, BIO 231. SU

Student Learning Objectives
After completing this course students should:

- Describe the biomanufacturing processes employed to produce therapeutic proteins and provide examples
- Describe good manufacturing practices (GMP) and their role in biomanufacturing.
- Describe the importance of quality control in GMP and the processes used to ensure and monitor quality.
- Describe the importance of environmental monitoring in GMP and the processes used.
- Describe the role of process development in biomanufacturing
- Describe the equipment and its use in a biomanufacturing suite
- Explore various drug discovery lab functions such as pharmacology and protein analysis
- Describe the importance of good documentation practices and how they are utilized in a biomanufacturing setting.
- Develop a cover letter and resume suitable for an employment search in the biotechnology field.

Required Course Materials
- None, all materials will be provided as handouts.

Teaching Methodology
The course will be a combination of lectures, class discussions, group projects, laboratory work, and facility tours. Occasional homework will be assigned to reinforce concepts presented in the course.

Attendance Policy
Students are expected to attend their scheduled classes. Instructors will disseminate attendance requirements in writing to their students during the first week of class. Based on departmental agreement, absence from more than one (1) laboratory will result in a failing grade for the course.

Communications
It is expected that students daily access their QCC email or the course page on Blackboard Learn for important announcements. I will also post homework assignments and other pertinent information on Blackboard Learn. If you need to contact me, please do so by email or phone. I am usually accessible via email throughout the day/night and weekends and by phone during the day (leave a voice mail).
Grading Policy
Students will be graded on their ability to accurately complete the student learning outcomes of the course. While this is primarily a laboratory course, both lecture and laboratory work will be used in the formulation of the course grade. Final grades will be determined by the official QCC grade policy which can be found in the Student Handbook.

The laboratory portion of the course is an essential tool to understanding the material and therefore attendance is mandatory. Based on departmental agreement, a student with more than one (1) absence of a laboratory session will automatically fail the entire course. Make-ups are at the discretion of the instructor.

Laboratory sessions
Students are expected to follow all safety precautions in the laboratory as demonstrated by the professor (see your lab manual and the Lab Safety Contract). Personal protective equipment will be provided.

Academic Honesty and Plagiarism
A student shall be subject to disciplinary action under the Student Code of Conduct policy for acts of academic dishonesty or plagiarism. Acts of academic dishonesty, include but not are limited to the following: use of any unauthorized assistance in taking quizzes, tests, or examinations; dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or the acquisition, without permission, of tests or other academic material belonging to a member of the College faculty or staff. Plagiarism is defined as the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgement. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials, taking credit for work done by another person or doing work for which another person will receive credit, copying or purchasing other’s work, or arranging for others to do work under a false name.

Disability Services:
If you have a disability which may require an accommodation, please notify me as soon as possible. You are responsible for forwarding your Accommodation Letter to me and discussing arrangements for this course. Your accommodations for this course begin upon my receipt of your Accommodation Letter; accommodations are not retroactive. You may request accommodations at any time during the semester, but instructors must be provided with reasonable notice prior to exams or deadlines. Disability Services works to promote access to ensure an accessible college experience for students. If you have further questions, contact Disability Services. All discussions are confidential.

Contact Information for Disability Services & Assistive Technology:
Call: 508-854-4471
Sorenson Video Phone: 508-502-7647
Email: disabilityservices@qcc.mass.edu
### Representative Lecture and Laboratory Schedule (Short Summer Term)

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Activities in Biotechnology/Good Manufacturing Practices (GMP)/Proper Documentation/Process and Production Overview</td>
</tr>
<tr>
<td>2</td>
<td>Pharmacology &amp; Animal Room/Protein Analysis/Fermentation/Engineering in Biomanufacturing</td>
</tr>
<tr>
<td>3</td>
<td>Disposable Suite/Resume and Cover Letter Writing/Job Searching/Quality Control (Analytical)/Engineering</td>
</tr>
<tr>
<td>4</td>
<td>Protein Purification/Process Development/Small Molecule Discovery &amp; Validation</td>
</tr>
<tr>
<td>5</td>
<td>Protein Analysis/Tissue Culture/Quality Control (Microbiology)/Environmental Monitoring</td>
</tr>
<tr>
<td>6</td>
<td>Quality Control (Microbiology)/Cellular Immunology</td>
</tr>
</tbody>
</table>
1. Program Name: Biotechnology Technician Certificate

2. Originator: Benjamin Benton  Date: September 15, 2016


4. The requested change (motion) for governance consideration is as follows:

   Move to approve the following revisions to the Biotechnology Certificate Program:
   1. Add BIO 107 Principles of Biology I as a program requirement
   2. Remove CIS 111 Introduction to Microcomputer Applications as a program requirement
   3. Move BIO 259 Cell Biology from semester 1 to semester 2
   4. Move CHM 105 General Chemistry I from semester 2 to semester 1
   5. Remove BTT 201 Techniques in Biotechnology as a program requirement
   6. Add BTT 211 Techniques in Biotechnology I as a program requirement to semester 3
   7. Add BTT 212 Techniques in Biotechnology II as a program requirement to semester 3
   8. Change program credit requirements from 28 to 29.

5. Effective Date: Fall 2017

6. Recommended by the School of Math and Science  Date: 10/20/2016

   Comments:

7. AA Leadership Team: _______________________________  Date: _________________

   Recommended: __________  Not Recommended: __________
   Comments:

8. VP/Academic Affairs: ________________________________  Date: __________________

   Recommended: __________  Not Recommended: __________
   Comments:

9. Learning Council: __________________________________  Date: __________________

   Recommended: __________  Not Recommended: __________
   Comments:

10. VP/Academic Affairs: ________________________________  Date: __________________

   Approved: __________  Not Approved: __________
   Comments:
# DEGREE PROGRAM OR CERTIFICATE REVISION PROPOSAL

**Program:** BIOTECHNOLOGY TECHNICIAN CERTIFICATE (BI)  
**School:** MATH AND SCIENCE  
**Degree type:** CERTIFICATE

Provide a detailed list of the proposed changes to the program.

1. Add BIO 107 Principles of Biology I as a program requirement  
2. Remove CIS 111 Introduction to Microcomputer Applications as a program requirement  
3. Move BIO 259 Cell Biology from semester 1 to semester 2  
4. Move CHM 105 General Chemistry I from semester 2 to semester 1  
5. Remove BTT 201 Techniques in Biotechnology as a program requirement  
6. Add BTT 211 Techniques in Biotechnology I as a program requirement to semester 3  
7. Add BTT 212 Techniques in Biotechnology II as a program requirement to semester 3  
8. Change program credit requirements from 28 to 29.

**Attachments:**  
Current program academic map  
Proposed program academic map

Submit separate proposals for any new courses or revised courses in the program. Please list here the new courses or revised courses for which separate proposals will be submitted.  
**BTT 211 Techniques in Biotechnology I**  
**BTT 212 Techniques in Biotechnology II**

Provide a rationale for the proposed changes.  
**Consequent to the biotechnology program’s 2015 APR, faculty are currently developing new curriculum to better train our students for the biotechnology sector. The current 6-credit BTT 201 Techniques in Biotechnology course will be replaced by two 3-credit courses, Techniques in Biotechnology I (BTT 211) and II (BTT 212). Additionally, while BIO 107 is not a formal requirement for the certificate, it is essentially a de facto requirement since it is a pre-requisite for the biology courses in the certificate. To reflect this requirement, we propose to add it to the certificate requirements. Thirdly, while familiarity with microcomputer applications is essential to success in the biotechnology field, we believe that the biology and chemistry course work in the certificate adequately prepares our students in the microcomputer applications they will use in the biotechnology.**
sector. Therefore, we propose to remove the CIS 111 Introduction to Microcomputers course as a formal requirement for the certificate. Students with no previous college experience are strongly advised to enroll in the General Studies—Biotechnology option to ensure their competitiveness in the biotechnology employment sector.

Do any of the proposed changes affect the program goals and/or the program student learning outcomes? Please indicate any revisions to the program goals and/or program student learning outcomes.  

**The program goals for the Biotechnology Technician Certificate will remain unchanged. The student learning outcomes remain essentially unchanged, but have been revised for clarity.**

Do any of the proposed changes affect another department? Examples include the deletion or addition of program courses that are offered by other departments. Please confer with the coordinators of affected departments.  

**Department(s) Affected: Computer Information Systems**

Do any of the proposed changes affect articulation agreements? Consult with the Transfer Coordinator. **No.**

For an associate degree program, are there any changes in the number of general education credits that could affect MassTransfer?  

If yes please provide a rationale.

<table>
<thead>
<tr>
<th>Will any of the following be required:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional staff ___ Additional space ____ Additional equipment ___</td>
</tr>
<tr>
<td>Provide a rationale for any needs indicated and include approximate cost of equipment.</td>
</tr>
</tbody>
</table>

Please complete the following tables for your program.

List the **PROGRAM STUDENT LEARNING OUTCOMES** in the table below. Indicate the course or courses that will fulfill each outcome and indicate the degree or level of connection between the course and outcome as indicated here.

I – Introductory/Background – There is an indirect relationship between the course and the outcome. The outcome itself is not the focus of the course but at least one element of the course serves as a building block to the achievement of the final outcome. For example, course elements may provide the knowledge, skills or attitudes necessary for the ultimate achievement of the outcome.

M – Intermediate/Transitional - There is more of a direct relationship between the course and the outcome than Introductory. A mixture of course elements supports the final achievement of the outcome, but the final integration of knowledge, skills and attitudes necessary for its achievement is not accomplished in this course. For example, knowledge, skills and/or attitudes (at least 2 of the 3) required for achievement of the outcome may be the focus of the course or course element, but the integration of all three is not.

E – Emphasized – There is a direct relationship between the course and the outcome. At least one element of the course focuses specifically on the complex integration of knowledge, skills and attitudes necessary to perform the outcome.
For a DEGREE PROGRAM, indicate the courses that fulfill the General Education Student Learning Outcomes.

<table>
<thead>
<tr>
<th>Student Learning Outcomes (SLOs)</th>
<th>Courses supporting SLOs</th>
<th>I, M, E*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Explain the fundamental scientific principles underlying biotechnology</td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 101, BTT 211, BTT 212, CHM 105</td>
<td>E</td>
</tr>
<tr>
<td>2. Accurately collect, analyze, and interpret experimental data</td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 211, BTT 212, CHM 105</td>
<td>E</td>
</tr>
<tr>
<td>3. Work effectively in a laboratory setting emphasizing collaboration</td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 211, BTT 212, CHM 105</td>
<td>M</td>
</tr>
<tr>
<td>4. Utilize critical thinking and scientific methodology to analyze and/or troubleshoot biotechnological issues</td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 101, BTT 211, BTT 212, CHM 105</td>
<td>E</td>
</tr>
<tr>
<td>5. Apply scientific knowledge to common biotechnological techniques</td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 211, BTT 212, CHM 105</td>
<td>E</td>
</tr>
<tr>
<td>6. Apply mathematical principles to biotechnological concepts</td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 101, BTT 211, BTT 212, CHM 105</td>
<td>M</td>
</tr>
<tr>
<td>7. Effectively communicate using both written and oral formats</td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 101, BTT 211, BTT 212, CHM 105</td>
<td>M</td>
</tr>
<tr>
<td>8. Identify careers in biotechnology and utilize skills to seek employment such as job search databases and resume writing</td>
<td>BTT 101, BTT 211, BTT 212</td>
<td>E</td>
</tr>
</tbody>
</table>

For a DEGREE PROGRAM, indicate the courses that fulfill the General Education Student Learning Outcomes.

<table>
<thead>
<tr>
<th>GENERAL EDUCATION STUDENT LEARNING OUTCOMES FOR (insert the name of the program)</th>
<th>Supporting course(s)</th>
<th>I,M,E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Skills: Students will write and speak effectively.</td>
<td></td>
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<tr>
<td>Information Literacy: Students will locate, evaluate and apply reliable and appropriate information.</td>
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<td>Quantitative Reasoning: Students will apply the concepts and methods of mathematics to solve problems.</td>
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<td>Scientific Reasoning: Students will relate scientific methods of inquiry to the acquisition of knowledge.</td>
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<td>Technical Literacy: Students will utilize computer an emerging technologies effectively.</td>
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<td>Ethics: Students will develop an awareness of personal obligations and responsibilities in one’s community of influence.</td>
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<tr>
<td>Impact of Technology: Students will reflect on the impact of scientific and technological advances on the individual, society and the environment.</td>
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<tr>
<td>Civic Literacy: Students will demonstrate awareness of the responsibilities of local, national and international citizenship.</td>
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<tr>
<td>Course Title</td>
<td>Course #</td>
<td>Offered</td>
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<tr>
<td>-----------------------------------------</td>
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</tr>
<tr>
<td>Semester 1</td>
<td></td>
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<tr>
<td>Introduction to Biotechnology</td>
<td>BTT 101</td>
<td>F/S</td>
</tr>
<tr>
<td>Cell Biology</td>
<td>BIO 259</td>
<td>F/S</td>
</tr>
<tr>
<td>Introduction to Microcomputer Applications</td>
<td>CIS 111</td>
<td>F/S/SU</td>
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<tr>
<td>Semester 2</td>
<td></td>
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<tr>
<td>General Chemistry I</td>
<td>CHM 105</td>
<td>F/S/SU</td>
</tr>
<tr>
<td>Molecular Biology</td>
<td>BIO 260</td>
<td>F/S</td>
</tr>
<tr>
<td>General Microbiology</td>
<td>BIO 231</td>
<td>F/S</td>
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<tr>
<td>Semester 3 (Summer)</td>
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<tr>
<td>Techniques in Biotechnology</td>
<td>BTT 201</td>
<td>SU</td>
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<tr>
<td>Total Credits Required</td>
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</tbody>
</table>
Liberal Arts/Science & General Studies

**PROPOSED Biotechnology Technician Certificate (Program Code: BI)**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course #</th>
<th>Offered</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1 (Fall)</strong></td>
<td></td>
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</tr>
<tr>
<td>Introduction to Biotechnology</td>
<td>BTT 101</td>
<td>F/S</td>
<td>3</td>
<td>ENG 091 with a grade of “C” or higher, ENG 096 with a grade of “C” or higher;</td>
<td>Register for and successfully complete all courses to graduate in three</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>MAT 095 with a grade of “C” or higher; or approp place score, MAT 095</td>
<td>semesters.</td>
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<td></td>
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<td></td>
<td></td>
<td>or higher on the MAT 095 departmental final exam; or approp place score</td>
<td>Apply and get accepted to this program (program code is BI).</td>
</tr>
<tr>
<td>Principles of Biology I</td>
<td>BIO 107</td>
<td>F/S</td>
<td>4</td>
<td>MAT 099 with a grade of “C” or higher on the MAT 099 departmental final exam;</td>
<td>Complete BIO 107 in Semester 1.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Coreq: ENG 101</td>
<td></td>
</tr>
<tr>
<td>General Chemistry I</td>
<td>CHM 105</td>
<td>F/S/SU</td>
<td>4</td>
<td>CHM 090 or one year of High School Chemistry, MAT 099 with a grade of “C” or</td>
<td>Meet with a QCC Career Placement Services</td>
</tr>
<tr>
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<td></td>
<td>higher on the MAT 099 departmental final exam; or approp place score</td>
<td>Represent and attend Workshops. See <a href="http://www.qcc.edu/services/career-">http://www.qcc.edu/services/career-</a></td>
</tr>
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<td>placement-services.</td>
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<td>Total 11</td>
<td>Meet with Academic Advisor to discuss Associate Degree program.</td>
</tr>
<tr>
<td><strong>Semester 2 (Spring)</strong></td>
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<tr>
<td>Cell Biology</td>
<td>BIO 259</td>
<td>F/S</td>
<td>4</td>
<td>BIO 107</td>
<td>Meet with a Career Placement Representative for Job Search Assistance</td>
</tr>
<tr>
<td>Molecular Biology</td>
<td>BIO 260</td>
<td>F/S</td>
<td>4</td>
<td>BIO 107</td>
<td>services.</td>
</tr>
<tr>
<td>General Microbiology</td>
<td>BIO 231</td>
<td>F/S</td>
<td>4</td>
<td>BIO 107</td>
<td></td>
</tr>
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<td></td>
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<td>Total 12</td>
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<td><strong>Semester 3 (Summer)</strong></td>
<td></td>
<td></td>
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<tr>
<td>Techniques in Biotechnology I</td>
<td>BTT 211</td>
<td>S/SU</td>
<td>3</td>
<td>BIO 259, BIO 260, BIO 231</td>
<td>Submit an Intent to Graduate Form, located on The Q.</td>
</tr>
<tr>
<td>Techniques in Biotechnology II</td>
<td>BTT 212</td>
<td>SU</td>
<td>3</td>
<td>BIO 259, BIO 260, BIO 231</td>
<td></td>
</tr>
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<td></td>
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<td>Total 6</td>
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<td><strong>Total Credits Required</strong></td>
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<td>29</td>
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</tr>
</tbody>
</table>
1. Program Name: General Studies—Biotechnology Option

2. Originator: Benjamin Benton Date: September 15, 2016


4. The requested change (motion) for governance consideration is as follows:

   Move to approve the following revisions to the General Studies—Biotechnology Option program:
   1. Move HUM 101 Critical Thinking and Problem Solving from semester 1 to semester 2
   2. Move “Behavioral Science Elective” from semester 2 to semester 4
   3. Move BIO 231 General Microbiology from semester 4 to semester 3
   4. Move SPH 101 Speech Communication Skills from semester 4 to semester 3
   5. Move “Humanities Elective” from semester 5 to semester 4
   6. Change “Science Elective” in semester 4 to BIO 260 Molecular Biology and move to semester 3.
   7. Change “Mathematics Elective or Science Elective” in semester 5 to BTT 211 Techniques in Biotechnology I and move to semester 4.
   8. Change “Mathematics Elective or Science Elective” in semester 5 to BTT 212 Techniques in Biotechnology II
   9. Remove Social Science Elective from semester 5
   10. Change program credit requirements from 66-70 credits to 63 credits

5. Effective Date: Fall 2017

6. Recommended by the School of Math and Science Date: 10/20/2016

   Comments:

7. AA Leadership Team: _________________________ Date: _________________

   Recommended: __________ Not Recommended: __________

   Comments:

8. VP/Academic Affairs: _________________________________ Date: _________________

   Recommended: __________ Not Recommended: __________

   Comments:

9. Learning Council: ____________________________________ Date: _________________

   Recommended: __________ Not Recommended: __________

   Comments:

10. VP/Academic Affairs: _________________________________ Date: _________________

    Approved: __________ Not Approved: __________

    Comments:
Program: GENERAL STUDIES—BIOTECHNOLOGY OPTION

School: MATH AND SCIENCE

Degree type: ASSOCIATE-IN-ARTS

Provide a detailed list of the proposed changes to the program.

1. Move HUM 101 Critical Thinking and Problem Solving from semester 1 to semester 2
2. Move “Behavioral Science Elective” from semester 2 to semester 4
3. Move BIO 231 General Microbiology from semester 4 to semester 3
4. Move SPH 101 Speech Communication Skills from semester 4 to semester 3
5. Move “Humanities Elective” from semester 5 to semester 4
6. Change “Science Elective” in semester 4 to BIO 260 Molecular Biology and move to semester 3.
7. Change “Mathematics Elective or Science Elective” in semester 5 to BTT 211 Techniques in Biotechnology I and move to semester 4.
8. Change “Mathematics Elective or Science Elective” in semester 5 to BTT 212 Techniques in Biotechnology II
9. Remove Social Science Elective from semester 5
10. Change program credit requirements from 66-70 credits to 63 credits

Attachments:
Current program academic map
Proposed program academic map

Submit separate proposals for any new courses or revised courses in the program. Please list here the new courses or revised courses for which separate proposals will be submitted.
BTT 211 Techniques in Biotechnology I
BTT 212 Techniques in Biotechnology II

Provide a rationale for the proposed changes.
The original intent of the GSBT program was to provide an Associate degree for either transfer to a 4-year institution or for immediate employment in the biotechnology sector. These are mutually exclusive academic pathways. Currently, the Liberal Arts—Biology Option serves as the transfer degree which allows us to modify the GSBT program to target successful employment of our students in the biotechnology sector. The proposed course changes will better train our students who wish to obtain employment in the biotechnology sector. BIO 260 Molecular Biology provides skills and knowledge in recombinant DNA techniques that are fundamental to the biotechnology industry and, as such, should be required of our biotechnology students. With the opening of the QuEST center, we are now able to provide some of the biotechnology training that was provided by Abbvie in the BTT
201 Techniques in Biotechnology course. As a consequence we propose to replace that 6-credit course with two 3-credit courses, BTT 211 Techniques in Biotechnology I and BTT 212 Techniques in Biotechnology II. Finally, to better align our program with Complete College America principles to minimize redundant credits in our program, we are removing one of the social science electives. Currently, there are 12 credits of social science required in the program (3 credits of behavioral science, 3 credits of history, and 6 credits of social science electives). Since Mass Transfer Block only requires 9 credits of social sciences, we propose to remove one of the 3-credit social science electives.

Do any of the proposed changes affect the program goals and/or the program student learning outcomes? Please indicate any revisions to the program goals and/or program student learning outcomes. The program learning goals have been modified to reflect emphasis on preparing students for employment in the biotechnology sector: “This program provides students with a strong academic foundation in biotechnology and the life sciences. Graduates are prepared to enter the biotechnology workforce.” Student learning outcomes have remained essentially the same with minor modification of most outcomes and elimination of the “transfer to four-year institutions.”

Do any of the proposed changes affect another department? YES. Examples include the deletion or addition of program courses that are offered by other departments. Please confer with the coordinators of affected departments.
Department(s) Affected: Social Sciences, Mathematics

Do any of the proposed changes affect articulation agreements? Consult with the Transfer Coordinator. YES. We are in discussions with local 4-year institutions to modify or renew existing articulation agreements.

For an associate degree program, are there any changes in the number of general education credits that could affect MassTransfer? NO, see explanation above under rationale.

If yes please provide a rationale.

Will any of the following be required:
  Additional staff ___  Additional space ____  Additional equipment ___
Provide a rationale for any needs indicated and include approximate cost of equipment.
Please complete the following tables for your program.

List the PROGRAM STUDENT LEARNING OUTCOMES in the table below. Indicate the course or courses that will fulfill each outcome and indicate the degree or level of connection between the course and outcome as indicated here.

I – Introductory/Background – There is an indirect relationship between the course and the outcome. The outcome itself is not the focus of the course but at least one element of the course serves as a building block to the achievement of the final outcome. For example, course elements may provide the knowledge, skills or attitudes necessary for the ultimate achievement of the outcome.

M – Intermediate/Transitional - There is more of a direct relationship between the course and the outcome than Introductory. A mixture of course elements supports the final achievement of the outcome, but the final integration of knowledge, skills and attitudes necessary for its achievement is not accomplished in this course. For example, knowledge, skills and/or attitudes (at least 2 of the 3) required for achievement of the outcome may be the focus of the course or course element, but the integration of all three is not.

E – Emphasized – There is a direct relationship between the course and the outcome. At least one element of the course focuses specifically on the complex integration of knowledge, skills and attitudes necessary to perform the outcome.

<table>
<thead>
<tr>
<th>SLO</th>
<th>Courses supporting SLOs</th>
<th>I, M, E*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Explain the fundamental scientific principles underlying biotechnology</td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 101, BTT 211, BTT 212, CHM 105, CHM 106</td>
<td>E</td>
</tr>
<tr>
<td>2. Accurately collect, analyze, and interpret experimental data</td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 211, BTT 212, CHM 105, CHM 106</td>
<td>E</td>
</tr>
<tr>
<td>3. Work effectively in a laboratory setting emphasizing collaboration</td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 211, BTT 212, CHM 105, CHM 106</td>
<td>M</td>
</tr>
<tr>
<td>4. Utilize critical thinking and scientific methodology to analyze and/or troubleshoot biotechnological issues</td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 101, BTT 211, BTT 212, CHM 105, CHM 106</td>
<td>E</td>
</tr>
<tr>
<td>5. Apply scientific knowledge to common biotechnological techniques</td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 211, BTT 212, CHM 105, CHM 106</td>
<td>E</td>
</tr>
<tr>
<td>6. Apply mathematical principles to biotechnological concepts</td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 101, BTT 211, BTT 212, CHM 105, CHM 106, MAT 100, MAT 122, MAT 123</td>
<td>E</td>
</tr>
<tr>
<td>7. Effectively communicate using both written and oral formats</td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 101, BTT 211, BTT 212, CHM 105, CHM 106, ENG 101, ENG 102, SPH 101</td>
<td>E</td>
</tr>
<tr>
<td>8. Demonstrate knowledge and appreciation of the relative historical and cultural perspectives of society</td>
<td>Social science, history and humanities electives</td>
<td>I</td>
</tr>
<tr>
<td>9. Demonstrate knowledge and appreciation of the behavioral sciences.</td>
<td>Behavioral science elective</td>
<td>I</td>
</tr>
<tr>
<td>10. Identify careers in biotechnology and utilize skills to seek employment such as job search databases and resume writing</td>
<td>BTT 101, BTT 211, BTT 212</td>
<td>E</td>
</tr>
</tbody>
</table>
For a DEGREE PROGRAM, indicate the courses that fulfill the General Education Student Learning Outcomes.

<table>
<thead>
<tr>
<th>General Education Student Learning Outcomes</th>
<th>Courses that support the Student Learning Outcome</th>
<th>I, M, E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication Skills:</strong></td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 101, BTT 211, BTT 212, CHM 105, CHM 106, ENG 101, ENG 102, SPH 101</td>
<td>E</td>
</tr>
<tr>
<td>Students will write and speak effectively.</td>
<td></td>
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<tr>
<td><strong>Information Literacy:</strong></td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 101, CHM 105, CHM 106, ENG 101, ENG 102, SPH 101</td>
<td>M</td>
</tr>
<tr>
<td>Students will locate, evaluate and apply reliable and appropriate information.</td>
<td></td>
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</tr>
<tr>
<td><strong>Quantitative Reasoning:</strong></td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 101, BTT 211, BTT 212, CHM 105, CHM 106, MAT 100, MAT 122, MAT 123</td>
<td>E</td>
</tr>
<tr>
<td>Students will apply the concepts and methods of mathematics to solve problems.</td>
<td></td>
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<tr>
<td><strong>Scientific Reasoning:</strong></td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 101, BTT 211, BTT 212, CHM 105, CHM 106, HUM 101</td>
<td>E</td>
</tr>
<tr>
<td>Students will relate scientific methods of inquiry to the acquisition of knowledge.</td>
<td></td>
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</tr>
<tr>
<td><strong>Technical Literacy:</strong></td>
<td>Entire Curriculum</td>
<td>E</td>
</tr>
<tr>
<td>Students will utilize computer and emerging technologies effectively.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aesthetics:</strong></td>
<td>Humanities elective</td>
<td>I</td>
</tr>
<tr>
<td>Students will appreciate the variety of human experiences as expressed through the arts.</td>
<td></td>
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</tr>
<tr>
<td><strong>Multiple Perspectives:</strong></td>
<td>Social Science and Humanities electives</td>
<td>M</td>
</tr>
<tr>
<td>Students will demonstrate knowledge and appreciation of diverse cultures.</td>
<td></td>
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</tr>
<tr>
<td><strong>Ethics:</strong></td>
<td>Social Science, BTT 101</td>
<td>M</td>
</tr>
<tr>
<td>Students will develop an awareness of personal obligations and responsibilities in one’s community of influence.</td>
<td></td>
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</tr>
<tr>
<td><strong>Impact of Technology:</strong></td>
<td>BIO 107, BIO 231, BIO 259, BIO 260, BTT 101, BTT 211, BTT 212, CHM 105, CHM 106</td>
<td>E</td>
</tr>
<tr>
<td>Students will reflect on the impact of scientific and technological advances on the individual, society and the environment.</td>
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</tr>
<tr>
<td><strong>Civic Literacy:</strong></td>
<td>Social Science and History Electives</td>
<td>I</td>
</tr>
<tr>
<td>Students will demonstrate awareness of the responsibilities of local, national and international citizenship.</td>
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<tr>
<td>Course Title</td>
<td>Course #</td>
<td>Offered</td>
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<tr>
<td><strong>Semester 1</strong></td>
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<tr>
<td>Composition I</td>
<td>ENG 101</td>
<td>F/S/SU</td>
</tr>
<tr>
<td>Principles of Biology I</td>
<td>BIO 107</td>
<td>F/S/SU</td>
</tr>
<tr>
<td>Introduction to Biotechnology</td>
<td>BTT 101</td>
<td>F/S</td>
</tr>
<tr>
<td>General Chemistry I</td>
<td>CHM 105</td>
<td>F/S/SU</td>
</tr>
<tr>
<td>Critical Thinking and Problem Solving</td>
<td>HUM 101</td>
<td>F/S/SU</td>
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<tr>
<td><strong>Total</strong></td>
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<tr>
<td><strong>Semester 2</strong></td>
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<tr>
<td>Composition II</td>
<td>ENG 102</td>
<td>F/S/SU</td>
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<tr>
<td>Cell Biology</td>
<td>BIO 259</td>
<td>F/S</td>
</tr>
<tr>
<td>General Chemistry II</td>
<td>CHM 106</td>
<td>F/S/SU</td>
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<tr>
<td>College Mathematics I: Pre-Calculus</td>
<td>MAT 123</td>
<td>F/S/SU</td>
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<tr>
<td>Behavioral Science Elective</td>
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<td>F/S/SU</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>Semester 3 (Summer I or II)</strong></td>
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<td>Statistics</td>
<td>MAT 122</td>
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<td>History Elective</td>
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<tr>
<td><strong>Semester 4</strong></td>
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<tr>
<td>Speech Communication Skills</td>
<td>SPH 101</td>
<td>F/S/SU</td>
</tr>
<tr>
<td>General Microbiology</td>
<td>BIO 231</td>
<td>F/S</td>
</tr>
<tr>
<td>Science Elective</td>
<td>---</td>
<td>F/S/SU</td>
</tr>
<tr>
<td>Social Science Elective</td>
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<td>F/S/SU</td>
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<td><strong>Semester 5</strong></td>
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<td>Humanities Elective</td>
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<tr>
<td>Social Science Elective</td>
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<td>F/S/SU</td>
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<tr>
<td>Mathematics Elective or</td>
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<td>Science Elective</td>
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<td>F/S/SU</td>
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<tr>
<td><strong>Semester 1</strong></td>
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<td>Composition I</td>
<td>ENG 101</td>
<td>F/S/SU</td>
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<td>F/S/SU</td>
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<tr>
<td>Composition II</td>
<td>ENG 102</td>
<td>F/S/SU</td>
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<tr>
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<td>BIO 259</td>
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<td>F/S</td>
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<td>F/S/SU</td>
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<tr>
<td>College Mathematics I: Pre-Calculus</td>
<td>MAT 123</td>
<td>F/S/SU</td>
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<td><strong>Total</strong></td>
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<tr>
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<tr>
<td>Molecular Biology</td>
<td>BIO 260</td>
<td>F/S</td>
</tr>
<tr>
<td>General Microbiology</td>
<td>BIO 231</td>
<td>F/S</td>
</tr>
<tr>
<td>Statistics</td>
<td>MAT 122</td>
<td>F/S/SU</td>
</tr>
<tr>
<td>History Elective</td>
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<td>F/S/SU</td>
</tr>
<tr>
<td>Speech Communication Skills</td>
<td>SPH 101</td>
<td>F/S/SU</td>
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<tr>
<td><strong>Semester 4</strong></td>
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<tr>
<td>Techniques in Biotechnology I</td>
<td>BTT 211</td>
<td>S/S/U</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>---</td>
<td>F/S/SU</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>---</td>
<td>F/S/SU</td>
</tr>
<tr>
<td>Behavioral Science Elective</td>
<td>---</td>
<td>F/S/SU</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Semester 5 (Summer)</strong></td>
<td></td>
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</tr>
<tr>
<td>Techniques in Biotechnology II</td>
<td>BTT 212</td>
<td>SU</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<tr>
<td><strong>Total Credits Required</strong></td>
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</table>
NEW DEGREE PROGRAM, OPTION OR CERTIFICATE PROPOSAL

1. Program Name: Liberal Arts History Option

2. Originator: Lisa Cook, Ben Wendorf, & Ken Wong Date: September 15, 2016

3. School Dean: Dr. Jen Arner Welsh Date: October 20, 2016

4. The requested change (motion) for governance consideration is as follows:

   Move to create a Liberal Arts History Option Associate in Arts Degree program.

5. Effective Date: Fall 2017

6. Recommended by the Public Service and Social Sciences School Date: 10/20/2016

   Comment:

7. AA Leadership Team: _______________________________ Date: _________________

   Recommended: _______ Not Recommended: _______

   Comments:

8. VP/Academic Affairs: _________________________________ Date: _________________

   Recommended: _______ Not Recommended: _______

   Comments:

9. Learning Council: ____________________________________ Date: _________________

   Recommended: _______ Not Recommended: _______

   Comments:

10. VP/Academic Affairs: _________________________________ Date: _________________

    Approved: _______ Not Approved: _______

    Comments:

Signatures on file in office of Academic Affairs
FOR NEW PROGRAM/OPTION/CERTIFICATE

President: ___________________________  Date: _______________
Approved: _________  Not Approved: _________

Board of Trustees: ___________________________  Date: _______________
Approved: _________  Not Approved: _________
NEW DEGREE PROGRAM, OPTION OR CERTIFICATE PROPOSAL

Program:
Liberal Arts History Option

School:
Public Service and Social Science

Degree type:
Associate in Arts

CIP code for the degree program or certificate (check with IRaP Office):
54.0101

Attachments:
Proposed program Academic Map (including milestones)

Submit separate proposals for any new courses or revised courses in the program. Please list here the new courses or revised courses for which separate proposals will be submitted.
NONE

List the program goals.
- Provide a foundational education in history, enabling transfer to a baccalaureate 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 baccalaureate 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.

Provide a rationale for the proposed new program including a narrative for each of the following:
- How the need for this new program or certificate was determined
  - A 2014 campus-wide survey of student interest in possible Liberal Arts options found that 27% of respondents were interested in a history option. This ranked #4 out of twelve possible options. See Arpi Payaslian’s 2014 Sabbatical Report, page 6.
  - A MassTransfer Pathway in History was established by the Department of Higher Education in 2015. This new option institutionalizes the History Transfer Pathway for QCC students.
- How the program was designed
  - The program is designed to conform with (a) the Liberal Arts Program and (b) the MassTransfer Pathway in History. The history courses in the option are the ones accepted under the Transfer Pathway.
- How the new program or certificate was reviewed, approved, or developed through a QCC APR process and/or in conjunction with an advisory board or other external agency
  - The program conforms with the curriculum of the Liberal Arts Program, which was developed through an APR conducted in 2015.
  - The history curriculum conforms to the MassTransfer Pathway agreement between Massachusetts public community colleges and 4-year institutions.
- If a program goal is employment upon completion, please comment on job titles,
demonstrated regional employer interest in hiring graduates, and wage analysis (consult with IRaP office) – Not Applicable.

- If a program goal is transfer upon completion, please consult with the Coordinator of Transfer Affairs and Articulation and provide a plan for transfer/articulations with baccalaureate institutions
  o The program conforms to the curriculum of the Liberal Arts Program, which meets the MassTransfer Block.
  o The history curriculum conforms to the set of history courses that the 4-year schools agreed to accept for transfer.

Does any aspect of the proposed program affect another department? Please confer with the coordinators of affected departments.
Affected department(s): Liberal Arts

For an associate degree program, does the proposed program meet the general education credit requirement for MassTransfer? YES

If no, please provide a rationale.

Does the program or certificate qualify for financial aid? YES Check with the Director of Financial Aid and fill out the Gainful Employment Form as needed.

Will any of the following be required:
  - Additional staff _NO__
  - Additional space _NO__
  - Additional equipment _NO__
Provide a rationale for any needs indicated and include approximate cost of equipment.

Start-up collection of library resources in support of this program: $2,500

List the PROGRAM STUDENT LEARNING OUTCOMES in the table below. Indicate the course or courses that will fulfill each outcome and indicate the degree or level of connection between the course and outcome as indicated here.

I – Introductory/Background – There is an indirect relationship between the course and the outcome. The outcome itself is not the focus of the course but at least one element of the course serves as a building block to the achievement of the final outcome. For example, course elements may provide the knowledge, skills or attitudes necessary for the ultimate achievement of the outcome.

M – Intermediate/Transitional - There is more of a direct relationship between the course and the outcome than Introductory. A mixture of course elements supports the final achievement of the outcome, but the final integration of knowledge, skills and attitudes necessary for its achievement is not accomplished in this course. For example, knowledge, skills and/or attitudes (at least 2 of the 3) required for achievement of the outcome may be the focus of the course or course element, but the integration of all three is not.

E – Emphasized – There is a direct relationship between the course and the outcome. At least one element of the course focuses specifically on the complex integration of knowledge, skills and attitudes necessary to perform the outcome.

<table>
<thead>
<tr>
<th>PROGRAM STUDENT LEARNING OUTCOMES FOR Liberal Arts History Option Program</th>
<th>Supporting course(s)</th>
<th>I, M, E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Utilize the broad-based liberal arts curriculum in the fine arts, humanities, mathematics, natural science, and social and behavioral sciences to develop a historical perspective on the world.</td>
<td>All courses</td>
<td>I</td>
</tr>
<tr>
<td>2 Demonstrate a basic knowledge of significant periods, events, and ideas in the past that have shaped different cultures and civilizations.</td>
<td>HST 104, HST 105, HST 115, HST 116, HST</td>
<td>E</td>
</tr>
<tr>
<td>3</td>
<td>Analyze primary sources in their historical context.</td>
<td>HST 104, HST 105, HST 115, HST 116, HST elective, HST 200-level elective</td>
</tr>
<tr>
<td>4</td>
<td>Evaluate secondary sources through an understanding of how historians ask questions and interpret the past.</td>
<td>HST 104, HST 105, HST 115, HST 116, HST elective, HST 200-level elective</td>
</tr>
<tr>
<td>5</td>
<td>Write articulately and persuasively on historical issues.</td>
<td>HST 104, HST 105, HST 115, HST 116, HST elective, HST 200-level elective</td>
</tr>
<tr>
<td>6</td>
<td>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.</td>
<td>US, World History; PSY 101/SOC 101; Social Science Foundational Elective.</td>
</tr>
<tr>
<td>7</td>
<td>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.</td>
<td>ENG 101/102; Creative Arts Elective; Literature, Philosophy, and Language Elective.</td>
</tr>
<tr>
<td>8</td>
<td>Apply the concepts and methods of mathematics to solve problems, and demonstrate quantitative reasoning in a variety of disciplines.</td>
<td>Math Elective.</td>
</tr>
<tr>
<td>9</td>
<td>Demonstrate knowledge of the scientific process and basic scientific principles, and apply the scientific method to complex problems in the natural sciences.</td>
<td>Science Elective.</td>
</tr>
<tr>
<td>10</td>
<td>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.</td>
<td>US, World History; PSY 101/SOC 101; Social Science Foundational Elective.</td>
</tr>
<tr>
<td>11</td>
<td>Demonstrate high-level communication skills (verbal, written, graphic, and numerical) across the full span of the liberal arts disciplines.</td>
<td>All courses.</td>
</tr>
<tr>
<td>12</td>
<td>Apply critical reasoning skills, drawing upon interdisciplinary approaches, to analyze and solve complex problems.</td>
<td>All courses.</td>
</tr>
<tr>
<td>13</td>
<td>Demonstrate the ability to use interlibrary catalog/loan systems and electronic databases and to distinguish between reliable and non-reliable sources.</td>
<td>All courses.</td>
</tr>
</tbody>
</table>
sources, whether print, cinematic, televisual, or web.

| 14 | Demonstrate the multiple perspectives that derive from knowledge and awareness of cultures and cultural practices (one’s own and others’). | Multiple Perspectives Elective. | E |

For a DEGREE PROGRAM, indicate the courses that fulfill the General Education Student Learning Outcomes.

| GENERAL EDUCATION STUDENT LEARNING OUTCOMES FOR (insert the name of the program) | Supporting course(s) | I, M, E |
| Communication Skills: Students will write and speak effectively. | ENG 101/102; Literature, Philosophy, and Language Elective. | E |
| All courses. | M/E |
| Information Literacy: Students will locate, evaluate and apply reliable and appropriate information. | All courses. | M/E |
| Quantitative Reasoning: Students will apply the concepts and methods of mathematics to solve problems. | Math Elective; Science Elective; Social Science Foundational Elective. | E |
| Scientific Reasoning: Students will relate scientific methods of inquiry to the acquisition of knowledge. | Science Elective. | E |
| Technical Literacy: Students will utilize computer an emerging technologies effectively. | All courses. | M/E |
| Aesthetics: Students will appreciate the variety of human experiences as expressed through the arts. | Creative Arts Elective; Literature, Philosophy, and Language Elective. | E |
| Multiple Perspectives: Students will demonstrate knowledge and appreciation of diverse cultures. | Multiple Perspectives Elective. | E |
| Ethics: Students will develop an awareness of personal obligations and responsibilities in one’s community of influence. | Literature, Philosophy, and Language Elective; Multiple Perspectives Elective. | E |
| Impact of Technology: Students will reflect on the impact of scientific and technological advances on the individual, society and the environment. | Science Elective; Literature, Philosophy, and Language Elective. | M/E |
| Civic Literacy: Students will demonstrate awareness of the responsibilities of US, World |  | E |
local, national and international citizenship.

History; Social Science
Foundational Elective;
Multiple Perspectives Elective.
**LIBERAL ARTS – HISTORY OPTION -- Associate in Arts (Program Code: LAXX)**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course #</th>
<th>Offered</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Composition I</td>
<td>ENG 101</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 091 with a grade of “C” or higher, ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Complete ENG 101 and MAT elective.</td>
</tr>
<tr>
<td>Mathematics Elective¹</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
<td></td>
<td>Register for and successfully complete all courses to graduate in four semesters.</td>
</tr>
<tr>
<td>Introduction to Psychology or Introductory Sociology (Principles)</td>
<td>PSY 101 SOCI 101</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 091 with a grade of “C” or higher, ENG 096 with a grade of “C” or higher; or approp place score</td>
<td>Apply and get accepted to this program (program code is LAXX).</td>
</tr>
<tr>
<td>Science Elective or Lab Science Elective²</td>
<td>---</td>
<td>F/S/SU</td>
<td>3-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creative Arts Elective³</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
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<tr>
<td><strong>Semester 2</strong></td>
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<td></td>
</tr>
<tr>
<td>Composition II</td>
<td>ENG 102</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 101</td>
<td>Complete ENG 102 and MAT elective.</td>
</tr>
<tr>
<td>Mathematics Elective¹</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
<td></td>
<td>Meet with a QCC Transfer Services Advisor. See <a href="http://www.qcc.mass.edu/transfer/">http://www.qcc.mass.edu/transfer/</a></td>
</tr>
<tr>
<td>World History I: Beginnings to 1500</td>
<td>HST 104</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 101</td>
<td></td>
</tr>
<tr>
<td>U.S. History: Beginnings to 1865</td>
<td>HST 115</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 101</td>
<td></td>
</tr>
<tr>
<td>Introduction to Humanities</td>
<td>HUM 105</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 101</td>
<td></td>
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<tr>
<td><strong>Semester 3</strong></td>
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<tr>
<td>World History II: 1500 to World War I</td>
<td>HST 105</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 101</td>
<td>Meet with representatives of four-year schools to discuss/begin the transfer application process.</td>
</tr>
<tr>
<td>U.S. History: 1865 to present</td>
<td>HST 116</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 101</td>
<td>Confirm that MassTransfer 34-credit general education transfer block can be completed.</td>
</tr>
<tr>
<td>Social Science Foundational Elective⁴</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
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</tr>
<tr>
<td>Literature, Philosophy, or Language Elective⁵</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
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<tr>
<td>Science Elective or Lab Science Elective²</td>
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<td>F/S/SU</td>
<td>3-4</td>
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<tr>
<td><strong>Semester 4</strong></td>
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<tr>
<td>History Elective (200-Level)</td>
<td>HST 2</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 101</td>
<td>Students are advised to consult their transfer institution regarding the selection of Liberal Arts Electives.</td>
</tr>
<tr>
<td>History Elective</td>
<td>HST 2</td>
<td>F/S/SU</td>
<td>3</td>
<td>ENG 101</td>
<td></td>
</tr>
<tr>
<td>Multiple Perspectives Elective⁶</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
<td></td>
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<tr>
<td>Liberal Arts Elective (200-Level)⁷</td>
<td>---</td>
<td>F/S/SU</td>
<td>3</td>
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<tr>
<td>Liberal Arts Elective (200-Level)⁷</td>
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<td>F/S/SU</td>
<td>3</td>
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<tr>
<td><strong>Total Credits Required</strong></td>
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<td>61-62</td>
</tr>
</tbody>
</table>

¹ Mathematics Elective: MAT 100, MAT 121, MAT 122, or higher.

² Science Elective or Lab Science Elective: One science course must be a four-credit laboratory course.

³ Creative Arts Elective: ENG 202, ENG 203, or ENG 204; or a course designated as ART, MUS, or THA.

⁴ Social Science Foundational Elective: ANT 111 or ANT 211; ECO 215 or ECO 216; GEO 210; PSC 201. PSY 101 or SOC 101 can be taken to fulfill this requirement, only if not taken in Semester 1.

⁵ Literature, Philosophy, or Language credits may be earned in one of the following ways:
- Any HUM or PHI course; or ENG 200, ENG 212, ENG 215, ENG 231, ENG 232, ENG 241, ENG 242, ENG 251, ENG 252, ENG 255, ENG 259, or ENG 260.
- Taking a foreign language (ASL, FRC, GER, or SPN); or successful completion of Advanced Placement Exam, CLEP, or Challenge Exam in a foreign language.

⁶ Multiple Perspectives Elective: ANT 111 or ANT 221; ART 260; ASL 111, ASL 112, ASL 113, ASL 211, or ASL 212; CHC 151, CHC 250, or CHC 255; CRJ 110; ECE 133; ENG 231 or ENG 232; FRC 111, FRC 112, FRC 211, or FRC 212; GEO 210; GER 111, GER 112, GER 211; or GER 212; GRT 101; HST 104, HST 105, HST 106, HST 133, HST 152, HST 157, HST 203, HST 204, HST 206, HST 207, HST 215; HST 216, or HST 241; HUM 147 or HUM 211; IDS 101; MUS 121; PHA 102; PHI 121, PHI 123, or PHI 201; PSY 142; SOC 111, SOC 115, SOC 201, SOC 211, or SOC 220; SPN 111, SPN 112, SPN 211, or SPN 212.

⁷ Liberal Arts Elective: Any Humanities, Social Science, Behavioral Science, Natural Science, or Mathematics course, or IDS 101.
## History Option Crosswalk to Liberal Arts Curriculum

<table>
<thead>
<tr>
<th>Liberal Arts History Option</th>
<th>Semester 1</th>
<th>Semester 2</th>
<th>Semester 3</th>
<th>Semester 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Liberal Arts Curriculum</strong></td>
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<tr>
<td>ENG 101</td>
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<td>ENG 102</td>
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<td>MAT ---</td>
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<td>MAT ---</td>
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<tr>
<td>Lab Science</td>
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<tr>
<td>Science or Lab Science</td>
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<tr>
<td>PSY 101 or SOC 101</td>
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<td></td>
<td>HST 104</td>
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<tr>
<td>US or World History Survey</td>
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<td>HST 104</td>
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<tr>
<td>Social Science</td>
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<tr>
<td>Foundational</td>
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<tr>
<td>Creative Arts Elective</td>
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<tr>
<td>Literature, Philosophy, or Language Elective</td>
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<tr>
<td>HUM 105</td>
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<tr>
<td>Multiple Perspectives Elective</td>
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<tr>
<td>Liberal Arts Elective</td>
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<td>HST 115</td>
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<tr>
<td>Liberal Arts Elective (200-level)</td>
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<td>HST 105</td>
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<td>Liberal Arts Elective (200-level)</td>
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<td>HST 200-level Elective</td>
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<td>Liberal Arts Elective (200-level)</td>
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<tr>
<td>Elective</td>
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<td>HST 116</td>
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<td>Elective</td>
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<td>HST Elective</td>
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</tbody>
</table>