



**BOR ACADEMIC AND STUDENT AFFAIRS COMMITTEE  
AGENDA**

**Friday, March 15, 2019 at 9:30 a.m.**

**61 Woodland Street, Hartford, CT – Board Room (ground floor)**

1. Approval of Minutes
  - a. February 1, 2019 – *Page 1*
2. Consent Items
  - a. Discontinuations
    - i. Mental Health – Certificate – Norwalk CC – *Page 6*
    - ii. Group Exercise Instructor – Certificate – Norwalk CC – *Page 10*
    - iii. Gerontology – Certificate – Norwalk CC – *Page 14*
    - iv. Computer Security – AS – Norwalk CC – *Page 18*
    - v. Networking – Certificate – Norwalk CC – *Page 22*
3. Action Items
  - a. Accreditation of a Licensed Program
    - i. Nurse Anesthesia Practice – Doctorate (DNAP) – CCSU – *Page 26*
  - b. Modifications
    - i. Computer Systems Technology – AS – Northwestern CT CC [Curricular changes] – *Page 36*
    - ii. Chemistry – BA and BA with Biochemistry Option - WCSU [Name change] – *Page 43*
    - iii. Computer Science Technology – AS – Three Rivers CC [Curricular changes] – *Page 64*
    - iv. Electrical, Laser, Robotics Engineering Technology – AS – Three Rivers CC [Curricular changes/Name change] – *Page 92*
    - v. Advanced Manufacturing Machine Technology II – Certificate – Quinebaug Valley CC [Curricular changes] – *Page 130*
  - c. New Programs
    - i. Basic Manufacturing: Machine Technology Level I – Certificate – Quinebaug Valley CC – *Page 138*
    - ii. Culinary Arts – AA – Gateway CC – *Page 150*
    - iii. CSCU Pathway Transfer A.A. Degree: Biochemistry Studies – *Page 161*
    - iv. CSCU Pathway Transfer A.A. Degree: Geography Studies – *Page 162*
  - d. Suspensions
    - i. Internet Programming Technology – AS – Manchester CC – *Page 229*
    - ii. Internet Programming Technology – Certificate – Manchester CC – *Page 232*
  - e. Advanced Placement Credit and Placement Policy – *Page 236*
  - f. Honorary Degrees – *Page 243*
  - g. BOR Faculty Awards – *Page 280*

- h. CSCU Shared Governance Award – *Page 289*
  - i. Spring 2019 Promotion and Tenure Recommendations – *Page 291*
    - a) ECSU – Professor Afarin Rahmanifar
  - j. CSCU Community College Areas of Study – *Page 302*
4. Informational Items
- a. CSCU Working Group - Alignment and Completion of Math and English (ACME) – *Page 309*
  - b. NECHE Progress Reports
    - i. Quinebaug Valley CC – *Page 310*
    - ii. Capital CC – *Page 313*
  - c. PA 12-40



## CT BOARD OF REGENTS FOR HIGHER EDUCATION

### ACADEMIC & STUDENT AFFAIRS COMMITTEE

Meeting – February 1, 2019  
9:30 a.m. – 61 Woodland Street, Hartford

#### MINUTES

Regents Present: Merle Harris (via teleconference), Naomi Cohen, Aviva Budd, Peter Rosa, William Lugo, Del Cummings (via teleconference)

Regents Absent: None

Staff Present: Jane Gates, Ben Barnes, Gayle Barrett, Patricia Bouffard, Mike Buccilli, Ken Klucznik, Lesley Mara, Arthur Poole, Alice Pritchard, Pat Ryiz, Michael Stefanowicz, Ernestine Weaver

Other Attendees: Missy Alexander (WCSU), Susan Barzottini (MCC), Tuesday Cooper (MCC), Ilene Crawford (SCSU), David Dauwalder (CCSU), Kim McGinnis (HCC), Steve Minkler (MxCC), Robert Prezant (SCSU), William Salka (ECSU)

The meeting was called to order at 9:30 a.m. by Regent Naomi Cohen, chairing the meeting for ASA Committee Chair Merle Harris.

Regent Cohen called for a motion to amend the Academic and Student Affairs Committee agenda for the February 1, 2019 meeting by adding the Title IX Report as an Informational Item and removing the Northwestern CT CC Sabbaticals. **On a motion by P. Rosa, seconded by A. Budd, a vote was taken and the amendments to the Academic and Student Affairs Committee agenda for the February 1, 2019 meeting were unanimously approved.**

1. Approval of Minutes

a. November 26, 2018

**On a motion by A. Budd and seconded by P. Rosa, a vote was taken and the minutes from the November 26, 2018 meeting were approved.**

b. December 3, 2018

**On a motion by A. Budd and seconded by P. Rosa, a vote was taken and the minutes from the December 3, 2018 meeting were approved.**

## 2. Consent Items

**On a motion by A. Budd and seconded by P. Rosa, a vote was taken and the consent items were unanimously approved.**

- a. Discontinuations
  - i. Supply Chain Management – Certificate – Three Rivers CC
  - ii. Lean Manufacturing – Certificate – Three Rivers CC
  - iii. Child Development Associate Preparation - Certificate – Northwestern CT CC
  - iv. Digital Publishing – Certificate - Northwestern CT CC
  - v. Undergraduate Athletic Coaching – Certificate – Naugatuck Valley CC
  - vi. Undergraduate Health Career Pathways – Certificate – Naugatuck Valley CC

### **ADDED: Title IX Report and Office/Executive Director of Office of Institutional Equity**

Alice Pritchard, Chief of Staff, and Ernestine Weaver, Counsel, discussed these two topics from the BOR HR and Administration Committee meeting on January 31, 2019. The Committee presented a job description for the Executive Director of the Office of Institutional Equity position. Questions from the ASA Committee centered on the importance of leadership qualities/experience required for the position and whether the Executive Director should have a legal background. Dr. Pritchard discussed the salary range for the position. Counsel Ernestine Weaver commented on the new initiative by Betsy DeVos, Secretary of Education, regarding the U.S. Dept. of Education's Notice on proposed changes to Title IX. Comments and concerns on this proposed initiative resulting from roundtable discussions were included in a letter from Pres. Ojakian sent on January 29, 2019 to Secretary DeVos.

## 3. Action Items

- a. Licensure of Academic Program
  - i. SCSU – BS Environmental Systems and Sustainability Studies
  - ii. SCSU - BS Biotechnology

Dr. Robert Prezant, Provost and Vice President for Academic Affairs and Dr. Ilene Crawford, Assoc. VP for Academic Affairs, presented for SCSU which is requesting continued licensure of two programs, the BS in Environmental Systems and Sustainability Studies and the BS in Biotechnology until December 31, 2020. The reason for the request to extend the licensure of both programs was that during the 2011-2012 academic year, SCSU received a three-year Title IV provisional status designation from the US DOE. While under the provisional status, SCSU could not move forward with implementing the new programs. Questions from the ASA Committee centered on projected enrollment and future accreditation. SCSU projects an increase in majors for both the BS in Biotechnology and the BS in Environmental Systems and Sustainability Studies programs. SCSU will apply for accreditation of both programs this spring so students in the pipeline can graduate.

**Regent Cohen called for two separate motions and votes for the licensure of the SCSU BS in Environmental Systems and Sustainability Studies and the BS in Biotechnology.**

**On a motion by A. Budd, seconded by P. Rosa, a vote was taken and the SCSU BS in Environmental Systems and Sustainability Studies was approved unanimously for licensure until December 31, 2020.**



**On a motion by A. Budd, seconded by P. Rosa, a vote was taken and the SCSU BS in Biotechnology was approved unanimously for licensure until December 31, 2020.**

b. New Programs

i. Social Media Specialist – Certificate – Manchester CC

Dr. Tuesday Cooper, Interim Dean of Academic Affairs, Susan Barzottini, Interim Division Director, Social Science, Business and Professional Careers, and, Sandra Rimetz, Professor, Social Science, Business and Professional Careers, presented for Manchester CC which is seeking the licensure and accreditation of a new Social Media Specialist certificate. The 22-25 credit program has been developed for both degree-seeking students and working professionals. According to JobsEQ, employment for Market Research Analysts and Marketing Specialists is expected to increase by 825 jobs, or 1.3% annually, over the next seven years. Questions from the ASA Committee centered on:

- a) *The program's marketing plan* – Response: MCC is reaching out to business and technology degree students internally and high school students externally. MCC has developed an external press release to announce the new program.
- b) *How is the program distinct from other technology degrees?* Response: The Social Media Specialist Certificate is a hybrid of communication, business and technology courses focused on web technologies.
- c) *Can a student graduate with both a certificate and an AS degree?* Response: Yes. Students can combine the Social Media Specialist Certificate with degrees in Communication, Business, Allied Health and Technology, among other programs.

**On a motion by P. Rosa, seconded by A. Budd, a vote was taken and the Manchester CC Social Media Specialist Certificate was approved unanimously.**

c. Spring 2019 Promotion and Tenure Recommendations

i. SCSU

- a) Dr. Kara Faraclas
- b) Dr. Mary Jo Archambault

ii. WCSU

- a) Professor Rebecca Wade-Rancourt

Regent Cohen noted that the Collective Bargaining Agreement requires the BOR to vote on Promotion and Tenure Recommendations. Provost Gates noted that, under the Memorandum of Agreement, personal statements and curriculum vitae from each candidate for promotion and/or tenure must be submitted for review to the CSCU Provost, Academic and Student Affairs. These three promotions are retroactive to January 22, 2019, because Academic and Student Affairs did not receive the promotion and/or tenure letters in time for consideration at the November 26, 2018 ASA Committee Meeting; therefore, the BOR Resolution had to be revised.

Regent Cohen read the revised BOR Resolution –

RESOLVED: That the Connecticut Board of Regents for Higher Education approve the following Connecticut State Universities' promotion and/or tenure recommendations by the institutional presidents retroactive to January 22, 2019:

Southern Connecticut State University – Kara Faraclas (Tenure)  
Mary Jo Archambault (Tenure)

Western Connecticut State University – Rebecca Wade-Rancourt (Tenure)

**On a motion by A. Budd, seconded by P. Rosa, a vote was taken and the revised BOR resolution to approve the Spring 2019 Promotions and/or tenure recommendations was approved unanimously.**

d. Institutional Accreditation – Middlesex CC

Dr. Steve Minkler, Interim Campus CEO & Dean of Academic Affairs presented NECHE'S response to and acceptance of Middlesex CC's interim five-year report. Dr. Minkler highlighted five areas of improvement that NECHE noted in the report:

- 1) The development and implementation of a new governance structure and processes;
- 2) Assessment of General Education Outcomes to improve student success;
- 3) Commitment to the BOR Program Review Process resulting in program improvements;
- 4) Development of a Strategic Plan in line with the BOR Strategic Plan; and
- 5) The institute's budget returned to a positive net asset balance

Questions from the Committee centered on plans to increase current enrollments and how enrollment projections are made. Dr. Minkler responded that Middlesex CC plans to grow enrollment in non-credit programs and to increase enrollment through marketing, focused advising and recruitment. He noted that the College projects enrollment by analyzing student demand and improving retention by decreasing the large number of students in General Studies through better advising and using the Guided Pathways approach.

**A motion by P. Rosa, seconded by A. Budd, to accept NECHE's five-year Middlesex institutional progress report and extend its accreditation through April 30, 2024 was approved unanimously.**

After the vote was taken, Regent Harris commended Middlesex CC's commitment to student advising and assessment.

4. Informational Items

a. CSCU Sabbatical Leaves

- i. CCSU
- ii. ECSU
- iii. SCSU
- iv. WCSU

Provost Gates stated that sabbatical leaves are provided to faculty for scholarly and creative endeavors to enrich teaching. She noted that 74 sabbatical leaves were approved: CCSU (24), ECSU (14), SCSU (23), WCSU (13). Notification of sabbatical leaves are provided to the Academic and Student Affairs Committee and BOR for information only.

b. Discussion Item: What information does ASAC need for new academic program approval? (ASAC request from 11/26/18 meeting).

Arthur Poole, Director of Educational Opportunity, discussed the Application for a New Program Approval Form to the Committee and enumerated the revisions: 1) a section on program marketing plans and other student retention plans was added; 2) the section on low completer programs was expanded; and, 3) sections on the number of completions and the number of students were added. Regent Cohen asked how enrollments are projected and how budgets are created. Provost Gates noted that institutions should use the JobsEQ program to project enrollments using regional job data. The program is available at no cost to all CSCU

institutions. Dr. Gates suggested that the New Program Approval Form be reviewed by the Academic Council and added to the ASA Committee agenda for the March 15, 2019 meeting.

c. NECHE Progress Reports

i. Tunxis CC

Provost Gates stated that a focus group will visit Tunxis CC in Fall 2019 to address two issues noted in the NECHE response to Tunxis CC: a) the sufficiency of faculty and personnel to support students, and, 2) improving the retention and graduation rates.

ii. SCSU

Dr. Ilene Crawford, Assoc. VP for Academic Affairs, responded to three requests included in the NECHE report for SCSU: 1) provide an update on the status of SCSU's approval for Title IV funding and its provisional status with the US Dept. of Education; 2) assess the implementation of the joint MBA and MS in Coastal Resilience programs; and, 3) assess the implementation of the Doctor of Social Work program.

d. Below Threshold

i. Health Information Fundamentals for Health Professionals – Certificate – Charter Oak State College

Provost Gates stated that Below Threshold programs are presented for information only and do not require a response. Below Threshold programs are submitted to the CT Office of Higher Education to record the certificates.

**On a motion by A. Budd and seconded by P. Rosa, the Committee voted unanimously to adjourn the meeting of the Academic and Student Affairs Committee at 10:55 a.m.**

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Program Discontinuation

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the discontinuation of a program in Mental Health (CIP Code: 51.11502 / OHE # 06837) leading to a Certificate at Norwalk Community College, with a phase-out/teach-out period ending May 2020.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

Discontinuation of a program in Mental Health leading to a Certificate at Norwalk Community College

**BACKGROUND**Summary

There has been low enrollment in this program over the past five years – on an annual basis, fewer than 10 students have enrolled and no one has completed this certificate since 2015.

Phase-Out/Teach-Out Strategy

The chair of the social sciences department will contact the students currently enrolled in this certificate to determine what each needs to complete the certificate. Required courses will be offered (or substitutions arranged) over the teach-out period.

Resources

No additional resources are required for the discontinuation of this program.

**RECOMMENDATION**

It is the recommendation of the System's Provost and Senior Vice President for Academic and Students Affairs that the Board of Regents approve discontinuation of this program.

03/15/2019 – BOR Academic & Student Affairs Committee

03/28/2019 – Board of Regents

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM**

**SECTION 1: GENERAL INFORMATION**

<b>Institution:</b> Norwalk Community College		<b>Date of Submission to CSCU Office of the Provost:</b> 1/30/2019	
<b>Discontinued Program:</b> Mental Health Certificate <b>CIP:</b> 511502 <b>OHE#:</b> 06837 <b>Accreditation Date:</b> 10/1/1999			
<b>Phase Out /Teach Out Period:</b> 1/2019 to 5/2020 <b>Expected Date of Program Termination:</b> 5/2020			
<b>Program Characteristics</b>			
<b>Name of Program:</b> Mental Health Certificate			
<b>Degree:</b> Title of Award (e.g. Master of Arts)			
<b>Certificate:</b> (specify type and level) Certificate			
<b>Modality of Program:</b> <input checked="" type="checkbox"/> On ground <input type="checkbox"/> Online			
<b>Institution's Unit (e.g. School of Business) and Location (e.g. main campus) offering the Program:</b> Main Campus			
<b>Institutional Contact for this Proposal:</b> Steven Glazer		<b>Title:</b> Chair, Social & Behavioral Sciences	<b>Tel.:</b> 203-857-3326 <b>e-mail:</b> sglazer@norwalk.edu

**CSCU REVIEW STATUS** (For System Office Use Only - please leave blank)

<p>Notes regarding Application:</p> <p>Log of Steps Toward Approval:</p> <p>Date of Approval:</p> <p>Date for Inclusion in BOR-ASA Meeting Package:</p> <p>Conditions for Discontinuation Approval (if any)</p> <p>Comments:</p>
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**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM**

**SECTION 2: RATIONALE AND JUSTIFICATION FOR PROGRAM DISCONTINUATION**

**Narrative**

*Please consider whether discontinuation: a) occurs in the context of a related academic improvement, e.g., the merging of programs with declining enrollment/completions into a new program that effectively addresses relevant state needs and students' interests; b) emerge as a result of the periodic Academic Program Review for all programs at each institution, under the guidance of existing BOR policy; c) other institutional considerations such as redirecting capacity, adoption of new mission, etc. Provide any quantitative information in support of the discontinuation, including any relevant financial information. Program discontinuation should not impact state priorities for workforce preparation.*

**Student interest in this certificate has been low over the past five years. On an annual basis, fewer than 10 students have enrolled in this program and no one has completed this certificate since 2015.**

**Phase Out/Teach Out Strategy**

*Please describe how the institution will ensure that students currently enrolled will be provided opportunities to complete the program. Provide quantitative information as needed (e.g. enrollments, any special resources needed, etc.)*

**As of the 2019 spring semester, only two current NCC students are enrolled in this program. The chair of the social and behavioral sciences department will contact these students to provide academic advising and determine what each needs to complete the certificate. Required courses and/or course substitutions will be arranged for these students over the teach-out period.**

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Program Discontinuation

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the immediate discontinuation of a program in Group Exercise Instructor (CIP Code: 31.0599 / OHE # 17388) leading to a Certificate at Norwalk Community College.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education



**ITEM**

Discontinuation of a program in Group Exercise Instructor leading to a Certificate at Norwalk Community College

**BACKGROUND**Summary

There has been no enrollment in this program since its inception in 2014.

Phase-Out/Teach-Out Strategy

There are no student currently enrolled students in the program and there are no plans for future enrollment; thus, there is no need for a phase-out/teach-out strategy.

Resources

No additional resources are required for the discontinuation of this program.

**RECOMMENDATION**

It is the recommendation of the System's Provost and Senior Vice President for Academic and Students Affairs that the Board of Regents approve discontinuation of this program.

03/15/2019 – BOR Academic & Student Affairs Committee

03/28/2019 – Board of Regents

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
*APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM*

**SECTION 1: GENERAL INFORMATION**

<b>Institution:</b> Norwalk Community College		<b>Date of Submission to CSCU Office of the Provost:</b> 1/30/2019	
<b>Discontinued Program:</b> Group Exercise Instructor CIP: 310599 OHE#: 17388 Accreditation Date: 10/17/2013			
<b>Phase Out /Teach Out Period:</b> None (zero enrollment) <b>Expected Date of Program Termination:</b> 5/2019			
<b>Program Characteristics</b>			
<b>Name of Program:</b> Group Exercise Instructor Certificate			
<b>Degree:</b> Title of Award (e.g. Master of Arts)			
<b>Certificate:</b> (specify type and level) Certificate			
<b>Modality of Program:</b> <input checked="" type="checkbox"/> On ground <input type="checkbox"/> Online			
<b>Institution's Unit</b> (e.g. School of Business) and <b>Location</b> (e.g. main campus) offering the Program: Main Campus			
<b>Institutional Contact for this Proposal:</b> Steven Glazer		<b>Title:</b> Chair, Social & Behavioral Sciences	<b>Tel.:</b> 203-857-3326 <b>e-mail:</b> sglazer@norwalk.edu

**CSCU REVIEW STATUS** (For System Office Use Only - please leave blank)

<p>Notes regarding Application:</p> <p>Log of Steps Toward Approval:</p> <p>Date of Approval:</p> <p>Date for Inclusion in BOR-ASA Meeting Package:</p> <p>Conditions for Discontinuation Approval (if any)</p> <p>Comments:</p>
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**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM**

**SECTION 2: RATIONALE AND JUSTIFICATION FOR PROGRAM DISCONTINUATION**

**Narrative**

*Please consider whether discontinuation: a) occurs in the context of a related academic improvement, e.g., the merging of programs with declining enrollment/completions into a new program that effectively addresses relevant state needs and students' interests; b) emerge as a result of the periodic Academic Program Review for all programs at each institution, under the guidance of existing BOR policy; c) other institutional considerations such as redirecting capacity, adoption of new mission, etc. Provide any quantitative information in support of the discontinuation, including any relevant financial information. Program discontinuation should not impact state priorities for workforce preparation.*

**Interest in this certificate never materialized since it was introduced in 2014. No students are currently enrolled in this certificate program.**

**Phase Out/Teach Out Strategy**

*Please describe how the institution will ensure that students currently enrolled will be provided opportunities to complete the program. Provide quantitative information as needed (e.g. enrollments, any special resources needed, etc.)*

**No teach out plan is needed as there are no students currently enrolled in this degree.**

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Program Discontinuation

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the immediate discontinuation of a program in Gerontology (CIP Code: 30.1101 / OHE # 09773) leading to a Certificate at Norwalk Community College.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

Discontinuation of a program in Gerontology leading to a Certificate at Norwalk Community College

**BACKGROUND**Summary

There has been an average of one student enrolled in this program over the course of the past five years.

Phase-Out/Teach-Out Strategy

There are no students currently enrolled in the program and there are no plans for future enrollment; thus, there is no need for a phase-out/teach-out strategy.

Resources

No additional resources are required for the discontinuation of this program.

**RECOMMENDATION**

It is the recommendation of the System's Provost and Senior Vice President for Academic and Students Affairs that the Board of Regents approve discontinuation of this program.

03/15/2019 – BOR Academic & Student Affairs Committee

03/28/2019 – Board of Regents

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM**

**SECTION 1: GENERAL INFORMATION**

<b>Institution:</b> Norwalk Community College		<b>Date of Submission to CSCU Office of the Provost:</b> 1/30/2019	
Discontinued Program: <b>Gerontology</b> CIP: 301101 OHE#: 09773 Accreditation Date: 8/1/2001			
Phase Out /Teach Out Period <b>None</b> (zero enrollment) Expected Date of Program Termination <b>5/2019</b>			
<b>Program Characteristics</b>			
Name of Program: <b>Gerontology Certificate</b>			
Degree: Title of Award (e.g. Master of Arts)			
Certificate: (specify type and level) <b>Certificate</b>			
Modality of Program: <b>X</b> On ground    Online			
Institution's Unit (e.g. School of Business) and Location (e.g. main campus) offering the Program: <b>Main Campus</b>			
<b>Institutional Contact for this Proposal:</b> Steven Glazer		<b>Title:</b> Chair, Social & Behavioral Sciences	<b>Tel.:</b> 203-857-3326 <b>e-mail:</b> sglazer@norwalk.edu

**CSCU REVIEW STATUS** (For System Office Use Only - please leave blank)

Notes regarding Application:  
 Log of Steps Toward Approval:  
 Date of Approval:  
 Date for Inclusion in BOR-ASA Meeting Package:  
 Conditions for Discontinuation Approval (if any)  
 Comments:

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM**

**SECTION 2: RATIONALE AND JUSTIFICATION FOR PROGRAM DISCONTINUATION**

**Narrative**

*Please consider whether discontinuation: a) occurs in the context of a related academic improvement, e.g., the merging of programs with declining enrollment/completions into a new program that effectively addresses relevant state needs and students' interests; b) emerge as a result of the periodic Academic Program Review for all programs at each institution, under the guidance of existing BOR policy; c) other institutional considerations such as redirecting capacity, adoption of new mission, etc. Provide any quantitative information in support of the discontinuation, including any relevant financial information. Program discontinuation should not impact state priorities for workforce preparation.*

**No students are currently enrolled in this certificate program, and the annual enrollment over the past five years has been at or below 1 student.**

**Phase Out/Teach Out Strategy**

*Please describe how the institution will ensure that students currently enrolled will be provided opportunities to complete the program. Provide quantitative information as needed (e.g. enrollments, any special resources needed, etc.)*

**No teach out plan is needed as there are no students currently enrolled in this degree.**

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Program Discontinuation

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the discontinuation of a program in Computer Security (CIP Code: 11.1003 / OHE # 10487) leading to an Associate of Science degree at Norwalk Community College, with a phase-out/teach-out period ending May 2020.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education



**ITEM**

Discontinuation of a program in Computer Security leading to an Associate of Science degree at Norwalk Community College

**BACKGROUND**Summary

There has been low enrollment in this program over the past five years, resulting in an average of under three graduates each academic year. It is no longer financially sustainable to offer this program.

Phase-Out/Teach-Out Strategy

The currently enrolled students will be afforded opportunities to complete the degree. All have been contacted and a schedule of remaining required courses has been developed for Spring '19, Fall '19 and Spring '20 in a hybrid format.

Resources

No additional resources are required for the discontinuation of this program.

**RECOMMENDATION**

It is the recommendation of the System's Provost and Senior Vice President for Academic and Students Affairs that the Board of Regents approve discontinuation of this program.

03/15/2019 – BOR Academic & Student Affairs Committee

03/28/2019 – Board of Regents

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM**

**SECTION 1: GENERAL INFORMATION**

<b>Institution:</b> Norwalk Community College		<b>Date of Submission to CSCU Office of the Provost:</b> 1/30/2019	
<b>Discontinued Program:</b> Computer Security <b>CIP:</b> 111003 <b>OHE#:</b> 10487 <b>Accreditation Date:</b> 10/16/2002			
<b>Phase Out /Teach Out Period:</b> 8/2018 – 5/2020 <b>Expected Date of Program Termination:</b> 5/2020			
<b>Program Characteristics</b>			
<b>Name of Program:</b> Computer Security			
<b>Degree:</b> Title of Award (e.g. Master of Arts) Associate of Science			
<b>Certificate:</b> (specify type and level)			
<b>Modality of Program:</b> On ground    Online <input checked="" type="checkbox"/> Combined			
<b>Institution's Unit</b> (e.g. School of Business) and <b>Location</b> (e.g. main campus) offering the Program: Main Campus			
<b>Institutional Contact for this Proposal:</b> Tom Duffy		<b>Title:</b> Chair, Computer Science	<b>Tel.:</b> 203-857-6892 <b>e-mail:</b> tduffy@norwalk.edu

**CSCU REVIEW STATUS** (For System Office Use Only - please leave blank)

<p>Notes regarding Application:</p> <p>Log of Steps Toward Approval:</p> <p>Date of Approval:</p> <p>Date for Inclusion in BOR-ASA Meeting Package:</p> <p>Conditions for Discontinuation Approval (if any)</p> <p>Comments:</p>
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**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM**

**SECTION 2: RATIONALE AND JUSTIFICATION FOR PROGRAM DISCONTINUATION**

**Narrative**

*Please consider whether discontinuation: a) occurs in the context of a related academic improvement, e.g., the merging of programs with declining enrollment/completions into a new program that effectively addresses relevant state needs and students' interests; b) emerge as a result of the periodic Academic Program Review for all programs at each institution, under the guidance of existing BOR policy; c) other institutional considerations such as redirecting capacity, adoption of new mission, etc. Provide any quantitative information in support of the discontinuation, including any relevant financial information. Program discontinuation should not impact state priorities for workforce preparation.*

The program has been plagued by low enrollments for the past 5 years, resulting in an average of under 3 graduates per academic year. It is no longer financially sustainable, as courses in the program cannot be run with such low enrollments.

**Phase Out/Teach Out Strategy**

*Please describe how the institution will ensure that students currently enrolled will be provided opportunities to complete the program. Provide quantitative information as needed (e.g. enrollments, any special resources needed, etc.)*

No new students were accepted into this program after the spring 2018 semester. During the fall 2018 semester, the program coordinator contacted the remaining 21 students enrolled in the program. Based upon these contacts, the program coordinator developed the following teach-out schedule, which gives each remaining student an opportunity to take the courses required to complete the degree.

**Spring 2019**

- **Networking 1 & 2** on Tuesday/Thursday evening schedule (offered in hybrid format in consecutive 8-week sessions)
- **Internet Commerce Technology CST111** (online)
- **Operating Systems CST121** on campus from 12:00 pm -2:20pm

**Fall 2019**

- **Networking 3 & 4** on Tuesday/Thursday evening schedule (offered in hybrid format in consecutive 8-week sessions).  
**Security Management Practices CST273** on Monday/Wednesday evening schedule.

**Spring 2020**

- **Network Security Technology CST274** on Tuesday/Thursday evening schedule
- **Operations Security Technology CST272** on Monday/Wednesday evening schedule

General Education courses are available to students every semester.

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Program Discontinuation

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the discontinuation of a program in Networking (CIP Code: 11.0901 / OHE # 12460) leading to a Certificate at Norwalk Community College, with a phase-out/teach-out period ending May 2020.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

Discontinuation of a program in Networking leading to a Certificate at Norwalk Community College

**BACKGROUND**Summary

There has been low enrollment in this program over the past five years, resulting in an average of three graduates each academic year. Only four students are currently enrolled; thus, it is no longer financially sustainable.

Phase-Out/Teach-Out Strategy

For currently enrolled students only, the two required courses will be offered in the Spring '19, Fall '19 and/or Spring '20 in hybrid format for consecutive 8-week sessions.

Resources

No additional resources are required for the discontinuation of this program.

**RECOMMENDATION**

It is the recommendation of the System's Provost and Senior Vice President for Academic and Students Affairs that the Board of Regents approve discontinuation of this program.

03/15/2019 – BOR Academic & Student Affairs Committee

03/28/2019 – Board of Regents

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
*APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM*

**SECTION 1: GENERAL INFORMATION**

<b>Institution:</b> Norwalk Community College		Date of Submission to CSCU Office of the Provost: 1/30/2019
Discontinued Program: <b>Networking</b> CIP: 110901 OHE#: 12460 Accreditation Date: 7/10/2012		
Phase Out /Teach Out Period 8/2018 – 12/2019 Expected Date of Program Termination 5/2020		
<b>Program Characteristics</b>		
Name of Program: <b>Networking Certificate</b>		
Degree: Title of Award (e.g. Master of Arts)		
Certificate: (specify type and level) <b>Certificate</b>		
Modality of Program: On ground Online <input checked="" type="checkbox"/> <b>Combined</b>		
Institution's Unit (e.g. School of Business) and Location (e.g. main campus) offering the Program: <b>Main Campus</b>		
<b>Institutional Contact for this Proposal:</b> Tom Duffy	Title: <b>Chair, Computer Science</b>	Tel.: 203-857-6892 e-mail: tduffy@norwalk.edu

**CSCU REVIEW STATUS** (For System Office Use Only - please leave blank)

Notes regarding Application:  
 Log of Steps Toward Approval:  
 Date of Approval:  
 Date for Inclusion in BOR-ASA Meeting Package:  
 Conditions for Discontinuation Approval (if any)  
 Comments:

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM**

**SECTION 2: RATIONALE AND JUSTIFICATION FOR PROGRAM DISCONTINUATION**

**Narrative**

*Please consider whether discontinuation: a) occurs in the context of a related academic improvement, e.g., the merging of programs with declining enrollment/completions into a new program that effectively addresses relevant state needs and students' interests; b) emerge as a result of the periodic Academic Program Review for all programs at each institution, under the guidance of existing BOR policy; c) other institutional considerations such as redirecting capacity, adoption of new mission, etc. Provide any quantitative information in support of the discontinuation, including any relevant financial information. Program discontinuation should not impact state priorities for workforce preparation.*

The program has been plagued by low enrollments for the past 5 years resulting in an average of 3 graduates per academic year. Only 4 students are currently enrolled in this certificate, so it is no longer financially sustainable, as courses in the program cannot be run with single-digit enrollments.

**Phase Out/Teach Out Strategy**

*Please describe how the institution will ensure that students currently enrolled will be provided opportunities to complete the program. Provide quantitative information as needed (e.g. enrollments, any special resources needed, etc.)*

We plan to offer courses in the certificate, given sufficient enrollment, as follows:

**Spring 2019**

- **Networking 1 & 2** on Tuesday/Thursday evening schedule (offered in hybrid format in consecutive 8-week sessions)

**Fall 2019**

- **Networking 3 & 4** on Tuesday/Thursday evening schedule (offered in hybrid format in consecutive 8-week sessions).

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Program Accreditation

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education grant licensure and accreditation of a Doctorate of Nurse Anesthesia Practice program (CIP Code: 51.3804, OHE # 18266) leading to a DNAP degree, requiring 30-39 or 80-86 course credits delivered via an on ground modality, at Central Connecticut State University

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education



**ITEM**

Licensure and accreditation of a Doctorate of Nurse Anesthesia Practice program leading to DNAP degree at Central Connecticut State University

**BACKGROUND**Summary

The Doctorate of Nurse Anesthesia Practice program is a practice doctoral program with two specializations – Entry-Level and Advanced Specialization. After approval by the BOR on December 3, 2015, the specializations were initiated in May 2017 and August 2017, respectively.

Rationale

Licensure and accreditation of an academic program by the BOR is required prior to its granting credentials. It is anticipated that the first graduation of students in the Advanced Specialization will occur in May 2019, and of student in the Entry-Level specialization in May 2020. The Council on Accreditation of Nurse Anesthesia Educational Program granted its initial accreditation of the program in May 2017.

Resources

In Year 1 and Year 2, the actual program revenue exceeded projections by increasing margins with expenditures at approximately 1/3 of the actual revenue. The DNAP program is already profitable (\$363,132 in Year 1, \$632,362 in Year 2) and the institution expects that as a third cohort enrolls (both entry level and advanced), the program will generate approximately \$900,000 in revenue after expenditures.

**RECOMMENDATION**

Following its review and deliberative process, it is the recommendation of the Academic Council that the Board of Regents grant accreditation of this program. The System's Provost and Senior Vice President for Academic and Students Affairs concurs with this recommendation.

03/15/2019 – BOR Academic & Student Affairs Committee

03/28/2019 – Board of Regents

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR ACCREDITATION OF A LICENSED PROGRAM**

**SECTION 1: GENERAL INFORMATION\***

<b>Institution:</b> CCSU	Date of Submission to CSCU Office of the Provost: January 30, 2019	
Most Recent NEASC Institutional Accreditation Action and Date: September 2018		
<p><b>Program Characteristics</b></p> <p>Name of Program: <a href="#">Doctorate of Nurse Anesthesia Practice</a></p> <p>Degree: Title of Award (e.g. Master of Arts) <b>DNAP</b></p> <p>Certificate: (specify type and level)</p> <p>Date of Program Initiation: <a href="#">May 2017 (Entry-Level) &amp; August 2017 (Advanced Specialization)</a></p> <p>Anticipated Date of First Graduation: <a href="#">May 2019 (Advanced Specialization) &amp; May 2020 (Entry-Level)</a></p> <p>Modality of Program: <input checked="" type="checkbox"/> On ground    <input type="checkbox"/> Online    <input type="checkbox"/> Combined  If "Combined", % of fully online courses?</p> <p>Total # Cr the Institution Requires to Award the Credential (i.e. include program credits, GenEd, other):</p>	<p><b>Program Credit Distribution</b></p> <p># Cr in Program Core Courses: <a href="#">DNAP Entry-Level Specialization (74 core + 6-12 capstone) and DNAP Advanced Specialization (24-27 core + 6-12 capstone)</a></p> <p># Cr of Electives in the Field: 0</p> <p># Cr of Free Electives: 0</p> <p># Cr Special Requirements* (include internship, etc.): 0</p> <p><u>Total # Cr in the Program</u> (sum of all #Cr above): <a href="#">DNAP Entry-Level Specialization (80-86 credits) and DNAP Advanced Specialization (30-39 credits)</a></p> <p>From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: <a href="#">30 credits</a></p> <p><a href="#">Appendix 1 - Curricula</a></p>	
CIP Code No. <a href="#">513804</a>	Title of CIP Code <a href="#">Nurse Anesthesia Practice</a>	OHE# <a href="#">18266</a>
Institution's Unit (e.g. School of Business) and Location (e.g. main campus) Offering the Program: <a href="#">School of Engineering, Science, and Technology at CCSU</a>		
<p>Program Accreditation:</p> <ul style="list-style-type: none"> <li>• If seeking specialized/professional/other accreditation, name of agency and intended year of review:  <a href="#">The Council on Accreditation of Nurse Anesthesia Educational Programs (COA) accredits nurse anesthesia programs within the United States and Puerto Rico. Our Program received initial COA accreditation effective May 2017 and initial NEASC accreditation April 22, 2016.</a></li> <li>• If program prepares graduates eligibility to state/professional license, please identify:  <a href="#">Advanced Practice Registered Nurse Licensure Overview and Requirements for Connecticut. DNAP graduates meet requirements for the Connecticut Advanced Practice Registered Nurse (APRN) Licensure. Students completing the DNAP: Entry-level Specialization will have course work to satisfy licensure requirements. Connecticut resident students entering the DNAP: Advanced Specialization will already have their APRN.</a></li> </ul> <p><i>(As applicable, the documentation in this request should address the standards of the identified accrediting body or licensing agency)</i></p>		
Institutional Contact for this Proposal: <a href="#">Interim Dean Z. B. Kremens</a>	Title: <a href="#">Interim Dean of School of Engineering, Science, and Technology</a>	Tel.: <a href="#">860-832-1800</a> e-mail: <a href="mailto:KremensZ@ccsu.edu">KremensZ@ccsu.edu</a>

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR ACCREDITATION OF A LICENSED PROGRAM**

**CSCU REVIEW STATUS** *(For System Office Use Only - please leave blank)*

Notes regarding Application:  
Log of Steps Toward Approval:  
Date of Approval:  
Date for Inclusion in BOR-ASA Meeting Package:  
Comments:  
Conditions for Approval (if any)

\***Licensure** of a program is normally granted for a three year period, authorizing the enrollment of students and their advancement toward the completion of degree requirements; however, program accreditation should be pursued in a timely fashion toward the expected date of first graduation – **NOTE: degrees cannot be conferred for licensed only programs.**

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR ACCREDITATION OF A LICENSED PROGRAM**

**SECTION 2: UPDATE OF PROGRAM AND ENROLLMENTS**

**Program Outline** (Please provide a narrative summary of program requirements as licensed, including total number of credits for the degree, special admission requirements, capstone or special project requirements, etc. Indicate any requirements and arrangements for clinical affiliations, internships, and practical or work experience.): For example: "The Finance Major entails 18 credits of Related Course requirements from a range of disciplines (6 credits of which apply to the Liberal Arts Core (LAC), or institution's GenEd program), 24 credits of courses in Business (3 credits of which apply to the LAC/GenEd), 18 credits of coursework in Finance (including a 6-credit internship), and 9 elective credits from a list that includes courses in Economics, Finance, and Business. Students must take a minimum of 24 credits of coursework for the major at the institution and must maintain a GPA of 2.5.")

The Doctor of Nurse Anesthesia Practice (DNAP) program is a practice doctoral degree, which has two specializations. The Entry-level DNAP (80-86 credits includes 74 core + 6-12 capstone credits; 9 credits Advanced Clinical Practicum at affiliated hospital schools of anesthesia included in the core) is designed for bachelor's prepared licensed registered nurses to become certified registered nurse anesthetists (CRNAs). The Advanced DNAP (30-39 credits includes 24-27 core + 6-12 capstone credits) is for master's level practicing certified registered nurse anesthetists to become DNAP-prepared practitioners, allowing these individuals to expand their background in areas of biology and anesthesia. This program is run in a cohort model. The DNAP: Entry-level Specialization students start in the summer and are anticipated to complete in the spring semester of their third year (approximately three years, including summer sessions); the DNAP: Advanced Specialization students start in the fall and are anticipated to complete in spring semester of their 2<sup>nd</sup> year (approximately two years).

**Curricular and Other Program Changes** (Please describe any proposed changes, at this time, in curriculum, admission and/or completion requirements, program administration, faculty, and resources, or any other significant changes). If needed, provide details on proposed curricular changes in the table on the next page).

**NONE**

**Compliance with Special Requirements Given at the time of Program Licensure** (As applicable, please summarize how the program responded to requirements issued by the BOR, at the time it was licensed. Include any attachments as necessary.)

**NONE**

**Other Narrative Background to be Considered Since Licensure Approval** (As needed, consider other changes such as program need and demand, transfer agreements developed, etc.)

**NONE**

**Enrollment and Credentialing Information**

ACTUAL Enrollment	Fall Term Year 1 2017-18		Fall Term Year 2 2018-19		Fall Term Year 3 * 2019-20	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Transfers In						
New Students DNAP: Entry-Level	16		20		20	
New Students DNAP: Advanced-Level		8		4		10
Returning Students			16	7	36	4
<b>ACTUAL Headcount Enrollment</b>	16	8	36	11	56	14
<b>Fall FTE accounted for by Program Majors</b>	18.67		39.67		60.67	
<b>PROJECTED FTE (at Licensing)</b>	39.66 / 2		79.33 / 2		117.33 / 2	
<b>ACTUAL-PROJECTED</b>	-1.16		0.01		2.01	
<b>Size of First Credentialed Group</b>	7		<b>Date of Award of First Credential</b>		May 2019	

\* These are projected enrollment data (see table)

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR ACCREDITATION OF A LICENSED PROGRAM**

Details of Curriculum Changes for a Licensed Program <i>(to be use as needed)</i>						
Course Number and Name <sup>1</sup>	L.O. # <sup>2</sup>	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				Other Related/Special Requirements*		
Core Course Prerequisites				Elective Courses in the Field		
Total Other Credits Required to Issue Credential <i>(e.g. GenEd/Liberal Arts Core/Liberal Ed Program)</i>						
Other Narrative Background Since Licensure Approval <i>(As needed, consider other changes such as program need and demand, transfer agreements developed, etc.)</i>						
<p><b>Learning Outcomes - L.O.</b> <i>(Please list up to seven of the most important student learning outcomes for the program, and any changes introduced)</i></p> <ol style="list-style-type: none"> <li>1. Analyzes best-practice models for nurse anesthesia patient care management through integration of knowledge acquired from arts and sciences within the context of the scope and standards of nurse anesthesia practice.</li> <li>2. Undertakes complex leadership role and integrate critical and reflective thinking to facilitate intraprofessional and interprofessional collaboration.</li> <li>3. Uses evidence-based practice in clinical decision making, develop and assess strategies to improve patient outcomes and quality of care.</li> <li>4. Evaluates the impact of public processes on financing and delivery of healthcare.</li> <li>5. Assesses and evaluates health outcomes in a variety of populations, clinical settings, and systems.</li> <li>6. Completes and disseminates scholarly work, demonstrating knowledge with an area of academic focus.</li> <li>7. Uses information systems / technology and evaluate clinical and research databases to support and improve patient care and healthcare systems.</li> <li>8. Demonstrates ability to advocate for health policy change to improve patient care and advance the specialty of nurse anesthesia.</li> <li>9. Analyzes healthcare delivery systems, organizations, and risk management plans to improve outcomes for the patient, organization, and community.</li> <li>10. Demonstrates ethical decision-making; communicates and represents themselves in accordance with the Code of Ethics for CRNAs.</li> </ol>						

\***Special Requirements** include co-curriculum activities – structured learning activities that complement the formal curriculum – such as internships, innovation activities and community involvement.

<sup>1</sup> Modify format as needed. Please use ~~Strikeout~~ text to indicate elimination and **Bold** text to mark the substitution.

<sup>2</sup> Learning Outcome

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR ACCREDITATION OF A LICENSED PROGRAM**

**SECTION 3: ENROLLMENT, CREDENTIALLING AND FINANCIAL CONSIDERATIONS**

**Program Resources and Cost Estimates**

*(Please complete the Resources and Cost Estimates form on the following page, and provide a narrative below regarding the financial sustainability of the program)*

In year one and two, the actual program revenue has exceeded projections by increasing margins with expenditures at approximately 1/3 of the actual revenue. The DNAP program is already profitable (\$363,132 in year 1, \$632,362 in year 2) and we expect that as a third cohort enrolls (both entry level and advanced), the program will generate approximately \$900,000 in revenue after expenditures.

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR ACCREDITATION OF A LICENSED PROGRAM**

Resources and Costs Estimates Form  
(Whole Dollars Only)

PROJECTED Program Revenue	Year 1 2017-18		Year 2 2018-19		Year 3 * 2019-20	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Tuition (do not include internal transfers)	\$364,416	\$70,080	\$607,000	\$100,155	\$779,388	\$127,470
Program-Specific Fees	\$174,096	\$33,480	\$290,000	\$47,850	\$372,360	\$60,900
Other Revenue (Annotate in narrative)						
<b>Actual Program Revenue</b>	<b>\$642,072</b>		<b>\$1,045,005</b>		<b>\$1,340,118</b>	
<b>Projected Revenue (at Licensing)</b>	<b>\$444,060</b>		<b>\$576,900</b>		<b>\$754,740</b>	
<b>Difference: Actual - Projected</b>	<b>\$198,012</b>		<b>\$468,105</b>		<b>\$585,378</b>	

PROJECTED Program Expenditures*	Year 1 2017-18		Year 2 2018-19		Year 3 * 2019-20	
	Number	Amount	Number	Amount	Number	Amount
Administration (Chair or Coordinator)	0.16	\$19,550	0.16	\$19,550	0.16	\$19,550
Faculty (Full-time, total for program)	1.11	\$109,969	1.48	\$145,941	1.81	\$178,829
Fringe (Faculty and Summer Faculty)		\$87,227		\$121,920		\$146,716
Faculty (Part-time, total for program)	6.75	\$36,227	13.50	\$72,455	17.50	\$93,923
Summer Faculty	3.00	\$18,306	5.46	\$33,353	6.05	\$36,931
Support Staff						
Graduate Assistants						
Library Resources Program		\$2,660		\$9,426		\$10,368
Equipment (List as needed)						
Other (e.g. student services)						
Estimated Indirect Costs (e.g. student services, operations, maintenance)		\$5,000		\$10,000		\$15,000
<b>Total Annual Expenditures</b>	<b>\$278,940</b>		<b>\$412,643</b>		<b>\$501,316</b>	

\*Note: Capital outlay costs, institutional spending for research and services, etc. can be excluded.

*Please provide any necessary annotations below:*

\* These are projected program revenues and expenditures for Year 3 (2019-2020) see table.

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR ACCREDITATION OF A LICENSED PROGRAM**

APPENDIX 1    Curricula for DNAP: Entry-Level and DNAP: Advanced Specialization

**Entry Level Specialization - 80-86 credits**

I. Biological Systems Core 25 credits	
CHEM 550 Basic Organic and Biological Chemistry	3 credits
BIO 517 Advanced Human Anatomy, Physiology, and Pathophysiology	6 credits
BIO 518 Advanced Pathophysiology and Applied Physiology	3 credits
BIO 519 Advanced Neuroscience	3 credits
BIO 528 Advanced Pharmacology	4 credits
BIO 530 Immunology	3 credits
BIO 598 Research in Biology	3 credits
II. Professional Core 21 credits	
BIO 525 Advanced Physical Health Assessment for Nurse Anesthetists	3 credits
BIO 725 Bioethics in Nurse Anesthesia	3 credits
BIO 730 Human Factors and Patient Safety for Nurse Anesthetists	3 credits
BIO 736 Evidence-Based Practice and Biostatistics	3 credits
BIO 739 Advanced Topics in Pharmacology	3 credits
BIO 742 Advanced Topics in Nurse Anesthesia	3 credits
BIO 740 Leadership in Nurse Anesthesia Education	3 credits
III. Anesthesia Clinical Core 28 credits	
ANES 500 Basic Principles of Nurse Anesthesia Practice	3 credits
ANES 501 Advanced Principles of Nurse Anesthesia Practice I	3 credits
ANES 502 Advanced Principles of Nurse Anesthesia Practice II	3 credits
ANES 515 Professional Aspects of Nurse Anesthesia Practice	3 credits
ANES 528 Anesthesia Pharmacology	2 credits
ANES 590 Clinical Correlation Conference	2 credits
ACP 730 Anesthesia Clinical Practicum I	1 credit
ACP 731 Anesthesia Clinical Practicum II	1 credit
ACP 732 Anesthesia Clinical Practicum III	1 credit
ACP 733 Advanced Anesthesia Clinical Practicum I	3 credits
ACP 734 Advanced Anesthesia Clinical Practicum II	3 credits
ACP 735 Advanced Anesthesia Clinical Practicum III	3 credits
IV. Capstone 6 credits	
Doctoral Comprehensive Exam	0 credit
BIO 745 Doctoral Capstone Project I	3 credits
BIO 746 Doctoral Capstone Project II	3 credits
BIO 747 Doctoral Capstone Project III (if needed; up to 6 credits)	1 credit

**Advanced Specialization – 30-39 credits**

I. Biological Systems and Professional Core 18-21 credits	
BIO 725 Bioethics in Nurse Anesthesia	3 credits



**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**

**Connecticut State Colleges & Universities**

***APPLICATION FOR ACCREDITATION OF A LICENSED PROGRAM***

BIO 730 Human Factors and Patient Safety for Nurse Anesthetists	3 credits
BIO 736 Evidence-based Practice and Biostatistics	3 credits
BIO 739 Advanced Topics in Pharmacology	3 credits
BIO 742 Advanced Topics in Nurse Anesthesia	3 credits
BIO 740 Leadership in Nurse Anesthesia Education	3 credits
BIO 525 Advanced Physical Health Assessment for Nurse Anesthetists (if needed)	3 credits
II. Anesthesia Clinical Core 9 credits	
ACP 733 Advanced Anesthesia Clinical Practicum I	3 credits
ACP 734 Advanced Anesthesia Clinical Practicum II	3 credits
III. Capstone 6 credits	
BIO 745 Doctoral Capstone Project I	3 credits
BIO 746 Doctoral Capstone Project II	3 credits
BIO 747 Doctoral Capstone Project III (if needed; up to 6 credits)	1 credit

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Program Modification

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the modification of a degree program – Computer Systems Technology (CIP Code: 15.1202, OHE # 02826) leading to an Associate of Science degree, specifically a curricular change at Northwestern Connecticut Community College.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

Modification of a degree program, Computer Systems Technology at Northwestern Connecticut Community College

**BACKGROUND**Summary

The proposed curricular changes would reduce the number of course credits required to complete the degree program to 60 in compliance with TAP, and in compliance with common course numbering.

Resources

There are no additional costs required for the proposed program modifications.

**RECOMMENDATION**

Following its review and deliberative process, it is the recommendation of the Academic Council that the Board of Regents approve this program modification. The System's Provost and Senior Vice President for Academic and Students Affairs concurs with this recommendation.

03/15/2019 – BOR Academic & Student Affairs Committee  
03/28/2019 – Board of Regents

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM**

**SECTION 1: GENERAL INFORMATION**

<b>Institution:</b> NCCC	Date of Submission to CSCU Office of the Provost: 1/8/19
Most Recent NEASC Institutional Accreditation Action and Date: 2013	
<p><b>Original Program Characteristics</b></p> <p>CIP Code No. 151202    Title of CIP Code</p> <p>Name of Program: Computer Systems Technology</p> <p>Degree: Title of Award (e.g. Master of Arts) <b>AS</b></p> <p>Certificate: (specify type and level)</p> <p>Date Program was Initiated:</p> <p>Modality of Program:    On ground    Online    <input checked="" type="checkbox"/> Combined</p> <p style="padding-left: 40px;">If "Combined", % of fully online courses? 95</p> <p>Total # Cr the Institution Requires to Award the Credential (i.e. include program credits, GenEd, other): 60 (66)</p>	<p><b>Original Program Credit Distribution</b></p> <p># Cr in Program Core Courses: 20</p> <p># Cr of Electives in the Field: 19</p> <p># Cr of Free Electives: 0</p> <p># Cr Special Requirements (include internship, etc.): 0</p> <p><u>Total # Cr in the Program</u> (sum of all #Cr above): <b>39</b></p> <p>From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: <b>39</b></p>
<p>Type of Program Modification Approval Being Sought (mark all that apply):</p> <p style="padding-left: 20px;">Licensure and Accreditation (specify whether New Certificate, Minor, Option, Concentration, or Other)</p> <p><input checked="" type="checkbox"/> Significant Modification of Courses/Course Substitutions*</p> <p style="padding-left: 20px;">Offering of Program at Off-Campus Location (specify new location)</p> <p style="padding-left: 20px;">Offering of Program Using an Alternate Modality (e.g. from on ground to online)</p> <p style="padding-left: 20px;">Change of Degree Title or Program Title</p>	
<p><b>Modified Program Characteristics</b></p> <p>Name of Program: Computer Systems Technology</p> <p>Degree: Title of Award (e.g. Master of Arts) <b>AS</b></p> <p>Certificate<sup>1</sup>: (specify type and level)</p> <p>Program Initiation Date:</p> <p>Modality of Program:    On ground    Online    <input checked="" type="checkbox"/> Combined</p> <p style="padding-left: 40px;">If "Combined", % of fully online courses? 95</p> <p>Total # Cr the Institution Requires to Award the Credential (i.e. include program credits, GenEd, other): 60</p> <p>Other:</p>	<p><b>Modified Program Credit Distribution</b></p> <p># Cr in Program Core Courses: 18</p> <p># Cr of Electives in the Field: 21</p> <p># Cr of Free Electives: 0</p> <p># Cr Special Requirements (include internship, etc.): 0</p> <p><u>Total # Cr in the Program</u> (sum of all #Cr above): <b>39</b></p> <p>From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: <b>39</b></p>
<p>*<b>Significant</b> is defined as "more than 15 credits in a previously approved undergraduate degree program or more than 12 credits in a previously approved graduate degree program.</p>	

**CSCU REVIEW STATUS** (For System Office Use Only - please leave blank)

<p>Notes regarding Application:</p> <p>Log of Steps Toward Approval:</p> <p>Date of Approval:</p> <p>Date for Inclusion in BOR-ASA Meeting Package:</p> <p>Comments:</p> <p>Conditions for Approval (if any)</p>
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<sup>1</sup> If creating a Certificate program from existing courses belonging to a previously approved baccalaureate/associate degree program, enter information about that program in the "Original Program" section.

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM**

**SECTION 1: GENERAL INFORMATION (continued)**

If program modification is concurrent with discontinuation of related program(s), please list for such program(s):

Program Discontinued:            CIP:            OHE#: 002826    Accreditation Date:  
Phase Out Period                Date of Program Termination

Institution's Unit (e.g. School of Business) and Location (e.g. main campus) Offering the Program:

Other Program Accreditation:

- If seeking specialized/professional/other accreditation, name of agency and intended year of review:
- If program prepares graduates eligibility to state/professional license, please identify:

*(As applicable, the documentation in this request should address the standards of the identified accrediting body or licensing agency)*

**Institutional Contact for this Proposal:** Michael Gow            Title: Associate Professor  
Tel.: 860-738-6385                            e- mail: mgow@nwcc.commnet.edu

**SECTION 2: BACKGROUND, RATIONALE AND NATURE OF MODIFICATION**

*(Please Complete Sections as Applicable)*

**Background and Rationale** *(Please provide the context for and need for the proposed modification, and the relationship to the originally approved program)*

Program is being normalized to 60 credits for TAP compliance and Common Course Numbering

As applicable, please describe:

- How does the program address CT workforce needs and/or the wellbeing of CT society/communities? *(Succinctly present as much factual evidence and evaluation of stated needs as possible)*  
NO changes to original program
  
- How does the program make use of the strengths of the institution (e.g. curriculum, faculty, resources) and of its distinctive character and/or location?  
NO changes to original program
  
- Please describe any transfer agreements with CSCU institutions that will become instituted as a result of the approval of this program *(Please highlight details in the Quality Assessment portion of this application, as appropriate)*  
Will now meet TAP
  
- Please indicate what similar programs exist in other institutions within the CSCU System, and how unnecessary duplication is being avoided  
NO changes to original program
  
- Please provide a description/analysis of employment prospects for graduates of this proposed program  
NO changes to original program

**Description of Modification** *(Please provide a summary of the modifications to curriculum, admissions or graduation requirements ,mode of delivery etc., and concisely describe how the institution will support these changes.*

All four (4) credit courses are being brought back to their original three (3) credit versions  
Course names and numbers are brought into common course numbering compliance.

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM**

**Description of Resources Needed** (As appropriate please summarize faculty and administrative resources, library holdings, specialized equipment, etc. Details to be provided in the next section, as appropriate)

NONE

**Other Considerations**

**Previous Three Years Enrollment and Completion for the Program being Modified**

ACTUAL Enrollment	Fall Term, Year 2016		Fall Term, Year 2017		Fall Term, Year 2018	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Transfers In	2			1	1	3
New Students	5	1	5	2	2	2
Returning Students	6	15	6	14	9	11
<b>ACTUAL Headcount Enrollment</b>	13	16	11	17	12	16
<b>Fall FTE accounted for by Program Majors</b>	20.3		19.5		18.7	
<b>Size of Credentialed Group(s) for Given Year</b>	6		5		8	

**Curriculum Details for a Program Modification** (to be used as appropriate for specific modification request)<sup>2</sup>

Course Number and Name <sup>3</sup>	L.O. #	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
<b>Program Core Courses</b>				<b>Other Related/Special Requirements</b>		
CSC231 Database Design I	1	ENG101	3			
<b>Core Course Prerequisites</b>				<b>Elective Courses in the Field</b>		
ENG101 Composition			3	CST150 Web Design & Development I	3	3
				CST250 Web Design & Development II	3	3
				CSC213 Object Oriented Programming using C++	1	3
				CSC214 Advanced C++ Programming	1	3
				CSC220 Object Oriented Programming using Java	1	3
				CSC221 Advanced Java Programming	1	3

<sup>2</sup> Details of course changes for Community College institutions should be provided with enough detail to introduce necessary changes in the centralized programmatic database for that system.

<sup>3</sup> Make any detailed annotations for individual courses as needed to understand the curricular modifications taking place

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**APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM**

Total Other Credits Required to Issue Modified Credential					

**Learning Outcomes - L.O.** *(Please list up to seven of the most important student learning outcomes for the program, and any changes introduced)*

1. Apply computing skills to solve problems within the context of business systems.
2. Research and evaluate the functions and features of software, hardware, and internet solutions for application in a business environment.
3. Employ basic techniques used in developing and managing information technology projects.
4. Adapt to emerging technologies and new environments.
5. Demonstrate professionalism and ethical behavior.
6. Communicate effectively within an organization.
7. Work productively in team and individual settings.

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
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**APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM**

**SECTION 3: RESOURCE AND FINANCIAL CONSIDERATIONS**

**Two-Year Cost Effectiveness and Availability of Adequate Resources**

*(Please complete the Pro-Forma Budget – Projected Revenues and Expenditures on the following page. Provide any necessary annotations for the Pro-Forma Budget and other commentary regarding the cost effectiveness and availability of adequate resources for the proposed modification below:*

**PRO FORMA Budget - Projected Revenues and Expenditures**  
(Whole Dollars Only)

<b>PROJECTED Program Revenue</b>	Fall 2016	Fall 2017	Fall 2018
Tuition (do not include internal transfers)	37,758	37,206	36,577
Program-Specific Fees			
Other Revenue (Annotate in narrative)	57,388	54,581	44,843
<b>Total Estimated Program Revenue</b>	<b>\$95,146</b>	<b>\$91,787</b>	<b>\$81,420</b>

<b>PROJECTED Program Expenditures*</b>	Fall 2016	Fall 2017	Fall 2018
Administration (Chair or Coordinator)			
Faculty (Full-time, total for program)	44,234	47,184	44,234
Faculty (Part-time, total for program)	31,181	22,121	14,967
Support Staff			
Library Resources Program			
Equipment (List as needed)			
Other (e.g. student services)			
Estimated Indirect Costs (e.g. student services, operations, maintenance) <i>70% of direct salary</i>	52,791	48,514	41,441
<b>Total Estimated Program Expenditures</b>	<b>\$128,206</b>	<b>\$117,819</b>	<b>\$100,642</b>

\*Note: Capital outlay costs, institutional spending for research and services, etc. can be excluded.

This PRO FORMA Budget provides reasonable assurance that the proposed program modification can be established and is sustainable. Some assumptions and/or formulaic methodology may be used and annotated in narrative on page 4 of Application.

**Other revenue = general fund allotment based on NW portion of system enrollment. FY17 \$2,827/FTE, FY18 \$2,799/FTE, FY19 \$2,398/FTE**



**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Program Modification

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the modification of related degree programs – Chemistry and Chemistry with Biochemistry Option (CIP Code: 40.0501, OHE # 00195) leading to Bachelor of Arts degrees, specifically degree changes leading to Bachelor of Science degrees at Western Connecticut State University.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

Modification/Name Change of related degree programs – from Chemistry, BA degree and Chemistry with Biochemistry Option, BA degree to Chemistry, BS degree and Chemistry with Biochemistry Option, BS degree at Western Connecticut State University

**BACKGROUND**Summary

The institution considers the Bachelor of Science (BS) label to be more appropriate than the Bachelor of Arts (BA) label for its students in their pursuit of graduate school and industrial positions in chemistry, biochemistry, health and related fields.

Resources

There are no additional costs related to the proposed name change.

**RECOMMENDATION**

Following its review and deliberative process, it is the recommendation of the Academic Council that the Board of Regents approve this program modification. The System's Provost and Senior Vice President for Academic and Students Affairs concurs with this recommendation.

03/15/2019 – BOR Academic & Student Affairs Committee  
03/28/2019 – Board of Regents

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**

**Connecticut State Colleges & Universities**

**APPLICATION FOR NAME CHANGE-ACCREDITED ACADEMIC PROGRAM-MODIFICATION**

NAME CHANGE REQUEST		
<b>Institution:</b> Western Connecticut State University	Date of Submission to CSCU Office of the Provost: January 9, 2019	
<b>Characteristics of Current Academic Program</b> Name of Program: BA Chemistry, BA Chemistry: Biochemistry Option (both ACS, and non-ACS accredited) Type of Offering: <b>Undergraduate Degree</b> Modality of Program: <b>X On ground</b> Online Combined If "Combined", % of fully online courses?	<b>Credit Distribution of the Program (no change)</b> # Cr in Core Courses: 46 # Cr of Electives: 50 # Cr of Other: 24 (Cognate Requirements) # Cr Special Requirements (e.g. internship): Total # Cr the Institution Requires to Award the Credential 120	
CIP Code No. (if applicable) 40.0501	Title of CIP Code: Chemistry, General	OHE# 40.0501
Institution's Unit and Location Offering the Program: Macricostas School of Arts and Sciences, Danbury.		
<b>Proposed New Name of Program:</b> BS Chemistry, BS Chemistry with Biochemistry Option (includes ACS accredited and non-ACS accredited versions).		
<b>Explanation / Justification</b> Having compared our program to our peers, it is clear that the preferred designation is a Bachelor of Science. Our curriculum is nearly the same as our competitors, with the same depth in discipline. The lack of the appropriate designation is a disadvantage to our students after graduation as employers and graduate programs expect to see the BS, not the BA.  <i>Please note: the difference between the ACS and Non-ACS accreditation lies in an internship requirement and does not reduce the depth in field expected of a BS.</i>		
<b>Programmatic Changes</b> (If applicable, please provide a concise discussion regarding any programmatic changes to be necessitated by the requested name change.) None		
<b>Cost and Availability of Adequate Resources</b> (As applicable, please provide a one paragraph narrative addressing additional cost and resources necessitated by the requested name change) No change.		
<b>Institutional Contact for this Proposal:</b> Dr. Russ Selzer	Title: Chair, Chemistry	Tel.: 203-837-8448 e-mail: selzerr@wcsu.edu

**CSCU REVIEW STATUS** (For System Office Use Only - please leave blank)

Notes regarding Request: Log of Steps Toward Approval: Date of Approval: Date for Inclusion in BOR-ASA Meeting Package: Comments:
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Department of Chemistry and Biochemistry

**Request for Degree Change from B.A. to B.S.**

**1. Statement of what is being revised.**

The Department of Chemistry and Biochemistry presently offers a B.A. degree in chemistry and a B.A. degree in chemistry with a biochemistry option. Both of these degrees are accredited by the American Chemical Society (ACS). We are requesting that both of our degrees be designated with the B.S. label.

**2. Rationale for the revision.**

We offer a comparison of the credit requirements for the WCSU chemistry and biochemistry degrees to the B.S. degrees offered by several of the universities in the area.

School	B.S. Chemistry*	B.S. Biochemistry
Fairfield U.	46 + 21	40 + 30
Sacred Heart U.	40 + 23	42 + 24
UConn	43 + 19	45 + 26
CCSU	43 + 19	44 + 24
SCSU	47 + 18	41 + 24
<b>WCSU**</b>	<b>46 + 16</b>	<b>46 + 24</b>

\* Entries designate credits in the major + credits in cognate courses.

\*\* Current B.A. degrees.

Considering that our required credit hours are in line with those for other universities in the area and that our programs are *at least* of comparable quality based on our ACS certification, we request that our degrees be designated as B.S. degrees. The B.S. label is more appropriate than the B.A. label for our students in their pursuit of graduate school and industrial positions in chemistry, biochemistry, health and related fields.

**3. Program Sheets.**

Please see appendix I for the current program sheets for chemistry and biochemistry and appendix II for the proposed program sheets.

**4. Sample Four-Year Plans.**

Please see appendix III for sample four-year plans.

## 5. Students Learning Outcomes.

- Students will demonstrate a proficiency in a majority of the six main branches of Chemistry (including: General Chemistry; Organic Chemistry; Analytical Chemistry; Biochemistry; Inorganic Chemistry and Physical Chemistry).
- Students will demonstrate competence in the use of practical chemical laboratory safety, techniques and skills.
- Students will demonstrate the ability to utilize scientific literature in academic and independent research.
- Students will demonstrate the ability to clearly disseminate scientific information in a written format.
- Students will demonstrate the ability to clearly disseminate scientific information in a verbal format.

## 6. Description of Assessment Plan.

The American Chemical Society (ACS) provides assessment tools for measurement of proficiency in subdiscipline subject areas in the form of standardized exams. Our department administers ACS exams as the course assessment tool in all of our majors-oriented courses. Results are compared to national norms published yearly by the ACS. Our students consistently score on-average at or above the national norms. These data are the major component of our yearly assessment report to the Dean. The ACS also provides a culminating assessment tool in the DUCK exam, the Diagnostic for Undergraduate Chemical Knowledge. This comprehensive exam, covering all of the major chemical subdisciplines, is administered to all of our graduating seniors.

In addition to the standardized ACS exams, other assessment tools include, but are not limited to, non-standardized exams, quizzes, term/research papers, and other assignments.

## 7. Impacts on Staffing, Resources and Facilities.

The proposed change in degree designation demands no changes in the operation of our program.

## Appendix I Program Sheets for Chemistry and Biochemistry Current Versions

### Western Connecticut State University Degree Works

<b>Student</b>	<b>College</b>	<b>Hold</b>
<b>ID</b>	<b>School</b>	<b>Athletics</b>
<b>Classification</b>	<b>Degree</b> BA Chemistry, ACS Approved	<b>Housing Status</b>
<b>Advisor</b>	<b>Major</b>	<b>Full-Time/Part-Time</b>
<b>Overall GPA</b>	<b>Concentration</b>	<b>Catalog Term</b> FALL 2017
	<b>Minor</b>	<b>FERPA Indicator</b>

Legend

<input checked="" type="checkbox"/> Complete	<input type="checkbox"/> Complete except for classes in-progress	(TR) Transfer Class
<input type="checkbox"/> Not Complete	<input type="checkbox"/> See Advisor - Nearly Complete	@ Any course number
IP In-Prograss Course		

**BA in Chemistry-ACS Approved Overview - 120 CR**

**Unmet conditions for this set of requirements:** 120 credits are required.

- Minimum credits at WCSU A minimum of 30 credits must be taken at WCSU.
- A minimum cumulative GPA of 2.0 is required When your first term is graded, your cumulative GPA will be calculated. If your cumulative GPA falls below 2.0 it is important to see an advisor to make plans for raising your GPA.
- Foreign Language Requirement See **Foreign Language Requirement** section
- General Education Competency Requirements See **General Education Competency Requirements** section
- General Education Course Requirements See **General Education Course Req. Including Cognates** section
- Major Requirements See **Major in Chemistry** section
- General Electives See **General Elective Requirements** section

Foreign Language Requirement

Foreign Language Requirement

Complete a foreign language at an elementary II level or above. Students who have completed three years of language in highschool with at least a 'C' average have satisfied this requirement. Consult your advisor

General Education Competency Requirements

**Unmet conditions for this set of requirements:**

Students must complete each of the competencies listed below. In addition, students must complete 3 of the competencies a second time excluding First Year (FY) and WRT 101 (WI).

General Education Competencies		
<input type="checkbox"/>	Creative Process (CP)	1 to 2 Classes
<input type="checkbox"/>	Critical Thinking (CT)	1 to 2 Classes

<input type="checkbox"/>	Oral Communication (OC)	1 to 2 Classes
<input type="checkbox"/>	Health and Wellness (HW)	1 to 2 Classes
<input type="checkbox"/>	Scientific Inquiry (SI)	1 to 2 Classes
<input type="checkbox"/>	Intercultural Competence (IC)	1 to 2 Classes
<input type="checkbox"/>	Information Literacy (IL)	1 to 2 Classes
<input type="checkbox"/>	First Year Experience (FY)	1 Class
<input type="checkbox"/>	Culminating Experience (CE)	1 to 2 Classes
<input type="checkbox"/>	Writing Course (WRT 101)	WRT 101
<input type="checkbox"/>	Writing Intensive II (W2)	1 to 2 Classes
<input type="checkbox"/>	Writing Intensive III (W3)	1 to 2 Classes
<input type="checkbox"/>	Quantitative Reasoning (QR)	1 to 2 Classes

<input type="checkbox"/>	<b>General Education Course Req. Including Cognates</b>	
<b>Unmet conditions for this set of requirements:</b>		40 credits are required.
	WRITING COURSE (3 S.H.)	WRT 101
	CHEMISTRY COGNATE REQUIREMENTS (12 S.H.)	
<input type="checkbox"/>	Calculus I	MAT 181*
<input type="checkbox"/>	Calculus II	MAT 182*
<input type="checkbox"/>	Gen Physics I	PHY110
<input type="checkbox"/>	Gen Physics II	PHY 111
	21 CREDITS IN CLASSES OUTSIDE MAJOR	

<input type="checkbox"/>	<b>Major in Chemistry</b>	
		46-47 credits are required.
<input type="checkbox"/>	Minimum 2.0 major GPA	
<input type="checkbox"/>	Minimum credits at WCSU	A minimum of 25 credits must be taken at WCSU.
	CHEMISTRY CORE	
<input type="checkbox"/>	General Chemistry I	CHE 110
<input type="checkbox"/>	General Chemistry II	CHE 111*
<input type="checkbox"/>	Analytical Chemistry Lecture	CHE 205*
<input type="checkbox"/>	Analytical Chemistry Lab	CHE 206*
<input type="checkbox"/>	Organic Chemistry I	CHE 210*
<input type="checkbox"/>	Organic Chemistry II	CHE 211*



<input type="checkbox"/>	Physical Chemistry I	<b>CHE 300*</b>
<input type="checkbox"/>	Physical Chemistry II	<b>CHE 301*</b>
<input type="checkbox"/>	2 Chemistry Seminar Classes	<b>CHE 250</b>
ACS APPROVED OPTION		
<input type="checkbox"/>	Inorganic Chemistry	<b>CHE 311*</b>
<input type="checkbox"/>	Biochemistry Lecture I	<b>CHE 421*</b>
<input type="checkbox"/>	Instrumental Analysis Lecture	<b>CHE 400*</b>
<input type="checkbox"/>	Instrumental Analysis Lab	<b>CHE 401*</b>
<input type="checkbox"/>	Senior Research	<b>CHE 430*</b>

 **General Elective Requirements**

General Electives

 33 to 34 Credits of General Electives**Notes:**

## Western Connecticut State University Degree Works

<b>Student</b>		<b>College</b>		<b>Hold</b>	
<b>ID</b>		<b>School</b>		<b>Athletics</b>	
<b>Classification</b>		<b>Degree</b>	BA Chemistry, Biochem, ACS App	<b>Housing Status</b>	
<b>Advisor</b>		<b>Major</b>		<b>Full-Time/Part-Time</b>	
<b>Overall GPA</b>		<b>Concentration</b>		<b>Catalog Term</b>	FALL 2017
		<b>Minor</b>		<b>FERPA Indicator</b>	

## Legend

<input checked="" type="checkbox"/> Complete	<input type="checkbox"/> Complete except for classes in-progress	(TR) Transfer Class
<input type="checkbox"/> Not Complete	<input type="checkbox"/> See Advisor - Nearly Complete	@ Any course number
IP In-Progress Course		

 BA in Chem-Biochemistry, ACS Appr. Ovrvw - 120 CR

**Unmet conditions for this set of requirements:** 120 credits are required.

Minimum credits at WCSU A minimum of 30 credits must be taken at WCSU.

A minimum cumulative GPA of 2.0 is required

When your first term is graded, your cumulative GPA will be calculated. If your cumulative GPA falls below 2.0 it is important to see an advisor to make plans for raising your GPA.

Foreign Language Requirement

See **Foreign Language Requirement** section

General Education Competency Requirements

See **General Education Competency Requirements** section

General Education Course Requirements

See **General Education Course Req. Including Cognates** section

Major Requirements

See **Major in Chemistry** section

General Electives

See **General Elective Requirements** section

 Foreign Language Requirement

Foreign Language Requirement

Complete a foreign language at an elementary II level or above. Students who have completed three years of language in high school with at least a 'C' average have satisfied this requirement. Consult your advisor.

 General Education Competency Requirements

**Unmet conditions for this set of requirements:**

Students must complete each of the competencies listed below. In addition, students must complete 3 of the competencies a second time excluding First Year (FY) and WRT 101 (WI).

General Education Competencies

Creative Process (CP) 1 to 2 Classes

Critical Thinking (CT) 1 to 2 Classes

<input type="checkbox"/>	Oral Communication (OC)	1 to 2 Classes
<input type="checkbox"/>	Health and Wellness (HW)	1 to 2 Classes
<input type="checkbox"/>	Scientific Inquiry (SI)	1 to 2 Classes
<input type="checkbox"/>	Intercultural Competence (IC)	1 to 2 Classes
<input type="checkbox"/>	Information Literacy (IL)	1 to 2 Classes
<input type="checkbox"/>	First Year Experience (FY)	1 Class
<input type="checkbox"/>	Culminating Experience (CE)	1 to 2 Classes
<input type="checkbox"/>	Writing Course (WRT 101)	WRT 101
<input type="checkbox"/>	Writing Intensive II (W2)	1 to 2 Classes
<input type="checkbox"/>	Writing Intensive III (W3)	1 to 2 Classes
<input type="checkbox"/>	Quantitative Reasoning (QR)	1 to 2 Classes

<input type="checkbox"/>	<b>General Education Course Req. Including Cognates</b>	
<b>Unmet conditions for this set of requirements:</b>		40 credits are required.
	WRITING COURSE (3 S.H.)	WRT 101
	BIOCHEMISTRY COGNATE REQUIREMENTS (16 S.H.)	
<input type="checkbox"/>	Calculus I	MAT 181*
<input type="checkbox"/>	Calculus II	MAT 182*
<input type="checkbox"/>	Gen Physics I	PHY 110
<input type="checkbox"/>	Gen Physics II	PHY 111
	21 CREDITS IN CLASSES OUTSIDE MAJOR	

<input type="checkbox"/>	<b>Major in Chemistry</b>	
		52-53 credits are required.
<input type="checkbox"/>	Minimum 2.0 major GPA	
<input type="checkbox"/>	Minimum credits at WCSU	A minimum of 29 credits must be taken at WCSU.
	CHEMISTRY CORE	
<input type="checkbox"/>	General Chemistry I	CHE 110
<input type="checkbox"/>	General Chemistry II	CHE 111*
<input type="checkbox"/>	Analytical Chemistry Lecture	CHE 205*
<input type="checkbox"/>	Analytical Chemistry Lab	CHE 206*
<input type="checkbox"/>	Organic Chemistry I	CHE 210*
<input type="checkbox"/>	Organic Chemistry II	CHE 211*

<input type="checkbox"/>	Physical Chemistry I	<b>CHE 300*</b>
<input type="checkbox"/>	Physical Chemistry II	<b>CHE 301*</b>
<input type="checkbox"/>	Chemistry Seminar	<b>CHE 250</b>

BIOCHEMISTRY ACS APPROVED OPTION

<input type="checkbox"/>	Inorganic Chemistry	<b>CHE 311*</b>
<input type="checkbox"/>	Biochemistry Lecture I	<b>CHE 421*</b>
<input type="checkbox"/>	Biochemistry Lecture II	<b>CHE 422*</b>
<input type="checkbox"/>	Biochemistry Lab	<b>CHE 431*</b>
<input type="checkbox"/>	Senior Research	<b>CHE 430*</b>
<input type="checkbox"/>	General Biology I	<b>BIO 103*</b>
<input type="checkbox"/>	General Biology II	<b>BIO 104*</b>

**General Elective Requirements**

General Electives

<input type="checkbox"/>	27 to 28 General Electives Credits
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**Notes:**

## Appendix II Program Sheets for Chemistry and Biochemistry Proposed Versions

### Western Connecticut State University Degree Works

<b>Student</b>	<b>College</b>	<b>Hold</b>
<b>ID</b>	<b>School</b>	<b>Athletics</b>
<b>Classification</b>	<b>Degree</b> BS Chemistry, ACS Approved	<b>Housing Status</b>
<b>Advisor</b>	<b>Major</b>	<b>Full-Time/Part-Time</b>
<b>Overall GPA</b>	<b>Concentration</b>	<b>Catalog Term</b> FALL 2017
	<b>Minor</b>	<b>FERPA Indicator</b>

Legend

<input checked="" type="checkbox"/> Complete	<input type="checkbox"/> Complete except for classes in-progress	(TR) Transfer Class
<input type="checkbox"/> Not Complete	<input type="checkbox"/> See Advisor - Nearly Complete	@ Any course number
IP In-Prograss Course		

#### BS in Chemistry-ACS Approved Overview - 120 CR

**Unmet conditions for this set of requirements:** 120 credits are required.

- Minimum credits at WCSU      A minimum of 30 credits must be taken at WCSU.
- A minimum cumulative GPA of 2.0 is required      When your first term is graded, your cumulative GPA will be calculated. If your cumulative GPA falls below 2.0 it is important to see an advisor to make plans for raising your GPA.
- Foreign Language Requirement      See **Foreign Language Requirement** section
- General Education Competency Requirements      See **General Education Competency Requirements** section
- General Education Course Requirements      See **General Education Course Req. Including Cognates** section
- Major Requirements      See **Major in Chemistry** section
- General Electives      See **General Elective Requirements** section

Foreign Language Requirement

Foreign Language Requirement

Complete a foreign language at an elementary II level or above. Students who have completed three years of language in highschool with at least a 'C' average have satisfied this requirement. Consult your advisor

General Education Competency Requirements

**Unmet conditions for this set of requirements:**

Students must complete each of the competencies listed below. In addition, students must complete 3 of the competencies a second time excluding First Year (FY) and WRT 101 (WI).

General Education Competencies		
<input type="checkbox"/>	Creative Process (CP)	1 to 2 Classes
<input type="checkbox"/>	Critical Thinking (CT)	1 to 2 Classes

<input type="checkbox"/>	Oral Communication (OC)	1 to 2 Classes
<input type="checkbox"/>	Health and Wellness (HW)	1 to 2 Classes
<input type="checkbox"/>	Scientific Inquiry (SI)	1 to 2 Classes
<input type="checkbox"/>	Intercultural Competence (IC)	1 to 2 Classes
<input type="checkbox"/>	Information Literacy (IL)	1 to 2 Classes
<input type="checkbox"/>	First Year Experience (FY)	1 Class
<input type="checkbox"/>	Culminating Experience (CE)	1 to 2 Classes
<input type="checkbox"/>	Writing Course (WRT 101)	WRT 101
<input type="checkbox"/>	Writing Intensive II (W2)	1 to 2 Classes
<input type="checkbox"/>	Writing Intensive III (W3)	1 to 2 Classes
<input type="checkbox"/>	Quantitative Reasoning (QR)	1 to 2 Classes

<input type="checkbox"/>	<b>General Education Course Req. Including Cognates</b>	
<b>Unmet conditions for this set of requirements:</b>		40 credits are required.
	WRITING COURSE (3 S.H.)	WRT 101
	CHEMISTRY COGNATE REQUIREMENTS (12 S.H.)	
<input type="checkbox"/>	Calculus I	MAT 181*
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<input type="checkbox"/>	Gen Physics II	PHY 111
	21 CREDITS IN CLASSES OUTSIDE MAJOR	

<input type="checkbox"/>	<b>Major in Chemistry</b>	
		46-47 credits are required.
<input type="checkbox"/>	Minimum 2.0 major GPA	
<input type="checkbox"/>	Minimum credits at WCSU	A minimum of 25 credits must be taken at WCSU.
	CHEMISTRY CORE	
<input type="checkbox"/>	General Chemistry I	CHE 110
<input type="checkbox"/>	General Chemistry II	CHE 111*
<input type="checkbox"/>	Analytical Chemistry Lecture	CHE 205*
<input type="checkbox"/>	Analytical Chemistry Lab	CHE 206*
<input type="checkbox"/>	Organic Chemistry I	CHE 210*
<input type="checkbox"/>	Organic Chemistry II	CHE 211*

- |                          |                             |                 |
|--------------------------|-----------------------------|-----------------|
| <input type="checkbox"/> | Physical Chemistry I        | <b>CHE 300*</b> |
| <input type="checkbox"/> | Physical Chemistry II       | <b>CHE 301*</b> |
| <input type="checkbox"/> | 2 Chemistry Seminar Classes | <b>CHE 250</b>  |

ACS APPROVED OPTION

- |                          |                               |                 |
|--------------------------|-------------------------------|-----------------|
| <input type="checkbox"/> | Inorganic Chemistry           | <b>CHE 311*</b> |
| <input type="checkbox"/> | Biochemistry Lecture I        | <b>CHE 421*</b> |
| <input type="checkbox"/> | Instrumental Analysis Lecture | <b>CHE 400*</b> |
| <input type="checkbox"/> | Instrumental Analysis Lab     | <b>CHE 401*</b> |
| <input type="checkbox"/> | Senior Research               | <b>CHE 430*</b> |

**General Elective Requirements**

General Electives

- 33 to 34 Credits of General Electives

**Notes:**



## Western Connecticut State University Degree Works

<b>Student</b>		<b>College</b>		<b>Hold</b>	
<b>ID</b>		<b>School</b>		<b>Athletics</b>	
<b>Classification</b>		<b>Degree</b>	BS Chemistry, Biochem, ACS App	<b>Housing Status</b>	
<b>Advisor</b>		<b>Major</b>		<b>Full-Time/Part-Time</b>	
<b>Overall GPA</b>		<b>Concentration</b>		<b>Catalog Term</b>	FALL 2017
		<b>Minor</b>		<b>FERPA Indicator</b>	

## Legend

<input checked="" type="checkbox"/> Complete	<input checked="" type="checkbox"/> Complete except for classes in-progress	(TR) Transfer Class
<input type="checkbox"/> Not Complete	<input type="checkbox"/> See Advisor - Nearly Complete	@ Any course number
IP In-Progress Course		

 **BS in Chem-Biochemistry, ACS Appr. Ovrvw - 120 CR**

**Unmet conditions for this set of requirements:** 120 credits are required.

Minimum credits at WCSU A minimum of 30 credits must be taken at WCSU.

A minimum cumulative GPA of 2.0 is required	When your first term is graded, your cumulative GPA will be calculated. If your cumulative GPA falls below 2.0 it is important to see an advisor to make plans for raising your GPA.
Foreign Language Requirement	See <b>Foreign Language Requirement</b> section
General Education Competency Requirements	See <b>General Education Competency Requirements</b> section
General Education Course Requirements	See <b>General Education Course Req. Including Cognates</b> section
Major Requirements	See <b>Major in Chemistry</b> section
General Electives	See <b>General Elective Requirements</b> section

 **Foreign Language Requirement**

Foreign Language Requirement

Complete a foreign language at an elementary II level or above. Students who have completed three years of language in high school with at least a 'C' average have satisfied this requirement. Consult your advisor.

 **General Education Competency Requirements**

**Unmet conditions for this set of requirements:**

Students must complete each of the competencies listed below. In addition, students must complete 3 of the competencies a second time excluding First Year (FY) and WRT 101 (WI).

General Education Competencies

Creative Process (CP) 1 to 2 Classes

Critical Thinking (CT) 1 to 2 Classes

<input type="checkbox"/>	Oral Communication (OC)	1 to 2 Classes
<input type="checkbox"/>	Health and Wellness (HW)	1 to 2 Classes
<input type="checkbox"/>	Scientific Inquiry (SI)	1 to 2 Classes
<input type="checkbox"/>	Intercultural Competence (IC)	1 to 2 Classes
<input type="checkbox"/>	Information Literacy (IL)	1 to 2 Classes
<input type="checkbox"/>	First Year Experience (FY)	1 Class
<input type="checkbox"/>	Culminating Experience (CE)	1 to 2 Classes
<input type="checkbox"/>	Writing Course (WRT 101)	WRT 101
<input type="checkbox"/>	Writing Intensive II (W2)	1 to 2 Classes
<input type="checkbox"/>	Writing Intensive III (W3)	1 to 2 Classes
<input type="checkbox"/>	Quantitative Reasoning (QR)	1 to 2 Classes

<input type="checkbox"/>	<b>General Education Course Req. Including Cognates</b>	
<b>Unmet conditions for this set of requirements:</b>		40 credits are required.
	WRITING COURSE (3 S.H.)	WRT 101
	BIOCHEMISTRY COGNATE REQUIREMENTS (16 S.H.)	
<input type="checkbox"/>	Calculus I	MAT 181*
<input type="checkbox"/>	Calculus II	MAT 182*
<input type="checkbox"/>	Gen Physics I	PHY 110
<input type="checkbox"/>	Gen Physics II	PHY 111
	21 CREDITS IN CLASSES OUTSIDE MAJOR	

<input type="checkbox"/>	<b>Major in Chemistry</b>	
		52-53 credits are required.
<input type="checkbox"/>	Minimum 2.0 major GPA	
<input type="checkbox"/>	Minimum credits at WCSU	A minimum of 29 credits must be taken at WCSU.
	<b>CHEMISTRY CORE</b>	
<input type="checkbox"/>	General Chemistry I	CHE 110
<input type="checkbox"/>	General Chemistry II	CHE 111*
<input type="checkbox"/>	Analytical Chemistry Lecture	CHE 205*
<input type="checkbox"/>	Analytical Chemistry Lab	CHE 206*
<input type="checkbox"/>	Organic Chemistry I	CHE 210*
<input type="checkbox"/>	Organic Chemistry II	CHE 211*

<input type="checkbox"/>	Physical Chemistry I	<b>CHE 300*</b>
<input type="checkbox"/>	Physical Chemistry II	<b>CHE 301*</b>
<input type="checkbox"/>	Chemistry Seminar	<b>CHE 250</b>

**BIOCHEMISTRY ACS APPROVED OPTION**

<input type="checkbox"/>	Inorganic Chemistry	<b>CHE 311*</b>
<input type="checkbox"/>	Biochemistry Lecture I	<b>CHE 421*</b>
<input type="checkbox"/>	Biochemistry Lecture II	<b>CHE 422*</b>
<input type="checkbox"/>	Biochemistry Lab	<b>CHE 431*</b>
<input type="checkbox"/>	Senior Research	<b>CHE 430*</b>
<input type="checkbox"/>	General Biology I	<b>BIO 103*</b>
<input type="checkbox"/>	General Biology II	<b>BIO 104*</b>

 **General Elective Requirements**

General Electives

<input type="checkbox"/>	27 to 28 General Electives Credits
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**Notes:**

**APPENDIX III**  
**Sample Four-Year Plans**

**CHEMISTRY**

**Freshman Year**

*Fall Semester*

CHE 110 General Chemistry I  
MAT 181 Calculus

*Spring Semester*

CHE 111 General Chemistry II  
MAT 182 Calculus II

**Sophomore Year**

CHE 210 Organic Chemistry I  
PHY 110 General Physics I  
CHE 205 Analytical Chemistry Lecture  
CHE 206 Analytical Chemistry Lab

CHE 211 Organic Chemistry II  
PHY 111 General Physics II  
CHE 250 Chemistry Seminar

**Junior Year**

CHE 300 Physical Chemistry I  
CHE 311 Inorganic Chemistry  
*or*  
\*Advanced Elective

CHE 301 Physical Chemistry II  
\*Advanced Elective

Chem 250 Chemistry Seminar

**Senior Year**

\*CHE 430 Sen. Research in Chemistry  
*or*  
\*CHE 297 Cooperative Education

CHE 400 Instrumental Analysis Lecture

CHE 401 Instrumental Analysis Lab

Senior Presentation

\*If CHE 297 (12 S.H.) is chosen, no advanced elective is required; if CHE 430 is chosen, the advanced elective shall be one of the following:

MAT 281 Calculus III  
MAT 282 Ordinary Differential Equations  
MAT 272 Introduction to Linear Algebra  
CHE 340 Materials Chemistry  
CHE 3XX Properties and Applications of Nanomaterials (FDS 398)  
CHE 415 Medicinal Chemistry  
CHE 420 Advanced Topics in Organic Chemistry  
CHE 421 Biochemistry Lecture I  
CHE 438 Molecular Biochemistry of Nucleic Acids  
CHE 4XX Biophysical Techniques (FDS 498)

**CHEMISTRY-BIOCHEMISTRY OPTION**

**Freshman Year**

*Fall Semester*

CHE 110 General Chemistry I  
BIO 103 General Biology I  
MAT 181 Calculus I

*Spring Semester*

CHE 111 General Chemistry II  
BIO 104 General Biology II  
MAT 182 Calculus II

**Sophomore Year**

CHE 210 Organic Chemistry I  
 PHY 110 Physics I  
 CHE 250 Chemistry Seminar

CHE 211 Organic Chemistry II  
 PHY 111 Physics II

**Junior Year**

CHE 205 Analytical Chemistry Lecture  
 CHE 206 Analytical Chemistry Lab  
 CHE 421 Biochemistry Lecture I

CHE 250 Chemistry Seminar  
 CHE 422 Biochemistry Lecture  
 CHE 431 Biochemistry Lab  
 \*Advanced Elective

**Senior Year**

CHE 300 Physical Chemistry I  
 CHE 430 Senior Research Senior  
 Presentation

CHE 301 Physical Chemistry II

*or*

CHE 297 Cooperative Education in  
 Chemistry

\*If CHE 297 (12 SH) is chosen, no advanced elective is required; if CHE 430 is chosen, the advanced elective shall be one of the following:

CHE 311 Inorganic Chemistry (required for ACS approved degree)  
 CHE 320 Clinical Biochemistry  
 CHE 400 Instrumental Analysis Lecture  
 CHE 415 Medicinal Chemistry  
 CHE 420 Advanced Topics in Organic Chemistry  
 CHE 438 Molecular Biochemistry of Nucleic Acids

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Program Modification

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the modification of a degree program – Computer Science Technology (CIP Code: 15.1201, OHE # 08163) leading to an Associate of Science degree, specifically a curricular change at Three Rivers Community College.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

Modification of a degree program, Computer Science Technology at Three Rivers Community College

**BACKGROUND**Summary

Computer Software has experienced a technological shift from the more traditional long software development life cycles (SDLCs) to continuous integration (CI) and continuous delivery (CD). As a result, a degree in Computer Science Technology requires more than basic programmatic knowledge and skills. The proposed program modifications will modernize the referenced terminal/workforce degree, in-line with local and global demands and trends

Resources

The proposed modification optimizes use of existing institutional resources currently in place, including: professional faculty, department resources, classroom and lab facilities, resource volumes, and design, testing and analysis equipment.

**RECOMMENDATION**

Following its review and deliberative process, it is the recommendation of the Academic Council that the Board of Regents approve this program modification. The System's Provost and Senior Vice President for Academic and Students Affairs concurs with this recommendation.

03/15/2019 – BOR Academic & Student Affairs Committee

03/28/2019 – Board of Regents

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
*APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM*

**SECTION 1: GENERAL INFORMATION**

**Institution:** Three Rivers Community College      Date of Submission to CSCU Office of the Provost:  
Most Recent NEASC Institutional Accreditation Action and Date:

**Original Program Characteristics**

CIP Code No. **151201**    Title of CIP Code **Computer Engineering Technology/Technician**

Name of Program: **Computer Science Technology**

Degree: Title of Award (e.g. *Master of Arts*) **A.S.**

Certificate: (*specify type and level*)

Date Program was Initiated: **11/21/2000**

Modality of Program:    On ground    Online  Combined  
If "Combined", % of fully online courses? **13**

Total # Cr the Institution Requires to Award the Credential (*i.e. include program credits, GenEd, other*): **60**

Type of Program Modification Approval Being Sought (mark all that apply):

Licensure and Accreditation (*specify whether New Certificate, Minor, Option, Concentration, or Other*)

Significant Modification of Courses/Course Substitutions\*

Offering of Program at Off-Campus Location (*specify new location*)

Offering of Program Using an Alternate Modality (e.g. from on ground to online)

Change of Degree Title or Program Title

**Modified Program Characteristics**

Name of Program: **Computer Science Technology**

Degree: Title of Award (e.g. *Master of Arts*) **A.S.**

Certificate<sup>1</sup>: (*specify type and level*)

Program Initiation Date: **08/25/2019**

Modality of Program:    On ground    Online  Combined  
If "Combined", % of fully online courses? **7**

Total # Cr the Institution Requires to Award the Credential (*i.e. include program credits, GenEd, other*): **60**

Other:

**Original Program Credit Distribution**

# Cr in Program Core Courses: **24**

# Cr of Electives in the Field: **36**

# Cr of Free Electives: **0**

# Cr Special Requirements (*include internship, etc.*): **0**

Total # Cr in the Program (*sum of all #Cr above*): **60**

From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: **60**

**Modified Program Credit Distribution**

# Cr in Program Core Courses: **25**

# Cr of Electives in the Field: **35**

# Cr of Free Electives: **0**

# Cr Special Requirements (*include internship, etc.*): **0**

Total # Cr in the Program (*sum of all #Cr above*): **60**

From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: **51**

**\*Significant** is defined as "more than 15 credits in a previously approved undergraduate degree program or more than 12 credits in a previously approved graduate degree program.

**CSCU REVIEW STATUS** (*For System Office Use Only - please leave blank*)

Notes regarding Application:

Log of Steps Toward Approval:

Date of Approval:

Date for Inclusion in BOR-ASA Meeting Package:

Comments:

<sup>1</sup> If creating a Certificate program from existing courses belonging to a previously approved baccalaureate/associate degree program, enter information about that program in the "Original Program" section.



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Conditions for Approval (if any)

**SECTION 1: GENERAL INFORMATION (continued)**

If program modification is concurrent with discontinuation of related program(s), please list for such program(s):

Program Discontinued:            CIP:            OHE#: 008163 Accreditation Date:

Phase Out Period                Date of Program Termination

Institution's Unit (e.g. *School of Business*) and Location (e.g. *main campus*) Offering the Program:

Other Program Accreditation:

- If seeking specialized/professional/other accreditation, name of agency and intended year of review:
- If program prepares graduates eligibility to state/professional license, please identify:

*(As applicable, the documentation in this request should address the standards of the identified accrediting body or licensing agency)*

**Institutional Contact for this Proposal:** Patrick Burton            Title: Asst. Prof Tel.: 860-215-9476 e- mail: pburton@threeivers.com

**SECTION 2: BACKGROUND, RATIONALE AND NATURE OF MODIFICATION**

*(Please Complete Sections as Applicable)*

**Background and Rationale** *(Please provide the context for and need for the proposed modification, and the relationship to the originally approved program)*

Software is present in every industry, domain, facet of daily life, and continues to be the catalyst for driving changes in the world's most important science and technological trends. To keep pace with this change, there has been an ongoing shift from the more traditional long software development life cycles (SDLCs) to one's requiring continuous integration (CI) and continuous delivery (CD). As a result, a degree in Computer Science Technology and software development requires more than just basic programming knowledge and skills. Schools need to keep pace with this change and offer education and training to address more than just the software development aspects.

This terminal/workforce degree proposal modernizes TRCC course offerings in-line with both local and global industry demands and trends. Placing students and industry at the forefront, this plan of study updates offerings to align students' learning opportunities with current techniques and trends, their acquiring of industry relevant skills and knowledge, and occasions to test their abilities with additional hands-on and interactive experiences. This is addressed by the addition of new foundational courses, increasing elective options that form industry relevant pathways (e.g., Computer Science, Business, Accounting, etc.), drawing upon the TRCC's existing cadre of courses that serve a greater variety of areas of study in the Technologies, collapsing dated curriculum, and providing practical skills with tangible artifacts that a student can show a potential employer.

As applicable, please describe:

- How does the program address CT workforce needs and/or the wellbeing of CT society/communities? *(Succinctly present as much factual evidence and evaluation of stated needs as possible)*

Patrick Flaherty, Assistant Director, Office of Research, CT Department of Labor presented 2018 labor market information tailored to Southeastern, CT on September 21, 2018 to TRCC. The presentation contained data and key growth indicators within the Information Sector with the largest portion being attributed to software related companies and services. Software publishers were listed in top 3 for "Industries with the Most Growth." Software development was also listed in the top 10 posting for Job Ads related to manufacturing, thus providing another indicator and correlation of the demand for program modernization and changes to address software development, technological skills, and computing needs related to a rapidly growing manufacturing industry.

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"The Bureau of Labor Statistics projects more than 30 percent employment growth for software developers between 2016 and 2026, which is much faster than average for all occupations." (<https://money.usnews.com/careers/best-jobs/software-developer>)

2018 headlines include:

- "Software developer bumps health care for 'best job' title, U.S. News says" - <https://www.bizjournals-com.cdn.ampproject.org/c/s/www.bizjournals.com/bizjournals/news/2018/01/10/software-developer-bumps-health-care-for-best-job.amp.html>
- "#1 in The 100 Best Jobs" – <https://money.usnews.com/careers/best-jobs/rankings/the-100-best-jobs>

In Southeastern CT alone, software developers are employed in a wide range of industries including, but not limited to, aerospace, banking, casino/gaming, content management, cyber security, Department of Defense, DevOps (developer operations), e-business/e-commerce, finance, game development, health care, information systems, manufacturing, mobile/web-development, etc. Software developers do more than simply code; other hard and soft skills are required by employers such as how to gather and understand requirements, generate a design, diagnose and improve existing software, integrate components, unit test, maintenance, etc. This updated plan of study includes courses to address these knowledge, skill, and ability areas such as:

Applied Software Engineering – Focuses on the SDLC from concept ideation to maintenance by exploring industry used methodologies and how they are applied to software in CI, CD, research & development, and a variety of domains and production environments.

Applications of Data Structures & Algorithms – All software applications and programs are comprised of two fundamental things: data and algorithms. This course is designed to establish a solid foundation for approaching problem solving, applying algorithmic thinking, designing algorithms (building blocks), analyzing their efficiency, and how to compare, contrast, describe and express the merits (throughput efficiency, utilization statistics, ease of integration, scalability, etc.) of one's designs, solutions, and implementation approaches.

Computer Science Capstone – Provides a hands-on, practical application, and training experience for the student to apply their newly acquired knowledge, skills, and abilities to a real-world (local community or other) problem. Students will scope a problem, design a solution, produce and demonstrate physical artifacts (work products) that address the problem, and present their work as they would to an employer and/or a customer in industry.

This updated plan sets the computer science foundation in the first two semesters and by the third starts to differentiate towards workforce readiness and applications of knowledge and skills. The third semester now affords opportunities for the student to begin specialization through a free technically oriented elective. The fourth/final culminates with an industry relevant capstone, directed elective, and free elective to further specialize.

Additionally, this updated plan affords opportunities for the students to explore aspects of software as a business through the addition of business electives (marketing, small business management, entrepreneurship, etc.) not previously offered to students that want to start their own businesses and grow the local economy.

- How does the program make use of the strengths of the institution (e.g. curriculum, faculty, resources) and of its distinctive character and/or location?

TRCC has a long tradition of providing industry relevant Computer Science technology education to the local and global workforce communities. The respective curricular changes are designed to address the Southeastern CT regionally unique (Department of Defense, Casino/Gaming, Manufacturing Support, Research & Development, High-Tech, etc.) requirements and have evolved from reaction to a rapidly changing local and global industry.

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This proposal continues the College's efforts to provide timely and current course content while increasing efficiencies and optimizing the utilization of College's resources including but not limited to the existing dedicated priority-utilization space and equipment for this program.

- Please describe any transfer agreements with CSCU institutions that will become instituted as a result of the approval of this program (*Please highlight details in the Quality Assessment portion of this application, as appropriate*)

This is a terminal degree professional path designed to train, equip, and fast track students for immediate entry into the workforce. Though this is a terminal/workforce degree, this plan of study shares numerous common courses with that of the Computer Science Studies, A.A. CSCU Pathway Transfer Degree.

New: 48 (ENG K202 and 3 new courses are Non CSCU Transfer options at this time)

Previous: 49 credits (CSC K215, CSC K216, ENG K202 are Non CSCU Transfer)

Although there is a difference of one additional credit that is non transfer, this plan of study increases the core courses (+1), field electives (+1) and free electives (+2) that can be used to choose additional field specific options. As a result, students in the new plan can focus their path on gaining more (+4 courses) career knowledge and skills than the previous plan offered.

- Please indicate what similar programs exist in other institutions within the CSCU System, and how unnecessary duplication is being avoided

The goal of this terminal/workforce degree is to fast track students into industry and as such is designed to uniquely address the aforementioned Southeastern CT Information Sector and software development workforce needs. The addition of:

- Applied Software Engineering – Moved forward to fast track the student's attainment and understanding of the needed soft and hard skills requisite within the unique demands of the SDLC from concept ideation to maintenance and how they are applied to software in the CI, CD, R&D, and production environments present in the Southeastern CT industries. Comparable courses would be:
  - Eastern Connecticut State University CSC 445 Software Engineering
  - Central Connecticut State University CS 410 Software Engineering
  - University of Connecticut CSE 2102 Introduction to Software Engineering
- Applications of Data Structures & Algorithms – Since all software applications and programs are comprised of data and algorithms, before entering the workforce a quality software developer needs to possess the knowledge, skills, and abilities to approach and solve problems for their employers, apply algorithmic thinking, design building blocks, analyze efficiency, and be capable of comparing, contrasting, describing and expressing the merits of the designs, solutions, and implementation they create and/or use. This course is designed to address those critical thinking and design skills required by the Southeastern CT industries. Comparable courses would be:
  - Eastern Connecticut State University CSC 270 Data Structures
  - University of Connecticut CSE 2100 Data Structures and Introduction to Algorithms
  - University of New Haven CSCI 2226 Data Structures and Algorithms
  - Connecticut College COM 212 Data Structures
- Computer Science Capstone – This course is aligned with the TRCC conducted "Whitepaper Study" findings that students desire more "real-life training scenarios and hands-on learning." This course provides a unique

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software development practical training experience for the student to apply their acquired knowledge, skills, and abilities to a real-world problem and produce tangible physical artifact(s) along with expressions of soft-skills to show potential employers. This is in keeping with other programs at TRCC which include a practical capstone course such as ARC K213 Architecture Design II, BBG K291 Business Capstone, BMK K235 Public Relations, and TCN K291 Interdisciplinary Capstone Design Project.

- Electives from existing programs (no duplication) have been added to open opportunities for students.

Even though this is a terminal/workforce degree, duplication was considered and is minimized since this plan of study shares several common courses with that of the Computer Science Studies, A.A. CSCU Pathway Transfer Degree.

- Please provide a description/analysis of employment prospects for graduates of this proposed program

"The Bureau of Labor Statistics projects more than 30 percent employment growth for software developers between 2016 and 2026, which is much faster than average for all occupations." (<https://money.usnews.com/careers/best-jobs/software-developer>)

This updated terminal/workforce degree is re-designed to prepare the student to solve problems using algorithmic thinking, analytical skills, and apply techniques to think outside the box. Students are trained to be ready to contribute as a productive member of software analysis, design, and development team, whether writing code from scratch, analyzing options, troubleshooting systems, integrating third-party solutions, maintaining or improving code, and to directly work with clients.

Graduates from this degree program have diverse employment options and opportunities including, but not limited to, entry level positions as a:

- Software Engineer
- Software Developer, Applications Programmer
- Web Developer
- Database Designer & Developer
- Software Tester/Quality Assurance
- Computer Systems Analyst
- Information Technology Support Analyst
- Computer User Support Specialists (Helpdesk)
- Software Entrepreneur

**Description of Modification** *(Please provide a summary of the modifications to curriculum, admissions or graduation requirements, mode of delivery etc., and concisely describe how the institution will support these changes.*

To remain competitive in an ever changing technological society, these modifications propose a modernization for an existing terminal/workforce degree, which is the result of not only addressing the current Southeastern CT Information Sector but also trends in the larger national software development workforce market.

Development of the proposed changes emanated from:

- Industry consultation/advice
- Industry best practices and trends
- CT Department of Labor Information provided by Patrick Flaherty, Assistant Director, Office of Research, CT Department of Labor to TRCC on September 21, 2018

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- Labor Market Information
- Career Resources
- Discussions with Eastern CT Workforce Investment Board and State/Local Elected Representatives
- Evaluation of program offerings at other institutions (including non-CSCU institutions)
- Inventory and consolidation of courses to remove infrequently offered options
- Investigation of enrollments and graduate data
- Identification of modernization needs for key competencies and skill sets required to address current and trending industry needs

Program and course changes:

- Open opportunities for students to pursue software development as a business (marketing, entrepreneurship, accounting, management) via cross-curricular electives and relationships not previously offered.
- Align with the TRCC "Whitepaper Study" findings presented by Kem Barfield at the October (10/12/18) All College meeting, which conveyed that students desire more "real-life training scenarios and hands-on learning."

The resulting plan of study for this workforce terminal degree:

- Places emphasis on matching curriculum content to industry needs
- Maximizes utilization of the College's faculty and their areas of expertise and practice
- Optimizes existing College resources
- Increases cross-curricular relationships
- Provides students with practical industry knowledge and skills

**See the *Other Considerations* section for further details.**

The institution currently has curricular framework, faculty, and supporting facilities in place to facilitate implementation of this proposal.

**Description of Resources Needed** *(As appropriate please summarize faculty and administrative resources, library holdings, specialized equipment, etc. Details to be provided in the next section, as appropriate)*

This modification optimizes use of existing institutional resources currently in place, including: professional faculty, department resources, classroom & lab facilities, resource volumes, and design, testing and analysis equipment.

**Other Considerations**

Following annotations describe rationale for modifications. See **Program of Study Computer Science Technology Comparison** table following the annotations below.

1. This degree program is a terminal degree meant to prepare students for direct entry into the workforce.
2. The previous Computer Science Technology Plan of Study (POS) included the following statement: *Students not seeking to transfer to a four-year institution may substitute Technical Elective(s) for one or both calculus courses.* Suggest removal of this statement since the calculus options are listed as electives (see #3 and table below), which can be discussed as options when advising students.

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3. Technical electives list updated to reflect Calculus offerings, as well as to address current statement in POS about substitutions for calculus courses (so added Calculus I & II as electives).
4. Added Business Electives to open new pathways for students seeking to become software managers and/or to start their own businesses within the workforce and added Financial Accounting and Principles of Statistics for those that want to pursue data analytics and financial programming.
5. Separated Computer Science Electives into new category to ensure students focus on available computer science options. This also ensures that each semester has at least 2 computer science courses including the last semester.
6. Removed CSC K215 Object-Oriented Programming with C++ and CSC K216 Intermediate C++ since neither has been taught for over 4 years and former program faculty informed current staff that the plan was to drop these classes.
7. Moved CSC K223 Java Programming I and CSC K233 Database Development I earlier to create a progression of knowledge and skills that build from the previous semester.
8. Added Applications of Data Structures & Algorithms to replace CSC K224 Java Programming II and moved earlier in the schedule to reinforce the need for logical and analytical thinking skills when designing and developing software and to also factor considerations for algorithmic time and space complexity whether it's basic data structures, algorithms, or more complex software systems. Note: Java Programming II was not added as an eligible elective since it is too focused on one programming language. This change will align TRCC curriculum and the POS timing with programs at schools such as the Connecticut College, University of Connecticut, University of New Haven, etc.
9. Added the course in Applied Software Engineering to address the disciplined nature and skills required by industry for developing quality software especially in an ever change CI/CD marketplace. This course covers the Software Development Life Cycle (SDLC) from concept ideation through requirements gathering and elicitation, estimating software (cost and time), formalized design practices, decision analysis resolution (DAR) techniques, implementation strategies (including build vs. buy, open source vs. commercial-off-the-shelf (COTS), etc.), testing (unit-level to quality assurance), packaging, installation, deployment, and maintenance through the exploration of various models such as Agile, Iterative Waterfall, Spiral, Capability Maturity Model – Integration (CMMI), etc.
10. Added the Computer Science Capstone course to afford the student an opportunity for practical application of their knowledge, skills, and abilities (KSAs) gained through this POS. The goal is for students to address a real-world problem, develop a solution, produce and demonstrate an artifact that addresses the problem, and present their work. Class time focuses on aiding the student with understanding and applying the SDLC (see #7) phases in a rapid research & development (R&D) context, but may also include lectures on the practical applications of trending and advanced topics in the software industry. This capstone course is not simply an advanced course in a particular sub-area, nor is it an unstructured project course. The capstone is designed to be a culmination of the students learning with tangible physical artifact(s) and expressions of soft-skills (teamwork, communication, problem-solving, etc.) to show potential employers. Additionally, team-based and interdisciplinary projects that require interaction with other departments are highly-encouraged.
11. Recommend changes to wording about natural science electives in current degree to a more restrictive wording (only 2) for the maximum number of natural science courses that can be applied. Updates also reflect inclusion of computer science elective category and options for business, accounting, and math courses as technical electives. Anticipation is to add more computer science electives in the future.
12. Moved Fine Arts or Humanities Elective from Semester II to Semester III to balance the number of credits per semester; otherwise semester II would have 18 credits.

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**Directed Computer Science Electives Category<sup>5</sup>:**

<b>CST K252 – Web Development and Design II</b> <b>CST K145 – Digital Circuits and Logic</b>	<b>CSC K234 – Database Development II</b> <b>CSC K295 – CO-OP Ed/Work Experience</b>
---	---

**Directed Technical Electives Category<sup>11</sup>:**

Note: **Any of the above listed computer science electives** or a second natural science elective **may be used as a technical elective**. Caveat that no more than two (one mandated and one elective) natural science courses may be applied toward this degree.

<b>Current</b>	<b>Proposed</b>
CSC K234 - Database Development II	<b>Computer Science Electives (see above)</b>
CSC K295 - CO-OP Ed/Work Experience	<b>BES K118 – Small Business Management</b>
CST K275 - Information Security	<b>BES K218 – Entrepreneurship</b>
EET K134 - Electronics I	<b>BES K239 – Business Plan Development</b>
EET K254 - Digital Electronics I	<b>BMG K202 – Principles of Management</b>
EET K258 - Microprocessors & Controls	<b>BMK K106 – Principles of Selling</b>
GRA K260 - Web Design	<b>BMK K201 – Principles of Marketing</b>
MAT K167 - Principles of Statistics	<b>BMK K241 – Principles of Advertising</b>
MAT K268 - Calculus III: Multivariable	<b>ACC K115 – Financial Accounting</b>
MAT K272 - Linear Algebra	<b>GRA K260 – Web Design</b>
MAT K285 - Differential Equations	<b>EET K134 – Electronics I</b>
	<b>EET K254 – Digital Electronics I</b>
	<b>EET K258 – Microprocessors &amp; Controls</b>
	<b>MAT K167 – Principles of Statistics</b>
	<b>MAT K254 – Calculus I</b>
	<b>MAT K256 – Calculus II</b>
	<b>MAT K268 – Calculus III: Multivariable</b>
	<b>MAT K272 – Linear Algebra</b>
	<b>MAT K285 – Differential Equations</b>

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**Program of Study Computer Science Technology Comparison<sup>1</sup>**

<b>CURRENT</b> (include <u>all</u> courses in current plan of study)			<b>ADD+/ CHANGE/ DELETE</b>	<b>PROPOSED</b> (include <u>all</u> courses in proposed plan of study) <i>For Academic Yr 2018/2019</i>		
CR #	Course Description	Credit		CR #	Course Description	Credit
	<b>Prerequisites</b>				<b>Prerequisites</b>	
(MAT* K172	College Algebra	3)		(MAT* K172	College Algebra	3)
<b>Semester I</b>				<b>Semester I</b>		
CSC* K108	Introduction to Programming	4		CSC* K108	Introduction to Programming	4
ENG* K101	Composition	3		ENG* K101	Composition	3
COM* K173	Public Speaking	3		COM* K173	Public Speaking	3
CST* K153	Web Development and Design I	4		CST* K153	Web Development & Design I	4
		Total				Total
		14				14
<b>Semester II</b>				<b>Semester II</b>		
CST* K145	Digital Circuits and Logic	4	<b>Change<sup>7</sup></b> <b>Delete<sup>5</sup></b>	CSC* K223	Java Programming I	4
			<b>Change<sup>7</sup></b>	CSC* K233	Database Development I	4
ENG* K202	Technical Writing	3		ENG* K202	Technical Writing	3
MAT* K186	Precalculus	4		MAT* K186	Precalculus	4
	Fine Arts or Humanities Elective	3	<b>Change<sup>12</sup></b>			
		Total				Total
		14				15
<b>Semester III</b>				<b>Semester III</b>		
CSC* K215	Object-Oriented Programming with C++	4	<b>Delete<sup>6</sup></b>			
<b>or</b>			<b>Add+</b>		(N) Applications of Data Structures & Algorithms <sup>8</sup>	3
CSC* K223	Java Programming I	4	<b>Change<sup>7</sup></b>			
CSC* K233	Database Development I	4	<b>Change<sup>7</sup></b>			
			<b>Add+</b>		(N) Applied Software Engineering <sup>9</sup>	3
MAT* K254	Calculus I <sup>2,3</sup>	4	<b>Change</b>		Technical Elective <sup>2,3,4,11</sup>	3
MAT* K210	Discrete Math	3		MAT* K210	Discrete Math	3
			<b>Change<sup>12</sup></b>		Fine Arts or Humanities Elective	3
		Total				Total
		15				15
<b>Semester IV</b>				<b>Semester IV</b>		
CSC* K216	Intermediate C++ Programming	4	<b>Delete<sup>6</sup></b>			
<b>or</b>						
CSC* K224	Java Programming II	4	<b>Delete<sup>8</sup></b>			
			<b>Add+</b>		(N) Computer Science Capstone <sup>10</sup>	3
	Social Science Elective	3			Social Science Elective	3
MAT* K256	Calculus II <sup>2,3</sup>	4	<b>Change</b>		Computer Science Elective <sup>5</sup>	4
	Technical Elective	3	<b>Change</b>		Technical Elective <sup>2,3,4,11</sup>	3
	Natural Science Elective	3			Natural Science Elective	3
		Total				Total
		17				16
<b>Grand Total</b>		<b>60</b>		<b>Grand Total</b>		<b>60</b>

*+Added course indicated with an (N) next to the course name.*



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**Applications of Data Structures & Algorithms**

**Description:** Covers essential concepts of data structures, their implementation, and the algorithms that proceed from their use. Fundamental data structures covered include lists, stacks, queues, priority queues, sets, trees, graphs, and maps (hash tables) along with applications. Additional emphasis is placed on recursion, abstract data types, an understanding of complexity and efficiency issues, and how to communicate design decisions clearly.

**Purpose/Appropriateness/Need:** All software applications and programs are comprised of two fundamental things: data and algorithms. A quality and efficient algorithm is therefore constructed from a set of data structures that allows the algorithm to handle the data.

A typical academic sequence for a software engineer/developer/programmer is to take a course in computing/programming followed very soon by a data structures and algorithms course to establish a solid foundation for their approach to algorithmic thinking, designing algorithms (building blocks), and analyzing their efficiency.

The purpose of this course is to establish that foundational technical step since the adding of structure to data makes algorithms simpler to implement, easier to maintain, and are often faster (reduced latency) to run.

**Student Outcomes include being able to:**

- Utilize sound techniques for designing, developing, and documenting well-structured programs using proper software algorithmic thinking principles.
- Apply problem solving skills, which will provide a foundation for the more advanced programming.
- Describe and implement common data structures for solving complex programming problems.
- Use mathematical techniques to analyze the efficiency of the various algorithms, as well as the common operations performed by the data structures discussed.

**Applied Software Engineering**

**Description:** This course focuses on software engineering as a discipline that encompasses the entire Software Development Life Cycle (SDLC) from concept ideation to maintenance. Topics covered include requirements gathering and elicitation, estimating software (cost and time), formalized design practices and techniques (e.g. Unified Modeling Language), decision analysis resolution (DAR) techniques, implementation strategies (including build vs. buy, open source vs. commercial-off-the-shelf (COTS), 3rd party integration, etc.), testing (unit-level to quality assurance), delivery (documentation, packaging, and installation), and subsequent maintenance. Various methodologies such as Agile, Iterative Waterfall, Spiral, Capability Maturity Model – Integration (CMMI), etc. will be discussed in the context of each SDLC phase.

**Purpose/Appropriateness/Need:** Software engineering is an essential discipline that requires more than technical knowledge and skills to be successful in industry. Quality software requires the practitioner understand the relationship of software development to overall product/solution engineering. This includes the ability to identify what is needed or being asked by customers, how to gather, research, and document one's understanding all the while analyzing and factoring technical, organizational, and business constraints on those solutions, and ultimately reflecting that understanding into the software design, implementation, and engineering artifacts delivered.

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**Student Outcomes include being able to:**

- Demonstrate a working knowledge of key activities that occur at each phase of the SDLC
- Develop an operational understanding of SDLC phase appropriate models, techniques, & strategies
- Practice generating SDLC artifacts:
  - Software Requirement Specification (SRS)
  - Software Estimate
  - Software Design Document (SDD)
  - Decision Analysis Resolution (DAR)
  - Test Plan

**Computer Science Capstone**

**Description:** An exciting real-world, hands-on training experience designed to be the culmination of the student's knowledge, skills, and abilities in the area of Computer Science. In the style of a Research & Development (R&D) rapid prototyping environment, students scope a problem, design a solution, produce and demonstrate tangible physical artifacts (work products) that address the problem, and present their work as they would in industry.

**Purpose/Appropriateness/Need:** The course is a bridge between the student's academic experience and the professional workplace. The objective is to give the student the experience of being involved in building a non-trivial, rapid prototype real-world software development project that integrates their knowledge of the concepts, techniques, and topics covered.

Class time focuses on aiding the student with understanding and applying the Software Development Life Cycle (SDLC) phases, and will also include lectures on the practical applications of trending and advanced topics in the software industry. This capstone course is not simply an advanced course in a particular sub-area, nor is it an unstructured project course. The capstone is designed to be a culmination of the student's education with tangible physical artifact(s) and expressions of soft-skills (teamwork, communication, problem-solving, etc.) to show potential employers. Additionally, team-based and interdisciplinary projects that require interaction with other departments will be highly-encouraged.

**Student Outcomes include being able to:**

- Apply concepts from more than one subject area of the TRCC Computer Science curriculum.
- Explain their work in both written and oral forms.
- Evaluate and practice soft-skills (teamwork, communication, problem-solving, etc.) pertinent to potential employers.
- Demonstrate a solution developed in a rapid prototyping R&D environment

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**Previous Three Years Enrollment and Completion for the Program being Modified**

ACTUAL Enrollment	Fall Term, Year 2018		Fall Term, Year 2017		Fall Term, Year 2016	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Transfers In	1	4	5	14	5	11
New Students	7	7	15	8	21	14
Returning Students	18	44	39	54	34	45
<b>ACTUAL Headcount Enrollment</b>	26	60	59	76	60	70
<b>Fall FTE accounted for by Program Majors</b>	50.7		91.9		88.7	
<b>Size of Credentialed Group(s) for Given Year</b>	10		11		12	

**Curriculum Details for a Program Modification** (to be used as appropriate for specific modification request)<sup>2</sup>

Course Number and Name <sup>3</sup>	L.O. #	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
<b>Program Core Courses</b>				<b>Other Related/Special Requirements</b>		
Applications of Data Structures & Algorithms	1,2,4,6	CSC K108	3			
Applied Software Engineering	1,2,3,4,5,6	CSC K108 ENG K101	3			
Computer Science Capstone	1,2,3,4,5,6	Applied Software Engineering	3			

**Core Course Prerequisites**

CSC K108 Introduction to Programming

**Elective Courses in the Field**

*Note: Only addition and grouping changes listed below (see **Other Considerations** section for details and full lists of existing and new options).*

New Business, Accounting and additional Math electives added as options.

Directed Computer Science Electives are not new, just placed into a category to ensure students have to choose from this category in the final semester.

Business Elective Additions: 5,7 3

BES K118 Small Business Management  
 BES K218 Entrepreneurship  
 BES K239 Business Plan Development  
 BMG K202 Principles of Management

ENG K101 Composition

<sup>2</sup> Details of course changes for Community College institutions should be provided with enough detail to introduce necessary changes in the centralized programmatic database for that system.

<sup>3</sup> Make any detailed annotations for individual courses as needed to understand the curricular modifications taking place

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Applied Software Engineering

BMK K106 Principles of Selling		
BMK K201 Principles of Marketing		
BMK K241 Principles of Advertising		
Accounting Additions:	5,7	4
ACC K115 Financial Accounting		
Math Additions:	5,7	4
MAT K254 Calculus I		
MAT K256 Calculus II		
Directed Computer Science Category:	5,7	4
CST K252 Web Development and Design II		
CST K145 Digital Circuits and Logic		
CSC K234 Database Development II		

**Total Other Credits Required to Issue Modified Credential**

**Learning Outcomes - L.O.** (Please list up to seven of the most important student learning outcomes for the program, and any changes introduced)

1. Utilize algorithmic thinking for designing, developing, and documenting well-structured solutions.
2. Employ techniques (mathematical and tool-based) to analyze the performance (time, complexity, and efficiency) of various solutions.
3. Exhibit a working knowledge of key activities that occur at each phase of the SDLC.
4. Produce tangible physical artifacts (work products) that address scoping a problem, designing and developing a solution, and ensuring (testing) the quality of that solution.
5. Perform and communicate effectively as a contributing individual and member of a software project team.
6. Demonstrate describing issues and expressing the merits of one's designs, solutions, and implementation approaches.
7. Engage in self-directed continuing professional development.

**SECTION 3: RESOURCE AND FINANCIAL CONSIDERATIONS**

**Two-Year Cost Effectiveness and Availability of Adequate Resources**

(Please complete the Pro-Forma Budget – Projected Revenues and Expenditures on the following page. Provide any necessary annotations for the Pro-Forma Budget and other commentary regarding the cost effectiveness and availability of adequate resources for the proposed modification below:

**PRO FORMA Budget - Projected Revenues and Expenditures**  
(Whole Dollars Only)

<b>PROJECTED Program Revenue</b>	Fall 20__	Fall 20__	Fall 20__
Tuition (do not include internal transfers)	See below	See below	See below
Program-Specific Fees	See below	See below	See below
Other Revenue (Annotate in narrative)	See below	See below	See below
<b>Total Estimated Program Revenue</b>			

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<b>PROJECTED Program Expenditures*</b>			
Administration (Chair or Coordinator)	See below	See below	See below
Faculty (Full-time, total for program)	See below	See below	See below
Faculty (Part-time, total for program)	See below	See below	See below
Support Staff	See below	See below	See below
Library Resources Program	See below	See below	See below
Equipment (List as needed)	See below	See below	See below
Other (e.g. student services)	See below	See below	See below
Estimated Indirect Costs (e.g. student services, operations, maintenance)	See below	See below	See below
<b>Total Estimated Program Expenditures</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

\*Note: Capital outlay costs, institutional spending for research and services, etc. can be excluded.

**This "Significant Modification of Courses/Course Substitutions" does not require the addition of any new faculty or resources for courses – No fiscal impact to Three Rivers Community College.**

This PRO FORMA Budget provides reasonable assurance that the proposed program modification can be established and is sustainable. Some assumptions and/or formulaic methodology may be used and annotated in narrative on page 4 of Application.

## PLAN OF STUDY CHANGE FORM

### Three Rivers Community College

Program of Study Computer Science Technology<sup>1</sup> Associate   X   Certificate \_\_\_\_\_

Dept: Business and Technologies Contact (Dept. Chair) Mark Comeau Curriculum Committee Date: \_\_\_\_\_

Please submit the following form when requesting a change to a plan of study.

**Please Note:** A program modification, which alters more than 15 credits from the original system approved program, requires a formal proposal to be submitted to the Board of Trustees.

*+If an added course is new to the college, please indicate with an (N) next to the course name.*

<b>CURRENT</b> (include <u>all</u> courses in current plan of study)			ADD+/ CHANGE/ DELETE	<b>PROPOSED</b> (include <u>all</u> courses in proposed plan of study) <i>For Academic Yr 2018/2019</i>		
CR #	Course Description	Credit		CR #	Course Description	Credit
	<b>Prerequisites</b>				<b>Prerequisites</b>	
(MAT* K172	College Algebra	3)		(MAT* K172	College Algebra	3)
	<b>Semester I</b>				<b>Semester I</b>	
CSC* K108	Introduction to Programming	4		CSC* K108	Introduction to Programming	4
ENG* K101	Composition	3		ENG* K101	Composition	3
COM* K173	Public Speaking	3		COM* K173	Public Speaking	3
CST* K153	Web Development and Design I	4		CST* K153	Web Development & Design I	4
	Total	14			Total	14
	<b>Semester II</b>				<b>Semester II</b>	
			Change <sup>7</sup>	CSC* K223	Java Programming I	4
CST* K145	Digital Circuits and Logic	4	Delete <sup>5</sup>			
			Change <sup>7</sup>	CSC* K233	Database Development I	4
ENG* K202	Technical Writing	3		ENG* K202	Technical Writing	3
MAT* K186	Precalculus	4		MAT* K186	Precalculus	4
	Fine Arts or Humanities Elective	3	Change <sup>12</sup>			
	Total	14			Total	15
	<b>Semester III</b>				<b>Semester III</b>	
CSC* K215	Object-Oriented Programming with C++	4	Delete <sup>6</sup>			
<b>or</b>			Add+		(N) Applications of Data Structures & Algorithms <sup>8</sup>	3
CSC* K223	Java Programming I	4	Change <sup>7</sup>			
CSC* K233	Database Development I	4	Change <sup>7</sup>			
			Add+		(N) Applied Software Engineering <sup>9</sup>	3
MAT* K254	Calculus I <sup>2,3</sup>	4	Change		Technical Elective <sup>2,3,4,11</sup>	3
MAT* K210	Discrete Math	3		MAT* K210	Discrete Math	3
			Change <sup>12</sup>		Fine Arts or Humanities Elective	3
	Total	15			Total	15
	<b>Semester IV</b>				<b>Semester IV</b>	
CSC* K216	Intermediate C++ Programming	4	Delete <sup>6</sup>			
<b>or</b>						
CSC* K224	Java Programming II	4	Delete <sup>8</sup>			
			Add+		(N) Computer Science Capstone <sup>10</sup>	3
	Social Science Elective	3			Social Science Elective	3
MAT* K256	Calculus II <sup>2,3</sup>	4	Change		Computer Science Elective <sup>5</sup>	4
	Technical Elective	3	Change		Technical Elective <sup>2,3,4,11</sup>	3
	Natural Science Elective	3			Natural Science Elective	3
	Total	17			Total	16
	<b>Grand Total</b>	<b>60</b>			<b>Grand Total</b>	<b>60</b>

## PLAN OF STUDY CHANGE FORM

### Three Rivers Community College

#### Comments:

1. This degree program is a terminal degree meant to prepare students for direct entry into the workforce.
2. The previous Computer Science Technology Plan of Study (POS) included the following statement: *Students not seeking to transfer to a four-year institution may substitute Technical Elective(s) for one or both calculus courses.* Suggest removal of this statement since the calculus options are listed as electives (see #3 and table below), which can be discussed as options when advising students.
3. Technical electives list updated to reflect three and the four credit Calculus offerings, as well as to address current statement in POS about substitutions for calculus courses (so added Calculus I & II as electives).
4. Added Business Electives as options for students seeking to become software managers and/or to start their own businesses within the workforce and added Financial Accounting and Principles of Statistics for those that want to pursue data analytics and financial programming.
5. Separated Computer Science Electives into new category to ensure students focus on available 4-credit computer science options. This also ensures that each semester has at least 2 computer science courses including the last semester.
6. Removed CSC K215 Object-Oriented Programming with C++ and CSC K216 Intermediate C++ since neither has been taught for over 4 years and was told by former faculty the plan was to drop these classes.
7. Moved CSC K223 Java Programming I and CSC K233 Database Development I earlier to create a progression of knowledge and skills that build from the previous semester.
8. Added Applications of Data Structures & Algorithms to replace CSC K224 Java Programming II and moved earlier in the schedule to reinforce the need for logical and analytical thinking skills when designing and developing software and to also factor considerations for algorithmic time and space complexity whether it's basic data structures, algorithms, or more complex software systems. Note: Java Programming II was not added as an eligible elective since it is too focused on one programming language. This change will align TRCC curriculum and the POS timing with programs at schools such as the Connecticut College, University of Connecticut, University of New Haven, etc.
9. Added the course in Applied Software Engineering to address the disciplined nature and skills required by industry for developing quality software. This course covers the Software Development Life Cycle (SDLC) from concept ideation through requirements gathering and elicitation, estimating software (cost and time), formalized design practices, decision analysis resolution (DAR) techniques, implementation strategies (including build vs. buy, open source vs. commercial-off-the-shelf (COTS), etc.), testing (unit-level to quality assurance), packaging, installation, deployment, and maintenance through the exploration of various models such as Agile, Iterative Waterfall, Spiral, Capability Maturity Model – Integration (CMMI), etc.
10. Added the Computer Science Capstone course to afford the student an opportunity for practical application of their knowledge, skills, and abilities (KSAs) gained through this POS. The goal is for students to address a real-world problem, develop a solution, produce and demonstrate an artifact that addresses the problem, and present their work. Class time focuses on aiding the student with understanding and applying the SDLC (see #7) phases in a rapid research & development (R&D) context, but may also include lectures on the practical

## PLAN OF STUDY CHANGE FORM

### Three Rivers Community College

applications of trending and advanced topics in the software industry. This capstone course is not simply an advanced course in a particular sub-area, nor is it an unstructured project course. The capstone is designed to be a culmination of the students learning with tangible physical artifact(s) and expressions of soft-skills (teamwork, communication, problem-solving, etc.) to show potential employers. Additionally, team-based and interdisciplinary projects that require interaction with other departments are highly-encouraged.

11. Recommend changes to wording about natural science electives in current degree to a more restrictive wording (only 2) for the maximum number of natural science courses that can be applied. Updates also reflect inclusion of computer science elective category and options for business, accounting, and math courses as technical electives. Anticipation is to add more 3 credit computer science electives in the future.

12. Moved Fine Arts or Humanities Elective from Semester II to Semester III to balance the number of credits per semester; otherwise semester II would have 18 credits.

#### Computer Science Electives<sup>5</sup>:

<b>CST* K252 – Web Development and Design II (4 Credits)</b>	<b>CSC* K234 – Database Development II (4 Credits)</b>
<b>CST* K145 – Digital Circuits and Logic (4 Credits)</b>	

#### Technical Electives<sup>11</sup>:

**Note: Any of the listed computer science electives or a second natural science elective (3 Credit) may be used as a technical elective (3 Credit). Caveat that no more than two (one mandated and one elective) natural science courses may be applied toward this degree.**

Updated	Original
<b>Computer Science Electives (see above)</b>  <b>BES K118 – Small Business Management (3 Credits)</b> <b>BES K218 – Entrepreneurship (3 Credits)</b> <b>BES K239 – Business Plan Development (3 Credits)</b> <b>BMG K202 – Principles of Management (3 Credits)</b> <b>BMK K106 – Principles of Selling (3 Credits)</b> <b>BMK K201 – Principles of Marketing (3 Credits)</b> <b>BMK K241 – Principles of Advertising (3 Credits)</b>  <b>ACC K115 – Financial Accounting (4 credits)</b>  <b>CSC K295 – CO-OP Ed/Work Experience (3 Credits)</b> <b>GRA K260 – Web Design (3 Credits)</b> <b>EET K134 – Electronics I (3 Credits)</b> <b>EET K254 – Digital Electronics I (3 Credits)</b> <b>EET K258 – Microprocessors &amp; Controls (3 Credits)</b> <b>MAT K167 – Principles of Statistics (3 Credits)</b> <b>MAT K254 – Calculus I (4 Credits)</b> <b>MAT K256 – Calculus II (4 Credits)</b> <b>MAT K268 – Calculus III: Multivariable (3 Credits)</b> <b>MAT K272 – Linear Algebra (3 Credits)</b> <b>MAT K285 – Differential Equations (3 Credits)</b>	<b>CSC* K234 - Database Development II (4 Credits)</b> <b>CSC* K295 - CO-OP Ed/Work Experience (3 Credits)</b> <b>CST* K275 - Information Security (4 Credits)</b> <b>EET* K134 - Electronics I (3 Credits)</b> <b>EET* K254 - Digital Electronics I (3 Credits)</b> <b>EET* K258 - Microprocessors &amp; Controls (3 Credits)</b> <b>GRA* K260 - Web Design (3 Credits)</b> <b>MAT* K167 - Principles of Statistics (3 Credits)</b> <b>MAT* K268 - Calculus III: Multivariable (3 Credits)</b> <b>MAT* K272 - Linear Algebra (3 Credits)</b> <b>MAT* K285 - Differential Equations (3 Credits)</b>



## Credit Course Proposal

Proposed Course Title<sup>†</sup>: Applications of Data Structures & Algorithms

Please indicate with an X: 100 level course \_\_\_\_\_ 200 level course \_\_\_\_\_ **X** \_\_\_\_\_

Proposed by: Patrick Burton Date: 11/16/18

Credit Hours: 3

Contact Hours: 5 (Lecture 1 Lab 4 Other   )

Proposed Semester for Implementation: Fall 2020

Will this course replace an existing course? No

If so, which one? \_\_\_\_\_

Will this course accomplish general education goals? No (If yes, please answer question 10 below.)

### Proposed Course Description:

Covers essential concepts of data structures, their implementation, and the algorithms that proceed from their use. Fundamental data structures covered include lists, stacks, queues, priority queues, sets, trees, graphs, and maps (hash tables) along with applications. Additional emphasis is placed on recursion, abstract data types, an understanding of complexity and efficiency issues, and how to communicate design decisions clearly.

### Please respond to the following questions, which will aid the review process:

#### **1. Discuss the appropriateness of this course to the associate degree level curriculum at Three Rivers and to our student population.**

All software applications and programs are comprised of two fundamental things: data and algorithms. A quality and efficient algorithm is therefore constructed from a set of data structures that allows the algorithm to handle the data.

A typical academic sequence for a software engineer/developer/programmer is to take a course in computing/programming followed very soon by a data structures and algorithms course to establish a solid foundation for their approach to algorithmic thinking, designing algorithms (building blocks), and analyzing their efficiency.

The purpose of this course is to establish that foundational technical step since the adding of structure to data makes algorithms simpler to implement, easier to maintain, and are often faster (reduced latency) to run.

This course also sets the foundation for the necessary technical skills needed for success when learning how to efficiently apply Object-Oriented, Event-Driven, and Graphical User Interface Development techniques.

#### **2. How will this course relate to existing courses in the curriculum? Please indicate which if any prerequisite courses will be required and how it would be used in specific degree and/or certificate programs.**

This course is mandatory for the Computer Science Technology career/workforce terminal degree and sets the foundation for understanding how to design, implement, and analyze the building-block structures used to construct almost all modern software applications.

CSC K108 Introduction to Programming starts the student's technical coding foundation and is the prerequisite for this course.

**3. There are several across-the-curriculum educational initiatives to which Three Rivers is committed. Please indicate if and how these would be incorporated in the proposed course--reading, writing, library research, and international perspective, and use of a microcomputer.**

This course requires the use of a microcomputer to develop running software applications that demonstrate and test the use of data structures. Students will increase their effectiveness and efficiency at using the Microsoft Windows operating system, integrated development environments (IDEs), basic file management, and transfer of files.

**4. Please document whether this course will transfer to a baccalaureate institution and how it would be used in a four-year degree.**

Note: This is a requirement for the career/workforce terminal degree.

Comparable courses are offered at:

Eastern Connecticut State University CSC 270 Data Structures  
Central Connecticut State University CS 253 Data and File Structures  
University of Connecticut CSE 2100 Data Structures and Introduction to Algorithms  
University of New Haven CSCI 2226 Data Structures and Algorithms  
Connecticut College COM 212 Data Structures

**5. Please indicate those who have been involved in developing or reviewing this proposal.**

Mark Comeau, Architect, Professor, Dept. Chair

Industry Advisors Consulted:

Owen McCusker, Professional Software Engineer (over 25 years)  
Jerald Gray, Professional Software Engineer (over 25 years)  
Cody Dyer, TRCC Graduate, Professional Software Engineer (~5 years)  
Elizabeth MacEmcy, TRCC Graduate, Professional Software Engineer (~5 years)  
Gary Parker PhD., Connecticut College, Former Department Head (Academia ~19 years)

**6. Please indicate if any additional resources will be required for this course. Include equipment, software, space, consumables, adjunct faculty member, etc.**

No additional resources beyond a classroom, computer/workstation and access to the Internet will be required.

**7. What need will this course meet?**

For students entering the workforce after completing this degree, this course establishes fundamental knowledge, skills, and abilities related to designing, developing, and analyzing the algorithms that they produce. This course affords students the opportunity to practice designing, debugging, and analyzing basic data structures along with their algorithms for performance (time, complexity, efficiency) and how to describe and express the merits of their designs, solutions, and implementation approaches.

**8. Does this course take the place of any present courses being offered? How often would this course be offered in the regular schedule?**

The course will run regularly in the Fall Semester.

**9. Please list the Course Outcomes.**

Students will be able to:

- Utilize sound techniques for designing, developing, and documenting well-structured programs using proper software algorithmic thinking principles.
- Apply problem solving skills, which will provide a foundation for the more advanced programming courses using an OOP (object-oriented programming) methodology.
- Describe and implement common data structures for solving complex programming problems.
- Use mathematical techniques to analyze the efficiency of the various algorithms, as well as the common operations performed by the data structures discussed.

**10. If this course is intended to meet general education requirements, what general education goal(s) will it address?**

**Please also list any general education outcomes under that goal that will be accomplished by the course and briefly describe how they will be assessed.**

**11. Are there additional library resources recommended for this course?**

No additional library resources are required or recommended for this course.

**12. Other information. Please attach any additional information or documentation.**

Program Coordinator/Initiator Patrick Burton

Date 11/16/2018

Department Chair 

Date 12/12/18

Dean 

Date 12-19-18

**FOR ADMINISTRATIVE USE**

Rev'd April 2010

†Please remember to utilize the Common Course Number Inventory ([http://www.internal.comnet.edu/Banner-Docs/folder.asp?URL=/Banner-Docs/Student/CommonCourseNumbers/Course\\_Inventories](http://www.internal.comnet.edu/Banner-Docs/folder.asp?URL=/Banner-Docs/Student/CommonCourseNumbers/Course_Inventories)) to determine whether:

- a) This course is common course named and numbered within the CT Community College System.
- OR
- b) This course is unique to your institution and requires new course number.

## Credit Course Proposal

Proposed Course Title<sup>†</sup>: Applied Software Engineering

Please indicate with an X: 100 level course \_\_\_\_\_ 200 level course X

Proposed by: Patrick Burton Date: 11/16/18

Credit Hours: 3

Contact Hours: 4 (Lecture 2 Lab 2 Other   )

Proposed Semester for Implementation: Fall 2020

Will this course replace an existing course? No

If so, which one? \_\_\_\_\_

Will this course accomplish general education goals? No (If yes, please answer question 10 below.)

**Proposed Course Description:**

Focuses on software engineering as a discipline that encompasses the entire Software Development Life Cycle (SDLC) from concept ideation to maintenance. Topics covered include requirements gathering and elicitation, estimating software (cost and time), formalized design practices and techniques (e.g. Unified Modeling Language), decision analysis resolution (DAR) techniques, implementation strategies (including build vs. buy, open source vs. commercial-off-the-shelf (COTS), 3<sup>rd</sup> party integration, *etc.*), testing (unit-level to quality assurance), delivery (documentation, packaging, and installation), and subsequent maintenance. Various methodologies such as Agile, Iterative Waterfall, Spiral, Capability Maturity Model – Integration (CMMI), *etc.* will be discussed in the context of each SDLC phase.

**Please respond to the following questions, which will aid the review process:**

**1. Discuss the appropriateness of this course to the associate degree level curriculum at Three Rivers and to our student population.**

Software Engineering is an essential discipline that requires more than technical knowledge and skills to be successful in industry. Quality software requires the practitioner understand the relationship of software development to overall product/solution engineering. This includes the ability to identify what is needed or being asked by customers, how to gather, research, and document one's understanding all the while analyzing and factoring technical, organizational, and business constraints on those solutions, and ultimately reflecting that understanding into the software design, implementation, and engineering artifacts delivered.

**2. How will this course relate to existing courses in the curriculum? Please indicate which if any prerequisite courses will be required and how it would be used in specific degree and/or certificate programs.**

This course is mandatory for the Computer Science Technology career/workforce terminal degree and sets the foundation for understanding the SDLC along with developing and exercising practical skills for applying, evaluating, and creating SDLC artifacts used within industry.

CSC K108 Introduction to Programming starts the student's technical foundation and ENG K101 Composition starts the written foundation, which are prerequisites for this course.

**3. There are several across-the-curriculum educational initiatives to which Three Rivers is committed. Please indicate if and how these would be incorporated in the proposed course--reading, writing, library research, and international perspective, and use of a microcomputer.**

This course requires the use of a microcomputer to develop artifacts for all stages of the SDLC. Students will increase their effectiveness and efficiency at utilizing Microsoft Office-based products (Word, Excel, & PowerPoint), basic file management, and internet sharing and transfer of files.

**4. Please document whether this course will transfer to a baccalaureate institution and how it would be used in a four-year degree.**

Note: This is a requirement for the career/workforce terminal degree.

Comparable courses are offered at:

Eastern Connecticut State University CSC 445 Software Engineering  
Central Connecticut State University CS 410 Software Engineering  
University of Connecticut CSE 2102 Introduction to Software Engineering

**5. Please indicate those who have been involved in developing or reviewing this proposal.**

Mark Comeau, Architect, Professor, Dept. Chair

Industry Advisors Consulted:

Owen McCusker, Professional Software Engineer (over 25 years)  
Jerald Gray, Professional Software Engineer (over 25 years)  
Cody Dyer, TRCC Graduate, Professional Software Engineer (~5 years)  
Elizabeth MacEmcy, TRCC Graduate, Professional Software Engineer (~5 years)  
Gary Parker PhD., Connecticut College, Former Department Head (Academia ~19 years)

**6. Please indicate if any additional resources will be required for this course. Include equipment, software, space, consumables, adjunct faculty member, etc.**

No additional resources beyond a classroom, computer/workstation and access to the Internet will be required.

**7. What need will this course meet?**

For students entering the workforce after completing this degree, this course establishes fundamental knowledge, skills, and abilities, along with practical and proven techniques for developing quality software for projects and organizations of all sizes. This course affords students the ability to practice industry established practices through a disciplined engineering approach to ensure that solutions are built consistently, correctly, on time, on budget, and within requirements.

**8. Does this course take the place of any present courses being offered? How often would this course be offered in the regular schedule?**

The course will run regularly in the Fall Semester.

**9. Please list the Course Outcomes.**

Students will be able to:

- Demonstrate a working knowledge of key activities that occur at each phase of the SDLC
- Develop an operational understanding of SDLC phase appropriate models, techniques, & strategies

- Practice generating SDLC artifacts:
  - Software Requirement Specification (SRS),
  - Software Estimate
  - Software Design Document (SDD)
  - Decision Analysis Resolution (DAR),
  - Test Plan

**10. If this course is intended to meet general education requirements, what general education goal(s) will it address?**

**Please also list any general education outcomes under that goal that will be accomplished by the course and briefly describe how they will be assessed.**

**11. Are there additional library resources recommended for this course?**

No additional library resources are required or recommended for this course.

**12. Other information. Please attach any additional information or documentation.**

**Program Coordinator/Initiator** Patrick Burton

**Date** 11/16/2018

**Department Chair** 

**Date** 12/12/18

**Dean** 

**Date** 12-19-18

**FOR ADMINISTRATIVE USE**

Rev'd April 2010

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- This course is common course named and numbered within the CT Community College System.
- OR
- This course is unique to your institution and requires new course number.

## Credit Course Proposal

Proposed Course Title<sup>†</sup>: Computer Science Capstone

Please indicate with an X: 100 level course \_\_\_\_\_ 200 level course \_\_\_\_\_ **X** \_\_\_\_\_

Proposed by: Patrick Burton Date: 11/16/18

Credit Hours: 3

Contact Hours: 3 (Lecture \_ Lab 3 Other \_)

Proposed Semester for Implementation: Spring 2021

Will this course replace an existing course? No

If so, which one? \_\_\_\_\_

Will this course accomplish general education goals? No (If yes, please answer question 10 below.)

### Proposed Course Description:

An exciting real-world, hands-on training experience designed to be the culmination of the student's knowledge, skills, and abilities in the area of Computer Science. In the style of a Research & Development (R&D) rapid prototyping environment, students scope a problem, design a solution, produce and demonstrate tangible physical artifacts (work products) that address the problem, and present their work as they would in industry.

### Please respond to the following questions, which will aid the review process:

#### **1. Discuss the appropriateness of this course to the associate degree level curriculum at Three Rivers and to our student population.**

The course is a bridge between the student's academic experience and the professional workplace. The objective is to give the student the experience of being involved in building a non-trivial, rapid prototype real-world software development project that integrates their knowledge of the concepts, techniques, and topics covered.

Class time focuses on aiding the student with understanding and applying the Software Development Life Cycle (SDLC) phases, and will also include lectures on the practical applications of trending and advanced topics in the software industry. This capstone course is not simply an advanced course in a particular sub-area, nor is it an unstructured project course. The capstone is designed to be a culmination of the student's education with tangible physical artifact(s) and expressions of soft-skills (teamwork, communication, problem-solving, *etc.*) to show potential employers. Additionally, team-based and interdisciplinary projects that require interaction with other departments will be highly-encouraged.

This course aligns with the "Whitepaper Study" findings presented by Kem Barfield at the October (10/12/18) All College meeting that conveyed the need for more "real-life training scenarios and hands-on learning."

#### **2. How will this course relate to existing courses in the curriculum? Please indicate which if any prerequisite courses will be required and how it would be used in specific degree and/or certificate programs.**

This course is mandatory for the Computer Science Technology career/workforce terminal degree and is the culmination of the student's academic experience.

Prerequisites include Applied Software Engineering, any Object-Oriented Programming (e.g., Java Programming I) course, and at least third semester standing or permission of instructor or Computer Science Program Coordinator.

**3. There are several across-the-curriculum educational initiatives to which Three Rivers is committed. Please indicate if and how these would be incorporated in the proposed course--reading, writing, library research, and international perspective, and use of a microcomputer.**

This course requires the use of a microcomputer to develop a running software application/prototype that solves a real-world problem. Students will increase their effectiveness and efficiency at using the Microsoft Windows operating system, integrated development environments (IDEs), basic file management, and transfer of files.

**4. Please document whether this course will transfer to a baccalaureate institution and how it would be used in a four-year degree.**

Note: This is a requirement for the career/workforce terminal degree.

This is a unique course offering designed to help students transition from college to the workforce by affording practical experience and skill sets students can transfer to their careers.

**5. Please indicate those who have been involved in developing or reviewing this proposal.**

Mark Comeau, Architect, Professor, Dept. Chair

Industry Advisors Consulted:

Owen McCusker, Professional Software Engineer (over 25 years)

Jerald Gray, Professional Software Engineer (over 25 years)

Cody Dyer, TRCC Graduate, Professional Software Engineer (~5 years)

Elizabeth MacEmcy, TRCC Graduate, Professional Software Engineer (~5 years)

Gary Parker PhD., Connecticut College, Former Department Head (Academia ~19 years)

**6. Please indicate if any additional resources will be required for this course. Include equipment, software, space, consumables, adjunct faculty member, etc.**

No additional resources beyond a classroom, computer/workstation and access to the Internet will be required.

**7. What need will this course meet?**

For students entering the workforce after completing this degree, this course establishes fundamental knowledge, skills, and abilities related to designing, developing, and analyzing the algorithms that they produce. This course affords students the opportunity to practice designing, debugging, and analyzing their algorithms for performance (time, complexity, efficiency) and how to describe and express the merits of their designs, solutions, and implementation approaches.

This course aligns with the "Whitepaper Study" findings presented by Kem Barfield at the October (10/12/18) All College meeting that conveyed the need for more "real-life training scenarios and hands-on learning."

**8. Does this course take the place of any present courses being offered? How often would this course be offered in the regular schedule?**

The course will run regularly in the Spring Semester.

**9. Please list the Course Outcomes.**

Students will be able to:



- Apply concepts from more than one subject area of the TRCC Computer Science curriculum.
- Explain their work in both written and oral forms.
- Evaluate and practice soft-skills (teamwork, communication, problem-solving, *etc.*) pertinent to potential employers.
- Demonstrate a solution developed in a rapid prototyping R&D environment.

**10. If this course is intended to meet general education requirements, what general education goal(s) will it address?**

**Please also list any general education outcomes under that goal that will be accomplished by the course and briefly describe how they will be assessed.**

**11. Are there additional library resources recommended for this course?**

No additional library resources are required or recommended for this course.

**12. Other information. Please attach any additional information or documentation.**

**Program Coordinator/Initiator** Patrick Burton

**Date** 11/16/2018

**Department Chair** 

**Date** 12/12/18

**Academic Dean** 

**Date** 12-18-18

**FOR ADMINISTRATIVE USE**

Rev'd April 2010

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- This course is common course named and numbered within the CT Community College System.
- OR
- This course is unique to your institution and requires new course number.

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Program Modification

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the modification of a degree program – Electrical, Laser, Robotics Engineering Technology (CIP Code: 15.0303, OHE # 00748) leading to an Associate of Science degree, specifically a curricular change and a name change at Three Rivers Community College.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

Modifications (curricular change and name change) of a degree program, Electrical, Laser, Robotics Engineering Technology at Three Rivers Community College

**BACKGROUND**Summary

An internal assessment of the referenced program concluded that it lacks rigor and was initially design in a scattershot manner to serve multiple masters. Curricular changes include different prerequisites for courses and more appropriate alignment of courses. The new program title, Electrical Engineering Technology is sequenced to allow student to complete the program in two years with 60 course credits. The new degree program will offer students options in Mechatronics and Communications, allowing student to specialize in area that meet the needs of local industry.

Resources

The proposed modifications do not add additional costs to the execution of the program since all courses are pre-existing.

**RECOMMENDATION**

Following its review and deliberative process, it is the recommendation of the Academic Council that the Board of Regents approve this program modification. The System's Provost and Senior Vice President for Academic and Students Affairs concurs with this recommendation.

03/15/2019 – BOR Academic & Student Affairs Committee

03/28/2019 – Board of Regents

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM**

**SECTION 1: GENERAL INFORMATION**

**Institution:** Three Rivers Community College      Date of Submission to CSCU Office of the Provost:

Most Recent NEASC Institutional Accreditation Action and Date:

**Original Program Characteristics**

CIP Code No. **15.0303**    Title of CIP Code **Electrical,**

**Electronic and Communications Engineering Technology**

Name of Program: **Electrical, Laser, Robotics Eng. Tech.**

Degree: Title of Award (e.g. *Master of Arts*) **A.S.**

Certificate: (specify type and level) **N/A**

Date Program was Initiated: 1992

Modality of Program: X On ground    Online    Combined

If "Combined", % of fully online courses?

Total # Cr the Institution Requires to Award the Credential (i.e. include program credits, GenEd, other): 60

Type of Program Modification Approval Being Sought (mark all that apply):

Licensure and Accreditation (specify whether New Certificate, Minor, Option, Concentration, or Other)

X Significant Modification of Courses/Course Substitutions\*

Offering of Program at Off-Campus Location (specify new location)

Offering of Program Using an Alternate Modality (e.g. from on ground to online)

X Change of Degree Title or Program Title

**Modified Program Characteristics**

Name of Program: **Electrical Engineering Technology**

Degree: Title of Award (e.g. *Master of Arts*) **A.S.**

Certificate<sup>1</sup>: (specify type and level) **N/A**

Program Initiation Date: 1974

Modality of Program: X On ground    Online    Combined

If "Combined", % of fully online courses?

Total # Cr the Institution Requires to Award the Credential (i.e. include program credits, GenEd, other): 60

Other:

**Original Program Credit Distribution**

# Cr in Program Core Courses: 34

# Cr of Electives in the Field: 26

# Cr of Free Electives: 0

# Cr Special Requirements (include internship, etc.): 0

Total # Cr in the Program (sum of all #Cr above): 60

From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: **All**

**Modified Program Credit Distribution**

# Cr in Program Core Courses: 31

# Cr of Electives in the Field: 26

# Cr of Free Electives: 0

# Cr Special Requirements (include internship, etc.): 3

Total # Cr in the Program (sum of all #Cr above): 60

From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: **All classes are already part of the system that includes Three Rivers, Gateway, or Naugatuck Valley**

\***Significant** is defined as "more than 15 credits in a previously approved undergraduate degree program or more than 12 credits in a previously approved graduate degree program.

**CSCU REVIEW STATUS** (For System Office Use Only - please leave blank)

Notes regarding Application:

Log of Steps Toward Approval:

Date of Approval:

Date for Inclusion in BOR-ASA Meeting Package:

Comments:

Conditions for Approval (if any)

<sup>1</sup> If creating a Certificate program from existing courses belonging to a previously approved baccalaureate/associate degree program, enter information about that program in the "Original Program" section.

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM**

**SECTION 1: GENERAL INFORMATION (continued)**

If program modification is concurrent with discontinuation of related program(s), please list for such program(s):

Program Discontinued: CIP: OHE#: 000748 Accreditation Date:

Phase Out Period Date of Program Termination

Institution's Unit (e.g. School of Business) and Location (e.g. main campus) Offering the Program: Three River Community College

Other Program Accreditation:

- If seeking specialized/professional/other accreditation, name of agency and intended year of review:
- If program prepares graduates eligibility to state/professional license, please identify:

*(As applicable, the documentation in this request should address the standards of the identified accrediting body or licensing agency)*

**Institutional Contact for this Proposal:** Aaron P. Dahlen Title: Assistant Professor

Tel.: 860-215-9476 e- mail: ADahlen@trcc.commnet.edu

**SECTION 2: BACKGROUND, RATIONALE AND NATURE OF MODIFICATION**

*(Please Complete Sections as Applicable)*

**Background and Rationale** *(Please provide the context for and need for the proposed modification, and the relationship to the originally approved program)*

***A graphical representation of the 2018 – 2019 EET program is included on page 9 of this document. The primary challenges with the status quo may be summarized as:***

- ***The program's as listed mathematics classes do not allow the target student to finish the program in 2 years and 60 credits. Here the target student is assumed to have an average mathematics background, arriving at TRCC ready to take College Algebra (MAT K172). Note that the mathematics prerequisites are marked as \* for K095, \*\* for K137, and \*\*\* for K172.***
- ***The program lacks rigor. Since Electrical Circuits and Systems (EET K105) is the only prerequisite for the bulk of the EET classes, every class must start at the lowest common denominator. For example, it is challenging for a student to take the Electronic Communication Systems class (EET K274) without first having studied the alternating current lessons of Advanced Circuits and Systems (EET K119) and the circuits presented in EET K134.***
- ***The Introduction to Light and Lasers class (PHO K101) class is inappropriately placed as it has insufficient prerequisites. Snell's Law with its dependency on trigonometry is one of the early lessons in this class. This forces the instructor to spend considerable time focused on the prerequisite mathematics as opposed to the application of technology.***
- ***The program is scattershot in its attempt to serve multiple masters. The very name of the program — Electrical, Laser and Robotics Engineering Technology — suggests the scope of the problem. Based on the class listing and previous history, this is an Electrical Engineering Technology program. The single class in robotics in no way justifies that name in the title. The weak PHO K101 plus the PHO K102 which has not been taught for several years does not justify laser in the title.***
- ***The photonics classes are out of sequence. The 200 level class should not appear in the 2nd semester and the 100 level class should not appear in the 4th semester. Also, there is no link between the PHO K241 class and the 100 level photonics classes.***

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
*APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM*

*In consideration of these challenges, this program modification is submitted for your review. A graphical representations of the proposal is included on pages 10 through 12. Representative paths for a mechatronics and a communications path are shown on page 10 and 11 respectively and a comprehensive master listing showing all classes and directed electives is included on page 12.*

*Additional information regarding the rationale behind the proposed changes is located in the "Description of Modification" section located on page 4.*

As applicable, please describe:

- How does the program address CT workforce needs and/or the wellbeing of CT society/communities? (*Succinctly present as much factual evidence and evaluation of stated needs as possible*)

*The program modifications described in this document strengthen the core Electrical Engineering Technology skills. At the same time, the modifications provide maximum flexibility to meet student interest and the needs of local industry. All students complete a common curriculum with cohesive learning objectives for the first three semesters. In the final semester, they specialize to align with industry by completing two directed electives.*

- How does the program make use of the strengths of the institution (e.g. curriculum, faculty, resources) and of its distinctive character and/or location?

**Three Rivers Community College has offered the Electronics Engineering Technology program since 1974. Graduates find employment in the large local defense industry as well as many smaller manufacturing and maritime companies.**

- Please describe any transfer agreements with CSCU institutions that will become instituted as a result of the approval of this program (*Please highlight details in the Quality Assessment portion of this application, as appropriate*)

***This degree is designed to supply industry with technically skilled employees. Currently there is no transfer agreement. However, for students wishing to transfer to another university:***

- ***the move to consolidate with Gateway and Naugatuck Valley is expected to streamline the transfer process for all students across the state.***
- ***the program includes a transfer track to better prepare students who wish to transfer to a 4-year institution. Students may substitute Calculus I and II for two technology classes.***
- Please indicate what similar programs exist in other institutions within the CSCU System, and how unnecessary duplication is being avoided

***There are currently three CT institutions offering this two-year degree including Gateway, Naugatuck Valley, and Three Rivers Community colleges. The proposed change aligns Three River's program closer to the programs offered at Gateway and Naugatuck Valley. Specifically, Three Rivers will now share 5 core classes with the other institutions.***

***The proposed change includes directed electives (7 or 8 credits) in the 4<sup>th</sup> semester. This allows students to specialize in specific areas thereby meeting the needs of local industry. For example, students may specialize in Mechatronics or Communications as described on pages 10 and 11 of this document.***

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
*APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM*

- Please provide a description/analysis of employment prospects for graduates of this proposed program

*The Bureau of Labor Statistics' Occupational Outlook Handbook projects that the Electrical and Electronics Engineering Technicians occupation will grow at a rate of 2% in the years 2016 to 2026.*

*The Connecticut Department of Labor projects the occupation will grow 1.1% from 2016 to 2026 adding approximately 154 new jobs each year. Students may also find employment in related occupations such as:*

- Computer User Support Specialists
- Mechanical Engineering Technicians
- Audio and Video Equipment Technicians
- Broadcast Technicians
- Computer, Automated Teller, and Office Machine Repairers
- Avionics Technicians
- Electrical and Electronics Installers and Repairers, Transportation Equipment
- Electrical and Electronics Repairers, Commercial and Industrial Equipment
- Camera and Photographic Equipment Repairers
- Medical Equipment Repairers

Description of Modification *(Please provide a summary of the modifications to curriculum, admissions or graduation requirements, mode of delivery etc., and concisely describe how the institution will support these changes.*

**Pages 10 through 12 of this document present a graphical representation of the proposed program changes. Observe:**

- **The necessary mathematics classes are included as part of the program so that the target student may complete the program in 2 years and 60 credits. This change necessitated a wholesale resequencing of the classes.**
- **The program's rigor is improved with the addition of the prerequisites as depicted by the solid lines between classes.**
- **Directed electives are added allowing students to allow students the opportunity to explore specialized topics. For example, the laser and optics classes are moved to 200 a single 200 level directed elective.**
- **Students, including those taking remedial mathematics, are indoctrinated into the EET program via a low risk one credit Electronics CAD and FAB class (EET K104) — a class that is currently taught in the Naugatuck Valley EET program. In this lab based class, students are introduced to the materials, equipment, and terminology used by an EET. The highlight of this introductory lab based class is the use of a CAD program to layout a circuit card which they will then manufacture.**
- **At the other end of the program is the capstone experience where students build upon the lessons learned in the CAD and FAB class. They will construct an electrical or mechatronics project that demonstrates the knowledge acquired over the previous four semesters.**
- **Pathways for transfer are offered for students wishing to transfer to a 4-year EET or EE program. This includes Calculus I and II.**

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
*APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM*

- The workload for each semester has been balanced to maximize student success. This includes a relatively easy first semester to ensure early student success.
- The classes are modified to fit the anticipated general education requirements. One of the humanities electives has been changed to a behavioral science elective. A perspectives course has been added. Students may select from either Introduction to Engineering or the First Year Experience.
- Several of the core EET classes are changed to better align with Gateway and Naugatuck Valley. Consequently, five of the core classes are changed from 3 to 4 credits.
- The interface with Three River's Mechanical and Manufacturing programs is maintained. Specifically, EET K105, K264, and K 266 remain unchanged.
- The program is focused on the core EET concepts. This includes a name change to the program back to Electrical Engineering Technology.

**Description of Resources Needed** *(As appropriate please summarize faculty and administrative resources, library holdings, specialized equipment, etc. Details to be provided in the next section, as appropriate)*

**This modification does not change the resources from the existing Electrical, Laser, and Robotics Engineering Technology program.**

**Other Considerations**

**Previous Three Years Enrollment and Completion for the Program being Modified**

ACTUAL Enrollment	Fall Term, Year 2016		Fall Term, Year 2017		Fall Term, Year 2018	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Transfers In	4	2	2	4	1	1
New Students	3	5	4	1	1	7
Returning Students	11	27	10	28	7	33
<b>ACTUAL Headcount Enrollment</b>	18	34	16	33	9	41
<b>Fall FTE accounted for by Program Majors</b>	33.5		26.8		23.2	
<b>Size of Credentialed Group(s) for Given Year</b>						



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**Curriculum Details for a Program Modification** (to be used as appropriate for specific modification request)<sup>2</sup>

Course Number and Name <sup>3</sup>	L.O. #	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
<b>Program Core Courses</b>				<b>Other Related/Special Requirements</b>		
EET K104 Electronic CAD and FAB	1, 6	N/A	1	ENG K101 Composition	2, 4	3
EET K105 Electrical Circuits & Systems	1, 6	MAT K137 EET K105	3	MAT K172 College Algebra EGR K111 Intro to Eng	3, 4	3
EET K114 Electronic Circuits II	1, 3	MAT 172	4	or IDS K105 First Year Exp	4, 7	3
EET K136 Electronics I	2, 3	EET K114 EET K105	4	MAT K186 Precalculus PHY K114 Mechanics	3, 4 3, 4	4
EET K252 Digital Electronics	2, 3, 5,	MAT K172	4	or PHY K115 Heat Sound Light		4
EET K 256 Microprocessor	2, 3, 5	EET K252	4	ENG K202 Tech Writing	2, 4	3
EET K266 Advanced Control & Robotics	2, 3, 5	EET K105 MAT K172	3	Behavioral Science	4, 5, 7	3
TCN K291 Interdisciplinary Capstone	4, 5, 6, 7	Dept chair permission: generally 4 <sup>th</sup> semester	3	Humanities	4, 5, 7	3
Directed Elective – select two from:						
EET K262 Electric Machinery & Control		generally	4			
EET K264 Data Acquisition & Control		taken in 4 <sup>th</sup>	3			
EET K272 Electronic Communications		semester	4			
MAT K256 Calculus	1, 4, 6,		4			
PHO K241 Introduction to Laser Tech	7		3			
CST K180 Networks I			4			

Note: Student electing to take EET K264 and PHO K241 will be two credits below the 60 required to graduate.

**Core Course Prerequisites**

Placement or completion of MAT K137 Intermediate Algebra  
 Placement or completion of ENG K096 Introduction to English

**60 Elective Courses in the Field 26**

**Total Other Credits Required to Issue Modified Credential 60**

<sup>2</sup> Details of course changes for Community College institutions should be provided with enough detail to introduce necessary changes in the centralized programmatic database for that system.

<sup>3</sup> Make any detailed annotations for individual courses as needed to understand the curricular modifications taking place

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**Learning Outcomes - L.O.** *(Please list up to seven of the most important student learning outcomes for the program, and any changes introduced)*

**By the time of graduation, students in the Electrical Engineering Technology program will:**

- 1. understand and apply technical concepts relating to electrical, optical and robotic systems including fabrication, measurement, analysis and maintenance of systems and subsystems.**
- 2. combine oral, technical and written communication skills to present and exchange information effectively and to direct activities involving electrical, laser and robotics technology.**
- 3. demonstrate the ability to use appropriate mathematical, computational and technical-thinking skills needed for engineering technology applications.**
- 4. illustrate an ability to think critically and identify, evaluate and solve complex technical and non-technical problems; demonstrate creativity in designing problem solutions; and conduct and interpret experimental data and outcomes.**
- 5. practice the skills needed to work effectively in teams and as an individual.**
- 6. describe concepts relating to quality, timeliness and continuous improvement.**
- 7. recognize actions and acts of professionalism that allow them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.**

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**SECTION 3: RESOURCE AND FINANCIAL CONSIDERATIONS**

**Two-Year Cost Effectiveness and Availability of Adequate Resources**

*(Please complete the Pro-Forma Budget – Projected Revenues and Expenditures on the following page. Provide any necessary annotations for the Pro-Forma Budget and other commentary regarding the cost effectiveness and availability of adequate resources for the proposed modification below:*

**PRO FORMA Budget - Projected Revenues and Expenditures**  
(Whole Dollars Only)

<b>PROJECTED Program Revenue</b>	Fall 2019	Fall 2020	Fall 2021
Tuition (do not include internal transfers)	See note below		
Program-Specific Fees			
Other Revenue (Annotate in narrative)			
<b>Total Estimated Program Revenue</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>

<b>PROJECTED Program Expenditures*</b>	Fall 2019	Fall 2020	Fall 2021
Administration (Chair or Coordinator)	See note below		
Faculty (Full-time, total for program)			
Faculty (Part-time, total for program)			
Support Staff			
Library Resources Program			
Equipment (List as needed)			
Other (e.g. student services)			
Estimated Indirect Costs (e.g. student services, operations, maintenance)			
<b>Total Estimated Program Expenditures</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>

\*Note: Capital outlay costs, institutional spending for research and services, etc. can be excluded.

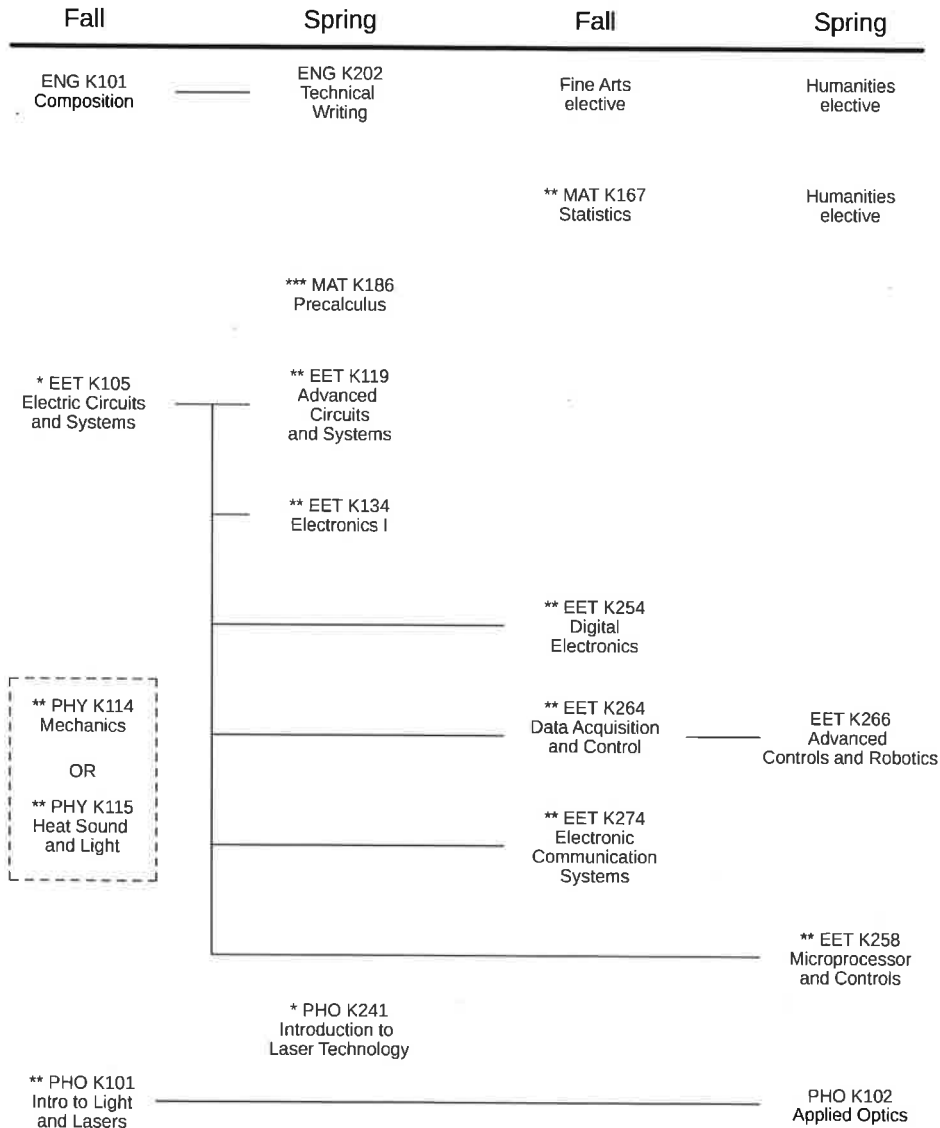
*This “Significant Modification of Courses/Course Substitutions” does not require the addition of any new faculty or courses – No fiscal impact to Three Rivers Community College.*

This PRO FORMA Budget provides reasonable assurance that the proposed program modification can be established and is sustainable. Some assumptions and/or formulaic methodology may be used and annotated in narrative on page 4 of Application.

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# Status Quo

Three Rivers Community College  
 Electrical, Laser, and Robotics Engineering Technology, A.S.



\* prerequisite of MAT K095 Elementary Algebra Foundations

\*\* prerequisite of MAT K137 Intermediate Algebra

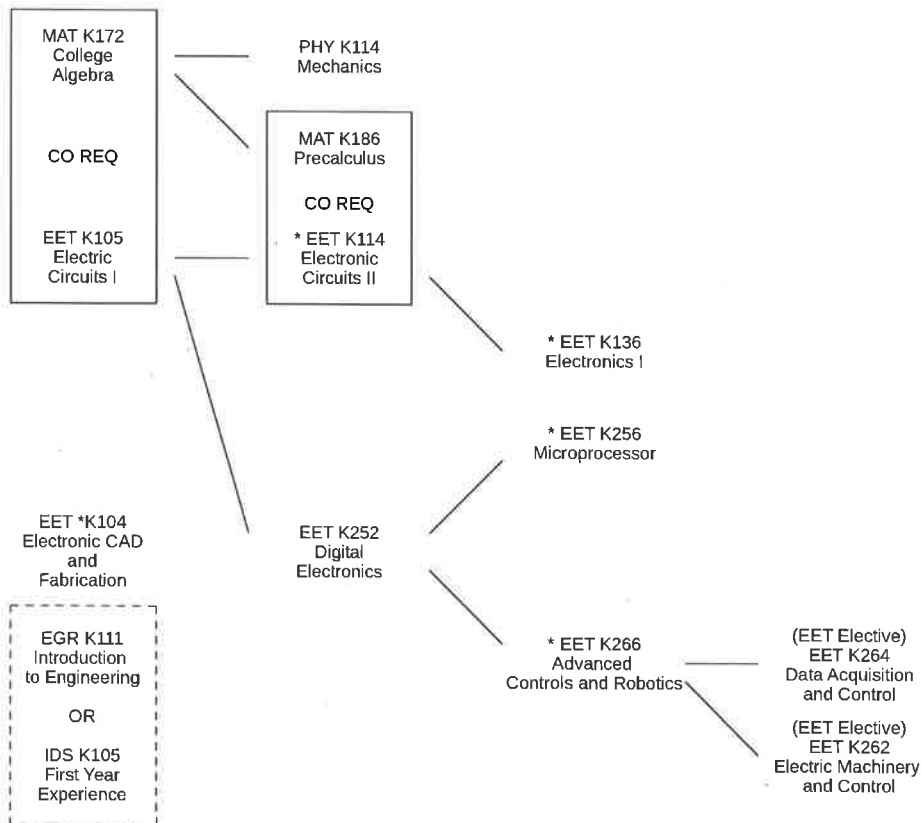
\*\*\* Prerequisite of MAT K172 Precalculus

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# Mechatronics Path

Three Rivers Community College  
 Electrical Engineering Technology, A.S.

Fall	Spring	Fall	Spring
ENG K101 Composition	_____	ENG K202 Technical Writing	Humanities Elective
		Behavioral Science Elective	TCN K291 Interdisciplinary Capstone Design Project



Nuclear engineering students may complete classes marked with an \* plus two EET electives to obtain an additional degree in EET.

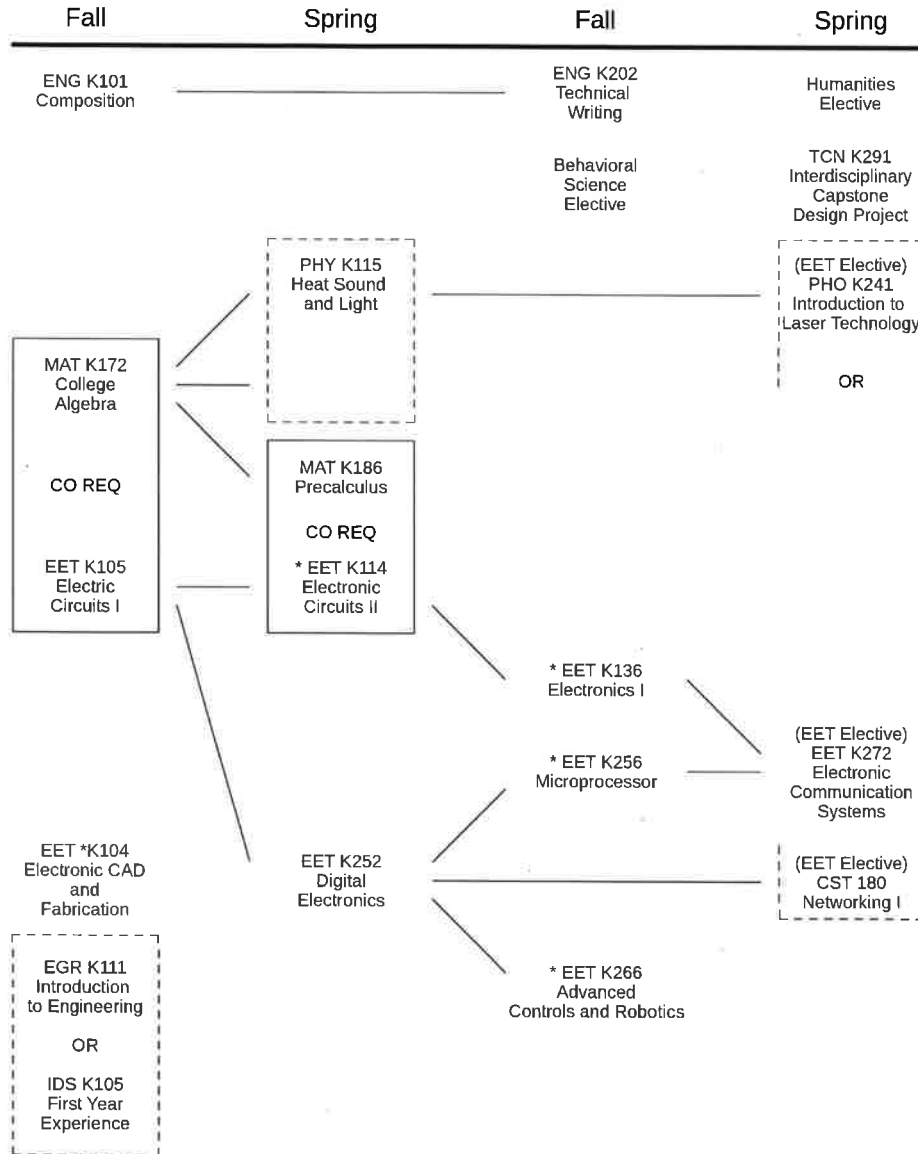
Three of the five directed electives will be offered each Spring semester.

Calculus 1 and Calculus II may be substituted for the EET electives.  
 This is the good choice for students intending to transfer to a four year university upon graduation

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# Communications Path

Three Rivers Community College  
 Electrical Engineering Technology, A.S.



Nuclear engineering students may complete classes marked with an \* plus two EET electives to obtain an additional degree in EET.

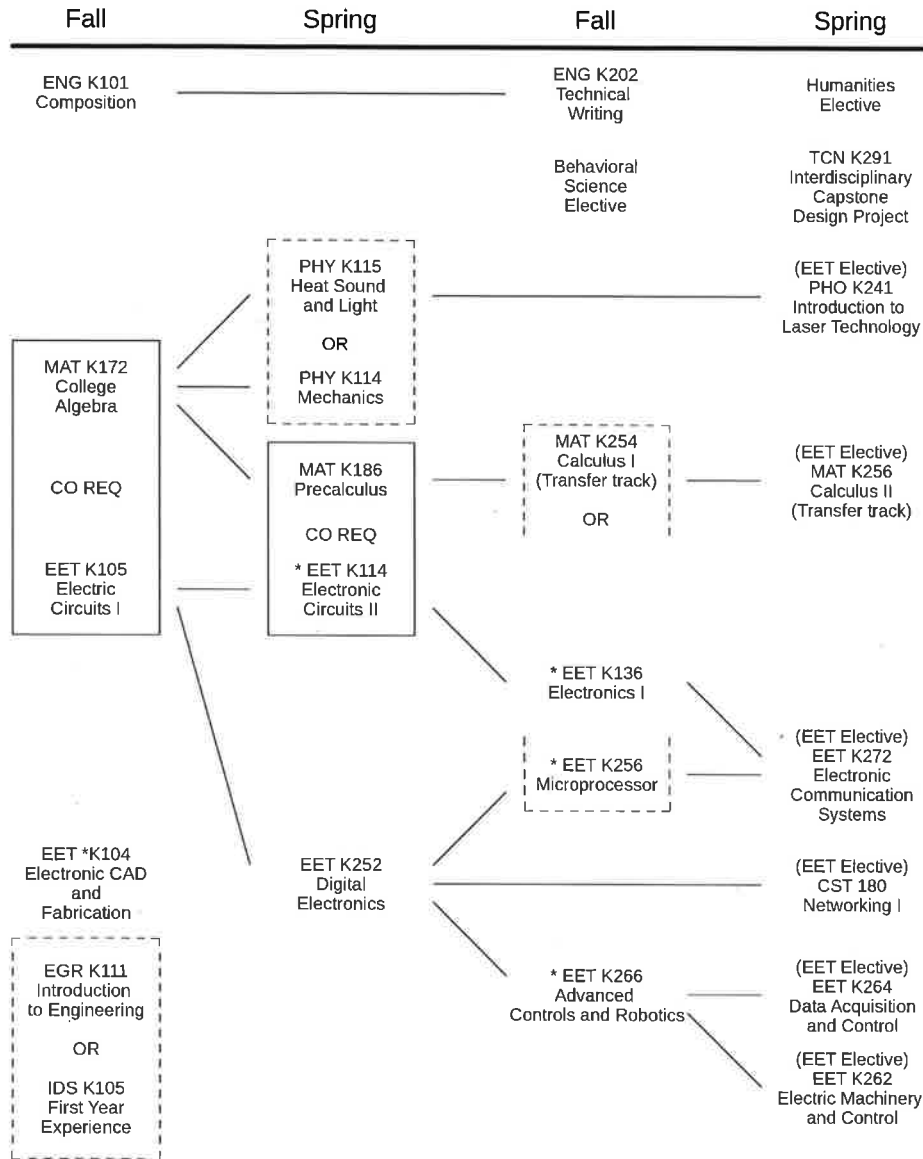
Three of the five directed electives will be offered each Spring semester.

Calculus 1 and Calculus II may be substituted for the EET electives.  
 This is the good choice for students intending to transfer to a four year university upon graduation

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# Master Path With All Prerequisites

Three Rivers Community College  
 Electrical Engineering Technology, A.S.



Nuclear engineering students may complete classes marked with an \* plus two EET electives to obtain an additional degree in EET.

Three of the five directed electives will be offered each Spring semester.

Calculus 1 and Calculus II may be substituted for the EET electives.  
 This is the good choice for students intending to transfer to a four year university upon graduation

**PLAN OF STUDY CHANGE FORM**  
**Three Rivers Community College**

Program of Study: Electrical, Laser, and Robotics Engineering Technology

Associate X Certificate \_\_\_\_\_ Dept: Technology

Contact (Dept. Chair) Mark Comeau Curriculum Committee Date: \_\_\_\_\_

Please submit the following form when requesting a change to a plan of study.

**Please Note:** a program modification, which alters 15 or more credits from the original system approved program, requires a formal proposal to be submitted to the Board of Trustees.

<b>Current</b> <i>A.S. Electrical, Laser and Robotics Engineering Technology</i>			<b>ADD+/ CHANGE/ DELETE</b>	<b>PROPOSED</b> <i>A.S. Electrical Engineering Technology<sup>18</sup> For Academic Yr 2019/20</i>		
CR #	Course Description	Credit		CR #	Course Description	Credit
<b>SEMESTER I</b>				<b>SEMESTER I</b>		
ENG K101	Composition	3		ENG K101	Composition	3
PHY K114 or PHY K115	Mechanics or Heat Sound and Light	4 4	Change <sup>1, 2</sup> moved to 2 <sup>nd</sup> semester			
PHO K101	Intro to Light and Lasers	3	Delete <sup>3</sup>			
EET K105	Electrical Circuits and Systems	3		EET K105	Electrical Circuits and Systems	3
			Add <sup>4</sup>	EGR K111 or IDS K105	Introduction to Engineering or The First Year Experience	3
			Add <sup>1</sup>	MAT K172	College Algebra	3
			Add <sup>5</sup>	EET K104	(N) Electronics CAD and Fabrication	1
<b>SEMESTER II</b>				<b>SEMESTER II</b>		
MAT K186	Precalculus	4		MAT K186	Precalculus	4
EET K119	Advanced Circuits and Systems	3	Change <sup>6</sup> to common listed course; increase to 4 credits	EET K114	(N) Electronic Circuits II	4
EET K134	Electronics I	3	Change <sup>7</sup> to common course; move to 3 <sup>rd</sup> semester; increase to 4 credits			
ENG K202	Technical Writing	3	Change <sup>7</sup> moved to 3 <sup>rd</sup> semester; EET Directed Elective			
PHO K241	Introduction to Laser Technology	3	Change <sup>7</sup> moved to 4 <sup>th</sup> semester			
			Change <sup>8</sup> previously in 3 <sup>rd</sup> semester; change to common listed course; increase to 4 credits	EET K252	(N) Digital Electronics I	4
			Change <sup>1, 2</sup> previously in 1 <sup>st</sup> semester	PHY K114 or PHY K115	Mechanics or Heat Sound and Light	4



**PLAN OF STUDY CHANGE FORM**  
**Three Rivers Community College**

CR #	Course Description	Credit		CR #	Course Description	Credit
<b>SEMESTER III</b>				<b>SEMESTER III</b>		
Fine Arts	Fine Arts Elective	3	Deleted <sup>14</sup>			
EET K264	Data Acquisition and Controls	3	Change to 4 <sup>th</sup> semester	EET K266	Advanced Controls and Robotics	3
EET K254	Digital Electronics I	3	Change <sup>8</sup> moved to 2 <sup>nd</sup> semester			
EET K274	Electronics Communication Systems	3	Change <sup>7,13</sup> moved to 4 <sup>th</sup> semester; EET Directed Elective; common course listing			
AT K167	Principles of Statistics	3	Delete <sup>1, 10</sup>			
			Change <sup>7, 11</sup> previously in 2 <sup>nd</sup> semester; change to common listed course; increased to 4 credits	EET K136	(N) Electronics I	4
			Change <sup>7</sup> previously in 2 <sup>nd</sup> semester	ENG K202	Technical Writing	3
			Change <sup>12</sup> Previously in 4 <sup>th</sup> semester and change to common listed course	EET 256 or MAT K254	(N) Microprocessor or Calculus I	4
			Change <sup>9</sup> previously Humanities Elective in 4 <sup>th</sup> semester	Behavioral	Behavioral Science Elective	3
<b>SEMESTER IV</b>				<b>SEMESTER IV</b>		
Humanities	Humanities / Social science Elective	3		Humanities	Humanities / Social Science Elective	3
Humanities	Humanities / Social science Elective	3	Change <sup>9</sup> moved to 3 <sup>rd</sup> semester			
EET K258	Microprocessors & Controls	3	Change moved to 3 <sup>rd</sup> semester			
EET K266	Advanced Controls and Robotics	3	Change <sup>13</sup>	EET K264	Data Acquisition and Controls	EET Directed Electives 7 or 8 credits
PHO K241	Introduction to Laser Technology	3	Change <sup>13</sup>	PHO K241	Introduction to Laser Technology	
			Change <sup>7,13</sup> previously in 3 <sup>rd</sup> semester; EET Directed Elective; common course listing	EET K272	Electronic Communication Systems	
			Add <sup>13</sup>	CST 180	(N) Networking 1	
			Add <sup>13</sup>	EET K262	(N) Electric Machinery and Control	
			Add <sup>13</sup>	MAT K256	(N) Calculus II	
			Add <sup>15</sup>	TCN K291	(N) Interdisciplinary Capstone Design Project	
	<b>Total Credits (Each Concentration)</b>	<b>60</b>			<b>Total Credits (Each Concentration)</b>	<b>4<sup>16</sup> 60 or 61<sup>18</sup></b>

## PLAN OF STUDY CHANGE FORM

### Three Rivers Community College

#### Comments

1) The math requirements in the existing program are not aligned in the 2018-2019 Electrical, Laser and Robotics Engineering Technology program. Specifically, Elementary Algebra (MAT K095) is listed as a co-requisite to Electronic Circuits and Systems (EET K105) while College Algebra (MAT K172) is listed as a prerequisite for Physics (PHY K114 / K115). In fact, College Algebra is missing entirely from the program even though it is a prerequisite to Precalculus (MAT K186). **The primary change to this program is to capture and align these math prerequisites.**

2) Physics (K114 / K115) are moved to 2<sup>nd</sup> semester in order to lessen the 1<sup>st</sup> semester load. With this change, the following description from the PHY K115 class description applies:

*Please note if MAT\* K172 is completed prior to registration into PHY\* K115, students must complete MAT\* K172 with a "C" grade or better*

3) The Introduction to Light and Lasers with it's prerequisite of Elementary Algebra Foundations (MAT K095) is severely limited in scope. The class material is captured in a 4<sup>th</sup> semester as a directed elective.

4) Adding a perspectives component to the program. Students will be advised to complete the *My Vocational Situation* tool (attached) and work with the advisor to select the most appropriate class based on the individual student's needs.

5) Adding the common listed Electronics CAD and Fabrication (EET K104) to the program. This class serves three purposes. First, it adds a missing hands-on component to the first semester. Secondly, it is a guided pathways tool to create excitement in the program. Lastly, it allows students who are working on prerequisites such as Intermediate Algebra (MAT K137) a way to engage in the art of electronics and create early engaging relationships with faculty.

6) Change to align program with the common listed course Electric Circuits II (K114) offered at Gateway and Naugatuck Community Colleges.

7) Moved to balance semesters.

8) Moved digital electronics to an earlier point in the program. This allows digital to serve as a prerequisite for Microprocessors and Controls (EET K258) as well as the Data Acquisitions and Control (EET K264). Also, this change aligns the program with the common listed course Digital Electronics (EET K252) offered at Gateway and Naugatuck Community Colleges.

9) Change so that students have a better understand of the social world leading to better performance on teams. This is a need specifically identified by comments such as students are technically good but don't know how to work on teams.

10) Replaced by College Algebra (MAT K172).

11) This change aligns the program with the common listed course Electronics I (EET K136) offered at Gateway and Naugatuck Community Colleges.

## PLAN OF STUDY CHANGE FORM Three Rivers Community College

- 12) Students intending to transfer to another college are encouraged to complete Calculus I (MAT 254). Also, this change aligns the program with the common listed course Microprocessors (EET K256) offered at Gateway and Naugatuck Community Colleges
- 13) Several of the 4<sup>th</sup> semester classes are now listed as EET directed electives along with several new options. This change allows maximum flexibility to match industry needs.

EET directed electives include common listed courses when possible. Students may select from:

4 credit	EET K262	Electric Machinery and Control
3 credit	EET K264	Data Acquisition and Control
4 credit	EET K272	Electronic Communication Systems (previously EET K274)
4 credit	MAT K256	Calculus II
3 credit	PHO K241	Introduction to Laser Technology
4 credit	CST K180	Networks I

Students who elect to take the both of the three credit EET K264 and PHO K241 electives will require an additional class to meet the 60 credit minimum requirement for graduation.

- 14) The fire arts elective is replaced with a perspective class located in the first semester. Students may select from Introduction to Engineering (EGR K111) or The First Year Experience (IDS K105).
- 15) Reinstated the capstone projects so that students perform higher level synthesis and design as well as demonstrate project management skills and work in teams. This is also the second half of the CAD and Fabrications class serving as a retention tool that showcases the purpose and potential across the program.
- 16) Anticipate Interdisciplinary Capstone Design Project (TCN 291) to change from 3 to 4 credits based on recent departmental discussions.
- 17) The total number of credits is dependent on the student's chosen directed electives.
- 18) The name of the program is changed to reflect the core Electrical Engineering Technology material. Inclusion of the subtopics captured in the directed electives such as laser, mechatronics, and communications is not warranted.

### Credit Course Proposal

Proposed Course Title<sup>†</sup>: Electronic CAD and Fabrication

Please indicate with an X: 100 level course X 200 level course \_\_\_\_\_

Proposed by: Aaron Dahlen Date: 12 Dec 2018

Credit Hours: 1

Contact Hours: 3 (Lecture \_\_\_\_\_ Lab X Other \_\_\_\_\_)

Proposed Semester for Implementation: Spring 2019

Will this course replace an existing course? No

If so, which one? \_\_\_\_\_

Will this course accomplish general education goals? No (If yes, please answer question 10 below.)

**Proposed Course Description:**

This course is an introduction to the art of electronics. Students will reverse engineer electronic products to facilitate component identification and construction practices. Students will gain hands on experience with electronic test equipment including the digital multimeter and oscilloscope. Students will construct simple circuits and then use CAD software to design a Printed Circuit Board. Three laboratory hours weekly.

**Please respond to the following questions, which will aid the review process:**

- 1. Discuss the appropriateness of this course to the associate degree level curriculum at Three Rivers and to our student population.**

The Electronic Engineering Technology program at TRCC lands midway between the expectations of the technician and the electrical engineer. Students must have grounding in both worlds. This class provides a missing link to the hands-on technician skills while at the same time generating excitement for future topics in the EET program.

**2. How will this course relate to existing courses in the curriculum? Please indicate which if any prerequisite courses will be required and how it would be used in specific degree and/or certificate programs.**

No prerequisites.

This document is part of a larger change to the EET program. One significant change is the reinstatement of the capstone project to culminate the students educational experience. This CAD and FAB course may be considered the feeder to the EET program.

**3. There are several across-the-curriculum educational initiatives to which Three Rivers is committed. Please indicate if and how these would be incorporated in the proposed course--reading, writing, library research, and international perspective, and use of a microcomputer.**

This course has limited across-the-curriculum as described in this question other than basic reading and writing assignments to complete the course work. The CAD and FAB course is intended as an inspirational introduction to the art of electronics. It will allow students lacking pre-requisites such as Math K137 a low risk way to enter the technology program.

**4. Please document whether this course will transfer to a baccalaureate institution and how it would be used in a four-year degree.**

This course is not expected to transfer to a four-year degree program. However, this course together with the reinstatement of the capstone course has a good chance of being accepted into a four-year program requiring fabrication of electrical devices.

**5. Please indicate those who have been involved in developing or reviewing this proposal.**

Aaron Dahlen is currently working with the EET program coordinators at Naugatuck Valley (Kristen Dagan McGee). This course is modeled after the EET H104 class currently offered by Naugatuck Valley Community College. It serves as an introduction to electronics to get students excited about the field of study and to serve as an arc across the curriculum.

6. Please indicate if any additional resources will be required for this course. Include equipment, software, space, consumables, adjunct faculty member, etc.

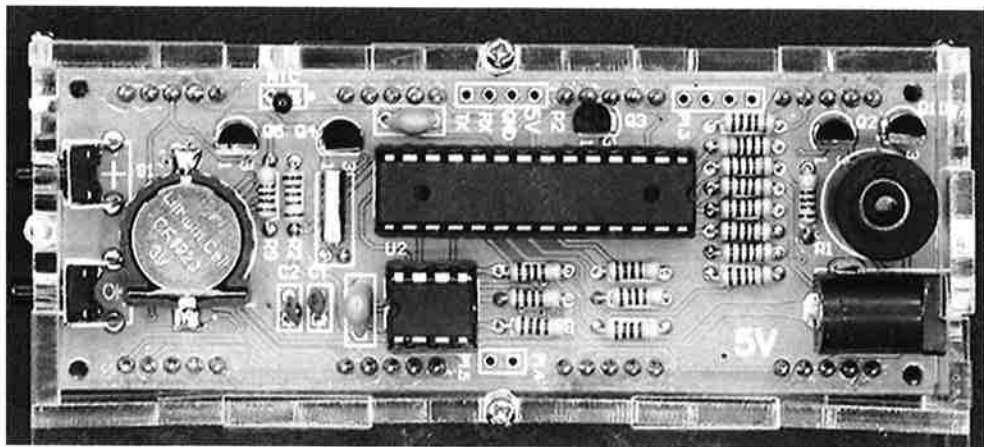
**Equipment:** no addition equipment is required. The existing equipment in the B209 and B213 labs is sufficient

**Software:** open source or otherwise free software packages will be used

**Consumables:** Soldering kits such as shown in this picture should be purchased. The price is approximately \$15.00 per student. In addition, students should send circuit boards of their own design to a manufacturing house. This has an anticipated cost of \$25.00 – recommend this cost be borne by the students.

**Faculty:** Recommend the first course offering be taught by full time faculty. Subsequent offerings may be proctored by adjuncts.

**Space:** B209 or B213



**7. What need will this course meet?**

This course serves several purposes including:

- A) To generate excitement and interest in the Electrical Engineering Technology program thereby increasing enrollment.
- B) It allows student who are interested, but unsure about electronics, to gain exposure to the field with minimal investment.
- C) The course allows students currently working on the math prerequisites an opportunity to learn about electronics.
- D) Allow for initial assessment of student skills in the area of EET and develop a program of study based on those skills.

**8. Does this course take the place of any present courses being offered? How often would this course be offered in the regular schedule?**

This course augments existing courses. Recommend offering every semester, possibly to include intersession.

**9. Please list the Course Outcomes.**

**Course Objective:**

Upon successful completion of this course, the student will be able to:

- identify the common electronic components used in commercial and industrial electronics
- locate and interpret mechanical dimensions and electrical properties from a manufacture's data sheet
- layout a printed circuit card and prepare it for manufacturing
- hand solder component to a printed circuit card

**Learning Objectives:**

This is a first exposure to EET material and the art of electronics. Students are generally operating in lower levels of Bloom's Taxonomy as they learn the vocabulary and classification of electronic components. Later activities shift students to the Bloom's Taxonomy application level as student use the computer to layout a circuit with proper physical dimensioning to accommodate real world components. A secondary goal of the class is to continually look forward to the EET program and generating excitement about the potential to operate at the high taxonomy levels. Student can visualize themselves analyzing circuits in the future allowing them to construct circuits of their own design in the 4<sup>th</sup> semester capstone class. The specific Learning outcomes for this course are listed below:

- A) **Practice** the general safety precautions required for electronics assembly.
- B) Physically **identify** a limited set of through hole and surface mount electronic components.
- C) **Sketch** the schematic representation of a limited set of electronic components.
- D) **Enter** a circuit into the CAD software package.
- E) **Read and interpret** mechanical drawings as found on the data sheet for electrical components.
- F) **Read and interpret** a limited set of electrical specifications as found on the data sheet for electrical components.
- G) Use CAD software to **layout** a minimalist Printed Circuit Board (PCB) of student or instructor design.
- H) **Obtain** a quote from a commercial board house to manufacture the student designed PCB.



- I) **Assemble** and test a project kit by soldering components to a PCB.
- J) **Operate** a digital voltmeter to measure voltage and resistance.
- K) With assistance, **operate** an oscilloscope to read the amplitude and frequency of an AC waveform.
- L) **Demonstrate** the ability to perform through-hole rework.

**10. If this course is intended to meet general education requirements, what general education goal(s) will it address?**

**Please also list any general education outcomes under that goal that will be accomplished by the course and briefly describe how they will be assessed.**

This course does not address general education requirements.

**11. Are there additional library resources recommended for this course?**

N/A

**12. Other information. Please attach any additional information or documentation.**

N/A

**Program Coordinator/Initiator** *Dahlen* **Date** 12/18

**Department Chair** *[Signature]* 12/12/18 **Date** \_\_\_\_\_

**Dean** *Robert A. Fulk* **Date** 12-19-18

**FOR ADMINISTRATIVE USE**

Rev'd April 2010

<sup>1</sup>Please remember to utilize the Common Course Number Inventory ([http://www.internal.commnet.edu/Banner-Docs/folder.asp?URL=/Banner-Docs/Student/CommonCourseNumbers/Course\\_Inventories](http://www.internal.commnet.edu/Banner-Docs/folder.asp?URL=/Banner-Docs/Student/CommonCourseNumbers/Course_Inventories)) to determine whether:

- a) This course is common course named and numbered within the CT Community College System.
- OR
- b) This course is unique to your institution and requires new course number.

**THREE RIVERS COMMUNITY COLLEGE**  
**PROPOSED CATALOG CHANGES FOR**

***EET K105 Electric Circuits & Systems***

**PLEASE CHECK THE APPROPRIATE BOX(ES) THAT DESCRIBES PROPOSED CHANGE (S):**

Course Title    Credit Hours    Course Description    Pre-/Corequisite(s)    Other/Misc.

**COURSE TITLE:**

Old:    *EET K105 Electric Circuits & Systems*

New:    *EET K105 Electric Circuits & Systems*

**CREDIT HOURS:**    Old: 3    New: 3        **CONTACT HOURS:**    Old: 5    New: 5

**COURSE DESCRIPTION:**

**Old:**

*This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.*

**New:**

*This course introduces DC and AC circuit analysis. Voltage, current, power, and energy relationships are analyzed using Ohm's law, Kirchhoff's laws, and circuit theorems. The laboratory portion of the class provides practical hands-on experience as students use a variety of test equipment. The class concludes with an introduction to our national power grid including generators, transformers, and distribution.*

**PREREQUISITE(S):**

Delete

Change (Please list in area below)

Old:

**MAT\* K095 or MAT\* K095I**

New: (Please list EXACTLY as it should read in the catalog)

**MAT\* K137 or MAT\* K137s**

**CO-PREREQUISITE(S):**

Delete

Change (Please list in area below)

Old:

**MAT\* K137 or MAT\* K137s**

New: (Please list EXACTLY as it should read in the catalog)

**MAT\* K172**

**OTHER/MISCELLANEOUS:**

*This class appears in the program of study for Manufacturing Engineering Technology (2<sup>nd</sup> semester) and Mechanical Engineering Technology (3<sup>rd</sup> semester).*


**RECOMMENDED IMPLEMENTATION DATE** (Sem/Yr): **F/19**

Aaron P. Dahlen INITIATOR



DEPT. CHAIRPERSON

APPROVED  NOT APPROVED



CURRICULUM COMMITTEE CHAIR

**DATE PREPARED** November 11, 2018

### Credit Course Proposal

Proposed Course Title<sup>†</sup>: EET K114 Electronic Circuits II

Please indicate with an X: 100 level course X 200 level course \_\_\_\_\_

Proposed by: Aaron Dahlen Date: 12 Dec 2018

Credit Hours: 4

Contact Hours: 5 (Lecture X Lab X Other \_\_\_\_\_)

Proposed Semester for Implementation: Spring 2019

Will this course replace an existing course? Yes

If so, which one? EET K119 Advanced Circuits and Systems

Will this course accomplish general education goals? No (If yes, please answer question 10 below.)

**Proposed Course Description:**

Presents advanced network analysis techniques for complex DC and polyphase AC circuits. Includes mesh, nodal, and superposition network analysis techniques along with Thevenin's, Norton's, and maximum power transfer theorems. Emphasis is placed on solving circuit problems using complex numbers and phasor diagrams. The laboratory portion of the class provides practical hands-on experience as students use a variety of test equipment. The class concludes with an introduction to electromechanical machinery including magnetic analysis as applied to transformers, motors, and generators.

**Please respond to the following questions, which will aid the review process:**

- 1. Discuss the appropriateness of this course to the associate degree level curriculum at Three Rivers and to our student population.**

Electronic Circuits II is a fundamental course found in all 2 and 4-year EET programs. In TRCC's program, it serves as a prerequisite to all 3<sup>rd</sup> and 4<sup>th</sup> semester courses.

This modification serves to align TRCC's Electrical Engineering Technology (EET) program with the programs offered at Gateway and Naugatuck Valley. With this change, all three schools will offer this course as 4 credits under the common title of Electronic Circuits II. This will allow easier transfers between schools and simplify the transfer process to 4-year institutions.

**2. How will this course relate to existing courses in the curriculum? Please indicate which if any prerequisite courses will be required and how it would be used in specific degree and/or certificate programs.**

Prerequisites: EET K105 and MAT K172

Corequisites: MAT K185 or MAT K186

MAT K185 (Trigonometric Functions) is the most appropriate corequisite mathematics class. Unfortunately, it is not currently offered at TRCC. It is listed here with the understanding that it could be added in the future.

Electronic Circuits II has limited applicability to students outside the EET major. The mathematic prerequisites generally preclude certificate students from attending.

**3. There are several across-the-curriculum educational initiatives to which Three Rivers is committed. Please indicate if and how these would be incorporated in the proposed course--reading, writing, library research, and international perspective, and use of a microcomputer.**

This course is best described as an applied mathematics course. However, there are still some across-the-curriculum activities such as:

- Students will write several lab reports.
- Students will use a numerical computing programming language to solve some of the more complex problem.

**4. Please document whether this course will transfer to a baccalaureate institution and how it would be used in a four-year degree.**

This course is expected to transfer to a 4-year Electrical Engineering Technology program such as the program offered at CCSU.

It may or may not be applicable to 4-year Electrical Engineering programs such as those offered by UCONN. Students who have completed both the Circuits I and Circuits II class may be able to receive credit for a single EE 1 class.

**5. Please indicate those who have been involved in developing or reviewing this proposal.**

Aaron Dahlen is currently working with the EET program coordinators at Naugatuck Valley (Kristen Dagan McGee) and Gateway (Christine Cherry) to align course outcomes between this and the other community colleges offering an EET program.

**6. Please indicate if any additional resources will be required for this course. Include equipment, software, space, consumables, adjunct faculty member, etc.**

The credit increase from 3 to 4 provides a minor reduction in the program's overall faculty hours; to maintain the 60 credit cap, the total number of EET classes is reduced. With that exception, this change presents no changes from TRCC's existing EET K119 Advanced Circuits and Systems course.

**7. What need will this course meet?**

Electronic Circuits II is a fundamental course found in all 2 and 4-year EET programs. In TRCC's program, it serves as a prerequisite to all 3<sup>rd</sup> and 4<sup>th</sup> semester courses.

This change serves to align TRCC's EET program with Gateway and Naugatuck Valley programs.

This change, along with the other material included in this package serves to increase program's rigor by identifying and aligning prerequisites.

**8. Does this course take the place of any present courses being offered? How often would this course be offered in the regular schedule?**

This is a direct replacement for TRCC's existing EET K119 Advanced Circuits and Systems course. This change facilitates the alignment the EET program between TRCC, Naugatuck Valley and Gateway.

**9. Please list the Course Outcomes.**

**Course Objective:**

Upon successful completion of this course, the student will be able to:

- conduct themselves in a safe manner around electrical equipment
- Analyze DC and AC circuits using Ohm's law, Kirchhoff's laws, as well as Thevenin's and Norton's theorems
- convert a schematic to a functional circuit with minimal assistance
- operate a digital multimeter, oscilloscope, and function generator without assistance
- troubleshoot a variety of naturally induced faults
- utilize software tools to predict the operation of a circuit and can
- identify the limitations of real-world components

**Learning Objectives:**

This is the second core class in the EET program. It is a continuation of the EET K105 class. It builds on the DC circuits concepts to support the complexity of AC circuits. Students are generally working at the application and analysis levels of Bloom's taxonomy. The specific learning objectives for this course are listed below:

A) **Practice** electrical safety in a lab environment.

B) **Construct** functional electronic circuits on a breadboard and **verify** circuit operation and performance.

C) Without assistance, **configure and use** test equipment to measure circuit parameters. Test equipment to include the DC power supply, hand held multimeters, function generator, and oscilloscope.

D) Without assistance, **configure** an oscilloscope to capture the transients associated with RC and RL circuits.

E) **Interpret** the oscilloscope display to determine waveform parameters such as time, period, frequency, RMS voltage, duty cycle, and phase shift.

F) **Design and verify the performance** of RLC filter circuits.

- G) **Contrast** the results of computer simulations with experiments performed using real world components.
- H) **Design** experiments to verify the performance of a circuit. This objective is constrained to a level appropriate to the student's experience and skill.
- I) **Analyze** DC and polyphase AC circuits solving for impedance, voltage, current, complex power, and energy using Ohm's Law, Kirchhoff's laws, Thévenin's theorem, Norton's theorem and the conservation of energy.
- J) **Analyze** DC and AC circuits using nodal and mesh analysis to include super nodes and super mesh methods. Utilize a numerical computing programming language to perform the calculations.
- K) **Analyze** polyphase AC circuits solving for the line and phase parameters including voltage and current.
- L) **Analyze** source and source free RC and RL circuits solving for capacitor/inductor voltage, source voltage, time, resistance, or capacitance/inductance.
- M) **Analyze** series and parallel resonant RLC circuit solving for frequency, resistance, capacitance, inductance, and quality.
- N) **Analyze** 1st order RC and RL filter circuits solving for the resistance, capacitance, inductance, and corner frequency.
- O) **Analyze** magnetic circuits by solving for current, number of turns, reluctance, flux, and flux density.
- P) **Analyze** transformer circuits using the Steinmetz model solving for input and output parameters including impedance, voltage, current, and complex power.
- Q) **Recommend** circuit modifications to improve systems power factor.
- R) **Write** lab reports describing the purpose of the various experiment, the methods used, and real-world application.



**10. If this course is intended to meet general education requirements, what general education goal(s) will it address?**

**Please also list any general education outcomes under that goal that will be accomplished by the course and briefly describe how they will be assessed.**

This is a program specific course that does not address general education requirements.

**11. Are there additional library resources recommended for this course?**

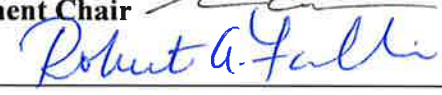
N/A

**12. Other information. Please attach any additional information or documentation.**

N/A

**Program Coordinator/Initiator**  **Date** 12/11/18

**Department Chair**  12/12/18 **Date** \_\_\_\_\_

**Dean**  **Date** 12-19-18

**FOR ADMINISTRATIVE USE**

Rev'd April 2010

†Please remember to utilize the Common Course Number Inventory ([http://www.internal.commnet.edu/Banner-Docs/folder.asp?URL=/Banner-Docs/Student/CommonCourseNumbers/Course\\_Inventories](http://www.internal.commnet.edu/Banner-Docs/folder.asp?URL=/Banner-Docs/Student/CommonCourseNumbers/Course_Inventories)) to determine whether:

a) This course is common course named and numbered within the CT Community College System.

OR

b) This course is unique to your institution and requires new course number.

### Credit Course Proposal

Proposed Course Title<sup>†</sup>: EET K252 Digital Electronics

Please indicate with an X: 100 level course X 200 level course X

Proposed by: Aaron Dahlen Date: 12 Dec 2018

Credit Hours: 4

Contact Hours: 5 (Lecture X Lab X Other     )

Proposed Semester for Implementation: Spring 2019

Will this course replace an existing course? Yes

If so, which one? EET K254 Digital Electronics

Will this course accomplish general education goals? No (If yes, please answer question 10 below.)

**Proposed Course Description:**

Presents computer number systems, Boolean algebra, logic gates, optimization of combinational logic, and fundamentals of sequential circuits. In the lab, students begin by constructing circuits based on traditional logic gates. Later, they transition to a Field Programmable Gate Array (FPGA) where they construct a Finite State Machine (FSM). This is then used to interface the FPGA to real world analog and digital sensors and actuators.

**Please respond to the following questions, which will aid the review process:**

- 1. Discuss the appropriateness of this course to the associate degree level curriculum at Three Rivers and to our student population.**

Digital Electronics is a fundamental course found in all 2 and 4-year EET programs.

This modification serves to align TRCC's Electrical Engineering Technology (EET) program with the programs offered at Gateway and Naugatuck Valley. With this change, all three schools will offer this course as 4 credits under the common title of Digital Circuits. This will allow easier transfers between schools and simply the transfer process to 4-year institutions.

**2. How will this course relate to existing courses in the curriculum? Please indicate which if any prerequisite courses will be required and how it would be used in specific degree and/or certificate programs.**

Prerequisites: EET K105 and MAT K172

Corequisites: None

Students should successfully complete the 1<sup>st</sup> semester courses of Electronics Circuits I and college algebra before enrolling in this course.

Digital Electronics has limited applicability to students outside the EET major. The mathematic prerequisites generally preclude certificate students from attending.

**3. There are several across-the-curriculum educational initiatives to which Three Rivers is committed. Please indicate if and how these would be incorporated in the proposed course--reading, writing, library research, and international perspective, and use of a microcomputer.**

This course is best described as an applied mathematics course. However, there are still some across-the-curriculum activities such as:

- Students will write several lab reports.
- Students will use a numerical computing programming language to solve some of the more complex problem.

**4. Please document whether this course will transfer to a baccalaureate institution and how it would be used in a four-year degree.**

This course is expected to transfer to a 4-year Electrical Engineering Technology program such as the program offered at CCSU.

It may or may not be transfer to a 4-year Electrical Engineering programs. The changes proposed in this document do move in the direction of a traditional EE course making it more acceptable to other institutions.

**5. Please indicate those who have been involved in developing or reviewing this proposal.**

Aaron Dahlen is currently working with the EET program coordinators at Naugatuck Valley (Kristen Dagan McGee) and Gateway (Christine Cherry) to align course outcomes between this and the other community colleges offering an EET program.

**6. Please indicate if any additional resources will be required for this course. Include equipment, software, space, consumables, adjunct faculty member, etc.**

The credit increase from 3 to 4 provides a minor reduction in the program's overall faculty hours; to maintain the 60 credit cap, the total number of EET classes is reduced. With that exception, this change presents no changes from TRCC's existing EET K252 Digital Electronics course.

**7. What need will this course meet?**

Digital Electronics is a fundamental course found in all 2 and 4-year EET programs.

This change serves to align TRCC's EET program with Gateway and Naugatuck Valley programs.

This change, along with the other material included in this package serves to increase program's rigor by identifying and aligning prerequisites.

**8. Does this course take the place of any present courses being offered? How often would this course be offered in the regular schedule?**

This is a direct replacement for TRCC's existing EET K254 Digital Electronics course. This change facilitates the alignment the EET program between TRCC, Naugatuck Valley and Gateway.

(fall intermittently/spring)

**9. Please list the Course Outcomes.**

**Course Objectives:**

Upon successful completion of this course, the student will be able to:

- conduct themselves in a safe manner around electrical equipment
- design combinational logic circuits using a variety of methods such as truth tables, Boolean algebra, logic gates, sum-of-products, minterms, and the Karnaugh map
- design sequential logic circuits
- Interface a FPGA to external sensors and actuators

**Learning Objectives:**

This is the third core class in the EET program. It is a continuation of the EET K105 class. Students are generally working at the application and analysis levels of Bloom's taxonomy. The specific learning objectives for this course are listed below:

A) **Practice** electrical safety in a lab environment.

B) **Convert** the description of a combinational logic circuit between a truth table, Karnaugh map, gate level logic, timing diagram, Boolean expression, and minterms. This particular objective is understated. It is the most challenging portion of the class requiring over a month of hard study.

C) **Select** a digital logic Integrated Circuit (IC) using a parametric search engine as provided by major electronics distributors.

D) **Interpret** the data sheet for an IC from the 74 or 4000 series logic families leading to successful use of the IC in an operational circuit.

E) **Construct** functional electronic circuits on a breadboard featuring multiple logic ICs. **Verify** circuit operation and performance.

F) Without assistance, **configure and use** test equipment to measure circuit parameters. Test equipment to include the DC power supply, hand held multimeters, function generator, and oscilloscope.

G) **Interpret** the oscilloscope display reading to determine waveform parameters such as time, period, frequency, and duty cycle.

H) **Design and implement** a Finite State Machine (FSM) operating in a Field Programmable Gate Array (FPGA).

I) **Design** an FPGA based logic circuit featuring a hierarchical design that uses a data buss to connect the higher-level modules.

J) **Interface** the FPGA to external sensors and actuators.

K) **Interface** the FSM to datapath components including an Analog to Digital Converter (ADC), register file, and multiplexer.

L) **Convert** between commonly used base numbering systems including decimal, binary, decimal, and hexadecimal.

M) **Add and subtract** binary numbers using a 2s complement method that accounts for the given modulus (number of bits). For example, in a 4-bit unsigned system  $15 + 2 = 1$

N) **Convert** a written description of a logic problem to a truth table.

O) From memory, **present** the truth table for primitive logic gates including NOT, AND, NAND, OR, NOR, XOR.

P) **Design** an FSM given a written description of a sequential circuit.

Q) From memory, **present** the gate level representations of an encoder, decoder, multiplexer, demultiplexer, and full adder.

R) **Design to mitigate** the non-ideal behaviors of physical logic devices including switch bounce, propagation delays, ground bounce, and noise.



**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Program Modification

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the modification of a program – Advanced Manufacturing Machine Technology II (CIP Code: 48.0510, OHE # 01704) leading to a Certificate at Quinebaug Valley Community College.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education



**ITEM**

Modifications of a Certificate, Advanced Manufacturing Machine Technology II at Quinebaug Valley Community College

**BACKGROUND**Summary

Upon the recommendations of the program's Advisory Board, curricular changes are proposed to: (1) re-align courses to facilitate improved delivery of content and student learning, and (2) better meet the needs of industry partner.

Resources

No additional resources are required to implement the proposed modifications.

**RECOMMENDATION**

Following its review and deliberative process, it is the recommendation of the Academic Council that the Board of Regents approve this program modification. The System's Provost and Senior Vice President for Academic and Students Affairs concurs with this recommendation.

03/15/2019 – BOR Academic & Student Affairs Committee

03/28/2019 – Board of Regents

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM**

**SECTION 1: GENERAL INFORMATION**

<b>Institution:</b> Quinebaug Valley Community College	<b>Date of Submission to CSCU Office of the Provost:</b> 1/30/2019
Most Recent NEASC Institutional Accreditation Action and Date: November 2016	
<p><b>Original Program Characteristics</b></p> <p>CIP Code No. 48-0510 Title of CIP Code Precision Production OHE#: 01704</p> <p>Name of Program: Advanced Manufacturing Machine Technology</p> <p>Degree: Title of Award (e.g. Master of Arts)</p> <p>Certificate: (specify type and level) <b>Advanced Manufacturing Machine Technology II</b></p> <p>Date Program was Initiated: 2014</p> <p>Modality of Program: X On ground Online Combined If "Combined", % of fully online courses?</p> <p>Total # Cr the Institution Requires to Award the Credential (i.e. include program credits, GenEd, other):</p>	<p><b>Original Program Credit Distribution</b></p> <p># Cr in Program Core Courses: 34</p> <p># Cr of Electives in the Field: 0</p> <p># Cr of Free Electives: 0</p> <p># Cr Special Requirements (include internship, etc.): 0</p> <p><u>Total # Cr in the Program (sum of all #Cr above): 34</u></p> <p>From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: <b>34</b></p>
<p><b>Modified Program Characteristics</b></p> <p>Name of Program: Technology Studies</p> <p>Degree: Title of Award (e.g. Master of Arts)</p> <p>Certificate<sup>1</sup>: (specify type and level) <b>Advanced Manufacturing</b></p> <p>Program Initiation Date: Spring 2019</p> <p>Modality of Program: X On ground Online Combined If "Combined", % of fully online courses?</p> <p>Total # Cr the Institution Requires to Award the Credential (i.e. include program credits, GenEd, other): 31</p> <p>Other:</p>	<p><b>Modified Program Credit Distribution</b></p> <p># Cr in Program Core Courses: 25</p> <p># Cr of Electives in the Field: 6</p> <p># Cr of Free Electives: 0</p> <p># Cr Special Requirements (include internship, etc.): 0</p> <p><u>Total # Cr in the Program (sum of all #Cr above): 31</u></p> <p>From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution:</p>
<p>*<b>Significant</b> is defined as "more than 15 credits in a previously approved undergraduate degree program or more than 12 credits in a previously approved graduate degree program.</p>	

**CSCU REVIEW STATUS (For System Office Use Only - please leave blank)**

<p>Notes regarding Application:</p> <p>Log of Steps Toward Approval:</p> <p>Date of Approval:</p> <p>Date for Inclusion in BOR-ASA Meeting Package:</p> <p>Comments:</p> <p>Conditions for Approval (if any)</p>
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**SECTION 1: GENERAL INFORMATION (continued)**

<sup>1</sup> If creating a Certificate program from existing courses belonging to a previously approved baccalaureate/associate degree program, enter information about that program in the "Original Program" section.

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If program modification is concurrent with discontinuation of related program(s), please list for such program(s):

Program Discontinued:            CIP:            OHE#:            Accreditation Date:  
Phase Out Period            Date of Program Termination

Institution's Unit (*e.g. School of Business*) and Location (*e.g. main campus*) Offering the Program:

Other Program Accreditation:

- If seeking specialized/professional/other accreditation, name of agency and intended year of review:
- If program prepares graduates eligibility to state/professional license, please identify:

*(As applicable, the documentation in this request should address the standards of the identified accrediting body or licensing agency)*

**Institutional Contact for this Proposal:** Stephen LaPointe            Title: Director Advanced Manufacturing

Tel.: 860-932-4111            e- mail: slapointe@qvc.comnet.edu

**SECTION 2: BACKGROUND, RATIONALE AND NATURE OF MODIFICATION**

*(Please Complete Sections as Applicable)*

**Background and Rationale** *(Please provide the context for and need for the proposed modification, and the relationship to the originally approved program)*

QVCC approached our Advisory Board with some of the proposed ideas at the meeting of November 15<sup>th</sup> 2018. It was determined that lab time machining parts was the most important part of the program. The original program had 6 different lab courses in the first semester with at least five different instructors. The Asnuntuck model to combine some of these courses made sense. QVCC and our Advisory Board did not agree with some of the other decisions made so we are presenting our own changes to meet our industry partner needs. Adding time to CNC I was an important step to give the student more time to get familiar with the very complexed machines. The combination of the other classes will allow one instructor the ability to handle the disciplines that are sometimes crossovers of the different subject matters. In the second semester, the ability to offer either Quality or Metrology will allow us to adjust for industry needs. A directed elective is in both semesters to give other programs that would like to follow this model an option to install whatever their Industry Board desires. The core package remains the same for all of the four Advanced Manufacturing Technology Centers and the Directors of those programs agree and support these modifications. Naugatuck Valley Community College may proceed with a duplication of this proposed modification. The consolidation of some courses will improve the delivery of content to benefit the students in specific disciplines.

As applicable, please describe:

- How does the program address CT workforce needs and/or the wellbeing of CT society/communities? *(Succinctly present as much factual evidence and evaluation of stated needs as possible)* **In the six years of the existing program, QVCC has maintained a ninety-five percent job placement rate. The proposed changes will have no bearing on that rate and will enhance the skills desired by business and industry.**
- How does the program make use of the strengths of the institution (*e.g. curriculum, faculty, resources*) and of its distinctive character and/or location? **No changes are required of faculty and no additional resources are required**
- Please describe any transfer agreements with CSCU institutions that will become instituted as a result of the approval of this program *(Please highlight details in the Quality Assessment portion of this application, as appropriate)* **All current transfer agreements with the College of Technology will continue**

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- Please indicate what similar programs exist in other institutions within the CSCU System, and how unnecessary duplication is being avoided. The four Advanced Manufacturing Centers rely on the feedback from their Advisory Boards. Each geographical location may have different specialty needs but the core of the programs remain the same.
- Please provide a description/analysis of employment prospects for graduates of this proposed program. The program has a 95% job placement rate and the trend going forward is for the same growth in a skilled workforce to meet the demands of companies like Electric Boat and Pratt & Whitney. These modifications will have no impact on those needs and only enhance the student skills.

**QVCC Advanced Manufacturing Certificate Program Modifications: MFG 105 Manufacturing Math II is a certificate requirement**

Current Program		Proposed Program	
Semester I		Semester I	
Program courses	Credits	Program Courses	Credits
MFG 105 Manufacturing Math II	3	<b>Directed Elective</b> any MFG, CAD or QUA ( <b>MFG 105</b> )	3
MFG 124 Blueprint Reading I	2	MFG 124 Blueprint Reading I	2
MFG 151 Drill Press& Saw	1	MFG 177 Machine Technology Fundamentals	4
MFG 152 Grinding	2	MFG 153 Bench work	2
MFG 153 Bench work	2	MFG 178 CNC Fundamentals	3
MFG 154 Lathe I	2	MFG 115 Safety in the Workplace	1
MFG 155 Milling I	2	TOTAL	15
MFG 156 CNC I	2		
TOTAL	16		

**First Semester Changes: The directed elective gives the option for any MFG, CAD or QUA as part of the certificate**

**MFG 154 Lathe I and MFG 155 Milling I are all included in MFG 177 Machine Technology Fundamentals**

**MFG 156 CNC I is replaced with MFG 178 CNC Fundamentals and has been increased to 3 credits**

Semester II		Semester II	
	Credits		Credits
QUA 114 Principles of Quality	3	MFG 125 Blueprint Reading II	3
MFG 125 Blueprint Reading II	3	<b>Directed Elective</b> any MFG, CAD or QUA ( <b>QUA 114 or MFG 120</b> )	3
CAD 220 Solidworks	3	CAD 220 Solidworks	3
MFG 254 Lathe II	3	MFG 277 Advance Machine Technology	4
MFG 255 Milling II	3	MFG 256 CNC II	3
MFG 256 CNC II	3		
TOTAL	18	TOTAL	16

**Second Semester Changes: The directed elective gives the option for any MFG, CAD or QUA as part of the certificate**

**MFG 254 Lathe II and MFG 255 Milling II have been included in MFG 277 Advanced Machine Technology**

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**Description of Resources Needed**

There are no additional resources needed

**Other Considerations**

This program modification was approved by the College of Technology at the 12/7/2018 meeting at Southern Connecticut University.

Previous Three Years Enrollment and Completion for the Program being Modified: We have revolving starts for the certificate where some students are starting in Fall and others are starting in Spring. To avoid confusion on the total number of students, we have listed it as Academic year totals. This is data acquired through the Connecticut Advanced Manufacturing Initiative grant. We have also listed the amount of Advanced Manufacturing Technology certificates awarded in that academic year.

ACTUAL Enrollment	Academic Year 2016		Academic Year 2017		Academic Year 2018	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Transfers In						
New Students	33	4	56	32	46	17
Returning Students	23	4	27	32	12	24
<b>ACTUAL Headcount Enrollment</b>	33	4	56	32	46	41
<b>Actual FTE per Year</b>	65		90		114	
<b>Advanced Manufacturing Certificates awarded</b>	22		22		44	

**Curriculum Details for a Program Modification** (to be used as appropriate for specific modification request)<sup>2</sup>

Course Number and Name <sup>3</sup>	L.O. #	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
<b>Program Core Courses</b>				<b>Other Related/Special Requirements</b>		
Directed Elective any MFG, QUA, CAD (MFG 105 Manufacturing Math II)	1,7	Eligible for MATH 095	3			
MFG 115 Safety in the Workplace	2,7	Eligible for MATH 095	1			
MFG 124 Blueprint Reading I	1,3,7	Eligible for MATH 095	2			
MFG 177 Machine Technology Fundamentals	1,2,3,4,5	Eligible for MATH 095	4			
MFG 153 Benchwork	1,3,7	Eligible for MATH 095	2			
MFG 178 CNC Fundamentals	1,3,5,6	Eligible for MATH	<u>3</u>			

<sup>2</sup> Details of course changes for Community College institutions should be provided with enough detail to introduce necessary changes in the centralized programmatic database for that system.

<sup>3</sup> Make any detailed annotations for individual courses as needed to understand the curricular modifications taking place

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**APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM**

	095			
TOTAL Credit Hours semester 1				15
MFG 125 Blueprint Reading II (pre req. MFG 124)		3		
Directed Elective any MFG,QUA,CAD		3		
CAD 220 Parametric Design Solidworks		3		
MFG 277 Advanced Machine Technology (pre req. MFG 177)		4		
MFG 256 CNC II (pre req. MFG 178)		<u>3</u>		
TOTAL Credit Hours Semester II		<b>16</b>		
<b>Total Other Credits Required to Issue Modified Credential</b>				

**Learning Outcomes** - L.O. *Students will be able to:*

1. Apply mathematical and technological principles to solve triangles and other geometric and technical problems
2. Understand and follow basic shop safety guidelines, and successfully to receive an OSHA 10 card
3. Demonstrate the use and understanding of all basic semi-precision and precision measuring tools to determine the acceptability of manufactured parts based on accurately reading, interpreting, and understanding blueprints
4. Operate a manual lathe, turn and face parts as well as full understanding of all thread data and ability to perform single point threading in a lathe
5. Operate a basic milling machine to square parts, bore holes, drill and tap holes and surface grind flat and parallel
6. Program and Operate both CNC Milling Machines and CNC Lathes
7. The curriculum covers the content to let the students take 4 NIMS credential tests. (National Institute of Metalworking Skills) They are Measurement, Materials and Safety, Job Planning Benchwork and Layout, CNC Operator Lathe and CNC Operator Milling.

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM**

**SECTION 3: RESOURCE AND FINANCIAL CONSIDERATIONS**

**Two-Year Cost Effectiveness and Availability of Adequate Resources**

*(Please complete the Pro-Forma Budget – Projected Revenues and Expenditures on the following page. Provide any necessary annotations for the Pro-Forma Budget and other commentary regarding the cost effectiveness and availability of adequate resources for the proposed modification below:*

**PRO FORMA Budget - Projected Revenues and Expenditures**  
(Whole Dollars Only)

<b>PROJECTED Program Revenue</b>	Fiscal year 2019	Fiscal year 2020	Fiscal year 2021
Tuition (do not include internal transfers)	333,800	337,050	345,450
Program-Specific Fees (MFG Lab fees)	63,000	45,000	45,000
Other Revenue (Annotate in narrative)	303,524	303,524	303,524
<b>Total Estimated Program Revenue</b>	<b>\$700,324</b>	<b>685,574</b>	<b>\$693,974</b>

<b>PROJECTED Program Expenditures*</b>	Fiscal year 2019	Fiscal year 2020	Fiscal year 2021
Administration (Chair or Coordinator)	46,035	49,098	52,337
Faculty (Full-time, total for program)			
Faculty (Part-time, total for program)	250,248	250,050	263,879
Support Staff	224,319	240,075	267,563
Library Resources Program			
Equipment (List as needed)	No additional equipment needed	No additional equipment needed	TBD
Other (e.g. student services)			
Estimated Indirect Costs (e.g. student services, operations, maintenance)	35,000	35,000	35,000
<b>Total Estimated Program Expenditures</b>	<b>\$555,602</b>	<b>\$574,223</b>	<b>\$ 618,779</b>

\*Note: Capital outlay costs, institutional spending for research and services, etc. can be excluded.

This PRO FORMA Budget provides reasonable assurance that the proposed program modification can be established and is sustainable. Some assumptions and/or formulaic methodology may be used and annotated in narrative on page 4 of Application.

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

New Program Approval

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the licensure and accreditation of a Basic Manufacturing: Machine Technology Level I program (CIP Code: 48.0510) leading to a Certificate, requiring 17 course credits delivered via an on ground modality, at Quinebaug Valley Community College.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education



**ITEM**

Licensure and accreditation of a new Basic Manufacturing: Machine Technology Level I program leading to a Certificate at Quinebaug Valley Community College

**BACKGROUND**Summary

Due to the absence of sustaining funds, the Windham Early College Opportunity program, (a CT-ECO dual enrollment initiative) cannot be continued. The proposed Certificate is designed to address the needs of both students at Windham High School and Electric Boat – the industry partner of Windham ECO.

Rationale

The proposed Certificate is based upon a previously terminated credential with minor revisions. This program will allow high school students the opportunity to concurrently complete the Certificate and their high school diploma; thus, acquiring the skills required by Electric Boat and other manufacturing firms.

Resources

Funds from the College and Career Pathways (CCP) program at QVCC will be utilized to cover the College's minimal costs to administer the program, as well as any required training and professional development of high school faculty teaching classes in the program. The existing lab and faculty at the high school has been deemed sufficient by the college to support the CCP classes to be offered there. The Windham school district has agreed to pay for the actual cost of instruction, in lieu of tuition, for the courses offer in the summer at the college. It is anticipated that 20 – 25 Windham High School student will enroll in the program each year.

**RECOMMENDATION**

Following its review and deliberative process, it is the recommendation of the Academic Council that the Board of Regents approve the establishment of this program. The System's Provost and Senior Vice President for Academic and Students Affairs concurs with this recommendation.

03/15/2019 – BOR Academic & Student Affairs Committee

03/28/2019 – Board of Regents

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR NEW PROGRAM APPROVAL**

**SECTION 1: GENERAL INFORMATION**

<b>Institution:</b> Quinebaug Valley Community College	<b>Date of Submission to CSCU Office of the Provost:</b> 1/30/2019	
<b>Most Recent NEASC Institutional Accreditation Action and Date:</b> Continued in Accreditation - 2011		
<b>Program Characteristics</b> Name of Program: <b>Basic Manufacturing: Machine Technology level I</b> Degree: Title of Award (e.g. Master of Arts) <b>N/A</b> Certificate: (specify type and level) <b>Basic Manufacturing: Machine Technology level I</b> Anticipated Program Initiation Date: <b>ASAP</b> Anticipated Date of First Graduation: <b>Spring 2020</b> Modality of Program: <input checked="" type="checkbox"/> On ground <input type="checkbox"/> Online <input type="checkbox"/> Combined If "Combined", % of fully online courses? Total # Cr the Institution Requires to Award the Credential (i.e. include program credits, GenEd, other): <b>17</b>	<b>Program Credit Distribution</b> # Cr in Program Core Courses: <b>17</b> # Cr of Electives in the Field: <b>0</b> # Cr of Free Electives: <b>0</b> # Cr Special Requirements (include internship, etc.): <b>0</b> <u>Total # Cr in the Program</u> (sum of all #Cr above): <b>17</b> From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: <b>17</b>	
Type of Approval Action Being Sought:    Licensure or <input checked="" type="checkbox"/> Licensure and Accreditation - (see <b>NOTE</b> below)		
CIP Code No. (optional) <b>48.0510</b> Title of CIP Code <b>Precision</b>		
If establishment of the new program is concurrent with discontinuation of related program(s), please list for each program: Program Discontinued: <b>N/A</b> CIP:                    OHE#:                    Accreditation Date: Phase Out Period                    Date of Program Termination		
Institution's Unit (e.g. School of Business) and Location (e.g. main campus) Offering the Program: <b>Main Campus - Danielson</b>		
Other Program Accreditation: <ul style="list-style-type: none"> <li>• If seeking specialized/professional/other accreditation, name of agency and intended year of review: <b>N/A</b></li> <li>• If program prepares graduates eligibility to state/professional license, please identify: <b>N/A</b></li> </ul> (As applicable, the documentation in this request should address the standards of the identified accrediting body or licensing agency)		
Institutional Contact for this Proposal: <b>John Lewis</b>	Title: <b>Dean of Academic Affairs and Student Services</b>	Tel.: <b>(860) 932-4050</b> e-mail: <b>jlewis@qvmc.edu</b>

**CSCU REVIEW STATUS** (For System Office Use Only - please leave blank)

Notes regarding Application: Log of Steps Toward Approval: Date of Approval: Date for Inclusion in BOR-ASA Meeting Package: Comments:
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**NOTE:** Institutions shall seek approval of new programs either as *Licensure* or simultaneous *Licensure and Accreditation*:

a. *Licensure*, normally granted for a period of three years, authorizing the enrollment of students and their advancement toward the completion of degree requirements; or

b. *Licensure and Accreditation*, simultaneously authorizing the enrollment and award of credentials to students. The accreditation action is considered renewed with each regional accreditation of the institution. Simultaneous licensure and accreditation is generally sought for new degree and certificate programs that are closely related to a set of already existing programs and aligned with institutional strengths. New degree programs are normally submitted for licensure only, to be accredited after three years. Certificates normally are licensed and accredited simultaneously.

# CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

## Connecticut State Colleges & Universities APPLICATION FOR NEW PROGRAM APPROVAL

### SECTION 2: PROGRAM PLANNING ASSESSMENT

#### Alignment of Program with Institutional Mission, Role and Scope

*(Please provide objective and concise statements)*

The mission of QVCC is to provide exceptional opportunities for northeast Connecticut residents to learn in an affordable, challenging, and supportive environment that enables students to become fully engaged citizens in an ever-changing global community. To do this, QVCC offers a wide range of credit, non-credit and technical programs to meet the needs of the local population and various constituencies. This proposal is specifically designed to address the unmet need of one particular constituent group.

This program is being proposed as a successor to the Windham Early College Opportunity (ECO) program. The ECO program, initiated in 2015, has struggled due to lack of sustained funding. While the initial funds allocated to set up the program have been nearly exhausted, no additional funding sources have become available. This lack of funding has seriously jeopardized the ability of students to complete the program as initially conceived. This proposed program will be run using the College Career Pathways (CCP) model that will provide financial stability into the foreseeable future.

This proposal is based on the previously terminated 16-credit Basic Manufacturing: Machine Technology Level I certificate (L13LJ83) with a few minor revisions (i.e., delete the Drill Press and Grinding classes [3 credits] and add a CAD elective and a Safety class [4 credits]). The resurrection of this program will allow students to complete the Certificate concurrently with their four-year high school career, will meet the needs of the Windham High School (WHS) district and student population, and will provide the job skills required by Electric Boat (EB), which in conjunction with the Eastern Advanced Manufacturing Alliance (EAMA) constitutes our industry partner. Consultations with representatives from both EAMA/EB and WHS secured consensus to move forward with this proposal. In addition, this proposal was reviewed and approved by the College of Technology (COT) on 1/25/2019.

There are approximately 100 WHS students currently enrolled in the ECO program, most of whom we expect to transition into this new certificate program. An additional cohort of approximately 20-25 WHS students is expected to enter the program each year.

#### Addressing Identified Needs

- How does the program address CT workforce needs and/or the wellbeing of CT society/communities – and include a description/analysis of employment prospects for graduates of this proposed program *(Succinctly present as much factual evidence and evaluation of stated needs as possible)*

This proposed program has been specifically crafted with and has received the support of the representatives of Windham High School, our local school district, and especially our industry partner to provide those skills (mathematical, blueprint reading and design, manufacturing technology, machine use, etc.) which EAMA/EB requires of new hires.

According to the Connecticut Business and Industry Association (CBIA) the State of Connecticut is home to 4011 manufacturing firms with significant demand for skilled workers, as follows:

Entry-level - 3324

Machinists - 1236

CNC Machinists – 407

Tool and Die makers – 282

CNC programmers – 156

CAD/AM – 55

# CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

## Connecticut State Colleges & Universities

### APPLICATION FOR NEW PROGRAM APPROVAL

TOTAL - 5640

Over 159,000 workers are employed in manufacturing in Connecticut earning \$12.6 billion in wages per annum and adding \$42.7 billion to the Connecticut gross state product.

- How does the program make use of the strengths of the institution (*e.g. curriculum, faculty, resources*) and of its distinctive character and/or location?

This proposed program will make full use of our already existing resources to include our manufacturing lab space and equipment, as well as our existing staff. The proposed program will allow students to earn a stackable credential that will seamlessly transfer 100% of the credits earned into our existing Advanced Manufacturing Certificate. In addition, 100% of those credits will seamlessly transfer into QVCC's Associate Degree program in Technology Studies (College of Technology). Subsequent to that, 100% of those credits will seamlessly transferrable into the BS degree program at Central Connecticut State University (see appendix #1) and other College of Technology programs state-wide.

- Please describe any transfer agreements with other CSCU institutions that will become instituted as a result of the approval of this program (*Please highlight details in the Quality Assessment portion of this application, as appropriate*)

All transfer agreements within the College of Technology apply and will remain in place. No new transfer agreements are necessary.

- Please indicate what similar programs exist in other CSCU institutions, and how unnecessary duplication is being avoided

There is no duplication with other institutions. This proposed program has been customized with our partners to specifically serve the needs of our local student population and job market.

#### Cost Effectiveness and Availability of Adequate Resources

*(Please complete the PRO FORMA Budget – Resources and Expenditure Projections on page 6 and provide a narrative below regarding the cost effectiveness and availability of adequate resources for the proposed program. Add any annotations for the budget form.)*

Costs associated with this program, as detailed in the pro forma budget, include the actual cost of instruction (wages, fringes and fees) for the various college-based classes which would be offered at the College main campus in Danielson each summer. These costs would be 100% covered by (as noted on the "Tuition" line) by the school district who has agreed to pay for actual cost of instruction not on a per pupil basis.

The CCP model will allow us to cover the College's minimal costs to administer the program, as well as any required training and professional development for high school faculty teaching classes in the program. The existing lab and faculty at Windham High School appear to be sufficient to support the CCP classes to be offered at their institution.

Electric Boat is contributing the services of one full time practicing engineer to manage their portion of the program (estimated value of between \$100 and 200K per year).

All other resources required to run this program are already in place at QVCC and as such, this program will result in no costs beyond the cost of instruction (as noted on the "Faculty (Part-time...)" line on the pro forma budget.

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
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**APPLICATION FOR NEW PROGRAM APPROVAL**

**SECTION 3: PROGRAM QUALITY ASSESSMENT**

**Learning Outcomes - L.O.** *(Please list up to seven of the most important student learning outcomes for the program and concisely describe assessment methodologies to be used in measuring the outcomes. If the program will seek external accreditation or qualifies graduates to opt for a professional/occupational license, please frame outcomes in attention to such requirements. With as much detail as possible, please map these learning outcomes to courses listed under the "Curriculum" section of this application)*

1. Apply mathematical and technological principles to solve triangles and other geometric and technical problems;
2. Understand and follow basic shop safety guidelines, and successfully receive an OSHA 10 card;
3. Demonstrate the use and understanding of all basic semi-precision and precision measuring tools to determine the acceptability of manufactured parts based on accurately reading, interpreting, and understanding blueprints;
4. Operate a manual lathe, turn and face parts as well as full understanding of all thread data;
5. Operate a basic milling machine to square parts, bore, drill, and tap holes and surface grind flat and parallel;
6. Program and Operate both CNC Milling Machines and CNC Lathes;
7. Qualify to earn up to 2 NIMS credentials (National Institute of Metalworking Skills), as noted below:
  - A. Measurement, Materials and Safety, and
  - B. Job Planning, Benchwork and Layout.

**Program Administration** *(Describe qualifications and assigned FTE load of administrator/faculty member responsible for the day-to-day operations of the proposed academic program. Identify individual for this role by name or provide time frame for prospective hiring)*

The program will be overseen and managed by the two individuals listed below, both of whom are currently employees of QVCC. Although some of the program classes may be taught by one or the other it would not be as part of their regular teaching load and actually more likely that program classes will be taught by adjunct faculty and/or CCP instructors based at our partner high school.

Jakob Spjut – Associate Professor of Engineering Science, Program Coordinator of Engineering, Technology Studies and Manufacturing. Jakob’s credentials include a Master of Science degree in Chemical Engineering with nine years’ experience in academics.

Stephen LaPointe – Director - Advanced Manufacturing Technology Center (AMTC). Stephen’s credentials include 35 years’ experience in the manufacturing industry as well as six years’ experience in academics as Director of QVCC’s AMTC.

**Faculty** *(Please complete the faculty template provided below to include current full-time members of the faculty who will be teaching in this program and, as applicable, any anticipated new positions/hires during the first three years of the program and their qualifications)*

How many new full-time faculty members, if any, will need to be hired for this program?

0

What percentage of the credits in the program will they teach?

N/A

What percent of credits in the program will be taught by adjunct faculty?

100%

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Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program

- Professional competence in the assigned advanced manufacturing subject disciplines;
- Academic and practical instruction techniques and methodologies;
- Student testing and evaluation;
- Information technology literacy skills;
- Effective oral and written communications.

**Special Resources** *(Provide a brief description of resources that would be needed specifically for this program and how they will be used, e.g. laboratory equipment, specialized library collections, etc. Please include these resources in the Resources and Expenditures Projections spreadsheet)*

This program will make full use of QVCC's already existing resources including our Advanced Manufacturing lab and equipment, as well as our existing permanent staff and cadre of experienced adjuncts. Additional adjuncts will be recruited on an as needed basis. No expenditures are projected in order to implement this program as all needed resources are currently in hand.

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**Curriculum**

*(Please list courses for the proposed program, including the core/major area of specialization, prerequisites, electives, required general education courses (undergraduate programs), etc. Using numerals, map the Learning Outcomes listed in the previous section to relevant program courses in this table. Mark any new courses with an asterisk \* and attach course descriptions. Mark any courses that are delivered fully online with a double asterisk \*\* Please modify this format as needed)*

Course Number and Name	L.O. # <sup>1</sup>	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
<b>Program Core Courses</b>				<b>Other Related/Special Requirements*</b>		
MFG* 105 – Manufacturing Math II (must pass with a “C” or better)	1, 7	Eligible for MAT 095	3	CAD* Elective		3
MFG* 115 – Safety in the Workplace	2, 7	Eligible for MAT 095	1			
MFG* 124 – Blueprint Reading	1, 3, 7	Eligible for MAT 095	2			
MFG* 153 – Manufacturing Machinery – Benchwork	1, 3, 7	Eligible for MAT 095	2			
MFG* 154 – Manufacturing Machinery – Lathe I	4	Eligible for MAT 095	2			
MFG* 155 – Manufacturing Machinery – Milling I	5	Eligible for MAT 095	2			
MFG* 156 – Manufacturing Machinery – CNC I	6	Eligible for MAT 095	2			
<b>Core Course Prerequisites</b>				<b>Elective Courses in the Field</b>		
N/A				N/A		
<b>Total Other Credits Required to Issue Credential</b> (e.g. GenEd/Liberal Arts Core/Liberal Ed Program)						<b>0</b>

**Program Outline** *(Please provide a summary of program requirements including total number of credits for the degree, special admission requirements, capstone or special project requirements, etc. Indicate any requirements and arrangements for clinical affiliations, internships, and practical or work experience.*

*The total number of credits required to earn this certificate is 17. There are no additional entry requirements other than those noted above as prerequisites. Students will take 10 of the 17 credits at the Windham High School (WHS) as CCP classes, the remaining four classes (7 credits) will be taken at the QVCC Danielson campus during the three summers surrounding the student's high school years. Funding of the College-based classes will come from the*

<sup>1</sup> From the Learning Outcomes enumerated list provided at the beginning of Section 3 of this application

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*School District and/or grants obtained by Eastern Workforce Investment Board (EWIB), EAMA/EB.*

*Students may have an opportunity to do an internship at EB. This is an added benefit but is not required in order to complete the program.*

**\*Special Requirements** include co-curriculum activities – structured learning activities that complement the formal curriculum – such as internships, innovation activities and community involvement.

**N/A – Although there are no other special activities required to earn this certificate, opportunities for summer internships may be available to some students as noted above in the Program Outline section.**

**NOTE:** The PRO FORMA Budget on the last page should provide reasonable assurance that the proposed program can be established and is sustainable. Some assumptions and/or formulaic methodology may be used and annotated in the “Cost Effectiveness ...” narrative on page 2.





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**APPLICATION FOR NEW PROGRAM APPROVAL**  
**PRO FORMA Budget - Resources and Expenditures Projections (whole dollars only)**

PROJECTED Enrollment	First Year						Second Year						Third Year					
	Fall Semester		Spring Semester		Summer		Fall Semester		Spring Semester		Summer		Fall Semester		Spring Semester		Summer	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
Internal Transfer (from other programs)	0	5	0	0	0	0	0	5	0	0	0	0	0	5	0	0	0	0
New Students (first time matriculating)	0	20	0	0	0	0	0	20	0	0	0	0	0	20	0	0	0	0
Continuing Students progressing to credential	0	0	0	25	0	25	0	25	0	50	0	50	0	50	0	50	0	75
Headcount Enrollment	0	25	0	25	0	25	0	50	0	50	0	50	0	75	0	50	0	75
<b>Total Estimated FTE per Year<sup>1</sup></b>	0	CCP	0	CCP	0	6.25	0	CCP	0	CCP	0	10.4	0	CCP	0	CCP	0	14.6
PROJECTED Program Revenue	First Year						Second Year						Third Year					
	Fall Semester		Spring Semester		Summer		Fall Semester		Spring Semester		Summer		Fall Semester		Spring Semester		Summer	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
Tuition <sup>2</sup>	0	0	0	0	0	\$14,582	0	0	0	0	0	\$26,205	0	0	0	0	0	\$37,851
Tuition from Internal Transfer <sup>2</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Program Specific Fees (lab fees, etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Revenue (annotate in narrative)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Annual Program Revenue</b>	0	0	0	0	0	\$14,582	0	0	0	0	0	\$26,204	0	0	0	0	0	\$37,851
PROJECTED Program Expenditures <sup>3</sup>	First Year						Second Year						Third Year					
	First Year		Second Year		Third Year		First Year		Second Year		Third Year		First Year		Second Year		Third Year	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
Administration (Chair or Coordinator) <sup>4</sup>	existing		existing		existing		existing		existing		existing		existing		existing		existing	
Faculty (Full-time, total for program) <sup>4</sup>	0		0		0		0		0		0		0		0		0	
Faculty (Part-time, total for program) <sup>4</sup>	\$14,582		\$26,204		\$37,851		\$14,582		\$26,204		\$37,851		\$14,582		\$26,204		\$37,851	
Support Staff (lab or grad assist, tutor)	existing		existing		existing		existing		existing		existing		existing		existing		existing	
Library Resources Program	existing		existing		existing		existing		existing		existing		existing		existing		existing	
Equipment (List in narrative)	existing		existing		existing		existing		existing		existing		existing		existing		existing	
Other <sup>5</sup>	0		0		0		0		0		0		0		0		0	
Estimated Indirect Costs <sup>6</sup>	0		0		0		0		0		0		0		0		0	
<b>Total Expenditures per Year</b>	\$14,582		\$26,204		\$37,851		\$14,582		\$26,204		\$37,851		\$14,582		\$26,204		\$37,851	

**NOTE:** Existing regulations require that: "an application for a new program shall include a complete and realistic plan for implementing and financing the proposed program during the first cycle of operation, based on projected enrollment levels; the nature and extent of instructional services required; the availability of existing resources to support the program; additional resource requirements; and projected sources of funding. If resources to operate a program are to be provided totally or in part through reallocation of existing resources, the institution shall identify the resources to be employed and explain how existing programs will be affected. Reallocation of resources to meet new and changing needs is encouraged, provided such reallocation does not reduce the quality of continuing programs below acceptable levels."

- 1 1 FTE = 12 credit hours for undergraduate programs; 1 FTE = 12 credit hours for graduate programs; both for Fall & Spring
- 2 Revenues from all courses students will be taking.
- 3 Capital outlay costs, instructional spending for research and services, etc. can be excluded.
- 4 If full-time person is solely hired for this program, use rate time; otherwise, use a percentage. Indicate if new hires or existing faculty/staff.
- 5 e.g. student services. Course development would be direct payment or release time; marketing is cost of marketing that program separately.
- 6 Check with your Business Office – community colleges have one rate; the others each have their own. Indirect Cost might include such expenses as student services, operations and maintenance.

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**APPENDIX #1**

College of Technology Community College Certificate through B.S. Degree at Central CT State University Pathway Crosswalk					
CSCU Community Colleges Certificate	Credits	CT State Colleges & Universities Technology Studies A.S. Degree	Credits	Central CT State University B.S. Degree in Industrial Technology - Technology Management	Credits
		<i>Technology Core</i> - Manufacturing Machine Technology Certificate block transfers into A.S. Degree - satisfies the 30 Technology Studies Technology Core credits that are required		<i>Specialization Requirements</i>	
Connecticut Community College Technology Certificate (including Manufacturing)	up to 34	<i>Specialization Electives - Technical Electives</i>	15	All Directed and Specialization Electives in the Technology Core will be transferred in as a block of credits towards the B.S. in Industrial Technology - Technology Management. Additional credits in technology and engineering disciplines can also be transferred as a block credit up to a total of 45 credits.	31
		<i>Directed Electives</i> - Designated by Advisor	12		
		<i>CAD Elective</i>	3		
Certificate TOTAL: up to 34 CR		<b>Technology Core Transferred 30 cr</b>		<b>Technology Core Transferred 34 cr</b>	
<b>General Education 36 cr</b>			<b>General Education Transferred 33 cr</b>		
<b>A.S. Degree TOTAL: 66 CR</b>					
<b>General Education</b>			<b>General Education</b>		
ENG 101 Composition			3	ENG 110 English Composition	3
ENG 202 Technical Writing			3	ENGR 290 Engineering Technical Writing and Presentation	3
COM 173 Public Speaking			3	HIST 1XX	3
History Elective or Economics Elective			3	ANTH/SOC/PSY (see Study Area III)	3
Psychology Elective or Sociology Elective			3	ENG (Lit)/ ART/MUS/PHIL (Study Area I)	3
Fine Arts Elective			3	HIST/GEOG/PS/ECON Study Area II	3
Geography Elective or Political Science Elective or History Elective			3		
<b>Science and Math</b>					
MAT 167 Principles of Statistics (3cr) or MAT 168 Elementary Statistics and Probability I (4cr)			3	STAT 101 Elementary Statistics	3
MAT 186 Pre-Calculus			4	MATH 119 Precalc w Trigonometry	4
PHY 121 General Physics I or PHY 110 Introductory Physics			4	PHYS 121 General Physics I	4
CHE 121 General Chemistry I w/ Lab or CHE 111 Concepts of Chemistry			4	CHEM 161/162 General Chemistry w/lab	4
<b>General Education 36 cr</b>			<b>General Education Transferred 33 cr</b>		
			HIST/GEOG/PS/ECON Study Area II or Free Elective in Specialization		
			PHIL 144 Moral Issues OR ENG (Lit)/ ART/MUS/PHIL (Study Area I) or Free Elective in Specialization		
			ENG (Lit)/ ART/MUS/PHIL (Study Area I)		
			ANTH/SOC/PSY (see Study Area III)		
			<b>General Education 12 cr</b>		
<b>Business Requirements</b>					
AC 210 Industrial Accounting			3		3
MGT 295 Introduction to Management and Organizational Behavior			3		3
MKT 295 Introduction to Marketing			3		3
TM 190 Global Quality Management Systems			3		3
TM 310 Environment, Health and Safety			3		3
TM 362 Leading Project Teams			3		3
TM 401 Industrial Internship			3		3
			<b>Business Requirements 21 cr</b>		
			Free Electives to meet Specialization Requirements (39 credits)		
			Electives required to complete 122 credits		
			<b>B.S. Degree TOTAL: 120 CR</b>		

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

New Program Approval

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the licensure and accreditation of a Culinary Arts program (CIP Code: 12.0503) leading to an Associate of Arts degree, requiring 63-64 course credits delivered via an on ground modality, at Gateway Community College.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

Licensure and accreditation of a new Culinary Arts program leading to an Associate of Arts degree at Gateway Community College

**BACKGROUND**Summary

The need for skilled chefs, line cooks and basic food preparers is growing throughout the nation. Interest in the field of Culinary Arts is growing among high school students in the greater New Haven area. There are eight high schools in the region offering robust and popular Culinary Arts classes. The institution currently partners with these secondary schools through a dual enrollment program whose advisory council has requested that Gateway establish a degree program due to the increased number of interested students. According to Bureau of Labor Statistics, the job outlook for this field is projected to grow 10 percent through 2026. At a forum hosted by the local workforce development board, restaurant owners announced their numerous job openings and expressed an urgency to fill those needs in order to efficiently operate their businesses.

Rationale

The proposed degree program is designed to complement the institution's existing certificate program in Culinary Arts and Professional Baker. Of the 45 program core credits in the proposed curriculum, 39 are currently offered. The institution has 7,500 square feet of laboratory space with state-of-the-art equipment, three professional kitchens and an on-site restaurant – sufficient facilities for the proposed degree program. The proposed program replicates Manchester's plan of study which is accredited by the American Culinary Institute.

**NOTE:** The number of course credits required for the proposed program is based upon the accreditation guidelines of the American Culinary Institute; thus, exceeding the BOR's normalization policy of 60 course credits as an allowable exception.

Resources

Only two courses need to be developed, by existing faculty, to create the degree program. The addition of part-time faculty members would be the only incremental increase in expenditures. Projected revenue is expected to far exceed projected expenditures during each of the program's initial three years.

**RECOMMENDATION**

Following its review and deliberative process, it is the recommendation of the Academic Council that the Board of Regents approve the establishment of this program. The System's Provost and Senior Vice President for Academic and Students Affairs concurs with this recommendation.

03/15/2019 – BOR Academic & Student Affairs Committee

03/28/2019 – Board of Regents



**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR NEW PROGRAM APPROVAL**

**52212SECTION 1: GENERAL INFORMATION**

<b>Institution:</b> Gateway Community College	Date of Submission to CSCU Office of the Provost: 11/21/18	
Most Recent NEASC Institutional Accreditation Action and Date: September 2016 Continued Accreditation		
<b>Program Characteristics</b>	<b>Program Credit Distribution</b>	
Name of Program: <b>Culinary Arts</b>	# Cr in Program Core Courses: <b>40</b>	
Degree: Title of Award (e.g. Master of Arts) <b>Associate of Arts</b>	# Cr of Electives in the Field: <b>15</b>	
Certificate: (specify type and level)	# Cr of Free Electives: <b>3</b>	
Anticipated Program Initiation Date: <b>Fall 2019</b>	# Cr Special Requirements (include internship, etc.): <b>5-6</b>	
Anticipated Date of First Graduation: <b>Spring 2021</b>	<u>Total # Cr in the Program</u> (sum of all #Cr above): <b>63-64</b>	
Modality of Program: <b>X</b> On ground    Online    Combined	From "Total # Cr in the Program" above, enter #Cr that are	
If "Combined", % of fully online courses?	part of/belong in an already approved program(s) at the	
Total # Cr the Institution Requires to Award the Credential (i.e. include program credits, GenEd, other): <b>63-64</b>	institution: <b>57</b>	
Type of Approval Action Being Sought:    Licensure or <b>X</b> Licensure and Accreditation - (see <b>NOTE</b> below)		
CIP Code No. (optional) 120503    Title of CIP Code: Culinary Arts/Chef Training		
If establishment of the new program is concurrent with discontinuation of related program(s), please list for each program:		
Program Discontinued:	CIP:	OHE#:    Accreditation Date:
Phase Out Period	Date of Program Termination	
Institution's Unit (e.g. School of Business) and Location (e.g. main campus) Offering the Program: Division of Allied Health & Nursing- Main Campus		
Other Program Accreditation:		
<ul style="list-style-type: none"> <li>• If seeking specialized/professional/other accreditation, name of agency and intended year of review: American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC) 2021-2022</li> <li>• If program prepares graduates eligibility to state/professional license, please identify:</li> </ul>		
<i>(As applicable, the documentation in this request should addresses the standards of the identified accrediting body or licensing agency)</i>		
<b>Institutional Contact for this Proposal:</b> Chris Gentile	Title: Program Coordinator, Culinary Arts	Tel.: 203-285-2432    e-mail: cgentile@gatewayct.edu

**CSCU REVIEW STATUS** (For System Office Use Only - please leave blank)

Notes regarding Application:  
 Log of Steps Toward Approval:  
 Date of Approval:  
 Date for Inclusion in BOR-ASA Meeting Package:  
 Comments:

**NOTE:** Institutions shall seek approval of new programs either as *Licensure* or simultaneous *Licensure and Accreditation*:

a. *Licensure*, normally granted for a period of three years, authorizing the enrollment of students and their advancement toward the completion of degree requirements; or b. *Licensure and Accreditation*, simultaneously authorizing the enrollment and award of credentials to students. The accreditation action is considered renewed with each regional accreditation of the institution. Simultaneous licensure and accreditation is generally sought for new degree and certificate programs that are closely related to a set of already existing programs and aligned with institutional strengths. New degree programs are normally submitted for licensure only, to be accredited after three years. Certificates normally are licensed and accredited simultaneously.

# CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

## Connecticut State Colleges & Universities APPLICATION FOR NEW PROGRAM APPROVAL

### SECTION 2: PROGRAM PLANNING ASSESSMENT

#### Alignment of Program with Institutional Mission, Role and Scope

*(Please provide objective and concise statements)*

The mission of Gateway Community College is to offer high-quality instruction and comprehensive services in an environment conducive to learning. We respond to the changing academic, occupational, technological, and cultural needs of a diverse population. To realize this mission, Gateway Community College:

- Offers a broad range of credit and credit-free liberal arts and sciences, technical and career associate degrees and certificate programs, and courses leading to transfer, employment, and lifelong learning;
- Encourages student success and inclusion through stimulating learning opportunities, innovative teaching, support services, and co-curricular activities;
- Supports economic development through partnerships with business, industry, government, and our community by providing workforce development, business development, and technology transfer;
- Strengthens our community through the sponsorship of intellectual, cultural, social, and recreational events and activities;
- Engages students and community members as active, responsible leaders.

The Culinary Arts Program aligns with the GCC mission in that it is an associate degree that leads to employment, and has the potential for articulation agreements with higher education institutions for a baccalaureate degree. The program will provide stimulating learning experiences with hands-on training in the 7,500 square foot state-of-the-art kitchen laboratories and a full-service restaurant Café Vincenzo. GCC has strong partnerships with local restaurants where students will be engaged in real-life learning experiences. There is currently a high demand for skilled chefs, line cooks, and basic food preparers in the State of CT, so this program will support economic and workforce development in the region, and will provide greater financial security for graduates of the program.

#### Addressing Identified Needs

- How does the program address CT workforce needs and/or the wellbeing of CT society/communities – and include a description/analysis of employment prospects for graduates of this proposed program *(Succinctly present as much factual evidence and evaluation of stated needs as possible)*

The need for skilled chefs, line cooks, and basic food preparer in America is growing rapidly. From 2004 to 2014, more new full-service restaurants opened than in any other part of the industry. In order to staff restaurant kitchens, the Bureau of Labor Statistics projects that by 2025, nearly 200,000 more line cooks and chefs will be needed. The most skilled culinary positions will grow faster than the rest of the American workforce. Bureau of Labor Statistics projects that between 2014 and 2024 we will see a 9% growth in Chefs and Head Cooks. Not only are kitchen positions in high demand, they also require middle skills which employers have found to be lacking in the modern workforce. Online TripAdvisor lists 548 New Haven restaurants, and iHireChefs.com lists 775 positions that are open in the New Haven area (circumference of fifty miles) as of January 18, 2017. As per the Bureau of Labor Statistics (BLS), Occupational Outlook Handbook, the job outlook from 2016-2026 - Employment of chefs and head cooks is projected to grow 10 percent from 2016 to 2026, faster than the average for all occupations. Most job opportunities for chefs and head cooks are expected to be in food services, including restaurants. Job opportunities will result from the need to replace workers who leave the occupation. In 2017, the median pay was \$45,950.00 per year, and \$22.09 per hour. These positions range from line cook, sous chef, server, to grill cook. According to the National Restaurant Association, in 2018 the restaurant industry will employ approximately 15 million people. It will add 1.6 million jobs over the next decade, with its total employment reaching 16.3 million by 2027. In January 2018, Workforce Alliance and Capital Workforce Partners hosted a forum for local restaurant owners to discuss options for recruiting individuals to this field. Owners expressed that they have numerous job openings that need to be filled in order to efficiently operate their businesses. In the State of Connecticut, as of November 20, 2018, Indeed.com has posted 1576 Restaurant Management jobs, 1002 Prep Cook jobs, 476 Line Cook jobs, 432 Chef jobs, 327 Restaurant Dishwasher jobs, 274 Wait Staff jobs, and 142 Baker jobs. According to glassdoor.com in December 2018, Line Cook Salaries have an average annual base pay of \$27,683.

Interest in the field of Culinary Arts is growing among high school students. Within the New Haven region, there are eight high schools that offer culinary arts classes. All of these programs are very robust and popular with high school students.

## CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

### Connecticut State Colleges & Universities

#### APPLICATION FOR NEW PROGRAM APPROVAL

Currently Gateway Community College partners with the eight high schools to offer college level culinary arts classes through the College Now Program. The GCC Culinary Arts Advisory Council, which is comprised of high school culinary teachers, have requested an Associate degree in Culinary Arts due to the increased number of students interested in this career who desire an affordable education option.

- How does the program make use of the strengths of the institution (*e.g. curriculum, faculty, resources*) and of its distinctive character and/or location?

The Culinary Arts Associate Degree Program is designed to complement the existing certificate programs in Culinary Arts and Professional Baker at GCC. Of the forty-five program credits in the associate curriculum plan of study, thirty-nine credits are currently being offered in the Culinary Arts, Professional Baker, and Food Service Management, so only two new courses will be introduced with the associate degree. Another strength of the institution is the existing highly qualified full-time and part-time faculty that teach culinary arts and hospitality courses at the college.

GCC has 7,500 square feet of laboratory space that currently serves the certificate program needs and is sufficient for the needs of the associate degree. The state-of-the-art laboratories consist of:

- Classroom/lab with Point of Sale (POS) simulator system;
- Two large capacity walk-in refrigerators and a large capacity walk-in freezer;
- On-site purchasing and stewarding office;
- Three professional kitchens (demo kitchen, baking kitchen, and full-service restaurant kitchen);
- Café Vincenzo, the on-site restaurant.

GCC is also strategically located in downtown New Haven, a hub of highly recognized restaurants.

- Please describe any transfer agreements with other CSCU institutions that will become instituted as a result of the approval of this program (*Please highlight details in the Quality Assessment portion of this application, as appropriate*)

None of the CSCU institutions offer a baccalaureate degree program in Culinary Arts. Existing transfer agreements can be utilized for students interested in a liberal arts degree. Articulation agreements will be sought with the University of New Haven and Johnson and Wales University as they offer the baccalaureate degree in Culinary Arts.

- Please indicate what similar programs exist in other CSCU institutions, and how unnecessary duplication is being avoided  
Within the CT Community College System, Manchester Community College (MCC) offers a Certificate program and Associates Degree in Culinary Arts accredited through the American Culinary Institute; and both Naugatuck Valley Community College and Norwalk Community College offer a certificate in Culinary Arts. The GCC Associate degree program is designed according to the MCC plan of study, in preparation for the system-wide common curriculum plan. The GCC Associate degree program will serve the needs of interested students in the southern part of the state.

#### Cost Effectiveness and Availability of Adequate Resources

*(Please complete the PRO FORMA Budget – Resources and Expenditure Projections on page 6 and provide a narrative below regarding the cost effectiveness and availability of adequate resources for the proposed program. Add any annotations for the budget form.)*



**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR NEW PROGRAM APPROVAL**

**SECTION 3: PROGRAM QUALITY ASSESSMENT**

**Learning Outcomes - L.O.** (Please list up to seven of the most important student learning outcomes for the program and concisely describe assessment methodologies to be used in measuring the outcomes. If the program will seek external accreditation or qualifies graduates to opt for a professional/occupational license, please frame outcomes in attention to such requirements. With as much detail as possible, please map these learning outcomes to courses listed under the "Curriculum" section of this application)

1. Analyze theory and techniques of food preparation and presentation. Assessment: Successful completion of Principles of Food Preparation course. .
2. Prepare basic foods in quantity, including various regional foods. Assessment: Successful completion of Advanced Food Preparation course.
3. Evaluate the establishment and maintenance of a safe and sanitary foodservice operation including Hazard Analysis and Critical Control Points and State of Connecticut law. Assessment: Successful completion of Food Safety Certification course and exam.
4. Summarize basic principles and concepts of the hospitality industry. Assessment: Successful completion of Introduction to the Hospitality Industry course.
5. Demonstrate appropriate problem-solving techniques in addressing management problems. Assessment: Successful completion of Sustainable Food Service Management and Communications courses.
6. Prepare menus incorporating costs, acquisition and inventory controls. Assessment: Successful completion of Food and Beverage Cost Control and Buffet Catering courses.
7. Transfer acquired knowledge to the world of work. Assessment: Observation and evaluation of student performance in either 150 or 300 hours of cooperative work education experience. .

**Program Administration** (Describe qualifications and assigned FTE load of administrator/faculty member responsible for the day-to-day operations of the proposed academic program. Identify individual for this role by name or provide time frame for prospective hiring)

Program Coordinator: Chris Gentile – 6-years academia, 25-years industry, MBA, BS Hotel/Restaurant Mgmt., AOS Culinary Arts.

FTE Load: HSP\* 210 (6-credit course), HSP\* 296 (3-credit course)

**Faculty** (Please complete the faculty template provided below to include current full-time members of the faculty who will be teaching in this program and, as applicable, any anticipated new positions/hires during the first three years of the program and their qualifications)

How many new full-time faculty members, if any, will need to be hired for this program?     None

What percentage of the credits in the program will they teach? Current full-time faculty teach 62.2% (28 credits) of the HSP designated program credits.

What percent of credits in the program will be taught by adjunct faculty? Adjunct faculty will teach 37.8% (17 credits) of the 45 HSP designated program credits.

Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program. An Associates degree in Culinary Arts, and A Bachelor's degree in relevant, plus 2 to 4 years of teaching and related industry experience.

**Special Resources** (Provide a brief description of resources that would be needed specifically for this program and how they will be used, e.g. laboratory equipment, specialized library collections, etc. Please include these resources in the Resources and Expenditures Projections spreadsheet)

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR NEW PROGRAM APPROVAL**

**Curriculum**

*(Please list courses for the proposed program, including the core/major area of specialization, prerequisites, electives, required general education courses (undergraduate programs), etc. Using numerals, map the Learning Outcomes listed in the previous section to relevant program courses in this table. Mark any new courses with an asterisk \* and attach course descriptions. Mark any courses that are delivered fully online with a double asterisk \*\* Please modify this format as needed)*

Course Number and Name	L.O. # <sup>1</sup>	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
<b>Program Core Courses</b>				<b>Other Related/Special Requirements*</b>		
HSP*100: Introduction to the Hospitality Industry	10		3	NTR* 106: Culinary Nutrition or BIO 111:Introduction to Nutrition	2,3,4,8,15	2-3
HSP* 101: Principles of Food Preparation	2		3	HSP* 296: Cooperative Education/Work Experience	15	3
HSP* 103: Principles of Baking I	1		3			
HSP* 109: Food Safety Certification	6		1			
HSP* 135: Service Management	5		3			
HSP* 112: Advanced Food Preparation	3		4			
HSP* 215: Principles of Baking II	1		3			
HSP* 201: International Foods	4		4			
HSP* 211: Food and Beverage Cost Control	13,14		3			
HSP* 230: Sustainable Food Service Management	11,12		3			
HSP* 225: Principles of Baking III OR HSP* 216: Artisan Bread OR HSP*107: Icing Artistry	1,7,8		3			
HSP* 290: Classical Cuisine	3		3			
HSP* 210: Buffet Catering	9,14		4			
<b>Core Course Prerequisites</b>				<b>Elective Courses in the Field</b>		
ENG* 101: Composition			3	Elective	12	3
Choose one course from Gen Ed - Humanities			3			
Choose one course from Gen Ed - Math			3			
Choose one course from Gen Ed - The Arts			3			
Choose one course from Gen Ed – Social Sciences			3			
<b>Total Other Credits Required to Issue Credential</b> (e.g. GenEd/Liberal Arts Core/Liberal Ed Program)						

**Program Outline** *(Please provide a summary of program requirements including total number of credits for the degree, special admission requirements, capstone or special project requirements, etc. Indicate any requirements and arrangements for clinical affiliations, internships, and practical or work experience. For example: "The Finance Major entails 18 credits of Related Course requirements from a range of disciplines (6 credits of which apply to the Liberal Arts Core (LAC), or institution's GenEd program), 24 credits of courses in Business (3 credits of which apply to the LAC/GenEd), 18 credits of coursework in Finance (including a 6-credit internship), and 9 elective credits from a list that includes courses in Economics, Finance, and Business. Students must take a minimum of 24 credits of coursework for the major at the institution and must maintain a GPA of 2.5.")*

<sup>1</sup> From the Learning Outcomes enumerated list provided at the beginning of Section 3 of this application

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**

**Connecticut State Colleges & Universities**

***APPLICATION FOR NEW PROGRAM APPROVAL***

**\*Special Requirements** include co-curriculum activities – structured learning activities that complement the formal curriculum – such as internships, innovation activities and community involvement.

**NOTE:** The PRO FORMA Budget on the last page should provide reasonable assurance that the proposed program can be established and is sustainable. Some assumptions and/or formulaic methodology may be used and annotated in the “Cost Effectiveness ...” narrative on page 2.

**Additional Supportive Data:**

**Number of Credits in Program:**

Our proposed program is currently 63-64 credits due to the 2-credit Culinary Nutrition Course as required (Standard 5.08) by our accrediting body, the American Culinary Federation (ACF). See link for details - <https://www.acfchefs.org/download/documents/Accreditation/standards.pdf>

**Marketing Materials:**

In-House created video promoting HSP 210, Buffet Catering Course – electronic file forwarded to BOR.

In-House created poster promoting courses within existing Certificate programs; hard copies posted and poster also displayed on flat screen monitors throughout college – electronic file forwarded to BOR.

In-House created flyers promoting courses offered within existing Certificate programs; hard copies – electronic file forwarded to BOR.

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
**APPLICATION FOR NEW PROGRAM APPROVAL**

**Full-Time Faculty Teaching in this Program** (Note: If you anticipate hiring new faculty members for this program you may list "to be hired" under name and title. Provide required credentials, experience, and other responsibilities for each new position anticipated over the first three years of implementation of the

Faculty Name and Title	Institution of Highest Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities
Christopher Gentile, Assistant Professor and Program Coordinator	MBA - University of New Haven, Connecticut	Culinary Arts, Restaurant Development and Management, Purchasing	Teach HSP* 210 Buffet Catering and HSP* 296 Coop Work Education
Andrew V. Randi, Professor	MS – Hospitality and Tourism Management - University of New Haven, Connecticut	Culinary Arts, Baking, Restaurant Management, Small Business	Teach HSP* 101 Principles of Food Prep, HSP* 103 Principles of Baking, HSP* 112 Advanced Food Preparation
Daniel J. Palmquist, Associate Professor	AOS – Culinary Arts – Johnson and Wales University, Rhode Island	Culinary Arts, Healthcare, Baking, Small Business	Teach HSP* 101 Principles of Food Prep, HSP* 103 Principles of Baking, HSP* 109 Food Safety Certificate

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**

**Connecticut State Colleges & Universities**

**APPLICATION FOR NEW PROGRAM APPROVAL**

**PRO FORMA Budget - Resources and Expenditures Projections (whole dollars only)**

PROJECTED Enrollment	First Year						Second Year						Third Year					
	Fall Semester		Spring Semester		Summer		Fall Semester		Spring Semester		Summer		Fall Semester		Spring Semester		Summer	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
Internal Transfer (from other programs)	4		4															
New Students (first time matriculating)	8		8				9		9				12		12			
Continuing Students progressing to credential		6		6			9	9	9	9			6	12	6	12		
Headcount Enrollment	12	6					18	9	18	9			18	12	18	12		
<b>Total Estimated FTE per Year<sup>1</sup></b>	12	2	12	2			18	3	18	3			18	4	18	4		
PROJECTED Program Revenue	First Year						Second Year						Third Year					
	Fall Semester		Spring Semester		Summer		Fall Semester		Spring Semester		Summer		Fall Semester		Spring Semester		Summer	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
Tuition <sup>2 1956</sup>	15,648	5868	23,472	5868			35,208	8802	35,208	8802			35,208	11,736	19560	20538		
Tuition from Internal Transfer <sup>2</sup>	7824																	
Program Specific Fees (lab fees, etc.)	5526	1842	5526	1842			5526	2763	5526	2763			5526	3684	6655	7371		
Other Revenue (annotate in narrative) ***	8000		16,000				8000		16,000				8000		16,000			
<b>Total Annual Program Revenue</b>	44,708		52,708				60,299		68,299				64,154		72,154			
PROJECTED Program Expenditures <sup>3</sup>																		
	First Year		Second Year		Third Year		First Year		Second Year		Third Year		First Year		Second Year		Third Year	
Administration (Chair or Coordinator) <sup>4</sup>	existing		existing		existing		existing		existing		existing		existing		existing		existing	
Faculty (Full-time, total for program) <sup>4</sup>	existing		existing		existing		existing		existing		existing		existing		existing		existing	
Faculty (Part-time, total for program) <sup>4*</sup>	9276		9786		10,324													
Support Staff ( lab or grad assist, tutor)																		
Library Resources Program	existing		existing		existing													
Equipment (List in narrative)	existing		19,200															

**NOTE:** Existing regulations require that: “an application for a new program shall include a complete and realistic plan for implementing and financing the proposed program during the first cycle of operation, based on projected enrollment levels; the nature and extent of instructional services required; the availability of existing resources to support the program; additional resource requirements; and projected sources of funding. If resources to operate a program are to be provided totally or in part through reallocation of existing resources, the institution shall identify the resources to be employed and explain how existing programs will be affected. Reallocation of resources to meet new and changing needs is encouraged, provided such reallocation does not reduce the quality of continuing programs below acceptable levels.”

- 1 1 FTE = 12 credit hours for undergraduate programs; 1 FTE = 12 credit hours for graduate programs; both for Fall & Spring
- 2 Revenues from all courses students will be taking.
- 3 Capital outlay costs, instructional spending for research and services, etc. can be excluded.
- 4 If full-time person is solely hired for this program, use rate time; otherwise, use a percentage. Indicate if new hires or existing faculty/staff.

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities**  
*APPLICATION FOR NEW PROGRAM APPROVAL*

Other <sup>5</sup> Food expenses				<p>5 e.g. student services. Course development would be direct payment or release time; marketing is cost of marketing that program separately.</p> <p>6 Check with your Business Office – community colleges have one rate; the others each have their own. Indirect Cost might include such expenses as student services, operations and maintenance.</p> <p><b>Assumptions:</b></p> <ul style="list-style-type: none"> <li>• Tuition revenue assumes no tuition increases for year 2 and year 3.</li> <li>• *2019-2021- adjusts for 5.5% wage increase.</li> <li>• **Based on federally negotiated Indirect cost rate of 70% of wages.</li> <li>• *** Other revenue section includes revenue from lunches and dinners offered in Café Vincenzo</li> </ul>
Estimated Indirect Costs <sup>6**</sup>	6493	6850	7226	
<b>Total Expenditures per Year</b>	15,769	35,836	17,550	

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Transfer and Articulation Policy Biochemistry Pathway

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approves the Transfer and Articulation Policy Pathway agreement in Biochemistry developed by discipline faculty from the 17 Connecticut State Universities and Colleges. The resolution includes approval of the CSCU Pathway Transfer A.A. Degree: Biochemistry Studies, CIP 26.0202. This pathway meets the specific requirements of the Board's Transfer and Articulation Policy for seamless and transparent transfer in this major for students from any of the Community Colleges to each of the State Universities and Charter Oak State College.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Transfer and Articulation Policy Geography Pathway

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approves the Transfer and Articulation Policy Pathway agreement in Geography developed by discipline faculty from the 17 Connecticut State Universities and Colleges. The resolution includes approval of the CSCU Pathway Transfer A.A. Degree: Geography Studies, CIP 45.0701. This pathway meets the specific requirements of the Board's Transfer and Articulation Policy for seamless and transparent transfer in this major for students from any of the Community Colleges to each of the State Universities and Charter Oak State College.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education



**ITEM**

BOR Resolutions for

CSCU Pathway Transfer A.A. Degree: Biochemistry Studies, CIP 26.0202

CSCU Pathway Transfer A.A. Degree: Geography Studies, CIP 45.0701

Implementation of the Transfer and Articulation Policy Pathways between the twelve community colleges and the State Universities and Charter Oak State College for Biochemistry and Geography. These pathways meet the specific requirements of the Board's Transfer and Articulation Policy for seamless and transparent transfer in these majors for students from any of the Community Colleges to each of the State Universities and Charter Oak State College who offer the major.

**BACKGROUND**

In 2012, the state legislature passed a law (Public Act 12-31) requiring the Connecticut State Colleges and Universities (CSCU) to create seamless transfer pathways on a system level for students completing transfer degree programs at the community colleges and then transferring to a four-year institution. Public ACT 12-31 aligned with a transfer policy created by a system-wide advisory committee. In the summer of 2012, a steering committee comprising 17 faculty members—one from each CSCU institution—created a framework for a 30-31 credit competency-based general education core as part of 60-61 credit transfer pathways to be completed at the community colleges. This framework was voted on by all colleges and universities and approved by the BOR in fall 2012 for implementation in the system.

Workgroups comprising faculty members from each of the Connecticut State Colleges and Universities began meeting in the fall of 2012. In the fall of 2014 these work groups were reconvened and additional disciplinary work groups were created to develop pathways for students to transfer seamlessly from the community colleges to the State Universities and Charter Oak State College. Each pathway is developed by faculty in the discipline and then goes through a thorough review process, beginning with the Transfer and Articulation Framework Review and Implementation Committee (FIRC), itself comprising faculty representatives from each of the CSCU institutions and two advisors, one from a community college and one from a CSU or CO. After review by FIRC, each pathway proceeds through the governance process at each CSCU institution for a vote on endorsement. Institutions provide valuable feedback that is submitted to the TAP manager. If the manager, in consultation with the system Provost and the Framework and Implementation Review Committee, determines that the pathway meets the requirements of TAP and is supported by the majority of faculty across the system, the pathway is brought to the Academic and Student Affairs Committee of the Board of Regents for approval. If approved by the Academic and Student Affairs Committee, the pathway is then brought to the Board of Regents for full approval. Once a pathway is approved, it must, according to policy, be implemented at each community college that can offer it and be received at each four-year school that offers the degree program.

Each discipline-specific pathway offers students a clear pathway that will lead them to complete an associate degree in the discipline that is guaranteed to transfer to any of the State Universities and to Charter Oak State College and leave the student with only 60 credits to complete for the baccalaureate degree. Each pathway represents the collaboration and agreement of faculty from

each CSCU institution,

### **RATIONALE**

In 2012 the Board of Regents approved the Transfer and Articulation Policy (TAP) which sets out to help students complete their post-secondary degrees as efficiently as possible. As part of the TAP policy, pathways are to be created that relate to specific majors offered at the state universities. In short, it establishes an expectation that students can begin their education at a community college, follow a defined pathway where all courses are applicable to the appropriate degree, then transfer to the state universities to complete their degree with no more than 120 total credits. The TAP policy creates a common general education core, common lower division pre-major pathways and Junior status upon transfer. The pathways in Biochemistry and Geography join the existing transfer pathways and will be available for students to declare for the fall of 2019.

The endorsement vote for Geography was unanimous in favor.

The endorsement vote for Biochemistry included one vote against endorsement from HCC, but was based on a misreading of the pathway. HCC objected to requiring Calculus-Based Physics in the pathway on their understanding that only 1 of the 6 receiving programs require it. In fact, 4 of the 6 receiving programs require Calculus-Based Physics.

# CSCU Biochemistry Transfer Pathway

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**PROPOSED PATHWAY**  
**CSCU Pathway Transfer A.A. Degree: Biochemistry Studies**

1	<b>FRAMEWORK30</b>		
2	<i>Section A: Common Designated Competencies</i>		
3	Written Communication I	ENG 101 Composition	3 credits
4	Written Communication II	General Education Elective	3 credits
5	Scientific Reasoning	CHE 121 General Chemistry I	4 credits
6	Scientific Knowledge & Understanding	CHE 122 General Chemistry II	4 credits
7	Quantitative Reasoning	MAT 186 Pre-Calculus	4 credits
8	Historical Knowledge & Understanding	General Education Elective	3 credits
9	Social Phenomena	General Education Elective	3 credits
10	Aesthetic Dimensions	General Education Elective	3 credits
11	<i>Section B: Campus Designated Competencies</i>		
12	Competency 1	General Education Elective	3 credits
13	Competency 2	General Education Elective	3 credits
14	<b>Framework30 Total</b>		<b>33 credits</b>

15	<b>PATHWAY30</b>		
16	<i>Major Program Requirements</i>		
17	BIO 121	General Biology I	4 credits
18	BIO 235	Microbiology	4 credits
19	CHE 211	Organic Chemistry I	4 credits
20	CHE 212	Organic Chemistry II	4 credits
21	MAT 254	Calculus I	4 credits
22	PHY 221	Calculus-Based Physics I	4 credits
23			
24	<i>Unrestricted Electives</i>		3 credits
25	<p>BIO 122 General Biology II  OR  PHY 222 Calculus-Based Physics II  recommended for this open elective with  the following considerations:</p> <p>PHY II is required at CCSU, ECSU, WCSU  BIO II is required at WCSU</p> <p>If the student completes both sequences  at the community college and transfers  to WCSU, both sequences will be  accepted at WCSU and the student will  have 4 fewer credits to complete at  WCSU after transfer.</p>		

	<p>Students who know they are transferring to SCSU may decide not to use this open elective for PHY II or BIO II.</p> <p>Students should consider beginning or completing work on foreign language requirements not already met in high school for CCSU, ECSU and WCSU or beginning work on minor requirements of some CSUs. They may also complete other General Education requirements.</p>		
26	<b>Pathway30 Total</b>		27 credits
27	<b>[Discipline Name] Pathway Total</b>		<b>60 credits*</b>

Students who are required to complete developmental coursework or who place below the required entry level of math for their program may not be able to complete their pathway degree in 60 credits/contact hours.

*Version for Review 03/06/2019*

**Transfer Pathway and Degree Program**

**Template 1**

**Central Connecticut State University**

Complete four-year degree with articulation of community college degree to four-year degree

**Biochemistry, B.S. – General Track**

There is no minor required for this program.

1	Community Colleges*:			CCSU	
2		Credits			Credits
3	<b>Framework30**</b>				
4	<b>General Education Requirements</b>				
5	<b>Competency:</b>				
6	<b>Section A</b>				
7	Written I	English 101	3	English 110	3
8	Written II	Gen Ed	3	Skill Area I – Communication	3
9	Scientific Reasoning	CHE 121 General Chemistry I	4	CHEM 161/162 General Chemistry	4
10	Scientific Knowledge	CHE 122 General Chemistry II	4	CHEM 200/201 Foundations of Analytical Chemistry	4
11	Quantitative	MAT 186 Pre-Calculus	4	MATH 119 Pre-Calculus with Trigonometry	4
12	Historical Knowledge	Gen Ed*	3	Study Area II – History	3
13	Social Phenomena	Gen Ed	3	Study Area II – Social Science	3
14	Aesthetic Dimensions	Gen Ed	3	Study Area I – Arts and Humanities	3
15	<b>Section B</b>				
16	Competency:	Gen Ed	3	Skill Area IV – University Requirement	3
17	Competency:	Gen Ed	3	Study Area III – Behavioral Sciences	3
18	<b>Framework30 Credits (30-31):</b>				<b>33</b>
19	<b>Pathway30</b>				
20	<b>Additional General Education Courses</b>				
21				Study Area I – Literature	3
22				Study Area I – Arts and Humanities	3
23				Study Area II – Social Sciences	3
24				Study Area III – Behavioral Sciences	3
25	MAT 254 Calculus I			Skill Area II – Math/Stat/ Comp Sci	4
26				Skill Area III – Foreign Language Proficiency: See requirements <a href="#">here</a> . If the requirement has been met in	6

			whole or in part, general education and open elective credits will adjust accordingly.	
27	<b>General Education Credits:</b>			<b>55</b>
28	<b>Major Program Courses</b>			
29			BMS 102/103 Introduction to Biomolecular Science	4
30			BMS 201 Principles of Cell and Molecular Biology	4
31			BMS 190 and 290 Introduction to Research I & II	1
32	BIO 235 Microbiology	4	BMS 316 Microbiology	4
33			BMS 390 or CHEM 238 Independent Research	1
34			BMS 491 or CHEM 438 Advanced Independent Research	1
35	CHE 211 Organic Chemistry I	4	CHEM 210/211 Organic Chemistry I	4
36	CHE 212 Organic Chemistry II	4	CHEM 212/213 Organic Chemistry II	4
37			CHEM 260 Foundations of Inorganic Chemistry	3
38			CHEM 316 Spectrometric identification of Organic Compounds	3
39			CHEM 320 Biophysical Chemistry	3
40			CHEM 332 Chemical Literature	1
41			CHEM 432 Chemistry Seminar	1
42			Select 6-8 credits from the following: BMS 306 Genetics (3) BMS 307 Genomics (4) BMS 311 Cell Biology (4) BMS 415 Advanced Exploration in Cell, Molecular, and Physiological Biology (3) BMS 490 Topics in Biomolecular Sciences (1-4) BMS 495 Capstone in Molecular Biology (4) BMS 562 Advanced Developmental Biology (3) BMS 570 Advanced Genetics (3) CHEM 456 Toxicology (3)	6-8
43			Select one of the following: BMS 496 Capstone in Cellular Metabolism and Energetics	3

			CHEM 354 Foundations of Biochemistry	
44			CHEM 455 Biochemistry Lab	1
45			CHEM 458 Advanced Biochemistry	3
46	PHY 221 Calculus-Based Physics	4	PHYS 125 University Physics I	4
			Select one of the following: PHYS 122 General Physics II PHYS 126 University Physics II	4
47	<b>Program Course Credits:</b>	<b>16</b>		<b>55-57</b>
48	<b>Minor Course Credits:</b>			
49	<b>Open Electives</b>			
50	<b>Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign language and/or minor requirements will end up with more open elective credits at the CCSU.</b>			
51	<b>Open Elective credits:</b>	<b>3</b>		<b>4-6</b>
52	BIO 121 General Biology I	4	BIO 121 General Biology I	4
53				
54	<b>Total Credits at the Community College</b>	<b>60</b>	<b>Total Credits for the 4-Year Degree</b>	<b>120</b>



**Transfer Pathway and Degree Program**

**Template 1**

**Central Connecticut State University**

Complete four-year degree with articulation of community college degree to four-year degree

**Biochemistry, B.S. – American Chemical Society Certified Track**

There is no minor required for this program.

1	Community Colleges*:			CCSU	
2		Credits			Credits
3	<b>Framework30**</b>				
4	<b>General Education Requirements</b>				
5	<b>Competency:</b>				
6	<b>Section A</b>				
7	Written I	English 101	3	English 110	3
8	Written II	Gen Ed	3	Skill Area I – Communication	3
9	Scientific Reasoning	CHE 121 General Chemistry I	4	CHEM 161/162 General Chemistry	4
10	Scientific Knowledge	CHE 122 General Chemistry II	4	CHEM 200/201 Foundations of Analytical Chemistry	4
11	Quantitative	MAT 186 Pre-Calculus	4	MATH 119 Pre-Calculus with Trigonometry	4
12	Historical Knowledge	Gen Ed*	3	Study Area II – History	3
13	Social Phenomena	Gen Ed	3	Study Area II – Social Science	3
14	Aesthetic Dimensions	Gen Ed	3	Study Area I – Arts and Humanities	3
15	<b>Section B</b>				
16	Competency:	Gen Ed	3	Skill Area IV – University Requirement	3
17	Competency:	Gen Ed	3	Study Area III – Behavioral Sciences	3
18	<b>Framework30 Credits (30-31):</b>				<b>33</b>
19	<b>Pathway30</b>				
20	<b>Additional General Education Courses</b>				
21				Study Area I – Literature	3
22				Study Area I – Arts and Humanities	3
23				Study Area II – Social Sciences	3
24				Study Area III – Behavioral Sciences	3
25	MAT 254 Calculus I			Skill Area II – Math/Stat/ Comp Sci	4
26				Skill Area III – Foreign Language Proficiency: See requirements <a href="#">here</a> . If the requirement has been met in	6

			whole or in part, general education and open elective credits will adjust accordingly.	
27	<b>General Education Credits:</b>			<b>55</b>
28	<b>Major Program Courses</b>			
29			BMS 102/103 Introduction to Biomolecular Science	4
30			BMS 201 Principles of Cell and Molecular Biology	4
31			BMS 190 and 290 Introduction to Research I & II	1
32	BIO 235 Microbiology	4	BMS 316 Microbiology	4
33			BMS 390 or CHEM 238 Independent Research	1
34			BMS 491 or CHEM 438 Advanced Independent Research	1
35	CHE 211 Organic Chemistry I	4	CHEM 210/211 Organic Chemistry I	4
36	CHE 212 Organic Chemistry II	4	CHEM 212/213 Organic Chemistry II	4
37			CHEM 260 Foundations of Inorganic Chemistry	3
38			CHEM 316 Spectrometric identification of Organic Compounds	3
39			CHEM 320 Biophysical Chemistry	3
40			CHEM 322 Quantum Chemistry	3
41			CHEM 323 Physical Chemistry Lab	1
42			CHEM 332 Chemical Literature	1
43			CHEM 402 Instrumental Analysis	4
44			CHEM 354 Foundations of Biochemistry	3
45			CHEM 432 Chemistry Seminar	1
46			CHEM 455 Biochemistry Lab	1
47			CHEM 458 Advanced Biochemistry	3
48	PHY 221 Calculus-Based Physics	4	PHYS 125 University Physics I	4
49			PHYS 126 University Physics II	4
50				
51	<b>Program Course Credits:</b>	<b>16</b>		<b>57</b>
52	<b>Minor Course Credits:</b> a minor is not required for this program.			
53	<b>Open Electives</b>			
54	<b>Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign</b>			

	<b>language and/or minor requirements will end up with more open elective credits at the CCSU.</b>			
55	<b>Open Elective credits:</b>	<b>3</b>		<b>4</b>
56	BIO 121 General Biology I	4	BIO 121 General Biology I	4
57				
58	<b>Total Credits at the Community College</b>	<b>60</b>	<b>Total Credits for the 4-Year Degree</b>	<b>120</b>

Version for Review 03/06/2019

**Transfer Pathway and Degree Program**

**Template 1**

**Eastern Connecticut State University**

Complete four-year degree with articulation of community college degree to four-year degree

**Biochemistry, B.S.**

There are no additional requirements for admission to this program.

1	Community Colleges*:			ECSU	
2		Credits			Credits
3	<b>Framework30**</b>				
4	<b>General Education Requirements</b>				
5	<b>Competency:</b>				
6	<b>Section A</b>				
7	Written I	English 101	3	T1 College Writing, Literature and Thought	3
8	Written II	Gen Ed	3	T1 College Writing, Literature and Thought	3
9	Scientific Reasoning	CHE 121 General Chemistry I	4	CHE 210/212 General Chemistry I with Lab	4
10	Scientific Knowledge	CHE 122 General Chemistry II	4	CHE 211/213 General Chemistry II with Lab	4
11	Quantitative	MAT 186 Pre-Calculus	4	MAT 130 Pre-Calculus Mathematics	4
12	Historical Knowledge	Gen Ed*	3	T1 Historical Perspectives	3
13	Social Phenomena	Gen Ed	3	T1 Social Sciences	3
14	Aesthetic Dimensions	Gen Ed	3	T1 Arts in Context	3
15	<b>Section B</b>				
16	Competency:	Gen Ed	3	T1 FYI 100	3
17	Competency:	Gen Ed	3	T1 Health and Wellness	3
18	<b>Framework30 Credits (30-31):</b>				<b>33</b>
19	<b>Pathway30</b>				
20	<b>Additional General Education Courses</b>				
21				T2 Cultural Perspectives	3
22				T2 Individuals and Societies	3
23				T2 Creative Expressions	3
24				T2 Applied Information Technologies	3
25				Tier 3 Capstone (Must be taken at ECSU)	3
26				Foreign Language Proficiency: See requirements <a href="#">here</a> . If the requirement has been met in whole or in part, general	6

			education and open elective credits will adjust accordingly.	
27	<b>General Education Credits:</b>			<b>54</b>
28	<b>Major Program Courses</b>			
29	BIO 121 General Biology I	4	BIO 120 Organismal Biology with Lab	4
30			BIO 220 Cell Biology with Lab	4
31			BIO 230 General Genetics with Lab	4
32	CHE 211 Organic Chemistry I	4	CHE 216 Organic Chemistry I with Lab	4
33	CHE 212 Organic Chemistry II	4	CHE 217 Organic Chemistry II with Lab	4
34			CHE 316/317 Biochemistry I with Lab	4
35			CHE 318/319 Biochemistry II with Lab	4
36			CHE 323 Physical Biochemistry	3
37			CHE 425 Physical Biochemistry Techniques	3
38			CHE 425 Chemical Instrumentation with Lab	4
39			MAT 244 Calculus II with Technology	4
40	PHY 221 Calculus-Based Physics	4	PHY 208 Physics with Calculus I with Lab	4
41			PHY 205 Physics II with Lab	4
43	<b>Program Course Credits:</b>	<b>16</b>		<b>50</b>
44	<b>Open Electives</b>			
45	BIO 235 Microbiology	4	BIO 334 General Microbiology with Lab	4
46	MAT 254 Calculus I	4	MAT 243 Calculus I	4
47	<b>Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign language requirements will end up with up to three open elective credits at ECSU.</b>			
48	<b>Open Elective credits:</b>	<b>3</b>		<b>8</b>
49	<b>Total Credits at the Community College</b>	<b>60</b>	<b>Total Credits for the 4-Year Degree</b>	<b>120</b>

## Transfer Pathway and Degree Program

**Template 1****Southern Connecticut State University**

Complete four-year degree with articulation of community college degree to four-year degree

**Chemistry, B.S. – Concentration: Biochemistry**

Students must complete 2 "W" courses at SCSU.

1	Community Colleges*:			SCSU	
2		Credits			Credits
3	<b>Framework30**</b>				
4	<b>General Education Requirements</b>				
5	<b>Competency:</b>				
6	<b>Section A</b>				
7	Written I	English 101	3	FYE	3
8	Written II	Gen Ed	3	Written Communication	3
9	Scientific Reasoning	CHE 121 General Chemistry I	4	Natural World 1 – Physical Realm: CHE 120 General Chemistry I	4
10	Scientific Knowledge	CHE 122 General Chemistry II	4	Natural World II – Life and Environment: CHE 121 General Chemistry II	4
11	Quantitative	MAT 186 Pre-Calculus	4	Quantitative Reasoning: MAT 122 Pre-Calculus	4
12	Historical Knowledge	Gen Ed*	3	Time and Place	3
13	Social Phenomena	Gen Ed	3	Social structure, Conflict, Consensus	3
14	Aesthetic Dimensions	Gen Ed	3	Cultural Expressions	3
15	<b>Section B</b>				
16	Competency:	Gen Ed	3	Critical Thinking	3
17	Competency:	Gen Ed	3	Tech Fluency	3
18	<b>Framework30 Credits (30-31):</b>				<b>33</b>
19	<b>Pathway30</b>				
20	<b>Additional General Education Courses</b>				
21				<i>Select three of the following four:</i>	9
22				American Experience	(3)
23				Creative Drive	(3)
24				Global Awareness	(3)
25				Mind and Body	(3)
26				<b>Must be taken at SCSU:</b>	
27				Tier 3 Connections Capstone CHE 301 The Preparation of Scientific Documents for Chemistry	0

			CHE 445 Chemical Hazards and Laboratory Safety CHE 496 Chemistry Seminar (See lines 33, 36 and 40)	
28	<b>General Education Credits:</b>			<b>42</b>
29	<b>Major Program Courses</b>			
30			CHE 240 Analytical Chemistry	4
31	CHE 211 Organic Chemistry I	4	CHE 260 Organic Chemistry I	4
32	CHE 212 Organic Chemistry II	4	CHE 260 Organic Chemistry II	4
33			CHE 301 The Preparation of Scientific Documents for Chemistry	1
34			CHE 370 Physical Chemistry I	3
35			CHE 435 Inorganic Chemistry I	3
36			CHE 445 Chemical Hazards and Laboratory Safety	1
37			CHE 450 Biochemistry I	4
38			CHE 451 Biochemistry II	4
39			Select one of the following: CHE 456 Medicinal Chemistry CHE 458 Drug Discovery	3
40			CHE 496 Chemistry Seminar	1
41			Select one additional CHE course at 300-level or above	3-4
42	BIO 121 General Biology I	4	BIO 102 Biology I	4
43			BIO 103 Biology II	4
44	BIO 235 Microbiology	4	Select three BIO courses at 200-level or above	10-12
45	MAT 254 Calculus I	4	MAT 150 Calculus I	4
46	PHY 221 Calculus0Based Physics	4	PHY 230 Physics for Scientists and Engineers	4
47	<b>Program Course Credits:</b>	<b>24</b>		<b>61-64</b>
48	<b>Open Electives</b>			
49	<b>Open Elective credits:</b>	<b>3</b>		<b>14-17</b>
50	<b>Total Credits at the Community College</b>	<b>60</b>	<b>Total Credits for the 4-Year Degree</b>	<b>120</b>

**Transfer Pathway and Degree Program**

**Template 1**

**Western Connecticut State University**

Complete four-year degree with articulation of community college degree to four-year degree

**Chemistry, Biochemistry Option B.S. Non-ACS approved**

There are no additional requirements for admission to this program.

1	Community Colleges*:			WCSU	
2		Credits			Credits
3	<b>Framework30**</b>				
4	<b>General Education Requirements</b>				
5	<b>Competency:</b>				
6	<b>Section A</b>				
7	Written I	English 101	3	Written Communication I	3
8	Written II	Gen Ed	3	Written Communication II	3
9	Scientific Reasoning	CHE 121 General Chemistry I	4	Scientific Inquiry I: CHE 110 General Chemistry I	4
10	Scientific Knowledge	CHE 122 General Chemistry II	4	Scientific Inquiry II: CHE 111 General Chemistry II	4
11	Quantitative	MAT 186 Pre-Calculus	4	Quantitative Reasoning: MAT 133 Pre-Calculus (one credit goes to Open Electives: see line 50)	3
12	Historical Knowledge	Gen Ed*	3	Critical Thinking	3
13	Social Phenomena	Gen Ed	3	Information Literacy	3
14	Aesthetic Dimensions	Gen Ed	3	Creative Process	3
15	<b>Section B</b>				
16	Competency:	Gen Ed	3	Oral Communication	3
17	Competency:	Gen Ed	3	General Education Elective	3
18	<b>Framework30 Credits (30-31):</b>				<b>32</b>
19	<b>Pathway30</b>				
20	<b>Additional General Education Courses</b>				
21	MAT 254 Calculus I		4	General Education Elective: MAT 181 Calculus I	4
22	BIO 121 General Biology I		4	General Education Elective: BIO 103 General Biology I	4
23				Intercultural Competence	3
24				Health and Wellness	3
25				A foreign language is required for this major. Follow this <a href="#">link</a> and click on the program sheet for requirements. Three credits of foreign language may count	3 (If 6 credits are needed)



			as fulfilling Intercultural Competence	at WCSU, 3 credits will count as Intercultural Competence
26			<b>Must be taken at WCSU:</b>	
27			First Year Navigation	0
28			Written Communication III— embedded in a major course	0
29			Culminating Gen Ed Experience – may be satisfied by a major capstone	0
30	<b>General Education Credits:</b>	<b>41</b>		<b>49</b>
31	<b>Major Program Courses</b>			
32			CHE 205 Analytical Chemistry Lecture	3
33			CHE 206 Analytical Chemistry Lab	2
34	CHE 211 Organic Chemistry I	4	CHE 210 Organic Chemistry I	4
35	CHE 212 Organic Chemistry II	4	CHE 211 Organic Chemistry II	4
36			CHE 300 Physical Chemistry I	4
37			CHE 301 Physical Chemistry II	4
38			CHE 421 Biochemistry Lecture I	3
39			CHE 422 Biochemistry Lecture II	3
40			CHE 431 Biochemistry Lab	2
41			CHE 250 Chemistry Seminar (.5 credits each; 1 credits is required, and additional 1 credit is optional)	1
42			Select one of the following options: CHE 297 Cooperative Education Research (12 credits) <b>OR</b> CHE 430 Senior Research <b>AND</b> one advanced elective from: CHE 311 Inorganic Chemistry CHE 400 Instrumental Analysis Lecture CHE 415 Medicinal Chemistry CHE 420 Advanced Topics in	7-12

			Organic Chemistry CHE 438 Molecular Biochemistry of Nucleic Acids BIO 300 Cell Biology BIO 312 Genetics	
43			BIO 104 General Biology II	4
44			MAT 182 Calculus II	4
45	PHY 221 Calculus-Based Physics I	4	PHY 110 General Physics I	4
46			PHY 111 General Physics II	4
47	<b>Program Course Credits:</b>	<b>12</b>		<b>53-58</b>
48	<b>Open Electives</b>			
49	From line 11: One credit of MAT 186 received at WCSU as an open elective credit			1
50	BIO 235 Microbiology	4		4
51	<b>Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at WCSU.</b>			
52	<b>Open Elective credits:</b>	<b>3</b>		<b>8-13</b>
53	<b>Total Credits at the Community College</b>	<b>60-61</b>	<b>Total Credits for the 4-Year Degree</b>	<b>120</b>

## Transfer Pathway and Degree Program

# Template 1

### Western Connecticut State University

Complete four-year degree with articulation of community college degree to four-year degree

### Chemistry, Biochemistry Option, B.S. ACS approved

There are no additional requirements for admission to this program.

1	Community Colleges*:			WCSU	
2		Credits		Credits	
3	<b>Framework30**</b>				
4	<b>General Education Requirements</b>				
5	<b>Competency:</b>				
6	<b>Section A</b>				
7	Written I	English 101	3	Written Communication I	3
8	Written II	Gen Ed	3	Written Communication II	3
9	Scientific Reasoning	CHE 121 General Chemistry I	4	Scientific Inquiry I: CHE 110 General Chemistry I	4
10	Scientific Knowledge	CHE 122 General Chemistry II	4	Scientific Inquiry II: CHE 111 General Chemistry II	4
11	Quantitative	MAT 186 Pre-Calculus	4	Quantitative Reasoning: MAT 133 Pre-Calculus (one credit goes to Open Electives: see line 50)	3
12	Historical Knowledge	Gen Ed*	3	Critical Thinking	3
13	Social Phenomena	Gen Ed	3	Information Literacy	3
14	Aesthetic Dimensions	Gen Ed	3	Creative Process	3
15	<b>Section B</b>				
16	Competency:	Gen Ed	3	Oral Communication	3
17	Competency:	Gen Ed	3	General Education Elective	3
18	<b>Framework30 Credits (30-31):</b>				<b>32</b>
19	<b>Pathway30</b>				
20	<b>Additional General Education Courses</b>				
21	MAT 254 Calculus I		4	General Education Elective: MAT 181 Calculus I	4
22	BIO 121 General Biology I		4	General Education Elective: BIO 103 General Biology I	4
23				Intercultural Competence	3
24				Health and Wellness	3
25				A foreign language is required for this major. Follow this <a href="#">link</a> and click on the program sheet for requirements. Three credits of foreign language may count	3 (If 6 credits are needed)

			as fulfilling Intercultural Competence	at WCSU, 3 credits will count as Intercultural Competence
26			<b>Must be taken at WCSU:</b>	
27			First Year Navigation	0
28			Written Communication III— embedded in a major course	0
29			Culminating Gen Ed Experience – may be satisfied by a major capstone	0
30	<b>General Education Credits:</b>			<b>49</b>
31	<b>Major Program Courses</b>			
32			CHE 205 Analytical Chemistry Lecture	3
33			CHE 206 Analytical Chemistry Lab	2
34	CHE 211 Organic Chemistry I	4	CHE 210 Organic Chemistry I	4
35	CHE 212 Organic Chemistry II	4	CHE 211 Organic Chemistry II	4
36			CHE 300 Physical Chemistry I	4
37			CHE 301 Physical Chemistry II	4
38			CHE 421 Biochemistry Lecture I	3
39			CHE 422 Biochemistry Lecture II	3
40			CHE 431 Biochemistry Lab	2
41			CHE 311 Inorganic Chemistry	4
42			CHE 250 Chemistry Seminar (.5 credits each; 1 credits is required, and additional 1 credit is optional)	1
43			CHE 430 Senior Research	4
44			BIO 104 General Biology II	4
45			MAT 182 Calculus II	4
46	PHY 221 Calculus-Based Physics I	4	PHY 110 General Physics I	4
47			PHY 111 General Physics II	4
48	<b>Program Course Credits:</b>	<b>12</b>		<b>54</b>
49	<b>Open Electives</b>			
50	From line 11: One credits of MAT 186 received at WCSU as an open elective credit			1
51	BIO 235 Microbiology	4		4

52	<b>Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at WCSU.</b>			
53	<b>Open Elective credits:</b>	<b>3</b>		<b>12</b>
54	<b>Total Credits at the Community College</b>	<b>60</b>	<b>Total Credits for the 4-Year Degree</b>	<b>120</b>

Version for Review 03/06/2019

## Transfer Pathway and Degree Program

**Template 2**

Credits remaining in the four-year degree

**Biochemistry, B.S. – General Track**

1	<b>Central Connecticut State University</b>	
2	<b>Remaining General Education Courses</b>	
3	<b>Course</b>	<b>Credits</b>
4	Study Area I – Literature	0-3
5	Study Area I – Arts and Humanities	0-3
6	Study Area II – Social Sciences	0-3
7	Study Area III – Behavioral Sciences	0-3
8	Skill Area II – Math/Stat/ Comp Sci	0-3
9	Skill Area III – Foreign Language Proficiency. See requirements <a href="#">here</a> . If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
10	<b>General Education Credits</b>	<b>15</b>
11	<b>Remaining Major Program Requirements</b>	
12	<b>Course</b>	<b>Credits</b>
13	BMS 102/103 Introduction to Biomolecular Science	4
14	BMS 201 Principles of Cell and Molecular Biology	4
15	BMS 190 and 290 Introduction to Research I & II	1
16	BMS 390 or CHEM 238 Independent Research	1
17	BMS 491 or CHEM 438 Advanced Independent Research	1
18	CHEM 260 Foundations of Inorganic Chemistry	3
19	CHEM 316 Spectrometric identification of Organic Compounds	3
20	CHEM 320 Biophysical Chemistry	3
21	CHEM 332 Chemical Literature	1
22	CHEM 432 Chemistry Seminar	1
23	Select 6-8 credits from the following: BMS 306 Genetics (3) BMS 307 Genomics (4) BMS 311 Cell Biology (4) BMS 415 Advanced Exploration in Cell, Molecular, and Physiological Biology (3) BMS 490 Topics in Biomolecular Sciences (1-4) BMS 495 Capstone in Molecular Biology (4) BMS 562 Advanced Developmental Biology (3) BMS 570 Advanced Genetics (3) CHEM 456 Toxicology (3)	6-8
24	Select one of the following: BMS 496 Capstone in Cellular Metabolism and Energetics CHEM 354 Foundations of Biochemistry	3
25	CHEM 455 Biochemistry Lab	1
26	CHEM 458 Advanced Biochemistry	3
27	Select one of the following:	4

	PHYS 122 General Physics II PHYS 126 University Physics II	
28		
29		
30	<b>Program Course Credits</b>	<b>39-41</b>
31	<b>Minor</b> – A minor is not required for this program.	<b>0</b>
32	<b>Remaining Open Electives</b>	
33	<b>Courses</b>	<b>Credits</b>
34	<b>Open Elective credits</b>	<b>4-6</b>
35	<b>Students who have fulfilled the foreign language requirement in high school or who use open elective credits at the community college to fulfill foreign language and/or minor requirements will end up with more open elective credits at the CCSU.</b>	
36	<b>Total Credits Remaining for the 4-Year Degree</b>	<b>60</b>

Version for Review 03/06/2019

## Transfer Pathway and Degree Program

**Template 2**

Credits remaining in the four-year degree

**Biochemistry, B.S. – American Chemical Society Certified Track**

1	<b>Central Connecticut State University</b>	
2	<b>Remaining General Education Courses</b>	
3	<b>Course</b>	<b>Credits</b>
4	Study Area I – Literature	0-3
5	Study Area I – Arts and Humanities	0-3
6	Study Area II – Social Sciences	0-3
7	Study Area III – Behavioral Sciences	0-3
8	Skill Area II – Math/Stat/ Comp Sci	0-3
9	Skill Area III – Foreign Language Proficiency. See requirements <a href="#">here</a> . If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
10	<b>General Education Credits</b>	<b>15</b>
11	<b>Remaining Major Program Requirements</b>	
12	<b>Course</b>	<b>Credits</b>
13	BMS 102/103 Introduction to Biomolecular Science	4
14	BMS 201 Principles of Cell and Molecular Biology	4
15	BMS 190 and 290 Introduction to Research I & II	1
16	BMS 390 or CHEM 238 Independent Research	1
17	BMS 491 or CHEM 438 Advanced Independent Research	1
18	CHEM 260 Foundations of Inorganic Chemistry	3
19	CHEM 316 Spectrometric identification of Organic Compounds	3
20	CHEM 320 Biophysical Chemistry	3
21	CHEM 322 Quantum Chemistry	3
22	CHEM 323 Physical Chemistry Lab	1
23	CHEM 332 Chemical Literature	1
24	CHEM 402 Instrumental Analysis	4
25	CHEM 354 Foundations of Biochemistry	3
26	CHEM 432 Chemistry Seminar	1
27	CHEM 455 Biochemistry Lab	1
28	CHEM 458 Advanced Biochemistry	3
29	PHYS 126 University Physics II	4
30	<b>Program Course Credits</b>	
31	<b>Minor</b> – A minor is not required for this program.	<b>41</b>
32	<b>Remaining Open Electives</b>	
33	<b>Courses</b>	<b>Credits</b>
34	<b>Open Elective credits</b>	<b>4</b>
35	<b>Students who have fulfilled the foreign language requirement in high school or who use open elective credits at the community college to fulfill foreign language and/or minor requirements will end up with more open elective credits at CCSU.</b>	



36	Total Credits Remaining for the 4-Year Degree	60
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*Version for Review 03/06/2019*

## Transfer Pathway and Degree Program

**Template 2**

Credits remaining in the four-year degree

**Biochemistry, B.S.**

1	<b>Eastern Connecticut State University</b>	
2	<b>Remaining General Education Courses</b>	
3	<b>Course</b>	<b>Credits</b>
4	<i>Two of the first four below must be completed at ECSU.</i>	
5	T2 Cultural Perspectives	3
6	T2 Individuals and Societies	3
7	T2 Creative Expressions	3
8	T2 Applied Information Technologies	3
9	T3 Capstone	3
10	Foreign Language Proficiency: See requirements <a href="#">here</a> . If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
11	<b>General Education Credits</b>	<b>21</b>
12	<b>Remaining Major Program Requirements</b>	
13	<b>Course</b>	<b>Credits</b>
14	BIO 220 Cell Biology with Lab	4
15	BIO 230 General Genetics with Lab	4
16	CHE 316/317 Biochemistry I with Lab	4
17	CHE 318/319 Biochemistry II with Lab	4
18	CHE 323 Physical Biochemistry	3
19	CHE 425 Physical Biochemistry Techniques	3
20	CHE 425 Chemical Instrumentation with Lab	4
21	MAT 244 Calculus II with Technology	4
22	PHY 205 Physics II with Lab	4
23	<b>Program Course Credits</b>	<b>34</b>
24	<b>Remaining Open Electives</b>	
25	<b>Courses</b>	<b>Credits</b>
26	<b>Open Elective credits</b>	<b>5</b>
27	<b>Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at ECSU.</b>	
28	<b>Total Credits Remaining for the 4-Year Degree</b>	<b>60</b>

## Transfer Pathway and Degree Program

**Template 2**

Credits remaining in the four-year degree  
**Chemistry, B.S. – Concentration: Biochemistry**  
 Students must complete 2 “W” courses at SCSU.

1	<b>Southern Connecticut State University</b>	
2	<b>Remaining General Education Courses</b>	
3	<b>Course</b>	<b>Credits</b>
4	<i>Select three of the following four:</i>	9
5	American Experience	0-3
6	Creative Drive	0-3
7	Global Awareness	0-3
8	Mind and Body	0-3
9	Tier 3 Connections Capstone: CHE 301 The Preparation of Scientific Documents for Chemistry CHE 445 Chemical Hazards and Laboratory Safety CHE 496 Chemistry Seminar (See lines 14, 17, and 21)	0
10	<b>General Education Credits</b>	<b>9</b>
11	<b>Remaining Major Program Requirements</b>	
12	<b>Course</b>	<b>Credits</b>
13	CHE 240 Analytical Chemistry	4
14	CHE 301 The Preparation of Scientific Documents for Chemistry	1
15	CHE 370 Physical Chemistry I	3
16	CHE 435 Inorganic Chemistry I	3
17	CHE 445 Chemical Hazards and Laboratory Safety	1
18	CHE 450 Biochemistry I	4
19	CHE 451 Biochemistry II	4
20	Select one of the following: CHE 456 Medicinal Chemistry CHE 458 Drug Discovery	3
21	CHE 496 Chemistry Seminar	1
22	Select one additional CHE course at 300-level or above	3-4
23	Select two BIO courses at 200-level or above	6-8
31	<b>Program Course Credits</b>	<b>33</b>
32	<b>Remaining Open Electives</b>	
33	<b>Courses</b>	<b>Credits</b>
34	<b>Open Elective credits</b>	<b>18</b>
35	<b>Total Credits Remaining for the 4-Year Degree</b>	<b>60</b>

## Transfer Pathway and Degree Program

**Template 2**

Credits remaining in the four-year degree

**Chemistry, Biochemistry Option, B.S. Non-ACS approved**

1	<b>Western Connecticut State University</b>	
2	<b>Remaining General Education Courses</b>	
3	<b>Course</b>	<b>Credits</b>
4	Health and Wellness	3
5	Intercultural Competency	3
6	A foreign language is required for this major. Follow this <a href="#">link</a> and click on the program sheet for requirements. Three credits of foreign language may count as fulfilling the Intercultural Competence.	3
7	<i>The following must be taken at WCSU:</i>	
8	First Year Navigation	(3)
9	Written Comm III – embedded in a major course	0
10	Culminating Gen Ed Experience – may be satisfied by a major capstone	0
11	<b>General Education Credits</b>	<b>9</b>
12	<b>Remaining Major Program Requirements</b>	
13	<b>Course</b>	<b>Credits</b>
14	CHE 205 Analytical Chemistry Lecture	3
15	CHE 206 Analytical Chemistry Lab	2
16	CHE 300 Physical Chemistry I	4
17	CHE 301 Physical Chemistry II	4
18	CHE 421 Biochemistry Lecture I	3
19	CHE 422 Biochemistry Lecture II	3
20	CHE 431 Biochemistry Lab	2
22	CHE 250 Chemistry Seminar (.5 credits each; 1 credits is required, and additional 1 credit is optional)	1
23	Select one of the following options: CHE 297 Cooperative Education Research (12 credits) <b>OR</b> CHE 430 Senior Research and choice of one advanced elective from CHE 311 Inorganic Chemistry CHE 400 Instrumental Analysis Lecture CHE 415 Medicinal Chemistry CHE 420 Advanced Topics in Organic Chemistry CHE 438 Molecular Biochemistry of Nucleic Acids BIO 300 Cell Biology BIO 312 Genetics	7-12
24	BIO 104 General Biology II	4
26	MAT 182 Calculus II	4
27	PHY 111 General Physics II	4
33	<b>Program Course Credits</b>	<b>41-46</b>
34	<b>Remaining Open Electives</b>	

35	<b>Courses</b>	<b>Credits</b>
36	<b>Open Elective credits</b>	<b>5-10</b>
37	<b>Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at WCSU.</b>	
38	<b>Total Credits Remaining for the 4-Year Degree</b>	<b>60</b>

Version for Review 03/06/2019

**Transfer Pathway and Degree Program**  
**Template 2**  
Credits remaining in the four-year degree  
**Chemistry, Biochemistry Option, B.S. ACS approved**

1	<b>Western Connecticut State University</b>	
2	<b>Remaining General Education Courses</b>	
3	<b>Course</b>	<b>Credits</b>
4	Health and Wellness	3
5	Intercultural Competency	3
6	A foreign language is required for this major. Follow this <a href="#">link</a> and click on the program sheet for requirements. Three credits of foreign language may count as fulfilling the Intercultural Competence.	3
7	<i>The following must be taken at WCSU:</i>	
8	First Year Navigation	(3)
9	Written Comm III – embedded in a major course	0
10	Culminating Gen Ed Experience – may be satisfied by a major capstone	0
11	<b>General Education Credits</b>	<b>9</b>
12	<b>Remaining Major Program Requirements</b>	
13	<b>Course</b>	<b>Credits</b>
14	CHE 205 Analytical Chemistry Lecture	3
15	CHE 206 Analytical Chemistry Lab	2
16	CHE 300 Physical Chemistry I	4
17	CHE 301 Physical Chemistry II	4
18	CHE 421 Biochemistry Lecture I	3
19	CHE 422 Biochemistry Lecture II	3
20	CHE 431 Biochemistry Lab	2
21	CHE 311 Inorganic Chemistry	4
22	CHE 250 Chemistry Seminar (.5 credits each; 1 credits is required, and additional 1 credit is optional)	1
23	CHE 430 Senior Research	4
24	BIO 104 General Biology II	4
25	MAT 182 Calculus II	4
26	PHY 111 General Physics II	4
27	<b>Program Course Credits</b>	<b>42</b>
28	<b>Remaining Open Electives</b>	
29	<b>Courses</b>	<b>Credits</b>
30	<b>Open Elective credits</b>	<b>9</b>
31	<i>Remove this language if the program does not require a foreign language:  <b>Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at WCSU.</b></i>	
32	<b>Total Credits Remaining for the 4-Year Degree</b>	<b>60</b>

# CSCU Geography Transfer Pathway

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## Change made:

10/10/2018: Noted GEO 102 at the community college cannot be used to fulfill a Framework30 category

SCSU removed “Applied Sustainability” Option; corrected errors

10/19/2018: COSC removed; program to be discontinued

**PROPOSED PATHWAY**  
**CSCU Pathway Transfer A.A. Degree: Geography Studies**

1	<b>FRAMEWORK30</b>		
2	<i>Section A: Common Designated Competencies</i>		
3	Written Communication I	ENG 101 Composition	3 credits
4	Written Communication II	General Education Elective	3 credits
5	Scientific Reasoning	General Education Elective	3-4 credits
6	Scientific Knowledge & Understanding	General Education Elective	3-4 credits
7	Quantitative Reasoning	General Education Elective	3 credits
8	Historical Knowledge & Understanding	General Education Elective	3 credits
9	Social Phenomena	General Education Elective	3 credits
10	Aesthetic Dimensions	General Education Elective	3 credits
11	<i>Section B: Campus Designated Competencies</i>		
12	Competency 1	General Education Elective	3 credits
13	Competency 2	General Education Elective	3 credits
14	<b>Framework30 Total</b>		<b>30-31 credits</b>

15	<b>PATHWAY30</b>		
16	<i>Additional General Education Courses – up to two (2)</i>		
17	General Education Elective I: Creativity CCSU—Study Area I: Arts & Humanities SCSU—Creative Drive COSC—Open Elective	General Education Elective	3 credits
18	General Education Elective II: Global Knowledge CCSU—Study Area II: Social Sciences SCSU—Global Awareness COSC—Global Understanding	General Education Elective	3 credits
19	<i>Major Program Requirements</i>		
20	Choose 2 of the 3 following courses-		6 credits
21	GEO 101** (this course may be used as <b>Framework30 course</b> at the CCs that have vetted it, but <b>cannot</b> be used to fulfill General Education Elective II: Global Knowledge) or	Introduction to Geography	(3 credits)
22	GEO 111** (this course may be used as <b>Framework30 course</b> at the CCs that have vetted it, but <b>cannot</b> be used to fulfill General Education Elective II: Global Knowledge) or	World Regional Geography	(3 credits)
23	GEO 102** (this course <b>cannot</b> be used as <b>Framework30 course</b> and <b>cannot</b> be used to fulfill General Education Elective II: Global Knowledge)	Introduction to Human Geography	(3 credits)
24	<b>Recommended if pursuing the Spec. in Tourism degree at CCSU - Geo 204</b>	Geography and Tourism Development	(3 credits)
25	<b>Complete up to 9 credits in one subject area outside geography. 3-6 of these</b>		<b>9 credits</b>

Revised 10/19/2018



	<p>credits may also meet general education requirements either in the Framework30 or in lines 17 and 18. Students should consider pursuing a minor subject area based upon their specific field of interest in geography. Some suggested disciplines include:</p> <p>ANT, Anthropology  EAS, Earth Science  ECN, Economics  EVS, Environmental Science  GEO, Geology  HIS, History  MAT, Mathematics (statistics preferred),  POL, Political Science  CS, Computer Science</p> <p>Advisors should provide guidance on minor choices</p> <p>These courses are meant to complete 50% of the minor requirement in all of CCSU's programs, but can also be used to begin a minor or second major at SCSU.</p>	
26	Unrestricted Electives	6-9
27	It is <b>strongly</b> suggested students should consider completing other <b>General Education</b> courses for the CSUs, beginning or completing work on foreign language requirements not already met in high school and beginning work on minor requirements of some CSUs.	
28	<b>Pathway30 Total</b>	30 credits
29	<b>[Discipline Name] Pathway Total</b>	<b>60-61 credits*</b>

\*\* Not every community college offers all of these courses. In order to complete the Geography CSU Pathway Transfer degree at your college, you may need to take these courses on-line or at another campus.

Students who are required to complete developmental coursework or who place below the required entry level of math for their program may not be able to complete their pathway degree in 60-61 credits/contact hours.

**Transfer Pathway and Degree Program**  
**Central Connecticut State University**  
 Complete four-year degree with articulation of community college degree to four-year degree  
**Geography with Specialization in Environmental Geography, B.A.**

1	Community Colleges*:		CCSU	
2		Credits		Credits
3	<b>Framework30**</b>			
4	<b>General Education Requirements</b>			
5	<b>Competency:</b>			
6	<b>Section A</b>			
7	Written I	English 101	3	English 110 3
8	Written II	Gen Ed	3	Skill Area I – Communication 3
9	Scientific Reasoning	Gen Ed	3-4	Study Area IV – Natural Sciences 3-4
10	Scientific Knowledge	Gen Ed	3	Study Area IV – Natural Sciences 3-4
11	Quantitative	Gen Ed	3	Skill Area II – Mathematics 3
12	Historical Knowledge	Gen Ed*	3	Study Area II – History 3
13	Social Phenomena	Gen Ed	3	Study Area II – Social Science 3
14	Aesthetic Dimensions	Gen Ed	3	Study Area I – Arts and Humanities 3
15	<b>Section B</b>			
16	Competency:	Gen Ed	3	Skill Area IV – University Requirement 3
17	Competency:	Gen Ed	3	Study Area III – Behavioral Sciences 3
18	<b>Framework30 Credits (30-31):</b>			
19	<b>Pathway30</b>			
20	<b>Additional General Education Courses</b>			
21				Study Area I – Literature 3
22	General Education Elective I: Creativity		3	Study Area I – Arts and Humanities 3
23	General Education Elective II: Global Knowledge		3	Study Area II – Social Sciences 3
24				Study Area III – Behavioral Sciences 3
25				Skill Area II – Math/Stat/ Comp Sci 3
26				Skill Area III – Foreign Language Proficiency. See requirements <a href="#">here</a> . If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly. 6
27	<b>General Education Credits:</b>		<b>36-37</b>	<b>51-52</b>
28	<b>Major Program Courses</b>			

29	If taken at the community college: GEO 101 Introduction to Geography	3	GEOG 110 Introduction to Geography	3
30			GEOG 130 Introduction to Geography Information Science	3
31			<i>9 credits from the following:</i> GEOG 270 Geography of Hazards GEOG 272 Physical Geography GEOG 275 Soils and Vegetation Sustainability GEOG 374 Climatology	9
32			<i>9 credits from the following with three of the credits at the 300 or 400 level:</i> GEOG 266 Introduction to Remote Sensing GEOG 276 Elementary Cartography GEOG 378 Graphic Information Systems GEOG 464 GIS Applications in Resource Assessment GEOG 478 GIS Design and Implementation GEOG 479 Geographic Information Systems Applications GEOG 480 Topics in GIS	9
33			<i>15 credits from the following:</i> GEOG 430 Internship in Geography GEOG 433 Issues in Environmental Protection GEOG 445 Environmental Planning GEOG 472 Topics in Physical Geography GEOG 473 Geography of Natural Resources GEOG 475 Energy Resources and Climate Change	15
34				
35				
36	<b>Program Course Credits:</b>	<b>3</b>		<b>39</b>
37	<b>Minor Course Credits:</b> Complete up to 9 credits in one subject area outside geography. 3-6 of these credits may also meet general education requirements either in the Framework30 or in lines 17 and 18. Students should consider pursuing a minor subject area	<b>9</b>		<b>18</b>

Revised 10/19/2018

	<p>based upon their specific field of interest in geography. Advisors should provide guidance.</p> <p>These courses are meant to complete 50% of the minor requirement in all of CCSU's programs, but can also be used to begin a minor or second major at SCSU.</p>			
38	<b>Open Electives</b>			
39	<p><i>One or both of the following two:</i>            GEO 102 Introduction to Human Geography            GEO 111 World Regional Geography</p>	3-6		3-6
40	<p><b>Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign language and/or minor requirements will end up with more open elective credits at the CCSU.</b></p>			
41	<b>Open Elective credits:</b>	<b>8-12</b>		<b>8-12</b>
42	<b>Total Credits at the Community College</b>	<b>60</b>	<b>Total Credits for the 4-Year Degree</b>	<b>120</b>

**Transfer Pathway and Degree Program  
Central Connecticut State University**

Complete four-year degree with articulation of community college degree to four-year degree  
**Geography with Specialization in General/Regional Geography, B.A.**

1	Community Colleges*:			CCSU	
2		Credits			Credits
3	<b>Framework30**</b>				
4	<b>General Education Requirements</b>				
5	<b>Competency:</b>				
6	<b>Section A</b>				
7	Written I	English 101	3	English 110	3
8	Written II	Gen Ed	3	Skill Area I – Communication	3
9	Scientific Reasoning	Gen Ed	3-4	Study Area IV – Natural Sciences	3-4
10	Scientific Knowledge	Gen Ed	3	Study Area IV – Natural Sciences	3-4
11	Quantitative	Gen Ed	3	Skill Area II – Mathematics	3
12	Historical Knowledge	Gen Ed*	3	Study Area II – History	3
13	Social Phenomena	Gen Ed	3	Study Area II – Social Science	3
14	Aesthetic Dimensions	Gen Ed	3	Study Area I – Arts and Humanities	3
15	<b>Section B</b>				
16	Competency:	Gen Ed	3	Skill Area IV – University Requirement	3
17	Competency:	Gen Ed	3	Study Area III – Behavioral Sciences	3
18	<b>Framework30 Credits (30-31):</b>				
19	<b>Pathway30</b>				
20	<b>Additional General Education Courses</b>				
21				Study Area I – Literature	3
22	General Education Elective I: Creativity		3	Study Area I – Arts and Humanities	3
23	General Education Elective II: Global Knowledge		3	Study Area II – Social Sciences	3
24				Study Area III – Behavioral Sciences	3
25				Skill Area II – Math/Stat/ Comp Sci	3
26				Skill Area III – Foreign Language Proficiency. See requirements <a href="#">here</a> . If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
27	<b>General Education Credits:</b>		<b>36-37</b>		<b>51-52</b>
28	<b>Major Program Courses</b>				

29	GEO 101 Introduction to Geography GEO 111 World Regional Geography  If the student takes both, one will be received as 3 credits of geography electives. See line 31	3	GEOG 110 Introduction to Geography OR GEOG 120 World Regional Geography	3
30			GEOG 130 Introduction to Geography Information Science	3
31	ONE OF: GEO 102 Introduction to Human Geography GEO 101 Introduction to Geography GEO 111 World Regional Geography	3	15 credits of Geography electives (at least 9 at the 400 level)	15
32			<i>3 credits from the following:</i> GEOG 270 Geography of Hazards GEOG 272 Physical Geography GEOG 275/SUST 275 Soils and Vegetation Sustainability GEOG 374 Climatology GEOG 433 Issues in Environmental Protection GEOG 472 Topics in Physical Geography GEOG 473 Geography of Natural Resources GEOG 475/SUST 475 Energy Resources and Climate Change	3
33			<i>3 credits from the following:</i> GEOG 220 Human Geography GEOG 223 Geography of the Popular Music Industry GEOG 244 Economic Geography GEOG 290 Geography of Tourism GEOG 291 National Parks and World Heritage Sites GEOG 333 Political Geography GEOG Tourism Development in Southern New England GEOG 453 Recreation and Resort Planning GEOG 454 Geography and Tourism Planning GEOG 455 New Directions in Tourism GEOG 470 Geography of Health & Disease	3
34			<i>3 credits from the following:</i>	3

			<p>GEOG 241/AMS 241 Introduction to Planning  GEOG 439 Urban Geography  GEOG 440 Rural Land Planning  GEOG 441 Community &amp; Regional Planning  GEOG 445 Environmental Planning  GEOG 450 Tourism Planning  GEOG 483 Topics in Planning</p>	
35			<p><i>3 credits from the following:</i>  GEOG 266 Introduction to Remote Sensing  GEOG 276 Elementary Cartography  GEOG 378 Graphic Information Systems  GEOG 442 Field Methods in Geography</p>	3
36			<p><i>6 credits from the following:</i>  GEOG 330 United States and Canada  GEOG 434/LAS 434 Mexico, Central America, and the Caribbean  GEOG 435 Japan and Korea  GEOG 436/LAS 436 South America  GEOG 437 China  GEOG 446 Sub-Saharan Africa  GEOG 448 Russia and Neighboring Regions  GEOG 444 European Union  GEOG 459 Field Studies in Regional Geography  GEOG 481 Topics in Regional Geography</p>	6
37	<b>Program Course Credits:</b>	<b>6</b>		<b>39</b>
38	<b>Minor Course Credits:</b> Complete up to 9 credits in one subject area outside geography. 3-6 of these credits may also meet general education requirements either in the Framework30 or in lines 17 and 18. Students should consider pursuing a minor subject area based upon their specific field of interest in geography. Advisors should provide guidance.	9		<b>18</b>

	These courses are meant to complete 50% of the minor requirement in all of CCSU's programs, but can also be used to begin a minor or second major at SCSU.			
39	<b>Open Electives</b>			
40	<i>One of the following two:</i> GEO 101 Introduction Geography GEO 111 World Regional Geography	3		3
41	<b>Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign language and/or minor requirements will end up with more open elective credits at the CCSU.</b>			
42	<b>Open Elective credits:</b>	<b>8-12</b>		<b>8-12</b>
43	<b>Total Credits at the Community College</b>	<b>60</b>	<b>Total Credits for the 4-Year Degree</b>	<b>120</b>



**Transfer Pathway and Degree Program  
Central Connecticut State University**

Complete four-year degree with articulation of community college degree to four-year degree  
**Geography with Specialization in Geographic Information Science, B.A.**

1	Community Colleges*:			CCSU	
2		Credits			Credits
3	<b>Framework30**</b>				
4	<b>General Education Requirements</b>				
5	<b>Competency:</b>				
6	<b>Section A</b>				
7	Written I	English 101	3	English 110	3
8	Written II	Gen Ed	3	Skill Area I – Communication	3
9	Scientific Reasoning	Gen Ed	3-4	Study Area IV – Natural Sciences	3-4
10	Scientific Knowledge	Gen Ed	3	Study Area IV – Natural Sciences	3-4
11	Quantitative	Gen Ed	3	Skill Area II – Mathematics	3
12	Historical Knowledge	Gen Ed*	3	Study Area II – History	3
13	Social Phenomena	Gen Ed	3	Study Area II – Social Science	3
14	Aesthetic Dimensions	Gen Ed	3	Study Area I – Arts and Humanities	3
15	<b>Section B</b>				
16	Competency:	Gen Ed	3	Skill Area IV – University Requirement	3
17	Competency:	Gen Ed	3	Study Area III – Behavioral Sciences	3
18	<b>Framework30 Credits (30-31):</b>				
19	<b>Pathway30</b>				
20	<b>Additional General Education Courses</b>				
21				Study Area I – Literature	3
22	General Education Elective I: Creativity		3	Study Area I – Arts and Humanities	3
23	General Education Elective II: Global Knowledge		3	Study Area II – Social Sciences	3
24				Study Area III – Behavioral Sciences	3
25				Skill Area II – Math/Stat/ Comp Sci	3
26				Skill Area III – Foreign Language Proficiency. See requirements <a href="#">here</a> . If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
27	<b>General Education Credits:</b>		<b>36-37</b>		<b>51-52</b>
28	<b>Major Program Courses</b>				

29	GEO 101 Introduction to Geography  GEO 111 World Regional Geography  If the student takes both, one will be received as 3 credits of geography electives. See line	3	GEOG 110 Introduction to Geography OR GEOG 120 World Regional Geography	3
30			GEOG 130 Introduction to Geography Information Science	3
31			GEOG 266 Introduction to Remote Sensing	3
32			GEOG 276 Elementary Cartography	3
33			GEOG 378 Graphic Information Systems	3
34			GEOG 430 Internship in Geography	3
35			<i>15 credits from the following:</i> ETC 458 GPS Mapping for GIS GEOG 442 Field Methods in Geography GEOG 460 GIS Applications in Crime Mapping GEOG 463 GIS Applications in Public Health GEOG 464 GIS Applications in Resource Assessment GEOG 468 GIS Applications in Urban Planning GEOG 478 GIS Design and Implementation GEOG 479 Geographic Information Systems Applications GEOG 480 Topics in GIS	15
36	One of the following courses will count here:  GEO 102 Introduction to Human Geography  GEO 101 Introduction to Geography  GEO 111 World Regional Geography	3	6 credits in geography electives (at least 3 of which must be at 400 level)	6
37	<b>Program Course Credits:</b>	<b>6</b>		<b>39</b>
38	<b>Minor Course Credits:</b> Complete up to 9 credits in one subject area outside geography. 3-6 of these credits may also meet general education requirements either in the Framework30	<b>9</b>		<b>18</b>

	<p>or in lines 17 and 18. Students should consider pursuing a minor subject area based upon their specific field of interest in geography. Advisors should provide guidance.</p> <p>These courses are meant to complete 50% of the minor requirement in all of CCSU's programs, but can also be used to begin a minor or second major at SCSU.</p>			
39	<b>Open Electives</b>			
40	<p><b>Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign language and/or minor requirements will end up with more open elective credits at the CCSU.</b></p>			
41	<b>Open Elective credits:</b>	<b>8-12</b>		<b>8-12</b>
42	<b>Total Credits at the Community College</b>	<b>60</b>	<b>Total Credits for the 4-Year Degree</b>	<b>120</b>

**Transfer Pathway and Degree Program**  
**Central Connecticut State University**  
 Complete four-year degree with articulation of community college degree to four-year degree  
**Geography with Specialization in Planning, B.A.**

1	Community Colleges*:			CCSU	
2		Credits			Credits
3	<b>Framework30**</b>				
4	<b>General Education Requirements</b>				
5	<b>Competency:</b>				
6	<b>Section A</b>				
7	Written I	English 101	3	English 110	3
8	Written II	Gen Ed	3	Skill Area I – Communication	3
9	Scientific Reasoning	Gen Ed	3-4	Study Area IV – Natural Sciences	3-4
10	Scientific Knowledge	Gen Ed	3	Study Area IV – Natural Sciences	3-4
11	Quantitative	Gen Ed	3	Skill Area II – Mathematics	3
12	Historical Knowledge	Gen Ed*	3	Study Area II – History	3
13	Social Phenomena	Gen Ed	3	Study Area II – Social Science	3
14	Aesthetic Dimensions	Gen Ed	3	Study Area I – Arts and Humanities	3
15	<b>Section B</b>				
16	Competency:	Gen Ed	3	Skill Area IV – University Requirement	3
17	Competency:	Gen Ed	3	Study Area III – Behavioral Sciences	3
18	<b>Framework30 Credits (30-31):</b>				
19	<b>Pathway30</b>				
20	<b>Additional General Education Courses</b>				
21				Study Area I – Literature	3
22	General Education Elective I: Creativity		3	Study Area I – Arts and Humanities	3
23	General Education Elective II: Global Knowledge		3	Study Area II – Social Sciences	3
24				Study Area III – Behavioral Sciences	3
25				Skill Area II – Math/Stat/ Comp Sci	3
26				Skill Area III – Foreign Language Proficiency. See requirements <a href="#">here</a> . If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
27	<b>General Education Credits:</b>		<b>36-37</b>		<b>51-52</b>
28	<b>Major Program Courses</b>				

29	If taken at the community college: GEO 101 Introduction to Geography	3	GEOG 110 Introduction to Geography	3
30			GEOG 130 Introduction to Geography Information Science	3
31			GEOG 241/AMS 241 Introduction to Planning	3
32			GEOG 244 Economic Geography	3
33			GEOG 420 Internship in Planning	3
34			GEOG 439 Urban Geography	3
35			GEOG 441 Community & Regional Planning	3
36			12 credits from the following: GEOG 433 Issues in Environmental Protection GEOG 440 Rural Land Planning GEOG 445 Environmental Planning GEOG 450 Tourism Planning GEOG 473 Geography of Natural Resources GEOG 483 Topics in Planning	12
37	One or both of the following, depending upon which was taken at the community college: GEO 102 Introduction to Human Geography  GEO 111 World Regional Geography		6 credits of geography electives	6
38	<b>Program Course Credits:</b>	<b>3</b>		<b>39</b>
39	<b>Minor Course Credits:</b> Complete up to 9 credits in one subject area outside geography. 3-6 of these credits may also meet general education requirements either in the Framework30 or in lines 17 and 18. Students should consider pursuing a minor subject area based upon their specific field of interest in geography. Advisors should provide guidance.  These courses are meant to complete 50% of the minor requirement in all of CCSU's programs, but can also be used to begin a minor or second major at SCSU.	<b>9</b>		<b>18</b>
40	<b>Open Electives</b>			
41	<b>Students who have fulfilled foreign language requirements in high school or who use open elective credits at the</b>			

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	<b>community college to fulfill foreign language and/or minor requirements will end up with more open elective credits at the CCSU.</b>			
42	<b>Open Elective credits:</b>	<b>8-12</b>		<b>8-12</b>
43	<b>Total Credits at the Community College</b>	<b>60</b>	<b>Total Credits for the 4-Year Degree</b>	<b>120</b>

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**Transfer Pathway and Degree Program**  
**Central Connecticut State University**  
 Complete four-year degree with articulation of community college degree to four-year degree  
**Geography with Specialization in Tourism, B.A.**

1	Community Colleges*:			CCSU	
2		Credits			Credits
3	<b>Framework30**</b>				
4	<b>General Education Requirements</b>				
5	<b>Competency:</b>				
6	<b>Section A</b>				
7	Written I	English 101	3	English 110	3
8	Written II	Gen Ed	3	Skill Area I – Communication	3
9	Scientific Reasoning	Gen Ed	3-4	Study Area IV – Natural Sciences	3-4
10	Scientific Knowledge	Gen Ed	3	Study Area IV – Natural Sciences	3-4
11	Quantitative	Gen Ed	3	Skill Area II – Mathematics	3
12	Historical Knowledge	Gen Ed*	3	Study Area II – History	3
13	Social Phenomena	Gen Ed	3	Study Area II – Social Science	3
14	Aesthetic Dimensions	Gen Ed	3	Study Area I – Arts and Humanities	3
15	<b>Section B</b>				
16	Competency:	Gen Ed	3	Skill Area IV – University Requirement	3
17	Competency:	Gen Ed	3	Study Area III – Behavioral Sciences	3
18	<b>Framework30 Credits (30-31):</b>				
19	<b>Pathway30</b>				
20	<b>Additional General Education Courses</b>				
21				Study Area I – Literature	3
22	General Education Elective I: Creativity		3	Study Area I – Arts and Humanities	3
23	General Education Elective II: Global Knowledge		3	Study Area II – Social Sciences	3
24				Study Area III – Behavioral Sciences	3
25				Skill Area II – Math/Stat/ Comp Sci	3
26				Skill Area III – Foreign Language Proficiency. See requirements <a href="#">here</a> . If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
27	<b>General Education Credits:</b>		<b>36-37</b>		<b>51-52</b>
28	<b>Major Program Courses</b>				

29	<i>At least 6 credits of lines 30, 31 and 34 will be taken at the community college</i>			
30	<i>If taken at the community college:</i> GEO 101 Introduction to Geography	(3)	GEOG 110 Introduction to Geography	3
31	<i>If taken at the community college:</i> GEO 111 World Regional Geography	(3)	GEOG 120 World Regional Geography	3
32			GEOG 130 Introduction to Geography Information Science	3
33			GEOG 430 Internship in Geography	3
34	<i>If taken at the community college:</i> GEO 102 Introduction to Human Geography	(3)	3 credits of geography electives and 3 credits of THS electives	6
35	<i>If taken at the community college:</i> GEO 204 Geography and Tourism Development	(3)	<i>15 credits from the following:</i> GEOG 290 Geography of Tourism GEOG 291 National Parks and World Heritage Sites GEOG 450 Tourism Planning GEOG 451 Tourism Development in Southern New England GEOG 453 Recreation and Resort Planning GEOG 454 Geography of Tourism Marketing GEOG 455 New Directions in Tourism	15
36			<i>3 credits from the following:</i> GEOG 330 United States and Canada GEOG 434 Mexico, Central America, and the Caribbean GEOG 435 Japan and Korea GEOG 436/LAS 436 South America GEOG 437 China GEOG 446 Sub-Saharan Africa GEOG 448 Russia and Neighboring Regions GEOG 444 European Union GEOG 459 Field Studies in Regional Geography (3-6 credits)	3
37			<i>3 credits from the following:</i> GEOG 270 Geography of Hazards GEOG 272 Physical Geography GEOG 275/SUST 275 Soils and Vegetation Sustainability GEOG 374 Climatology GEOG 472 Topics in Physical Geography	3



			GEOG 473 Geography of Natural Resources GEOG 475/SUST 475 Energy Resources and Climate Change	
38	<b>Program Course Credits:</b>	<b>6-9</b>		<b>39</b>
39	<b>Minor Course Credits:</b> Complete up to 9 credits in one subject area outside geography. 3-6 of these credits may also meet general education requirements either in the Framework30 or in lines 17 and 18. Students should consider pursuing a minor subject area based upon their specific field of interest in geography. Advisors should provide guidance.  These courses are meant to complete 50% of the minor requirement in all of CCSU's programs, but can also be used to begin a minor or second major at SCSU.	9		<b>18</b>
40	<b>Open Electives</b>			
42	<b>Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign language and/or minor requirements will end up with more open elective credits at the CCSU.</b>			
43	<b>Open Elective credits:</b>	<b>8-12</b>		<b>8-12</b>
44	<b>Total Credits at the Community College</b>	<b>60</b>	<b>Total Credits for the 4-Year Degree</b>	<b>120</b>

**Transfer Pathway and Degree Program  
Southern Connecticut State University**

Complete four-year degree with articulation of community college degree to four-year degree  
**Geography, B.A.**

1	Community Colleges*:			SCSU	
2		Credits		Credits	
3	<b>Framework30**</b>				
4	<b>General Education Requirements</b>				
5	<b>Competency:</b>				
6	<b>Section A</b>				
7	Written I	English 101	3	FYE	3
8	Written II	Gen Ed	3	Written Communication	3
9	Scientific Reasoning	Gen Ed	3-4	Natural World 1 – Physical Realm <i>Select any course except GEO 201 Physical Geography</i>	3-4
10	Scientific Knowledge	Gen Ed	3	Natural World II – Life and Environment	3-4
11	Quantitative	Gen Ed	3	Quantitative Reasoning	3
12	Historical Knowledge	Gen Ed*	3	Time and Place	3
13	Social Phenomena	Gen Ed	3	Social structure, Conflict, Consensus	3
14	Aesthetic Dimensions	Gen Ed	3	Cultural Expressions <i>Select any course except GEO 200 Human Geography</i>	3
15	<b>Section B</b>				
16	Competency:	Gen Ed	3	Critical Thinking	3
17	Competency:	Gen Ed	3	Tech Fluency	3
18	<b>Framework30 Credits (30-31):</b>				<b>30-31</b>
19	<b>Pathway30</b>				
20	<b>Additional General Education Courses</b>				
21	General Education Elective I: Creativity		3	Creative Drive	3
22	General Education Elective II: Global Knowledge		3	Global Awareness	3
23	<i>Select one of the following two areas:</i>				3
24				American Experience	(3)
25				Mind and Body	(3)
26				<b>Must be taken at SCSU:</b>	
27				Tier 3 Connections Capstone	3
28	<b>General Education Credits:</b>		<b>36-37</b>		<b>42-43</b>
29	<b>Major Program Courses</b>				
30	GEO 102 Introduction to Human Geography (If taken at the community college)		3	GEO 200 Human Geography	3
31				GEO 201 Physical Geography	4

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32			GEO 270 Maps and Mapmaking Technology	3
33			GEO 290 Research Methods in Geography	3
34			GEO 360 Introduction to GIS	4
35			GEO 490 Seminar in Geographic Thought	4
36			<b>Regional – Select one:</b> GEO 311 United States and Canada GEO 315 Connecticut GEO 325 Latin America GEO 330 Europe GEO 341 Asia GEO 342 Middle East GEO 343 Former Soviet Union GEO 344 Central Asia GEO 345 Africa	3
37			<b>Systematic – Select one:</b> GEO 205 Economic Geography GEO 208 Political Geography GEO 260 Population Geography GEO 265 Recreation Geography GEO 301 Landforms GEO 303 Principles of Sustainability GEO 305 Environmental Economic Geography GEO 357 Coastal and Marine Geography GEO 362 Urban Geography GEO 403 Applied Sustainability GEO 405 Environmental Justice	3
38			<b>Techniques – Select one:</b> GEO 273 Land Use Planning GEO 280 Geographic Information Systems for Inquiry in the Social Sciences GEO 370 Remote Sensing GEO 371 Cartography GEO 381 Geographic Information Systems for Business and Strategic Management GEO 460 GIS II GEO 461 Advanced Spatial Analysis for Environmental and Biophysical Applications GEO 470 Field Technique GEO 481 Spatial Analysis	3

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39	<b>Program Course Credits:</b>			<b>30</b>
40	<b>Open Electives</b>			
41	<i>One or both of the following two:</i> GEO 101 Introduction to Geography GEO 111 World Regional Geography	3-6		
42	<b>Open Elective credits:</b>	<b>15-18</b>		<b>47-48</b>
43	<b>Total Credits at the Community College</b>	<b>60</b>	<b>Total Credits for the 4-Year Degree</b>	<b>120</b>

**Transfer Pathway and Degree Program  
Southern Connecticut State University**

Complete four-year degree with articulation of community college degree to four-year degree  
**Geography, B.S. – Concentration: Geographic Information Science and Technology**

1	Community Colleges*:			SCSU	
2		Credits			Credits
3	<b>Framework30**</b>				
4	<b>General Education Requirements</b>				
5	<b>Competency:</b>				
6	<b>Section A</b>				
7	Written I	English 101	3	FYE	3
8	Written II	Gen Ed	3	Written Communication	3
9	Scientific Reasoning	Gen Ed	3-4	Natural World 1 – Physical Realm <i>Select any course except GEO 201 Physical Geography</i>	3-4
10	Scientific Knowledge	Gen Ed	3	Natural World II – Life and Environment	3-4
11	Quantitative	Gen Ed	3	Quantitative Reasoning	3
12	Historical Knowledge	Gen Ed*	3	Time and Place	3
13	Social Phenomena	Gen Ed	3	Social structure, Conflict, Consensus	3
14	Aesthetic Dimensions	Gen Ed	3	Cultural Expressions <i>Select any course except GEO 200 Human Geography</i>	3
15	<b>Section B</b>				
16	Competency:	Gen Ed	3	Critical Thinking	3
17	Competency:	Gen Ed	3	Tech Fluency	3
18	<b>Framework30 Credits (30-31):</b>				<b>30-31</b>
19	<b>Pathway30</b>				
20	<b>Additional General Education Courses</b>				
21	General Education Elective I: Creativity		3	Creative Drive	3
22	General Education Elective II: Global Knowledge		3	Global Awareness	3
23	<i>Select one of the following two areas:</i>				3
24				American Experience	(3)
25				Mind and Body	(3)
26				<b>Must be taken at SCSU:</b>	
27				Tier 3 Connections Capstone	3
28	<b>General Education Credits:</b>		<b>36-37</b>		<b>42-43</b>
29	<b>Major Program Courses</b>				
30	<i>If taken at the community college:</i> GEO 102 Introduction to Human Geography		(3)	GEO 200 Human Geography	3
31				GEO 201 Physical Geography	4

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32			GEO 270 Maps and Mapmaking Technology	3
33			GEO 290 Research Methods in Geography	3
			GEO 360 Introduction to GIS	4
34			GEO 460 GIS II	4
35			GEO 490 Seminar in Geographic Thought	4
36			<b>Select one:</b> GEO 497 Geography Internship GEO 499 Independent Study HON 494 Honors Prospectus AND HON 495 Departmental Honors	3
37			<b>Regional – Select one:</b> GEO 311 United States and Canada GEO 315 Connecticut GEO 325 Latin America GEO 330 Europe GEO 341 Asia GEO 342 Middle East GEO 343 Former Soviet Union GEO 344 Central Asia GEO 345 Africa	3
38			<b>Systematic – Select one:</b> GEO 205 Economic Geography GEO 208 Political Geography GEO 260 Population Geography GEO 265 Recreation Geography GEO 301 Landforms GEO 303 Principles of Sustainability GEO 305 Environmental Economic Geography GEO 357 Coastal and Marine Geography GEO 362 Urban Geography GEO 403 Applied Sustainability GEO 405 Environmental Justice	3
39			<b>Techniques – Select three:</b> GEO 273 Land Use Planning GEO 280 Geographic Information Systems for Inquiry in the Social Sciences GEO 370 Remote Sensing GEO 371 Cartography	9

			GEO 381 Geographic Information Systems for Business and Strategic Management GEO 460 GIS (see line 34) GEO 461 Advanced Spatial Analysis for Environmental and Biophysical Applications GEO 470 Field Technique GEO 481 Spatial Analysis	
40			Two courses in a relevant cognate area by advisement. Cognate credits can count toward a minor. Students are strongly encouraged to complete a minor.	6
41	<b>Program Course Credits:</b>	0-3		<b>49</b>
42	<b>Open Electives</b>			
43	<i>One or both of the following two:</i> GEO 101 Introduction to Geography GEO 111 World Regional Geography	3-6		
44	<b>Open Elective credits:</b>	<b>14-21</b>		<b>28-29</b>
45	<b>Total Credits at the Community College</b>	<b>60</b>	<b>Total Credits for the 4-Year Degree</b>	<b>120</b>

**Transfer Pathway and Degree Program**  
Credits remaining in the four-year degree  
**Geography with Specialization in Environmental Geography, B.A.**

1	<b>Central Connecticut State University</b>	
2	<b>Remaining General Education Courses</b>	
3	<b>Course</b>	<b>Credits</b>
4	Study Area I – Literature	3
5	Study Area III – Behavioral Sciences	3
6	Skill Area II – Math/Stat/ Comp Sci	3
7	Skill Area III – Foreign Language Proficiency. See requirements <a href="#">here</a> . If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
8	<b>General Education Credits</b>	<b>15</b>
9	<b>Remaining Major Program Requirements</b>	
10	<b>Course</b>	<b>Credits</b>
11	GEOG 110 Introduction to Geography (If not taken at the community college)	(3)
	GEOG 130 Introduction to Geography Information Science	3
12	<i>9 credits from the following:</i> GEOG 270 Geography of Hazards GEOG 272 Physical Geography GEOG 275 Soils and Vegetation Sustainability GEOG 374 Climatology	9
13	<i>9 credits from the following with three of the credits at the 300 or 400 level:</i> GEOG 266 Introduction to Remote Sensing GEOG 276 Elementary Cartography GEOG 378 Graphic Information Systems GEOG 464 GIS Applications in Resource Assessment GEOG 478 GIS Design and Implementation GEOG 479 Geographic Information Systems Applications GEOG 480 Topics in GIS	9
14	<i>15 credits from the following:</i> GEOG 430 Internship in Geography GEOG 433 Issues in Environmental Protection GEOG 445 Environmental Planning GEOG 472 Topics in Physical Geography GEOG 473 Geography of Natural Resources GEOG 475 Energy Resources and Climate Change	15
15	<b>Program Course Credits</b>	<b>36-39</b>
16	<b>Minor</b> – 9 credits will have been taken at the community college.	<b>9</b>
17	<b>Remaining Open Electives</b>	
18	<b>Courses</b>	<b>Credits</b>
19	<b>Open Elective credits</b>	<b>0</b>
20	<b>Students who have fulfilled the foreign language requirement in high school or who use open elective credits at the community college to fulfill foreign language and/or minor requirements will end up with more open elective credits at the CCSU.</b>	
21	<b>Total Credits Remaining for the 4-Year Degree</b>	<b>60-63</b>



**Transfer Pathway and Degree Program**  
Credits remaining in the four-year degree  
**Geography with Specialization in General/Regional Geography, B.A.**

1	<b>Central Connecticut State University</b>	
2	<b>Remaining General Education Courses</b>	
3	<b>Course</b>	<b>Credits</b>
4	Study Area I – Literature	3
5	Study Area III – Behavioral Sciences	3
6	Skill Area II – Math/Stat/ Comp Sci	3
7	Skill Area III – Foreign Language Proficiency. See requirements <a href="#">here</a> . If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
8	<b>General Education Credits</b>	<b>15</b>
9	<b>Remaining Major Program Requirements</b>	
10	<b>Course</b>	<b>Credits</b>
11	GEOG 130 Introduction to Geography Information Science	3
12	12 credits of Geography electives (at least 9 at the 400 level)	12
13	<i>3 credits from the following:</i> GEOG 270 Geography of Hazards GEOG 272 Physical Geography GEOG 275/SUST 275 Soils and Vegetation Sustainability GEOG 374 Climatology GEOG 433 Issues in Environmental Protection GEOG 472 Topics in Physical Geography GEOG 473 Geography of Natural Resources GEOG 475/SUST 475 Energy Resources and Climate Change	3
14	<i>3 credits from the following:</i> GEOG 220 Human Geography GEOG 223 Geography of the Popular Music Industry GEOG 244 Economic Geography GEOG 290 Geography of Tourism GEOG 291 National Parks and World Heritage Sites GEOG 333 Political Geography GEOG Tourism Development in Southern New England GEOG 453 Recreation and Resort Planning GEOG 454 Geography and Tourism Planning GEOG 455 New Directions in Tourism GEOG 470 Geography of Health & Disease	3
15	<i>3 credits from the following:</i> GEOG 241/AMS 241 Introduction to Planning GEOG 439 Urban Geography GEOG 440 Rural Land Planning GEOG 441 Community & Regional Planning GEOG 445 Environmental Planning GEOG 450 Tourism Planning GEOG 483 Topics in Planning	3
16	<i>3 credits from the following:</i>	3

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	GEOG 266 Introduction to Remote Sensing GEOG 276 Elementary Cartography GEOG 378 Graphic Information Systems GEOG 442 Field Methods in Geography	
17	<i>6 credits from the following:</i> GEOG 330 United States and Canada GEOG 434/LAS 434 Mexico, Central America, and the Caribbean GEOG 435 Japan and Korea GEOG 436/LAS 436 South America GEOG 437 China GEOG 446 Sub-Sahara Africa GEOG 448 Russia and Neighboring Regions GEOG 444 European Union GEOG 459 Field Studies in Regional Geography GEOG 481 Topics in Regional Geography	6
	<b>Program Course Credits</b>	<b>33</b>
	<b>Minor – 9 credits will have been taken at the community college.</b>	<b>9</b>
18	<b>Remaining Open Electives</b>	
19	<b>Courses</b>	<b>Credits</b>
20	<b>Open Elective credits</b>	<b>3</b>
21	<b>Students who have fulfilled the foreign language requirement in high school or who use open elective credits at the community college to fulfill foreign language and/or minor requirements will end up with more open elective credits at the CCSU.</b>	
22	<b>Total Credits Remaining for the 4-Year Degree</b>	<b>60</b>

**Transfer Pathway and Degree Program**  
Credits remaining in the four-year degree  
**Geography with Specialization in Geographic Information Science, B.A.**

1	<b>Central Connecticut State University</b>	
2	<b>Remaining General Education Courses</b>	
3	<b>Course</b>	<b>Credits</b>
4	Study Area I – Literature	3
5	Study Area III – Behavioral Sciences	3
6	Skill Area II – Math/Stat/ Comp Sci	3
7	Skill Area III – Foreign Language Proficiency. See requirements <a href="#">here</a> . If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
8	<b>General Education Credits</b>	<b>15</b>
9	<b>Remaining Major Program Requirements</b>	
10	<b>Course</b>	<b>Credits</b>
11	GEOG 130 Introduction to Geography Information Science	3
12	GEOG 266 Introduction to Remote Sensing	3
13	GEOG 276 Elementary Cartography	3
14	GEOG 378 Graphic Information Systems	3
15	GEOG 430 Internship in Geography	3
	<i>15 credits from the following:</i> ETC 458 GPS Mapping for GIS GEOG 442 Field Methods in Geography GEOG 460 GIS Applications in Crime Mapping GEOG 463 GIS Applications in Public Health GEOG 464 GIS Applications in Resource Assessment GEOG 468 GIS Applications in Urban Planning GEOG 478 GIS Design and Implementation GEOG 479 Geographic Information Systems Applications GEOG 480 Topics in GIS	15
	3 credits in geography electives at 400 level)	3
16	<b>Program Course Credits</b>	<b>33</b>
17	<b>Minor</b> – 9 credits will have been taken at the community college.	<b>9</b>
18	<b>Remaining Open Electives</b>	
19	<b>Courses</b>	<b>Credits</b>
20	<b>Open Elective credits</b>	<b>3</b>
21	<b>Students who have fulfilled the foreign language requirement in high school or who use open elective credits at the community college to fulfill foreign language and/or minor requirements will end up with more open elective credits at the CCSU.</b>	
22	<b>Total Credits Remaining for the 4-Year Degree</b>	<b>60</b>

**Transfer Pathway and Degree Program**  
Credits remaining in the four-year degree  
**Geography with Specialization in Planning, B.A.**

1	<b>Central Connecticut State University</b>	
2	<b>Remaining General Education Courses</b>	
3	<b>Course</b>	<b>Credits</b>
4	Study Area I – Literature	3
5	Study Area III – Behavioral Sciences	3
6	Skill Area II – Math/Stat/ Comp Sci	3
7	Skill Area III – Foreign Language Proficiency. See requirements <a href="#">here</a> . If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
8	<b>General Education Credits</b>	<b>15</b>
9	<b>Remaining Major Program Requirements</b>	
10	<b>Course</b>	<b>Credits</b>
11	<i>3 credits from lines 12 and 13 will remain to be taken at Central</i>	
12	GEOG 110 Introduction to Geography (If not taken at the community college)	(3)
13	0-3 credits of geography electives, depending upon courses completed at the community college	(3)
14	GEOG 130 Introduction to Geography Information Science	3
15	GEOG 241/AMS 241 Introduction to Planning	3
16	GEOG 244 Economic Geography	3
17	GEOG 420 Internship in Planning	3
18	GEOG 439 Urban Geography	3
19	GEOG 441 Community & Regional Planning	3
20	<i>12 credits from the following:</i> GEOG 433 Issues in Environmental Protection GEOG 440 Rural Land Planning GEOG 445 Environmental Planning GEOG 450 Tourism Planning GEOG 473 Geography of Natural Resources GEOG 483 Topics in Planning	12
21	<b>Program Course Credits</b>	<b>33</b>
22	<b>Minor</b> – 9 credits will have been taken at the community college.	<b>9</b>
23	<b>Remaining Open Electives</b>	
24	<b>Courses</b>	<b>Credits</b>
25	<b>Open Elective credits</b>	<b>3</b>
26	<b>Students who have fulfilled the foreign language requirement in high school or who use open elective credits at the community college to fulfill foreign language and/or minor requirements will end up with more open elective credits at the CCSU.</b>	
27	<b>Total Credits Remaining for the 4-Year Degree</b>	<b>60</b>

**Transfer Pathway and Degree Program**  
Credits remaining in the four-year degree  
**Geography with Specialization in Tourism, B.A.**

1	<b>Central Connecticut State University</b>	
2	<b>Remaining General Education Courses</b>	
3	<b>Course</b>	<b>Credits</b>
4	Study Area I – Literature	3
5	Study Area III – Behavioral Sciences	3
6	Skill Area II – Math/Stat/ Comp Sci	3
7	Skill Area III – Foreign Language Proficiency. See requirements <a href="#">here</a> . If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
8	<b>General Education Credits</b>	<b>15</b>
9	<b>Remaining Major Program Requirements</b>	
10	<b>Course</b>	<b>Credits</b>
11	<i>6 credits of the following 12 (lines 12-14) will have been taken at the community college:</i>	6
12	GEO 110 Introduction to Geography	(3)
13	GEO 120 World Regional Geography	(3)
14	3 credits of geography electives and 3 credits of THS electives	(3-6)
15	GEOG 130 Introduction to Geography Information Science	3
	GEOG 430 Internship in Geography	3
	<i>15 credits from the following:</i> GEOG 290 Geography of Tourism GEOG 291 National Parks and World Heritage Sites GEOG 450 Tourism Planning GEOG 451 Tourism Development in Southern New England GEOG 453 Recreation and Resort Planning GEOG 454 Geography of Tourism Marketing GEOG 455 New Directions in Tourism  GEOG 290 Geography of Tourism may have been fulfilled at the community college by GEO 204 Geography and Tourism Development	15
	<i>3 credits from the following:</i> GEOG 330 United States and Canada GEOG 434 Mexico, Central America, and the Caribbean GEOG 435 Japan and Korea GEOG 436/LAS 436 South America GEOG 437 China GEOG 446 Sub-Saharan Africa GEOG 448 Russia and Neighboring Regions GEOG 444 European Union GEOG 459 Field Studies in Regional Geography (3-6 credits)	3
	<i>3 credits from the following:</i> GEOG 270 Geography of Hazards GEOG 272 Physical Geography GEOG 275/SUST 275 Soils and Vegetation Sustainability GEOG 374 Climatology	3

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	GEOG 472 Topics in Physical Geography GEOG 473 Geography of Natural Resources GEOG 475/SUST 475 Energy Resources and Climate Change	
16	<b>Program Course Credits</b>	<b>33</b>
17	<b>Minor – 9 credits will have been taken at the community college.</b>	<b>9</b>
18	<b>Remaining Open Electives</b>	
19	<b>Courses</b>	<b>Credits</b>
20	<b>Open Elective credits</b>	<b>3</b>
21	<b>Students who have fulfilled the foreign language requirement in high school or who use open elective credits at the community college to fulfill foreign language and/or minor requirements will end up with more open elective credits at the CCSU.</b>	
22	<b>Total Credits Remaining for the 4-Year Degree</b>	<b>60</b>

**Transfer Pathway and Degree Program**  
Credits remaining in the four-year degree  
**Geography, B.A.**  
Students must complete 2 "W" courses at SCSU.

1	<b>Southern Connecticut State University</b>	
2	<b>Remaining General Education Courses</b>	
3	<b>Course</b>	<b>Credits</b>
4	<i>Select one of the following two areas:</i>	3
5	American Experience	(3)
6	Mind and Body	(3)
7	<b>Must be taken at SCSU:</b>	
8	Tier 3 Connections Capstone	3
10	<b>General Education Credits</b>	<b>6</b>
11	<b>Remaining Major Program Requirements</b>	
12	<b>Course</b>	<b>Credits</b>
13	GEO 200 Human Geography (If not taken at the community college)	(3)
14	GEO 201 Physical Geography	4
15	GEO 270 Maps and Mapmaking Technology	3
16	GEO 290 Research Methods in Geography	3
17	GEO 360 Introduction to GIS	4
18	GEO 490 Seminar in Geographic Thought	4
19	<b>Regional – Select one:</b> GEO 311 United States and Canada GEO 315 Connecticut GEO 325 Latin America GEO 330 Europe GEO 341 Asia GEO 342 Middle East GEO 343 Former Soviet Union GEO 344 Central Asia GEO 345 Africa	3
20	<b>Systematic – Select one:</b> GEO 205 Economic Geography GEO 208 Political Geography GEO 260 Population Geography GEO 265 Recreation Geography GEO 301 Landforms GEO 303 Principles of Sustainability GEO 305 Environmental Economic Geography GEO 357 Coastal and Marine Geography GEO 362 Urban Geography GEO 403 Applied Sustainability GEO 405 Environmental Justice	3
21	<b>Techniques – Select one:</b> GEO 273 Land Use Planning GEO 280 Geographic Information Systems for Inquiry in the Social Sciences	3

	GEO 370 Remote Sensing GEO 371 Cartography GEO 381 Geographic Information Systems for Business and Strategic Management GEO 460 GIS II GEO 461 Advanced Spatial Analysis for Environmental and Biophysical Applications GEO 470 Field Technique GEO 481 Spatial Analysis	
22	<b>Program Course Credits</b>	<b>27-30</b>
23	<b>Remaining Open Electives</b>	
24	<b>Courses</b>	<b>Credits</b>
25	<b>Open Elective credits</b>	<b>24-27</b>
	<b>Total Credits Remaining for the 4-Year Degree</b>	<b>60</b>



**Transfer Pathway and Degree Program**  
Credits remaining in the four-year degree  
**Geography, B.S. – Concentration: Geographic Information Science and Technology**  
Students must complete 2 "W" courses at SCSU.

1	<b>Southern Connecticut State University</b>	
2	<b>Remaining General Education Courses</b>	
3	<b>Course</b>	<b>Credits</b>
4	<i>Select one of the following two areas:</i>	3
5	American Experience	(3)
6	Mind and Body	(3)
7	<b>Must be taken at SCSU:</b>	
8	Tier 3 Connections Capstone	3
10	<b>General Education Credits</b>	<b>6</b>
11	<b>Remaining Major Program Requirements</b>	
12	<b>Course</b>	<b>Credits</b>
13	GEO 200 Human Geography (If not taken at the community college)	(3)
14	GEO 201 Physical Geography	4
15	GEO 270 Maps and Mapmaking Technology	3
16	GEO 290 Research Methods in Geography	3
17	GEO 360 Introduction to GIS	4
18	GEO 460 Geographic Information Systems for Environmental and Spatial Science	4
19	GEO 490 Seminar in Geographic Thought	4
20	<b>Select one:</b> GEO 497 Geography Internship GEO 499 Independent Study HON 494 Honors Prospectus AND HON 495 Departmental Honors	3
21	<b>Regional – Select one:</b> GEO 311 United States and Canada GEO 315 Connecticut GEO 325 Latin America GEO 330 Europe GEO 341 Asia GEO 342 Middle East GEO 343 Former Soviet Union GEO 344 Central Asia GEO 345 Africa	3
22	<b>Systematic – Select one:</b> GEO 205 Economic Geography GEO 208 Political Geography GEO 260 Population Geography GEO 265 Recreation Geography GEO 301 Landforms GEO 303 Principles of Sustainability GEO 305 Environmental Economic Geography GEO 357 Coastal and Marine Geography GEO 362 Urban Geography	3

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	GEO 403 Applied Sustainability GEO 405 Environmental Justice	
23	<b>Techniques – Select three:</b> GEO 273 Land Use Planning GEO 280 Geographic Information Systems for Inquiry in the Social Sciences GEO 370 Remote Sensing GEO 371 Cartography GEO 381 Geographic Information Systems for Business and Strategic Management GEO 460 GIS II GEO 461 Advanced Spatial Analysis for Environmental and Biophysical Applications GEO 470 Field Technique GEO 481 Spatial Analysis	9
24	Two courses in a relevant cognate area by advisement. Cognate credits can count toward a minor. Students are strongly encouraged to complete a minor.	6
25	<b>Program Course Credits</b>	<b>46-49</b>
26	<b>Remaining Open Electives</b>	
27	<b>Courses</b>	<b>Credits</b>
28	<b>Open Elective credits</b>	<b>5-8</b>
29	<b>Total Credits Remaining for the 4-Year Degree</b>	<b>60</b>

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Program Suspension

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the suspension of a program in Internet Programming Technology (CIP Code: 11.0201, OHE # 08167) leading to an Associate of Science degree at Manchester Community College, until Fall Semester 2022.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

Suspension of a program in Internet Programming Technology leading to an Associate of Science degree at Manchester Community College, until Fall Semester 2022

**BACKGROUND**Summary

The program is a Low Completer. There are three courses uniquely required for this degree and enrollment levels therein are insufficient to run them.

Rationale

Students were originally selecting this terminal degree because they thought they only wanted a two-year degree. With the advent of the TAP Computer Science degree, which has a clearly defined and well promoted transfer path to four-year institutions, students are now selecting the TAP degree instead because it gives them the option of transferring if they later change their mind.

As the community colleges work to consolidate programs, a new and more viable version of this degree may be developed, or the idea of a terminal programming degree may be abandoned altogether. Whether to eventually reinstate or terminate this degree will depend on the outcome of these discussions.

Phase-Out/Teach-Out Strategy

Department chair has met with students currently majoring in Internet Programming. Chair will supervise independent study for the three courses that are required by this degree. For example, in Fall 2018, three students were supervised for independent study in CSC\*230.

Resources

No resources are required for the suspension of this program.

**RECOMMENDATION**

It is the recommendation of the System's Provost and Senior Vice President for Academic and Students Affairs that the Board of Regents approve suspension of this program.

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities System Office**  
**APPLICATION FOR SUSPENSION OF EXISTING PROGRAM**

**SECTION 1: GENERAL INFORMATION**

<b>Institution:</b> Manchester Community College		Date of Submission to CSCU Office of the Provost:
Program: Internet Programming Technology A.S. CIP: <b>11.0201</b> OHE#: <b>08167</b> Accreditation Date: 2018 Spring Date Program will be reinstated or deleted (one, two, or three years maximum): Fall 2022		
<b>Program Characteristics</b>		
Name of Program: Internet Programming Technology		
Degree: Title of Award (e.g. Master of Arts) A.S.		
Certificate: (specify type and level)		
Modality of Program: X On ground    Online    Combined		
Institution's Unit (e.g. School of Business) and Location (e.g. main campus) offering the Program: STEM Div, ETCS Dept, Main		
<b>Institutional Contact for this Proposal:</b> Richard Gnall	Title: Professor / Chair	Tel.: 860-512-2643 e-mail: rgnall@manchestercc.edu

**SECTION 2: RATIONALE AND JUSTIFICATION FOR PROGRAM SUSPENSION**

**Narrative**

*Please provide reason for requested suspension and plans for follow-up including the sunset date as indicated above.* Degree is listed on low completer list. Students were originally selecting this terminal degree because they thought they only wanted a two year degree. With the advent of the TAP Computer Science degree, which has a clearly defined and well promoted transfer path to a four year institution, students are now selecting the TAP degree instead because it gives them the option of transferring if they later change their mind.

There are three courses which are only required for this degree. Enrollment levels are insufficient to run these courses.

The community colleges offer a variety of terminal programming degrees. As the colleges work to consolidate programs, a new and more viable version of this degree may be developed, or the idea of a terminal programming degree may be abandoned altogether. Whether to eventually reinstate or terminate this degree will depend on the outcome of these discussions.

**Phase Out/Teach Out Strategy**

*Please describe how the institution will ensure that students currently enrolled will be provided opportunities to complete the program. Provide quantitative information as needed (e.g. enrollments, any special resources needed, etc.)* Department chair has met with students currently majoring in Internet Programming AS.. Chair will supervise independent study for the three courses which are required by this degree. For example, in Fall 2018, three students were supervised for independent study in CSC\*230.

No other resources are required to suspend this program.

**CSCU REVIEW STATUS** (For System Office Use Only - please leave blank)

Notes regarding Application:  
 Log of Steps Toward Approval:  
 Date of Approval:  
 Date for Inclusion in BOR-ASA Meeting Package:  
 Comments:

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Program Suspension

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the suspension of a program in Internet Programming Technology (CIP Code: 11.0201, OHE # 08173) leading to a Certificate at Manchester Community College, until Fall Semester 2022.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

Suspension of a program in Internet Programming Technology leading to a Certificate at Manchester Community College, until Fall Semester 2022

**BACKGROUND**Summary

This certificate is linked to a parent degree program and both are low completers. It is simultaneously proposed that the degree program is suspended. Between the two programs, there are not enough students to run the courses. The certificate is only viable if the associated terminal degree is viable.

Rationale

With the advent of the TAP Computer Science degree, which has a clearly defined and well promoted transfer path to four-year institutions, students are now selecting the TAP degree instead because it gives them the option of transferring if they later change their mind.

As the community colleges work to consolidate programs, a new and more viable version of this degree may be developed, or the idea of a terminal programming degree may be abandoned altogether. Whether to eventually reinstate or terminate this degree will depend on the outcome of these discussions.

Phase-Out/Teach-Out Strategy

Department chair has met with students currently pursuing the Internet Programming degree or certificate. Chair will supervise independent study for the three courses that are required for these programs. For example, in Fall 2018, three students were supervised for independent study in CSC\*230.

Resources

No resources are required for the suspension of this program.

**RECOMMENDATION**

It is the recommendation of the System's Provost and Senior Vice President for Academic and Students Affairs that the Board of Regents approve suspension of this program.

**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities System Office**  
**APPLICATION FOR SUSPENSION OF EXISTING PROGRAM**

**SECTION 1: GENERAL INFORMATION**

<b>Institution:</b> Manchester Community College		Date of Submission to CSCU Office of the Provost:	
Program: Internet Programming Technology Certificate		CIP: 11.0201	OHE#: 08173 Accreditation Date: 2018 Spring
Date Program will be reinstated or deleted (one, two, or three years maximum): Fall 2022			
<b>Program Characteristics</b>			
Name of Program: Internet Programming Technology			
Degree: Title of Award (e.g. Master of Arts) Certificate			
Certificate: (specify type and level)			
Modality of Program: X On ground    Online    Combined			
Institution's Unit (e.g. School of Business) and Location (e.g. main campus) offering the Program: STEM Div, ETCS Dept, Main			
<b>Institutional Contact for this Proposal:</b> Richard Gnall		Title: Professor / Chair	Tel.: 860-512-2643 e-mail: rgnall@manchestercc.edu

**SECTION 2: RATIONALE AND JUSTIFICATION FOR PROGRAM SUSPENSION**

**Narrative**

*Please provide reason for requested suspension and plans for follow-up including the sunset date as indicated above.*

Certificate is listed on the low completer list. Certificate is linked to the terminal Internet Programming Technology A.S. degree, which is also on the low completer list and is also being suspended/terminated.

The Internet Programming Technology certificate and degree share three courses which are only required for these two programs. Between the two programs, there are not enough students to run the courses.

The certificate is only viable if the associated terminal degree is viable. Students were originally selecting the terminal degree because they thought they only wanted a two year degree. With the advent of the TAP Computer Science degree, which has a clearly defined and well promoted transfer path to a four year institution, students are now selecting the TAP degree instead because it gives them the option of transferring if they later change their mind. With an expected drop in the number of students pursuing the terminal degree, the number of students enrolled in the three low-enrolled classes will continue to decline even further.

The community college system offers a variety of computer programming certificates and terminal degrees. As the colleges work to consolidate programs, a new and more viable version of this certificate may be developed, or the idea of a programming certificate may be abandoned altogether. Whether to eventually reinstate or terminate this certificate will depend on the outcome of these discussions.

**Phase Out/Teach Out Strategy**

*Please describe how the institution will ensure that students currently enrolled will be provided opportunities to complete the program. Provide quantitative information as needed (e.g. enrollments, any special resources needed, etc.)*

Department chair has met with students currently pursuing the Internet Programming Certificate/Degree. Chair will supervise independent study for the three courses which are required by this degree. For example, in Fall 2018, three students were supervised for independent study in CSC\*230.

No other resources are required to suspend this program.



**CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION**  
**Connecticut State Colleges & Universities System Office**  
***APPLICATION FOR SUSPENSION OF EXISTING PROGRAM***

**CSCU REVIEW STATUS** *(For System Office Use Only - please leave blank)*

Notes regarding Application:

Log of Steps Toward Approval:

Date of Approval:

Date for Inclusion in BOR-ASA Meeting Package:

Comments:

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Advanced Placement Credit and Placement Policy

March 28, 2019

WHEREAS, The Connecticut Association of Public School Superintendents (CAPSS) has formally requested that the Connecticut State Colleges and Universities System enact a policy that ensures that high school students uniformly receive credit for Advanced Placement (AP) Examination scores of 3, 4, and 5 at each of the system's institutions ~~establish~~; thus, saving them time and money in their pursuit of higher education, and

WHEREAS, CAPSS notes that Connecticut is among a minority of states that does not have a uniform AP credit policy establishing 3 as the credit-bearing score at public universities, and

WHEREAS, Research has demonstrated that The College Board's AP courses prepare high school students for success in postsecondary education and afford them opportunities to earn college credit, and

WHEREAS, Research has demonstrated that AP students who earn an examination score of 3 or higher generally perform as well or better in subsequent course work as compared to non-AP college students who completed the introductory course at a college or university; therefore, be it

RESOLVED: That the Board of Regents for Higher Education adopts an Advanced Placement Credit and Placement Policy, delineated in the attached Statement of Policy.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

Adoption of proposed Advanced Placement Credit and Placement Policy

**BACKGROUND**

The Advanced Placement program was designed to provide students a means to earn college credit and/or advance placement for learning college-level material in high school. The exam-based structure of AP is a mechanism wherein students engage in accelerated learning, demonstrate proficiency of the learning through a standardized examination, and bypass previously mastered material once in college.

AP qualifying scores have come to serve as indicators of college readiness and predictors of college success in the college admission criteria. AP participation is increasingly being used by selective colleges for screening highly motivated and able students in their admission process.

The Connecticut Association of Public School Superintendents (CAPSS) has respectfully requested that the CSCU System enact a policy ensuring that high school students uniformly receive course credits at all CSCU colleges and universities. CAPSS notes in its request that Connecticut students consistently rank among the leaders in AP participation rates and performance levels. In addition to saving student time and money, CAPSS postulates that such a policy would help keep AP students in the state.

The Connecticut School Counselor Association (CSCA) has respectfully seconded the request from CAPSS. CSCA adds that its membership of high school counselors across the state are encouraging students to challenge themselves with college-level coursework while in high school by taking advantage of dual enrollment and Advanced Placement classes.

The College Board and independent researchers have demonstrated that high AP scores are strongly associated with college access and degree attainment.

**RATIONALE**

Uniformity in the awarding of AP credits and placements is a desirable trait in communications for students matriculating at and moving across CSCU institutions. Moreover, the proposed policy requires CSCU institutions to present clear policies and procedures regarding AP credits and placements in communications regarding admission and transfer; thus, informing prospective students and their families of academic and cost-benefits

**RECOMMENDATION**

It is the recommendation of the System's Provost and Senior Vice President for Academic and Students Affairs that the Board of Regents adopts the proposed Advanced Placement Credit and Placement Policy, in partnership with CAPSS and CSCA.

03/15/2019 – BOR Academic & Student Affairs Committee

03/28/2019 – Board of Regents

# CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

## Advanced Placement Credit and Placement Policy

The purpose of this Policy is to establish uniformity among the Connecticut State Colleges and Universities (CSCU) regarding the awarding of course credits and course placements pursuant to student applicants' scores on Advanced Placement (AP) examinations. AP policies shall be evidenced-based and appropriate for the institution and its students.

A clear and consistent AP credit and placement policy:

- Ensures that prospective students and families know which institutions recognize AP achievement and award course equivalent college credit and advanced placement based on qualifying scores;
- Allows for the optimal application of qualifying AP scores for credit toward meeting general education requirements;
- Improves seamless course articulation and transfer, credit portability, and degree completion rates;
- Reduces the duplication and accumulation of excess credit hours, minimizing economic burdens for students and families, and improves enrollment efficiency for higher education systems.<sup>1</sup>

To align with state and national standards, the Connecticut Board of Regents for Higher Education mandates that all CSCU institutions shall grant academic credits to any student earning a score of 3 or higher on any AP examination. The institutions, in consultation with faculty in the discipline corresponding to the individual AP exams, shall determine how those credits are applied to the degree.

Students transferring from a CSCU community college to a CSCU university or Charter Oak State College or transferring between two-year colleges or between four-year institutions within CSCU with AP scores of 3 or higher shall be considered for the awarding of course credits and/or placement at any CSCU institution.

The CSCU institutions can award credits as the equivalent of a specific course, as fulfilling a general education category or as elective credits. Faculty, or the appropriate academic department, shall award the credit differently based upon the score earned on the exam. For example, a student earning a grade of 5 on a modern language exam may be awarded credit for an advanced level course; a student earning a 4 may earn credit for an intermediate level course and a student earning a 3 may earn credit for an elementary level language course or an elective. Specific determinations of how credits are awarded are entirely within the institution's purview. Following campus governance procedures, institutions should examine all AP courses and determine the appropriate course equivalencies for scores of 3 and above.

Accordingly, CSCU institutions are required to present clear policies and procedures regarding AP credits and placements on their websites and in admissions and transfer literature. These communications should be easily accessible by prospective students and interested others.

The Board recognizes that honoring AP courses that students take in high school and awarding college course credits through these examinations advances their preparedness for college success and impacts positively upon the affordability of attending college.

The Policy is adopted in partnership with the Connecticut Association of Public School Superintendents for its recognition that the CSCU System is enacting an AP Credit and Placement Policy that helps to “keep AP students in the state” and supports “their momentum for persistence and retention.”<sup>2</sup>

<sup>1</sup> <https://aphighered.collegeboard.org/setting-credit-placement-policy/state-credit-placement-policy>. AP Higher Education College Board (2017).

<sup>2</sup> Connecticut Association of Public School Superintendents Letter. December 7, 2018.

DRAFT



December 7, 2018

Jane McBride Gates, Ph.D.  
Provost and Senior Vice President for Academic and Student Affairs  
Connecticut State Colleges & Universities  
61 Woodland St.  
Hartford, CT 06105

Dear Dr. Gates:

The Connecticut Association of Public School Superintendents (CAPSS) respectfully requests the Connecticut State Colleges & Universities system to enact a policy that ensures that students receive uniform credit for AP Exam scores of 3, 4, and 5 at all 17 colleges and universities. Such a policy guarantees that students get credit for their hard work and allows them to save time and money in college.

Connecticut consistently ranks among the nation's leaders in Advanced Placement participation and performance. In 2017, 31% of the state's graduating class earned a score of 3 or higher on at least one AP Exam during high school—well above the national average and placing it third overall. This incredible accomplishment is shared by many students, families, and educators across the state. Yet, Connecticut is among a minority of states that does not have a uniform AP credit policy establishing 3 as the credit-bearing score at public universities.

The broad benefits of AP for students are well documented. Research shows that AP students are more likely to enroll in college, stay in college, do well in their classes, and graduate on time in four years. Students who earn a score of 3 or higher on AP Exams have higher overall first-year college GPAs than similar students who don't take AP Exams. Successful AP Exam performance often allows students to bypass introductory college courses and take additional coursework in their majors or disciplines, supporting their momentum for persistence and retention.

**Connecticut Association of Public School Superintendents**

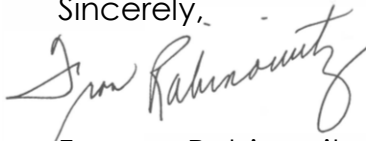
26 Caya Avenue, West Hartford, CT 06110 | Work: 860-236-8640 | Fax: 860-236-8628 | [www.capss.org](http://www.capss.org)

**ASAC 3-15-2019 Page 240 of 317**

A survey of tens of thousands of students who took AP exams revealed that 74% of them said they “definitely considered” colleges’ AP credit policies when making enrollment decisions. Nearly half said they’d be less likely to even apply to a college that didn’t accept AP credit. Almost 60% said that AP credit was important for helping them manage college costs. The Connecticut State Colleges & Universities system would only benefit by enacting a policy that helps keep its AP students in the state by guaranteeing them the credit that they are expecting.

As education partners in Connecticut, we hope you will join us in supporting a common statewide AP credit policy that we can be as proud of as we are of our students. Thank you for your consideration and support.

Sincerely,

A handwritten signature in black ink, appearing to read "Frances Rabinowitz". The signature is fluid and cursive, with a large initial "F" and "R".

Frances Rabinowitz  
Executive Director

c: Mark E. Ojakian, President, Connecticut State Colleges & Universities



February 1, 2019

Jane McBride Gates, Ph.D.  
Provost and Senior Vice President for Academic and Student Affairs  
Connecticut State Colleges and Universities  
61 Woodland Street  
Hartford, CT 06105

Dear Dr. Gates:

The Connecticut School Counselor Association (CSCA) respectfully requests the Connecticut State Colleges and Universities System to enact a policy that ensures that students receive uniform credit for AP Exam Scores of 3, 4, or 5 at all 17 colleges and universities. CSCA is the professional organization in the state that promotes leadership and creates a professional school counseling identity. As school counselors, we want to ensure that all students K-12 have equitable access to a comprehensive school counseling program that will assist them with their academic achievement, college and career readiness, and social emotional development. We value the relationships we have created with the Connecticut State Colleges and Universities System to help us help our students reach their goals.

As you aware, currently there is not a uniform policy for accepting AP credits among the different community colleges and state universities in Connecticut. High schools across the state are encouraging students to challenge themselves with college-level coursework while in high school by taking advantage of dual-enrollment and Advanced Placement classes. School counselors are working hard to make sure that all students, regardless of their ability to pay for a college-level course, are given an equal chance to take advantage of these opportunities. The state and College Board have supported low income families in gaining access to these courses by assisting with payment for the AP exam (and also provides funds for dual enrollment, when applicable).

A next step that would help all students in Connecticut who have taken AP classes in high school and who plan on continuing their post-secondary education, would be to ensure that the college-level work that they completed in high school could be reflected on their college transcript so that more students could take advantage of higher level courses earlier at the college or university they attend. One vehicle to achieving this goal would be to create a uniform policy that all schools in the Connecticut State Colleges and Universities System will accept an AP exam score of 3, 4, or 5. We recognize that for some majors or programs, the score may need to be higher than a 3 and encourage the Connecticut State Colleges and Universities to consider a universal policy for those programs, as well. To date, 25 states have enacted a uniform policy similar to this. Part of the rationale includes that a score of a 3, 4, or 5 is equivalent to a college course letter grade of a C, B, or A, respectively, which would be accepted as a transfer grade from another institution, dual-enrollment course, and/or community college.

As school counselors, we are passionate about providing equitable opportunities for all students so that they can reach their academic, career, and personal goals without facing barriers out of their control along the way. We hope that you will consider a common statewide AP credit policy to further assist our students in reaching their goals. Thank you for your time and support of students in Connecticut.

Sincerely,

  
Michelle Catucci  
Executive Director

C: Mark E. Ojakian, President, Connecticut State Colleges and Universities



**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Approval of Nominations for Honorary Degrees

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education approve the nominees for an honorary degree, as presented below, according to the guidelines in the Board policies presently in effect granting honorary degrees to honor a person for unusual and exemplary accomplishments and to advance the work and reputation of the Connecticut State Colleges and Universities

**Honorary Degree Nominations for 2019 Commencements**

<b><u>Institution</u></b>	<b><u>Nominee</u></b>	<b><u>Commencement</u></b>
Capital Community College	<b>Tracy L. Rich</b>	May 23, 2019
Central Connecticut State University	<b>Scott Pioli</b>	May 18, 2019
Charter Oak State College	<b>Yvette Meléndez Peter Reinhart</b>	June 2, 2019
Eastern Connecticut State University	<b>Marilyn “Lynn” Malerba</b>	May 21, 2019
Gateway Community College	<b>William W. Ginsberg</b>	May 23, 2019
Manchester Community College	<b>Hans Weiss</b>	May 29, 2019
Naugatuck Valley Community College	<b>Aguibou Bougobali Sanou</b>	May 23, 2019
Norwalk Community College	<b>Tracy K. Smith</b>	May 21, 2019
Three Rivers Community College	<b>William Stanley</b>	May 22, 2019
Tunxis Community College	<b>Peter Spano</b>	May 30, 2019
Southern Connecticut State University	<b>Timothy P. Shriver</b>	May 24, 2019

A True Copy:

\_\_\_\_\_  
Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

Approval of Nominations for Honorary Degrees

**BACKGROUND**

Granting of Honorary Degrees will be conferred at commencements. Identification of recipients is under the supervision of the presidents, with the approval of the Academic and Student Affairs Committee and the Board of Regents.

The university or college shall forward the name of a potential recipient with an explanation as to why the individual merits the honor, including a thorough discussion of the potential recipient's background and an assessment of the benefits and any possible concerns.

**RATIONALE**

The granting of honorary degrees to individuals who have made a significant contribution to society or to a university or college is a common practice in higher education. In the Connecticut State Colleges and Universities, the purpose of granting honorary degrees is to honor a person and to advance the work and reputation of the institution.

**RECOMMENDATION**

The nominations and accompanying documents for conferral of an honorary degree from the CSCU institutions are attached.

03/15/2019 – BOR Academic & Student Affairs Committee

03/38/2019 – Board of Regents

## **Capital Community College Honorary Degree Nomination**

Capital Community College requests conferring a Doctor of Laws degree to recognize Tracy Leon. Rich, Counsel of The Guardian Life Insurance Company of America, at its 2019 Commencement Exercises.

This honor is proposed in recognition of Mr. Rich's distinguished career in law in both the public and private sectors and for his leadership in corporate social responsibility to advance financial literacy at Connecticut community colleges and other higher educational institutions.

Mr. Rich has been Counsel of The Guardian Life Insurance since December 2017. He served as Executive Vice President, General Counsel and Secretary at the New York-based company from 2009 to 2017. In these capacities at Guardian Life, Mr. Rich has been instrumental in introducing strategic philanthropy toward personal finance education at 10 community colleges beginning at Capital Community College in 2013. Over six years Guardian's Money Management for Life program has created alliances with community colleges across the country to offer a free, for-credit personal finance course. These courses help educate students, imparting the essential skills needed to manage their own finances and plan for their educational and financial futures. Guardian's employees regularly contribute to the classes. Students enrolled in the courses are also provided with additional opportunities for personal and career growth through internships with Guardian. Since the start of this program, nearly 600 students have successfully completed the course, with almost 30 students earning paid summer internships with the company. In 2017 Guardian with Mr. Rich's leadership became a charter sponsor of Capital's FIRST Center (Financial Independence to Reach Success and Transformation) where personal finance counseling and free workshops are available to all students on campus as they meet the costs of college and seek career-track employment.

Mr. Rich served as an Executive Vice President and General Counsel of Phoenix Companies Inc. from 2002 to 2009. During his professional career he served as counsel and in leadership roles at Sentinel American Life Insurance Company, Phoenix Life Insurance Company (Formerly Known as Phoenix Home Life Mutual Insurance Co.), Massachusetts Mutual Life Insurance Company and Connecticut Mutual Life Insurance Company and Massachusetts Mutual Life Insurance Company.

Mr. Rich started his career as a trial attorney at the Office of the Chief Counsel with the Internal Revenue Service and then served as an associate with the law office of Robinson and Cole.

His legal career spans more than 30 years and includes work in both the public and private sectors. He serves as a Director of Metro Hartford Alliance. He is a member of the American Bar Association and the Tax Club of Hartford. He is admitted to practice in New York, Connecticut and Massachusetts. Mr. Rich holds a Bachelor of Arts Degree in Political Science from Union College, a J.D. in Law from New York University School of Law and an L.L.M. in Taxation from Boston University School of Law.



February 22, 2019

Mr. Mark Ojakian, President  
Connecticut State Colleges and Universities  
61 Woodland Street  
Hartford, CT 06105

Dear President Ojakian:

Central Connecticut State University (CCSU) seeks approval from the Board of Regents to award an Honorary Doctoral Degree of Humane Letters to Mr. Scott Pioli, in recognition of his significant professional accomplishments and steadfast support of the Carol A. Ammon College of Liberal Arts and Social Sciences, the University, and our students.

Mr. Pioli, a Communication major, is a proud graduate of the CCSU Class of 1988. I have attached a more detailed biography of Mr. Pioli for your review. The faculty of the Department of Communication, the Dean of the Carol A. Ammon College of Liberal Arts and Social Sciences, the Provost, and I unanimously support the proposal to award Mr. Pioli an Honorary Doctoral Degree of Humane Letters. Thank you for considering this proposal, which we hope you will support as well.

Sincerely,

A handwritten signature in blue ink, appearing to read "Zulma R. Toro".

Zulma R. Toro  
President

**MEMORANDUM**

**TO:** Dr. Zulma Toro, President

**FROM:** David P. Dauwalder, Provost & Vice President for Academic Affairs and  
Chair (ex officio), Distinguished Service Award Committee

**DATE:** February 20, 2019

**SUBJECT:** Honorary Doctorate Recommendation

A handwritten signature in blue ink that reads "D.P. Dauwalder".

I am pleased to endorse the recommendation of the Distinguished Service Award Committee to award an Honorary Doctorate of Humane Letters to Mr. Scott Pioli. A copy of the nomination letter from Dean Robert S. Wolff, which also indicates the support of the Department of Communication, is attached.

I submit this recommendation for your consideration.

## Attachment

c: J. Farhat, DSA Committee Member  
G. Fitzgerald, DSA Committee Member  
K. Hammad, DSA Committee Member  
J. Paige, DSA Committee Member  
L. Washko, DSA Committee Member  
R. Wolff, Dean  
File



**TO:** Dr. David Dauwalder, Provost and Vice President for Academic Affairs

**FROM:** Dr. Robert S. Wolff, Dean of the Carol A. Ammon College of Liberal Arts & Sciences *R. Wolff*

**SUBJECT:** Recommendation to award Mr. Scott Pioli an honorary Doctor of Humane Letters

**DATE:** February 13, 2019

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On behalf of the Department of Communication and the Carol A. Ammon College of Liberal Arts & Social Sciences, it is my great pleasure to nominate Mr. Scott Pioli for the honorary degree, Doctor of Humane Letters. Mr. Pioli, a member of the Class of 1988, has a long and distinguished professional career in the National Football League, as well as an impressive record of philanthropic efforts that includes generous support of his alma mater. His significant professional accomplishments, consistent support for CCSU, and passion for supporting equal access to higher education make him an ideal candidate for the Doctor of Humane Letters.

At CCSU, Pioli majored in Communication while playing defensive tackle for Blue Devils football, receiving recognition three times as an All-New England selection. He continued his education at Syracuse University, earning a master's degree in television and film from the S.I. Newhouse School of Public Communications.

After coaching at Murray State University in Kentucky, Pioli took a job as a scouting assistant for the Cleveland Browns, beginning his 26-year career in the NFL. In that time, he has worked for the Browns, Baltimore Ravens, New York Jets, New England Patriots, Kansas City Chiefs, and now the Atlanta Falcons, where he currently serves as the assistant general manager.

His successes have been many, although most Connecticut residents will remember him best for his work with New England Patriots head coach Bill Belichick and their three Super Bowl victories in four years (2002, 2004, and 2005).

During five different seasons of his career, he has been named an NFL Executive of the Year. His acumen played a central role in leading the Falcons to the Super Bowl in 2016.



In addition to his professional triumphs, Pioli has supported numerous non-profit organizations that focus on his interest in education, equality, and the arts. He serves on the board of College For Every Student (CFES), which partners with colleges, school districts, and businesses to help underserved students better understand the pathways from high school to college to career.

He has supported an array of organizations including but not limited to the Black College Football Hall of Fame, Women's Sports Foundation, Ross Initiative in Sports for Equality (RISE), Women's Intersport Network for Kansas City (WIN for KC), and the Kansas City Repertory Theatre. In 2016, Pioli established the Scott Pioli Football Enrichment Fund at CCSU, having earlier established an academic scholarship for first-generation college students here via his partnership with CFES. He then credited CCSU for serving as the foundation for his career and as an inspiration to do good works:

*I am thankful for the role that Central Connecticut State University and the Blue Devil football program played in my life as a student-athlete and throughout my professional career in the NFL. I can never fully give back what the university, friends, coaches, teammates, and the faculty and staff gave me during my time at Central. The community at CCSU allowed me to grow my passion for education, athletics, the arts, and diversity. I am a firm believer in the biblical principal: 'To whom much is given, much is required' and my work at CCSU is not done.*

The Department of Communication and the Carol A. Ammon College of Liberal Arts & Sciences are proud to recognize Mr. Scott Pioli as an outstanding member of the Blue Devil family.

## Nomination of Scott Pioli, Assistant General Manager, Atlanta Falcons

Central Connecticut State University's Department of Communication faculty and the Dean of the Carol A. Ammon College of Liberal Arts and Social Sciences nominate Scott Pioli to be the recipient of an Honorary Doctoral Degree in Humane Letters. Mr. Pioli is a proud graduate of the CCSU Class of 1988 with a long and distinguished career as a National Football League executive and advocate for education, equality, and the arts.

Entering his 26th season in the NFL and his fifth as the Atlanta Falcons assistant general manager, Mr. Pioli oversees the day-to-day operation of the scouting department and collaborates with Falcon leadership on formulating the draft board and planning of free agency acquisitions. Since joining the Falcons, Mr. Pioli has worked diligently to retool the roster and specific scouting processes leading to back-to-back playoff appearances and the clubs' second Super Bowl appearance in 2016.

As General Manager of the Kansas City Chiefs for four years, Mr. Pioli was the architect of one of the greatest turnarounds in the team's history, winning the AFC West. It was Kansas City's first division title and home playoff appearance since 2003.

Mr. Pioli joined the Chiefs after serving as the Vice President of Player Personnel with the New England Patriots for nine seasons. During his time with New England, the Patriots became widely recognized as one of the NFL's model franchises. Working in close concert with Head Coach Bill Belichick, the duo rapidly developed the Patriots into a consistent championship contender. Mr. Pioli and Coach Belichick became the first personnel director/head coach tandem in league annals to win three Super Bowls (XXXVI, XXXVIII, and XXXIX) during a four-year span (2001-04), in addition to four AFC championships and six AFC East titles.

Following the 2003 and 2004 seasons with the Patriots, Mr. Pioli was named the George Young NFL Executive of the Year by Sporting News, an award voted on by other NFL executives. The youngest individual ever to win that accolade. During the two decades, Sports Illustrated named Mr. Pioli the number one GM/Pro Sports Executive; Sporting News named him the NFL Executive of the Decade; and ESPN named him the NFL Personnel Man of the Decade.

These are impressive accomplishments for a former defensive tackle at Central Connecticut State (1983-87) where he was a three-time All-New England selection. He graduated with a degree in Communications from CCSU and went on to earn a master's degree from Syracuse University's Newhouse School of Public Communications.

After college, he spent two years as a football coach at Murray State and then joined the Cleveland Browns in 1992 as a scouting assistant.

Mr. Pioli's leadership extends beyond the gridiron with involvement in a number of philanthropic and community initiatives.



He serves on the Board of Directors for College for Every Student (CFES), a nonprofit organization committed to raising the academic aspirations and performance of underserved youth, most of whom will be first in their family to pursue higher education. He was instrumental in bringing CFES to Atlanta Public Schools, and its program is thriving.

He also serves on the boards for the Black College Football Hall of Fame, Ross Initiative in Sports for Equality (RISE), and Women's Intersport Network for Kansas City (WIN for KC). The WIN for KC Pioli Family Scholarship/Intern Grant is still awarded annually to two women in Kansas City.

During his time in Kansas City, Mr. Pioli served on the Kansas City Repertory Theater Board of Directors. He and his wife were annual supporters of a number of local non-profits, including the Kansas City Symphony, the Nelson-Atkins Museum, the Charlotte Street Foundation, Operation Breakthrough, and the Negro League Baseball Museum.

Mr. Pioli has founded a number of academic scholarships geared toward first-generation college students. He established two endowed scholarship funds at CCSU: one for CFES scholars who attend his alma mater and another for the football program.

He and his family created an endowed fund with Billie Jean King's Women's Sports Foundation (WSF) for women who aspire to be football coaches or scouts. They also sponsor an annual HBCU Scholarship for members of Women Leaders in College Sports.

Since arriving in Atlanta, Mr. Pioli has been actively involved with the Atlanta Mission and continues to support the arts and education by serving as a member of the Alliance Theatre Board of Directors.

Inducted into the National Italian American Sports Hall of Fame in 2014, Mr. Pioli also has been honored as a member of the Blue Devil family for his continued commitment to CCSU with the Young Alumni Award (1997) and Kaiser Alumni Service Award (2015). In 2005, he was inducted into the CCSU Alumni Association Athletic Hall of Fame.

His unwavering support for CCSU and his distinguished record as an NFL executive are impressive, but his commitment to community, no matter where his career takes him, is inspiring. His contributions provide education opportunities to underserved populations, support equity and inclusion initiatives, and provide public access to the arts. Therefore, we believe that Mr. Pioli deserves this recognition for his exemplary accomplishments as an executive, philanthropist, and devoted Blue Devil.

President Mark E. Ojakian  
Connecticut State Colleges and Universities  
61 Woodland Street  
Hartford, CT 06105

Dear President Ojakian:

It is a pleasure to submit for your approval and that of the Board of Regents the nomination of Yvette Melendez as a recipient of the Honorary Doctorate of Humane Letters from Charter Oak State College. We honor Yvette Meléndez for her over 30 years of senior level experience leading large government agencies, educational institutions and nonprofit organizations. In particular, we honor Yvette for her service as a Founding member and Vice Chair of the Board of Regents for the CSCU system.

Meléndez' experience includes a diverse background in executive leadership, administration and public policy, as well as extensive leadership involvement in the nonprofit and philanthropic sectors. She is the former Vice President of Government and Community Alliances for Hartford HealthCare. She has served as Chief of Staff and Chief Administrative Officer for the Connecticut State University System, and as Commissioner and Deputy Commissioner of the CT State Department of Public Health. She serves as a lead voice in the role of philanthropy in addressing the social fabric of communities and is former Chair and Interim Executive Director of the Hartford Foundation for Public Giving, one of the country's largest community foundations, the Hartford Foundation for Public Giving, with net assets of over \$1 billion.

She currently serves in leadership roles as a trustee in philanthropy, higher education, public broadcasting, and the arts. In her varied professional and volunteer roles, she has worked with corporate CEOs, government officials, community activists, nonprofit leaders, and educators. Yvette also served on various local, national and international boards, including the USA and the World YWCA in Geneva, Switzerland, and the Connecticut Council for Philanthropy. She has been appointed to several task forces and commissions by Governors, including the Commission on Educational Achievement.

She is the recipient of numerous awards and recognition for her leadership and contributions to the State of Connecticut and the Hartford Region.

As her personal history so richly illustrates (see <https://www.linkedin.com/in/yvette-melendez-3a071812/>), Yvette has emphasized service to the citizens of Connecticut in both her work history and her volunteer activities. She assumed leadership roles in the Connecticut State University System, The Hartford Foundation for Public Giving, Hartford HealthCare, and our own Board of Regents. Her history of citizen leadership is precisely the sort of excellence that Charter Oak aspires to for all its students.

Thank you for consideration of this request. I understand that his nomination is confidential until such time as approval is received from the Board of Regents.

Thank you for consideration of this request. I understand that this nomination is confidential until such time as approval is received from the Board of Regents.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Ed Klonoski". The signature is written in a cursive, flowing style.

Ed Klonoski, President  
Charter Oak State College

## **Staff Report: Approval of Candidate for Honorary Doctoral Degree Charter Oak State College**

### Background Information

The Selection Committee for this year's Honorary Doctorate committee was the Charter Oak Executive team.

The Committee decided to offer our honorary doctorate to **Peter Reinhart**. Peter is a Charter Oak alum whose journey illustrates the core reasons why Charter Oak was created. His education was not an experience preliminary to his career; instead, it was an integral part of both discovering and creating that career. In Peter's words he, "discovered a path to graduation via a series of twelve CLEPP, Excelsior, and DANTES tests that allowed me to earn my degree in less than 2 years, graduating in 2005. It was actually a very stimulating process, re-entering the learning process but, this time, with a much clearer sense of purpose and many years of life experience."

Peter began his undergraduate work in film studies at Boston University in 1971 and finished it with Charter Oak in 2005. The intervening years were spent working, learning, and growing. The attached biography will give any reader a sense of both the eclectic interests that Peter investigated and how those interests lead him to Charter Oak. However, his formal education did not end with Charter Oak. It includes and MFA in Creative Writing (Non Fiction) from Queens University, Charlotte, NC conferred in 2008.

His achievements and awards include authoring 12 books on bread, pizza, food, culture, and religion (see attached biography for full list of titles). Along the way, he won the James Beard Award Book of the Year for 2002, as well as the (IACP Book of the year) for "*The Bread Baker's Apprentice*." The book also won the 2002 Gourmand International Cookbook Award for "Best Baking Book in the World."

Peter also won James Beard Awards for two other books, "*Crust & Crumb*" (1998) and "*Peter Reinhart's Whole Grain Breads*" (2007). Another book, "*Artisan Breads Everyday*" (2009) was a James Beard Award nominee.

Finally, Peter won the 1996 James Beard National Bread Competition for his Wild Yeast Country Bread. The award consisted of an all- expense paid trip to Paris to interview five world famous bakers. These interviews ultimately became the centerpiece of Peter's award winning, "*The Bread Baker's Apprentice*."

As is so often the case with creative individuals, Peter's accomplishments are extensive, but we would be remiss if we did not include his work as Chef Instructor at Johnson & Wales University, and Chef on Assignment for the Charlotte campus, and finally the Executive Director of the Johnson & Wales International Symposium on Bread (2017-present).

Peter's work, education, and personal philosophy mirror Charter Oak's commitment to non-traditional paths to a college degree and a focus on adult learners. His CV and Biography are attached.

The Charter Oak Honorary Doctorate Committee, after reviewing **Peter Reinhart's** accomplishments, leadership, and commitment to higher education, recommend that he receive the 2019 Doctor of Humane Letters honorary degree from Charter Oak State College at our June 2, 2019 graduation.

Action Recommended

That the Board of Regents approve the selection of Peter Reinhart for the 2019 Doctor of Humane Letters honorary degree from Charter Oak State College.

## **CV: Joseph Douglas (aka Peter) Reinhart**

### **Education:**

MFA, Creative Writing (Non Fiction): Queens University, Charlotte, NC.  
Conferred January, 2008

Bachelor of Science: Charter Oak State College, New Britain, CT  
Conferred May 31, 2005

Concentration: Individualized Studies (Communication/Literature/  
Psychology).

Diploma: Harriton High School, Rosemont, PA, June, 1968

### **Work History:**

1971-1974, Co-founder (cooperatively owned), Root One Café, Boston

1975-2001: Member of Christ the Saviour Brotherhood (Eastern  
Orthodox Christian; formerly the known as the Holy Order of  
MANS), including seminary studies; missionary work; associate  
editor, Epiphany Journal; and seminary cook

1975-'77: House parent (youth counselor, Haven House Group Home,  
Raleigh, NC, while on missionary assignment)

1986-1994: Founder and co-owner of Brother Juniper's Café and  
Brother Juniper's Bakery, Santa Rosa, CA

1995-1999: Chef Instructor, California Culinary Academy, SF, CA

1999- present, Chef Instructor, Johnson & Wales University, Providence,  
RI campus, (1999-2003); Chef on Assignment Charlotte campus  
(2003-present), Executive Director, Johnson & Wales  
International Symposium on Bread (2017-present)

### **Achievements and Awards:**

--Author of 12 books on bread, pizza, food, culture, and religion (see attached  
biography for full list of titles).

--Winner, James Beard Award Book of the Year, 2002, as well as the (IACP  
Book of the year) for "*The Bread Baker's Apprentice*." The book also won the 2002  
Gourmand International Cookbook Award for "Best Baking Book in the World."

--Also, won James Beard Awards for two other books, "*Crust & Crumb*" (1998)  
and "*Peter Reinhart's Whole Grain Breads*" (2007). Another book, "*Artisan Breads  
Everyday*" (2009) was a James Beard Award nominee.

--Winner, 1996 James Beard National Bread Competition for his Wild Yeast  
Country Bread. The award consisted of an all- expense paid trip to Paris to interview  
five world famous bakers. These interviews ultimately became the centerpiece of  
Peter's award winning, "*The Bread Baker's Apprentice*."

--Speaker and product developer and consultant for many companies, including Amy's Kitchen, Quaker Oats, Frito Lay, The Center for Culinary Development, Panera, Pepperidge Farms, and others (See also, attached biography).

--TED Talk, 2008 (posted by TED in 2009), on "The Art and Craft of Bread"  
[https://www.ted.com/speakers/peter\\_reinhart](https://www.ted.com/speakers/peter_reinhart)

--Founding partner and host of Pizza Quest.com (2012), a video website that chronicles my never-ending search for the perfect pizza.

Recently also launched as a 7-part series on the BluPrint Network (owned by NBC) in 2018 at: <https://www.mybluprint.com/p/forno-bravo>

--Also, see Creative Mornings talk, June 2018:  
<https://creativemornings.com/talks/peter-reinhart>

--Executive Director, "*On the Rise: The Johnson & Wales University International Symposium on Bread*" (launched 2017, now entering its third year).

### **Final Comments:**

My life's journey has followed the clichéd long and winding road. When I dropped out of film school during my junior year at Boston University in 1971 it was because I realized I wasn't yet ready to declare a purpose in life and felt I needed to deepen my personal self-discovery before embarking on a career path. This led me through adventures in communal living, where we opened Boston's first vegetarian, organic restaurant (Root One Café), explorations in eastern religion and various forms of yoga and meditation practices, and then discovering a religious home in Christianity (a challenging conversion for a Jewish boy, but nevertheless supported by my family). For over twenty years I was known as Brother Peter (Peter being my baptized name, which I have now used professionally for over 40 years). As a member of an independent Christian brother/sisterhood, The Holy Order of MANS, I participated in the transition of this service oriented, non-denominational community into Eastern Orthodoxy, changing our name to Christ the Saviour Brotherhood in 1987. During my time in the Order I met my wife, Susan, and together, in 1986, we opened a ministry-based restaurant, Brother Juniper's Café and Bakery, in Forestville, California (near Santa Rosa), which paved the way for my first book ("*Brother Juniper's Bread Book: Slow Rise as Method and Metaphor*," 1991) and into my next stage as a bread expert. In 1994 Susan and I decided to re-enter the world as laicized Christians when we sold our bakery café, and I became a teacher of bread in San Francisco for 5 years, continuing to write books exploring bread both as a craft and also as a metaphor meaningfulness and transformation. I realized that my "ministry" and pulpit was going to be through food, also through teaching and writing.

In 1999 I was offered a teaching position at Johnson & Wales University in Providence, RI. Susan and I decided to move back to the east coast in order to be closer to our families (Susan is also, like me, from Philadelphia, though we met in California). When I arrived at Johnson & Wales in 1999 I was advised to complete my college education, and to consider pursuing a terminal degree as well, so that I could eventually teach in the academic colleges of the University.



My friend, Albert Schmid, who was then teaching at Sullivan College in Louisville, told me about Charter Oak State College, where he completed his bachelors degree, being likewise advised to further and advance his education. I contacted Charter Oak and received excellent advisory guidance from Shannon Anderson, Josi Zendzian, Lori Pendleton, Linda Larkin, Shirley Adams, and others. We discovered a path to graduation via a series of twelve CLEPP, Excelsior, and DANTES tests that allowed me to earn my degree in less than 2 years, graduating in 2005. It was actually a very stimulating process, re-entering the learning process but, this time, with a much clearer sense of purpose and many years of life experience. I had kept myself in the learning mode over the years through avid self study utilizing the course tapes from The Teaching Company (aka *The Great Courses*), reading, and, of course, during my seminary studies, and this all came together in prepping for the various tests. I felt the excitement about learning that I wish I'd had during my early college days, because now I had a "why." This carried over to my subsequent two years in the MFA Creative Writing program at Queens University, here in Charlotte, NC, where we now live (Johnson & Wales - aka JWU -- opened a branch campus here in Charlotte in 2004, and I was the first faculty member to request and be granted transfer. Here, I received the title *Chef on Assignment*, which was an in-house term created to designate me as not only a faculty member but also as the good-will ambassador for the University. We are now entering out 15<sup>th</sup> year here in North Carolina after serving 4 years in Providence and, in addition to my bread courses, I also teach an academic course on Food Media, and have taught, at a times, a sociology course on Food & Culture.

Five years ago, I was able to convince JWU to allow me to create an International Symposium on Bread, which took me three years to fund and launch. We have now hosted it for the past two years to great acclaim (we are archiving all the presentations on our Symposium YouTube channel; you can see a 2 minute highlight reel at: <https://www.youtube.com/watch?v=8QbD7G8E2eI&t=8s> )

As the Executive Director of the Symposium, I not only oversee the selection process for speakers and develop the program, but also have reached out to bring in over \$80,000 of sponsorship funds to allow it to happen. We are currently in process for the 2019 Symposium, scheduled for June 12-14, 2019. The 2020 Symposium is also fully funded. I view the Symposium as my legacy project, and am beginning to groom a successor for when I retire, most probably after the 2020 Symposium.

In the meantime, my sideline project, *Pizza Quest*, has picked up a large following and came to the attention of NBC/Universal, who recently created the BluPrint Network, acquiring video content we created over the past five years for our own website, [www.pizzaquest.com](http://www.pizzaquest.com), and turning it into a re-edited seven episode first season on their new network (see link above). In this series, I use "the perfect pizza" as a guiding metaphor, much as I have with bread, as a window into a deeper, more important quest for a meaningful life. As I often say, the plot of my books and films is bread and pizza, but the themes are connectedness and meaning (note: in my book, "Bread Upon the Waters" I made the point that the word "religion" comes from the Latin root, *religio*, which means "to be connected to." This insight

summarized for me the whole point of my spiritual journey, being connected to something greater than oneself, and thus the whole point of religion of any type and, also, the key to a fulfilled, successful life).

So, yes, it has been a long and winding road and it did eventually lead to your door. When I dropped out of college and decided to seek a life in a religious community, my dad asked me, "But what about your goal to be a film maker and a writer?" I told him I might never get back to it – or I might – but first I needed to know what I wanted to write and make films about, and be able to answer the question: what do I have to say? And here I am, 12 books later and 45 years later embarked upon a TV/film career. That's what can happen when you follow the breadcrumb trail, wherever it leads.

**Note:** For additional biographical material and background, see the following biography, as well as the "defense" paper (attached as a separate file) that I wrote in 2005 to justify my specialized degree in communications/literature/and psychology.

## **BIOGRAPHY**

### **Joseph (Peter) Reinhart**

**Peter Reinhart is the founder of the award winning *Brother Juniper's Bakery* in Santa Rosa, California, where he developed all of the bread formulas and also oversaw the production layout and design, and all equipment purchases. He is the author of 12 books on baking, food, and culture. For the past fourteen years he has been the full-time *Chef on Assignment* at Johnson and Wales University in Charlotte, North Carolina, having earlier taught at the University's Providence campus for four years. For the five years prior to teaching at Johnson and Wales, Peter was a full time instructor at the California Culinary Academy in San Francisco. During these years he continued to provide consultation services for numerous companies through his privately owned company, Reinhart Culinary Development, LLC.**

**In January 1996, Peter won the James Beard Foundation's National Bread Competition for his "Wild Yeast Country Bread," later featured in his book, *Crust and Crumb*. He was also the bread chapter author and editor for the revised *Joy of Cooking*, released in the fall of 1997.**

**For two years, (2009-2010) he was the creative consultant at *Pie Town*, Charlotte's first artisan pizzeria, where he introduced a 100% whole grain crust as**

well as a number of innovative toppings and products. He then provided the same service for a new “farm to fork” pizzeria in Charlotte, called *Pure Pizza*, which has won the award for best pizza in Charlotte the past three years.

Some of the places he has taught his educational seminars include Draeger's Cooking School in Menlo Park, The Southern Season Cooking School (Chapel Hill and other locations), Napa Valley Community College in St. Helena, The Ahwahnee Chef's Series in Yosemite, The Book and The Cook in Philadelphia, Santa Rosa Junior College, Sur la Table (nationwide), Ramekins Culinary Center (Sonoma), The Central Market Cooking Schools (all 8 locations throughout Texas), and The Peter Kump Cooking School in NYC (now known as The Institute for Culinary Education, aka I. C. E.), and many others.

During the past 20 years, serving as a product consultant, Peter has developed a line of frozen gourmet pizzas, calzones, toaster snacks, bagels, as well as gluten-free products for *Amy's Kitchen*, the nation's largest producer of organic, vegetarian frozen entree's. The pizzas were the overwhelming hit at the Natural Foods Product Show in Baltimore, MD, and first entered the marketplace in December, 1996. Calzone (“pizza pockets”) and bagel production began in the spring of 1997. He also developed a line of new pizza concepts for Amy's, including a gluten-free pizza as well as a popular corn meal pizza crust.

Since 1996 he has served on the Chefs Council of *The Center for Culinary Development (CCD)*, a culinary think tank located in San Francisco, as well as a consulting product developer for *The California Culinary Development Group (CCDG)*, in Tiburon, CA.

Peter has addressed and consulted with a number of other companies, including Whole Foods Market, Panera, Great Harvest Bread Company, Marks & Spencer, Tesco, Kellogg's, Kraft Foods, Starbucks, Frito Lay, Hy-Vee Grocery Company, and Pepperidge Farm.

*“The Bread Baker's Apprentice 15<sup>th</sup> Anniversary Edition”* (Ten Speed Press, 2016) was released two years ago. He has just completed writing the book, *“Perfect Pan Pizzas,”* which will be published in May 2019. He is also the author of, *“Bread Revolution: World-Class Baking with Sprouted & Whole Grains, Heirloom Flours & Fresh Techniques”* (Ten Speed Press, 2014), and *“The Joy of Gluten-Free, Sugar-Free Baking”* (Ten Speed Press, August, 2012). Prior to that he released, *“Peter Reinhart's Artisan Breads Everyday”* (Ten Speed Press, Oct. 2009), which was nominated for a James Beard Award. Other books include: *Peter Reinhart's Whole Grain Breads: New Techniques, Extraordinary Flavor*, which won the James Beard Award, in June, 2008, his record third James Beard Book Award; *American Pie: My Search for the Perfect Pizza*. The original *“Bread Baker's Apprentice”* was the 2002 winner of both the James Beard and IACP Cook Book of the Year awards, as well

as winning the *International Gourmand Award* for Best Baking Book in the World; *Bread Upon The Waters: A Pilgrimage Toward Self Discovery and Spiritual Truth*; *Crust and Crumb: Master Formulas For Serious Bread Bakers* (his first James Beard Award winner); *Sacramental Magic In a Small Town Cafe: Recipes and Stories From Brother Juniper's Cafe*; and *Brother Juniper's Bread Book: Slow Rise As Method and Metaphor*.

He has been regularly interviewed on national television and radio, including CNN, *All Things Considered* on National Public Radio, *Here and Now* and *The Connection* on WBUR (NPR), *Charlotte Talks* (WFAE, NPR, Charlotte), *The Martha Stewart Radio Network*, and was a frequent guest on *The Mike and Maty Show* (ABC). In addition, Peter was one of the featured chef instructors on the PBS series *Global Cuisine from the California Culinary Academy* and *Master Class from Johnson & Wales* (began airing in April, 2002). He was also a guest chef on *The Mollie Katzen Cooking* series, also on PBS, and was featured on *Follow That Pizza* with Gordon Elliott on The Food Network. He has been interviewed and profiled in *Pastry Arts Magazine*, and *Spirit*, the in-flight magazine of Southwest Airlines. He was the regular food commentator on *One Union Station*, on National Public Radio's WRNI, as well as a guest commentator for the op-ed page of the *Providence Journal*. For the past ten years he has served as a recurring monthly guest on *Charlotte Talks*, a daily talk show on the local NPR station, replayed throughout North Carolina. Since Dec. 2010, Peter has been the host and owner of a new video website, [www.pizzaquest.com](http://www.pizzaquest.com), where he shares videos, blog entries, and recipes from his never ending search for the perfect pizza, in which he also explores pizza as a metaphor for the universal search for meaning and self-discovery.

Peter speaks often to both culinary and business groups on the topic of bread (and food in general) as a metaphor for personal transformation and self-discovery, and on the growing artisan bread and pizza renaissance. His writings have appeared, among other places, in the *Santa Rosa Press Democrat*, *The Providence Journal*, *Epiphany Journal*, *Charlotte Viewpoint*, *Appellation*, *Tastes and Trends*, *Fine Cooking*, *Bon Appetite*, *Fine Cooking*, and *The Whole Earth Review*. He has also written the preface for a number of other author's books, and is the assignments editor for the upcoming *Modernist Bread* (5-volume, 2,000 page bread encyclopedia, published by *Modernist Cuisine*, scheduled for publication in the Fall of 2017).

Peter is a founding Board member of *Raphael House*, San Francisco's first family shelter. He also served for four years on the Board of Directors for the IACP (International Assoc. of Culinary Professionals) and served for many years on the Advisory Board of the Bread Bakers Guild of America. In November 2003, Peter and his wife, Susan moved to Charlotte, NC to be part of the new Johnson & Wales campus, which opened in September, 2004. Since then, he has become a board member of the non-profit Charlotte Community Culinary School (beginning in January, 2008) and also the Seventh Street Public Market. His TED Talk on the "The Art and Craft of Bread," has been watched by over 900,000 viewers:

[http://www.ted.com/talks/peter\\_reinhart\\_on\\_bread](http://www.ted.com/talks/peter_reinhart_on_bread)

**You can also read about him on Wikipedia at:**  
[https://en.wikipedia.org/wiki/Peter\\_Reinhart](https://en.wikipedia.org/wiki/Peter_Reinhart)

**For Consultation References see:**

**Andy Berliner, owner, Amy's Kitchen, [andyberliner@amyskitchen.net](mailto:andyberliner@amyskitchen.net) (707) 762-5915. Where I serve on a consulting basis as a product developer and also equipment advisor.**

**Marc Halperin, Center for Culinary Development (CCD), [mhalperin@ccdinnovation.com](mailto:mhalperin@ccdinnovation.com) (415) 693-8900 (for product prototype development)**

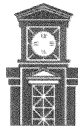
Dennis Schwakopt, California Culinary Development Group (CCDG), [denniss@chefsmenu.com](mailto:denniss@chefsmenu.com) (for product development and advisory, for Tesco and other UK companies).

**For Character and Professionalism references see:**

--Arthur Gallagher, President (retired), Johnson & Wales University, Charlotte, North Carolina. [Artgallagher07@gmail.com](mailto:Artgallagher07@gmail.com) (704) 519-8361

--Tarun Malik, President (current), Johnson & Wales University, Charlotte, NC [tarun.malik@jwu.edu](mailto:tarun.malik@jwu.edu) <mailto:robert.mock@jwu.edu> (980) 598-1012

--Mark Allison, Executive Chef, Dole Foods, (and retired Culinary Dean, Johnson & Wales University, Charlotte, NC) [markwallison@bellsouth.net](mailto:markwallison@bellsouth.net) (704) 596-9117 (678) 899-3752



# EASTERN CONNECTICUT STATE UNIVERSITY

A Liberal Education. Practically Applied.

*Office of the President*

February 11, 2019

Mark Ojakian, President  
Connecticut State Colleges and Universities System  
61 Woodland Avenue  
Hartford, CT 06105

Dear President Ojakian:

I am pleased to recommend that the Board of Regents accept the nomination of Marilynn “Lynn” Malerba, Chief of the Mohegan Tribe, as the honorary degree recipient at Eastern Connecticut State University’s 2019 Commencement Exercises, being held Tuesday, May 21, 2019, at the XL Center in Hartford, Connecticut.

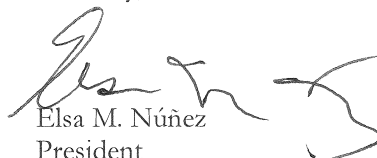
Marilynn Roberge Malerba is richly deserving of this honor, having achieved an exemplary career in health care and tribal governance fields. Not only has she served her community and the state of Connecticut with distinction, she has brought national recognition to our state. Chief Malerba has a strong connection to Eastern, having visited as a guest speaker as recently as this past fall. Recognizing her can only strengthen Eastern’s relationship with Chief Malerba.

Lynn Malerba is the first female chief in the Mohegan Tribe’s modern history, and has a lifetime appointment. She previously served as Chairwoman of the Tribal Council and was also Executive Director of Health and Human Services for the Tribal Government. Prior to her work for the Mohegan Tribe, Chief Malerba had a lengthy career as a registered nurse and served as Director of Cardiology and Pulmonary Services at Lawrence and Memorial Hospital. She earned her Doctor of Nursing Practice degree at Yale University and was named a Jonas Scholar. She holds a Master’s Degree in Public Administration from the University of Connecticut.

Chief Malerba has achieved a national reputation as an advocate and supporter of health issues and the welfare of Native Peoples. She is chairwoman of the Tribal Self-Governance Advisory Committee of the Federal Indian Health Services; is a member of the U.S. Justice Department’s Tribal Nations Leadership Council; serves on the Tribal Advisory Committee for the National Institute of Health; is a member of the U.S. Treasury Department’s Tribal Advisory Committee; and serves as a technical expert on the Commission for Environmental Cooperation.

The chief’s distinguished career in the medical field, combined with her exemplary leadership in local and federal tribal affairs, including tribal health, equity and diversity and environmental issues, makes Chief Malerba a worthy honorary degree recipient. Please do not hesitate to contact me if you have questions about this recommendation.

Sincerely,



Elsa M. Núñez  
President



February 21, 2019

Dear ASA Committee:

It is with distinct pleasure that I petition the Board of Regents for Higher Education to consider **William W. Ginsberg** as the recipient of Gateway Community College's President's Award at GCC's annual commencement ceremony on May 23, 2019.

Will's commitment to Greater New Haven and its business community, educational achievement and the success and prosperity of his fellow citizens is broad, deep and longstanding. He has served as president and CEO of The Community Foundation for Greater New Haven since 2000. His lifelong personal and professional contributions and achievements have embodied The Community Foundation's priorities: supporting arts and culture, meeting basic needs, promoting civic vitality, boosting economic success, providing quality education, protecting the environment and ensuring health and wellness.

Will has enjoyed a remarkable career, not only locally but also on the national level. After graduating from Trinity College and Columbia Law School, he practiced law in New York City (1980-1984). He became development administrator for the City of New Haven (1984-1988), where he oversaw development activities for the municipality. He used his expertise and experience with the City when he later was named president of the Science Park Development Corporation, a nonprofit inner-city technology economic entity designed to increase the tax base; attract research and technology enterprises to New Haven; and increase employment, particularly to economically disadvantaged neighborhoods.

Will was part of the Clinton administration from 1994-2000. President Bill Clinton nominated him to serve in the U.S. Department of Commerce, where he served as assistant secretary for Economic Development. He later became managing director and CEO of the Federal Housing Finance Board, (1997-2000), the Federal regulatory agency for the 12 regional Federal Home Loan Banks.

At the helm of The Community Foundation, Will continues his focus on community issues, economic development, philanthropy and education. He has served this region well, including board service to New Haven Promise, Yale New Haven Hospital, and the Connecticut Council on Education Reform.



20 Church Street  
New Haven, Connecticut 06510  
(203) 285-2060  
pbroadie@GatewayCT.edu  
**GatewayCT.edu**





Will has been a steadfast friend and committed advocate of education in Greater New Haven. This includes Gateway Community College and its educational mission, which he supports not only with his personal commitment of time and talent, but also in his leadership role with The Community Foundation.

Will is a member of GCC's President's Executive Council, and his intellectual support and professional expertise were vital in ensuring a seamless presidential leadership transition in 2016. His hands-on involvement includes serving on several focus groups to help support and expand the College's workforce initiatives.

Under Will's leadership, the Community Foundation for Greater New Haven continues to support GCC's efforts to respond to the ever-changing academic, occupational and cultural needs of our diverse community and student population. This includes the Community Foundation's grant funding for our Family Economic Support Program (FESP), which offers students wraparound academic, career, financial and personal support. This vitally important program helps qualified full- and part-time students complete their degree and certificate programs.

In conclusion, I can think of no more worthy honoree than Will Ginsberg for Gateway Community College's President Award. I wholeheartedly endorse his selection for this recognition, and with your approval, I would be proud to present him with the award on May 23, 2019.

Sincerely,

A handwritten signature in black ink that reads 'Paul Broadie II'.

Paul Broadie II, Ph.D.  
President  
Gateway Community College





**MANCHESTER  
COMMUNITY  
COLLEGE**

Tanya Millner-Harlee, Ed.D.  
Interim Chief Executive Officer

tel: 860.512.3100  
fax: 860.512.3101  
tmillner-harlee@manchestercc.edu

**February 12, 2019**

**Academic & Student Affairs Committee  
Board of Regents  
61 Woodland Street  
Hartford, CT 06105**

**Dear Academic and Student Affairs Committee:**

Enclosed please find our request for an honorary degree for Hans Weiss.

Mr. Weiss has been a strong supporter of Manchester Community College and our students, since 1990. In recognition of his generous gift to MCC to establish the Hans Weiss Scholarship, the art gallery was renamed to "Hans Weiss Newspace Gallery."

In honor of Mr. Weiss's commitment to MCC and the community it serves, Manchester Community College would like to honor him with an honorary degree at the 55<sup>th</sup> commencement ceremony on May 29, 2019.

I respectfully ask for the committee's approval of this honor.

Sincerely,

**Tanya Millner-Harlee, Ed.D.  
Interim Chief Executive Officer**

## **Manchester Community College 2019 Honorary Degree Candidate**

**Hans Weiss**, Owner of Weiss Gallery, Manchester

Hans Weiss is a local artist with a gallery based in Manchester. Mr. Weiss was born in 1931 in a small German farming village in Slovaki and he started painting as a young boy. Mr. Weiss and his family were placed in a concentration camp during World War II and, after one year, they were sent to live in communist East Germany. Due to the war, all of his early paintings and drawings were lost. But at the age of fourteen, Mr. Weiss started to paint again, using brushes made from his mother's hair. Mr. Weiss and his family eventually escaped East Germany to freedom in West Germany where he completed his apprenticeship at the Mercedes-Benz Company in Stuttgart. Mr. Weiss immigrated to the United States at the age of eighteen and attended various art and technical schools throughout Connecticut. In 1963, he started the Dynamic Metal Products Company, located in Manchester, which manufactured products for the aerospace industry. In 1980, he opened the Weiss Gallery, located in Manchester. Many of his drawings and paintings are a reflection of his early childhood and his favorite subjects are the past life of people from his small village in Slovakia.

In 1990, Mr. Weiss was appointed to serve on the board of directors of the Manchester Community College Foundation where he is still an active board member.

In 2004, Weiss pledged \$100,000 to the MCC Foundation to establish the Hans Weiss Arts Scholarship. In recognition of this generous gift, the MCC art gallery, located in the SBM Charitable Foundation building, was renamed the "Hans Weiss Newspace Gallery." The art gallery hosts monthly exhibits of work by local and international artists, both acclaimed and emerging, as well as student art and pieces from outside artists.

In 2011 Mr. Weiss was the recipient of MCC Foundation's Hall of Fame Award for his contribution to the growth of the College and its educational programs, and for providing financial assistance to students interested in pursuing their college education.

Mr. Weiss lives with his wife Lottie in Vernon, CT and continues to operate the Weiss Gallery, where he currently focuses his time on portraits. Over the years, Mr. Weiss has donated a number of portraits and other prints to the college and MCC Foundation.

His drawings and paintings are on display in the Weiss Gallery and can be seen in Saint Mary's Church in Manchester, Manchester Community College, the Legislative Office Building in Hartford, and the Tool & Machine Association Building in Washington, D.C.



*Office of the President*

February 15, 2019

President Mark E. Ojakian  
Connecticut State Colleges and Universities  
61 Woodland Street  
Hartford, CT 06105

Dear President Ojakian:

It is a pleasure to submit for your approval and that of the Board of Regents, the nomination of Aguibou Bougobali Sanou as a recipient of an honorary associate in arts degree from Naugatuck Valley Community College (NVCC). We hope to present him with an honorary degree at our commencement on May 23, 2019. At the time of the award, Aguibou will have completed his service to the College and will no longer be an employee.

Our fourth Fulbright Scholar-In-Residence, Aguibou is a talented dancer, choreographer, performer, and educator with more than a decade of professional experience. His qualifications and contributions are summarized below:

**Aguibou Bougobali Sanou**

**Contributions to Naugatuck Valley Community College:**

In both fall and spring semesters, Aguibou has done and continues to do the following:

- Teach DAN 101, History and Appreciation of Dance
- Teach DAN 131, Contemporary African Dance
- Offer Master Classes to the Terpsichorean Dance Club once-a-week
- Choreographed the dance numbers for the fall production of *Little Shop of Horrors*
- Recommended library resources and musical instruments related to African dance
- Recommended dance class curriculum elements
- Present on behalf of the Social Justice Series a discussion on “Colonialism: Did It End?” in April where he will speak on colonialism, and its continuing practice and impact around the world

In his classes, students have gained an understanding of and appreciation for the historical and cultural influences that shape the dance traditions from all parts of Africa and how storytelling informs and modifies those traditions as well as influences dance forms around the world.

Currently, Aguibou is developing his legacy project – an original choreographed piece that is built around the power of immigration and storytelling on culture and society. The performance will feature Aguibou and include NVCC dancers, students from BRAVO, and other guest performers. As part of his efforts to create bridges, Aguibou is arranging for an African drummer to accompany his dance and, while the drummer is here, to offer lessons to music students interested in exploring percussion.

Aguibou has strengthened cultural life on campus, in particular, in the arts and humanities. His performance will be the keystone for a three-day International Center for the Arts event, and through some of the connections he has made, he will bring in speakers for a panel discussion on African influences around the world.

**Contributions to the Community:**

Aguibou works on a weekly basis with several different age groups of dancers at our Fulbright partner, Waterbury Arts Magnet School. He also is choreographing a special piece for them to perform at the WAMS Black History Month production, scheduled for February 26, 2019 at the Palace Theater.

Other community and regional and international contributions:

- Master Class and performance with original choreography featuring NVCC students at the “5x5 Dance Festival” at the University of Saint Joseph (November 2018)
- Master Class with Connecticut Ballet, plus the guest choreography to create a new dance piece for the ballet performance on May 17 at the Bushnell in Hartford
- Master classes with Brass City Ballet (upcoming, April/May)
- Represented NVCC and Burkina Faso during three days of lecture among four different high schools at Bluefield State College in West Virginia (January 2019)
- Represented NVCC through a lecture and performance at the Art Museum at the University of Toronto for Toronto’s “Night of Ideas” (February 2019)

Thank you for consideration of this request. I understand that this nomination is confidential until such time as approval is received from the Board of Regents.

Sincerely,

  
Daisy Cocco De Filippis, Ph.D.  
President

## Ryiz, Patricia A

---

**From:** Gates, Jane  
**Sent:** Tuesday, February 26, 2019 3:10 PM  
**To:** Ryiz, Patricia A; Poole, Arthur  
**Subject:** FW: NVCC Honorary Degree Nomination

Hello Arthur and Pat,

See additional information for NVCC Honorary Degree Nomination. This should go with the letter.

Jane

**From:** Monchun, Beth A <BMonchun@nvcc.commnet.edu>  
**Sent:** Thursday, February 21, 2019 12:55 PM  
**To:** Gates, Jane <JGates@commnet.edu>; DeFilippis, Daisy C <DDeFilippis@nvcc.commnet.edu>  
**Subject:** NVCC Honorary Degree Nomination

Good afternoon Dr. Gates,

President De Filippis asked me to follow up with you regarding a question about our honorary degree nominee.

Aguibou Bougobali Sanou's contract with NVCC ends on May 22, 2019, the day before our commencement.

If you have any questions or require any further information, please let us know.

Thank you,

Beth

Beth A. Monchun  
Executive Assistant/Office of the President  
Naugatuck Valley Community College  
750 Chase Parkway, Waterbury, CT 06708  
190 Main Street, Danbury, CT 06810  
(203) 575-8083 phone  
<http://www.nv.edu/>





**Norwalk Community College**  
188 Richards Avenue  
Norwalk, CT 06854

**Office of the President**  
(203) 857-7003  
FAX (203) 857-7394

February 22, 2019

President Mark E. Ojakian  
Connecticut State Colleges and Universities  
61 Woodland Street  
Hartford, CT 06105

Dear President Ojakian:

It is a pleasure to submit for your approval and that of the Board of Regents, the nomination of **Tracy K. Smith, U.S. Poet Laureate** as a recipient of an honorary associate in arts degree from Norwalk Community College. We hope to present her with an honorary degree at our commencement on May 21, 2019.

Her qualifications and contributions are summarized below:

Tracy K. Smith is being nominated as our Honorary Associate of Arts Degree recipient for her outstanding contributions to the literacy world. Smith is the author of the critically acclaimed memoir *Ordinary Light* (Knopf, 2015), a finalist for the 2015 National Book Award in Nonfiction and selected as a Notable Book by the New York Times and Washington Post, as well as four books of poetry. Her most recent collection of poems, *Wade in the Water* (Graywolf, 2018) was shortlisted for the T. S. Eliot Prize. *Life on Mars* (Graywolf, 2011), won the 2012 Pulitzer Prize and was selected as a New York Times Notable Book. Smith recently began a podcast, "The Slowdown" on PBS, which displays her work traveling the nation as the US poet laureate. Upon her recent visit to NCC in May 2018, she was very soft spoken and connected beautifully with the audience.

Thank you for consideration of this request. I understand that this nomination is confidential until such time as approval is received from the Board of Regents.

Sincerely,

David L. Levinson, Ph.D.  
President

**Ryiz, Patricia A**

---

**From:** Hodson, April M  
**Sent:** Tuesday, February 12, 2019 12:08 PM  
**To:** Thomas, Victoria F  
**Cc:** Ryiz, Patricia A  
**Subject:** Three Rivers Nomination for 2019 BOR Honorary Degree  
**Attachments:** TRCC 2019 BOR Honorary Degree Nominee.docx

***Sending on behalf of President Jukoski  
Three Rivers Community College***

**To:** Matt Fleury, Chair, CT Board of Regents for Higher Education  
**cc:** Victoria Thomas, Patricia Ryiz

Good Afternoon,

Three Rivers Community College is nominating Mr. William Stanley for the 2019 BOR Honorary Degree. Attached is a brief biography on Mr. Stanley detailing his service and commitment to our community and to Three Rivers.

Please confirm your receipt of this nomination and please let us know if you require any additional information prior to the submission deadline. Thank you for your consideration.

*Mary Ellen*

Mary Ellen Jukoski, Ed.D.  
President  
Three Rivers Community College  
574 New London Turnpike  
Norwich, Ct. 06360  
Phone: 860-215-9007





**William Stanley**

*For nearly two decades, Bill Stanley has served as Vice-President of Development and Community Relations for L+M Hospital/Yale New Haven Health in New London.*

Bill Stanley graduated from Mohegan Community College in 1974 and went on to earn his bachelor's degree in English from Eastern Connecticut State University in 1977.

Bill has built his long, successful career in Southeastern CT. First, working as a news reporter for The New London Day and then moving into the healthcare field at both William W. Backus Hospital and now Lawrence + Memorial. Bill's roots extend deeply within the Norwich community. He has been a lifelong advocate for Southeastern Connecticut.

While overseeing community relations and millions of dollars in fundraising at L+M — now part of Yale-New Haven Health — Stanley has served lengthy leadership terms on the boards of Three Rivers Community College Foundation, the United Way, the Chamber of Commerce of Eastern Connecticut, and the New London Redevelopment Agency. Bill Stanley was named the 2017 recipient of William Crawford Distinguished Service Award by the Chamber of Commerce of Eastern Connecticut. In addition, the Boy Scouts and the NAACP have recognized his leadership with awards.

In 2012, Bill joined the TRC Foundation Board of Directors. He assumed the role of Vice President in 2013 and became President of the Board in 2014. He currently serves on the Finance & Investment, Nominating and Golf Committees. Additionally, he has generously given his time to the Community College Foundation Working Group and Regional Advisory committee at the system level for the Board of Regents.

We believe that Mr. Stanley's lifelong commitment to our community is to be admired and is deserving of recognition for this honorary degree.



January 15, 2018

Academic & Student Affairs Committee  
Board of Regents  
61 Woodland Street  
Hartford, CT 06105

Dear Academic and Student Affairs Committee:

Enclosed please find our request for an honorary degree for Peter Spano.

Mr. Spano is a honorably discharged World War II veteran, a long-time student at Tunxis Community College, and a well-known and respected member of the New Britain community.

In honor of Mr. Spano's service to our country, service to his local community, dedication and contributions to our Veteran's Oasis, and his pursuit to obtain his associated degree, Tunxis Community College would like to honor him with an honorary Associates Degree at the 48th commencement ceremony, May 30, 2019. Please see the supporting documentation on Mr. Spano's accomplishments and contributions to our nation and our community.

I respectfully ask for the committee's approval of this honor.

Sincerely,



James P. Lombella Ed. D.  
President of Tunxis Community College



Tunxis Community College  
2018 Honorary Degree Candidate  
Peter Spano

World War II Navy Veteran, Pastoral Secretary, Justice of the Peace, City Constable, Notary Public, Police PAL Chairman.... And Psychology Student. All of these are proudly displayed on Peter Spano's "business card," and the title of community college student is one that he most proudly boasts to everyone who he stops to talk with on the campus of Tunxis Community College. Taking his first course in Fall 2010, Mr. Spano has taken 14 courses (for credit or audit) in psychology, art and history. Every semester, Mr. Spano comes back to expand his own knowledge, but what he brings to the "younger" students in his classes goes far beyond what any book could teach.

A well-known and respected life-long resident of New Britain, Mr. Spano is a retired business owner who continues to give back to his community. A 17-year-old Spano was visited by President Franklin D. Roosevelt during the war after his battalion sunk a German submarine off the East Coast. As noted by Prof. Mann, outside of the class, Mr. Spano is an active member of the Tunxis' Oasis, spending time with the many other veterans who attend Tunxis. He attends many events on campus, especially those sponsored by the Oasis. He is seen as a role model of persistence, and has encouraged many of our Veterans to persevere and achieve their dreams, including establishing a scholarship through the Tunxis Foundation – the Peter Spano Veteran Scholarship. He also dedicated time visiting with disabled veterans at the Connecticut VA Hospital.

From Psychology Instructor Kelly O'Brien Mann "For the past five or so semesters, Peter Spano has been a student in my General Psychology and Abnormal Psychology courses. Peter audits the classes due to a lifelong interest in psychology. Peter is a 92 year old WWII veteran and child of The Great Depression and shares those experiences with the students in my classes. He refers to the other students as his 'grandchildren,' and they have come to see him as a grandfather figure who shares pieces of history with the class, ranging from being sent to an orphanage temporarily during The Great Depression so that his family could ensure he could eat each day, and his time serving in the Navy during WWII. He talks about meeting FDR, JFK and Regan, and tells the class advice that JFK once gave him – 'always ask questions, even if you're wrong, at least you're thinking.' Peter reminds students of manners from an era long gone, such as saying 'excuse me' when they get up to leave the classroom, and reminds them of the importance of taking appropriate risks and persevering through difficult times. In fall of 2016, the first semester I had Peter as a student, the entire class requested a 'class photo' so that they could always remember Peter. He has given precious life advice to students over the years and is a

regular in the Veterans Oasis on campus. Last year, Peter lost his wife. They had been married for over 70 years, and since then, he has been in a state of cognitive decline. His lifelong goal has been to achieve recognition in the field of psychology, and while it is no longer possible for Peter to earn that recognition in a traditional manner, it would mean the world to Peter, his students, and the faculty that know him, for Peter to be given an honorary recognition for his studies in psychology and the joy he has given the Tunxis students who have been lucky enough to have him in their classes.”

Sincerely,



James P. Lombella, Ed. D.  
President of Tunxis Community College

March 7, 2019

Dear President Ojakian:

I wish to submit the name of Timothy P. Shriver, SY '91, author, and chairman of Special Olympics, for consideration as the recipient of an honorary doctorate from Southern Connecticut State University.

Mr. Shriver leads the Special Olympics International Board of Directors and serves together with over 5.6 million Special Olympics athletes in 172 countries to promote health, education, and a more unified world through the joy of sports.

Mr. Shriver joined Special Olympics in 1996. He is a leading educator who focuses on the social and emotional factors in learning. He co-founded and currently chairs the Collaborative for Academic, Social, and Emotional Learning (CASEL), the leading school reform organization in the field of social and emotional learning. He is a member of the Council on Foreign Relations; co-chairman of the National Commission on Social and Emotional Learning; president of the Joseph P. Kennedy Jr. Foundation; member of the Board of Directors for the WPP Group, LLC; and a co-founder of Lovin' Scoopful Ice Cream Company.

His early professional work in education and with programs addressed to disadvantaged children convinced Mr. Shriver that sports are a special unifier, offering a meaningful path towards social justice. The Special Olympics values, he argues, are for everyone, inclusive in all respects. They open paths for everyone because they do not focus on elimination and a pyramid of achievement. The Special Olympics model is that people with intellectual disabilities can achieve extraordinary human achievements: everyone has elite achievements within themselves.

As you know, Southern Connecticut State University has had a long and fruitful association with Connecticut Special Olympics. The campus first hosted the Summer Games in the late 1980s, and in 1995 was a host site for the Ninth Special Olympics World Summer Games. We resumed hosting the Connecticut Summer Games in 1999 and have done so ever since, with the number of participating athletes increasing every year.

In addition to earning a Sixth Year Certificate from Southern in 1991, Mr. Shriver earned his undergraduate degree from Yale University, a master's degree from Catholic University, and a doctorate in education from the University of Connecticut. He has produced four films, is the author of the New York Times bestseller *Fully Alive – Discovering What Matters Most*, has

written for dozens of newspapers and magazines, and has been awarded degrees and honors that he happily accepted on behalf of others.

With our university's focus on social justice, I believe it is highly appropriate to honor an alumnus who exemplifies what it means to practice social justice and succeed. The doctorate would be awarded at our Undergraduate Commencement ceremony on May 24, 2019.

Sincerely,



Joe Bertolino  
President

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Acceptance of Selectees for Board of Regents Faculty Awards

March 28, 2019

RESOLVED: That the Board of Regents for Higher Education accepts the campus-based nominations for the Teaching Awards (CSU), Teaching Awards (CCC), Research Awards and the Scholarly Excellence Awards as the respective recipients of those awards for the 2018-19 academic year, and

That the Board of Regents for Higher Education accepts the recommendations of the respective selection committees for the Teaching Award (CSU), Teaching Award (CCC), Research Award, Scholarly Excellence Award and the Adjunct Faculty Teaching Awards as the respective recipients of the System Awards for the 2018-19 academic year.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

Acceptance of the Board of Regents Faculty Awards

**BACKGROUND**

The Board of Regents Faculty Awards were established by a Board resolution on May 16, 2013. Five award categories, with potentially 38 individual awards of \$1,000 each, were established to recognize junior faculty members at CSCU institutions who distinguish themselves as outstanding teachers or those who are engaged in exceptional research/creative work. The 32 individual awards are the campus-based awards in the categories of Teaching Awards (CSU), Teaching Awards (CCC), Research Awards and the Scholarly Excellence Awards; and a single system award for each of those categories wherein an individual award recipient is deemed to be the system's best in exemplifying "high quality teaching" or "high-quality research/creative achievement." Additionally, there are two system awards selected from institutional nominations for the Adjunct Faculty Teaching Awards.

**PROCESS**

For the 2018-19 academic year, per the guidelines approved by the Board; the Connecticut State Colleges and Universities have submitted 21 of a possible 49 nominations within the five award categories, for the Board's consideration.

**RECOMMENDATIONS**

Subsequently, five selection committees, consisting of previous Faculty Awards recipients, have reviewed and assessed the nomination packages, and made their recommendations to the Board for the six System Awards. The Faculty Awards rosters are attached:

03/15/19 – BOR-Academic and Student Affairs Committee

03/28/19 – Board of Regents

# **BOARD OF REGENTS**

## **FACULTY AWARDS**

**2018-19 Academic Year**

In recognition of Assistant and Associate Professors in tenure-track or tenured positions and adjunct faculty members:

who have distinguished themselves as outstanding teachers and have established a track record of promoting instructional improvements for their departments; or

who are doing exceptional research, scholarly, and/or creative work

### **Teaching Awards<sup>1&2</sup>**

(Connecticut State Universities)

### **Teaching Awards<sup>1&2</sup>**

(Connecticut Community Colleges)

### **Research Awards<sup>1&2</sup>**

(Connecticut State Universities)

### **Scholarly Excellence Awards<sup>1&2</sup>**

(Connecticut Community Colleges)

### **Adjunct Faculty Teaching Awards<sup>3</sup>**

1. campus-based awards
2. a single system-wide award among campus-based nominations
3. system-wide awards (2) among campus-based nominations



# **BOARD OF REGENTS**

## **FACULTY AWARDS**

### **Teaching Awards**

(Connecticut State Universities)

<b><u>Institution</u></b>	<b><u>Campus Nominee</u></b>	<b><u>Faculty Rank / Discipline</u></b>
Central	Marie Kulesza	Assistant Professor / Accounting
Eastern	Dr. Mark Fabrizi	Associate Professor / Education
Southern	Dr. Charles Baraw	Associate Professor / English
Western	Dr. Kelli Custer	Associate Professor / Writing, Linguistics and Creative Process

Per its collective review and assessment of the institutions' nomination packages, the Selection Committee for the Teaching Award for the universities recommends the recipient of the:

### **System's Teaching Award (Connecticut State Universities)**

**Dr. Kelli Custer**  
**Western Connecticut State University**

# **BOARD OF REGENTS**

## **FACULTY AWARDS**

### **Teaching Awards**

(Connecticut Community Colleges)

<b><u>Institution</u></b>	<b><u>Campus Nominee</u></b>	<b><u>Faculty Rank / Discipline</u></b>
Asnuntuck	Michele Howard-Swan	Assistant Professor / Allied Health
Middlesex	Susan Lugli	Associate Professor / Business
Norwalk	Dr. Mobin Rastgar Agah	Associate Professor / Engineering
Three Rivers	Vicky Holdridge DiFilippo	Assistant Professor / English & Communication
Tunxis	Dr. Marie Clucas	Associate Professor / Social Science

Per its collective review and assessment of the institutions' nomination packages, the Selection Committee for the Teaching Award for the community colleges recommends the recipient of the:

### **System's Teaching Award (Connecticut Community Colleges)**

**Dr. Mobin Rastgar Agah  
Norwalk Community College**

# **BOARD OF REGENTS**

## **FACULTY AWARDS**

### **Research Awards**

<b><u>Institution</u></b>	<b><u>Campus Nominee</u></b>	<b><u>Faculty Rank / Discipline</u></b>
Central	Dr. Khaled Hammad	Associate Professor / Engineering
Eastern	Dr. Fatma Pakdil	Associate Professor / Business Administration
Southern	Dr. Darcy Kern	Assistant Professor / History

Per its collective review and assessment of the institutions' nomination packages, the Selection Committee for the Research Award recommends the recipient of the:

### **System's Research Award**

**Dr. Khaled Hammad**  
**Central Connecticut State University**

# **BOARD OF REGENTS**

## **FACULTY AWARDS**

### **Scholarly Excellence Awards**

<b><u>Institution</u></b>	<b><u>Campus Nominee</u></b>	<b><u>Faculty Rank / Discipline</u></b>
Asnuntuck	Heather D'Orlando	Assistant Professor / Psychology
Three Rivers	Cynthia Arpin	Assistant Professor / Nursing

Per its collective review and assessment of the institutions' nomination packages, the Selection Committee for the Scholarly Excellence Award recommends the recipient of the:

### **System's Scholarly Excellence Award**

**Heather D'Orlando**  
**Asnuntuck Community College**

# **BOARD OF REGENTS**

## **FACULTY AWARDS**

### **System's Adjunct Faculty Teaching Awards**

**Dr. Heather Cowan Cruz**  
**Tunxis Community College**  
Adjunct - Social Science

&

**Patricia Mottola**  
**Southern Connecticut State University**  
Adjunct Professor - English

Per its collective review and assessment of the institutions' nomination packages, the Selection Committee for the Adjunct Faculty Awards recommends that the recipients are as listed above:  
The other nominees were:

<b><u>Institution</u></b>	<b><u>Campus Nominee</u></b>	<b><u>Faculty Rank / Discipline</u></b>
Central Connecticut State University	Christopher Doucot	Lecturer / Sociology
Charter Oak State College	Dr. Kristine Larsen	Adjunct Lead Faculty / General Education
Asnuntuck Community College	Adam Rivers	Adjunct Professor / Communications
Eastern Connecticut State University	Brenda Westberry	Instructor / Sociology & Criminology
Three Rivers Community College	Yehven Rutovytsky	Lecturer / Mathematics

# BOARD OF REGENTS

## FACULTY AWARDS

### Selection Committees

The members of the five Selection Committees reviewed and assessed the campus-based nomination packages which consisted of:

- 1) Cover Sheet
- 2) Letter of Nomination
- 3) Nominee's Reflective Statement
- 4) Letter of Support from one to three colleagues or students
- 5) Nominee's abbreviated curriculum vitae

Each nomination package was reviewed and assessed by a minimum of three committee members. The average total assessment points were used to determine the committee's recommendation to the Board of Regents for the respective System Award(s).

The members of the various Selection Committees were:

Celeste Arrieta Three Rivers Community College	Dr. Todd Barry Three Rivers Community College	Amely Cross Asnuntuck Community College
Dr. Megan DeLivron Gateway Community College	Nancy Fleming Norwalk Community College	Dr. Reza Ghodsi Central Connecticut State University
Dr. Jess Gregory Southern Connecticut State University	Dr. Christine Hegel- Cantarella Western Connecticut State University	Ira Hessmer Capital Community College
Health Hightower Quinebaug Valley Community College	Dr. Eva Jones Middlesex Community College	Dr. Andre Levy Middlesex Community College
Dr. Eric Meyers Gateway Community College	Dr. Maureen McDonnell Eastern Connecticut State University	Dr. Martin Mendoza- Botelho Eastern Connecticut State University
Dr. Michelle Monette Western Connecticut State University	Dr. Rachel Prunier Western Connecticut State University	Dr. Daniela Ragusa Capital Community College
Dr. Nicolas Simon Eastern Connecticut State University	Dr. Monica Sousa Western Connecticut State University	Michael Stutz Three Rivers Community College
Dr. Christine Unson Southern Connecticut State University	Jennifer Wittke Tunxis Community College	Dr. Richard Zipoli Southern Connecticut State University

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Recipient of the CSCU Shared Governance Award

March 28, 2019

WHEREAS, Consonant with the mission, vision and goals of the CSCU System, the Board of Regents (BOR) and the Faculty Advisory Council (FAC) recognize the importance of administration, faculty, staff, and student cooperation in contributing to the advancement of shared governance in the CSCU institutions; and

WHEREAS, Shared governance is defined as communication, collaboration, and mutual accountability between administration, faculty, staff, and students which advances excellence in the operation of CSCU institutions; and

WHEREAS, CSCU establishes the Shared Governance Award as an annual recognition of an individual CSCU college or university, in the spirit of the 1966 Statement on Government of Colleges and Universities, jointly formulated by the American Association of University Professors, the American Council on Education, and the Association of Governing Boards of Universities and Colleges; therefore, be it

RESOLVED, The 2018-19 CSCU Shared Governance Award is conferred upon Three Rivers Community College by the FAC and the BOR. Three Rivers has forged a new shared governance model that fosters “an environment of open discourse, transparency and reflection”, as observed by President Mary Ellen Jukoski.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

CSCU Shared Governance Award

**BACKGROUND**

On April 7, 2016 the Board of Regents for Higher Education, in conjunction with the Faculty Advisory Committee established the CSCU Shared Governance Award to annually recognize a CSCU institution for its outstanding contribution to shared governance within CSCU.

Consonant with the mission, vision and goals of the CSCU System, the Board of Regents (BOR) and the Faculty Advisory Committee (FAC) recognize the importance of administration, faculty, staff, and student cooperation in contributing to the advancement of shared governance within the CSCU System and its individual institutions. Shared governance is defined as communication, collaboration, and mutual accountability between administration, faculty, staff and students which advance excellence in the operations of institutions of higher education and their governing bodies.

**SELECTION PROCESS**

The FAC and the BOR will jointly select one CSCU institution annually for the Shared Governance Award from the pool of applicants received during the academic year. Applications will be reviewed by a four-member Selection Committee consisting of current members of the FAC and the BOR. The awardee will be announced at the annual Faculty Advisory Committee Conference on Shared Governance and Student Success, usually scheduled for the spring semester.

**RECOMMENDATION**

The application process for the 2018-19 Shared Governance Award yields Three Rivers Community College as the recipient.

03/15/2019 – BOR Academic & Student Affairs Committee

03/28/2019 – Board of Regents



**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

Connecticut State Universities' Recommended Promotion and Tenure

March 28, 2019

RESOLVED: That the Connecticut Board of Regents for Higher Education approve tenure for and promotion of Afarin Rahmanifar to Associate Professor at Eastern Connecticut State University retroactively to the beginning of the 2019 Spring semester.

A True Copy:

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Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

CSU institutional recommendations for promotion and/or tenure

**BACKGROUND**

Pursuant to the Collective Bargaining Agreement between the Connecticut State Universities American Association and the Connecticut Board of Regents for Higher Education; Article 4.11.14, each CSU provost, in consultation with the president, shall make recommendations for promotion and tenure to the Board.

Professor Afarin Rahmanifar was initially hired at Eastern Connecticut State University in January 2014; thus, she does not fall within the more typical tenure and promotion cycle of August hires. Due to an administrative oversight, her recommendation for promotion and tenure by Eastern's president was not submitted to the Board in January 2019.

**RECOMMENDATION**

It is the recommendation of the System's Provost and Senior Vice President for Academic and Students Affairs that the Board of Regents approve the retroactive granting of promotion and tenure to the following faculty member:

Eastern Connecticut State University – Afarin Rahmanifar

03/15/19 – Academic and Student Affairs Committee

03/28/19 – Board of Regents



EASTERN CONNECTICUT STATE UNIVERSITY  
A Liberal Education. Practically Applied.

*Office of the President*

February 1, 2019

Mr. Mark Ojakian  
President, Board of Regents for Higher Education  
Connecticut State Colleges and Universities  
61 Woodland Street  
Hartford, CT 06105-2237

Dear Mr. Ojakian:

The following are my recommendations for Promotion and Tenure, for a candidate reviewed in Fall 2018.

**TENURE**

Ms. Afarin Rahmanifar (Art and Art History)

**PROMOTION**

For Promotion to the rank of Associate Professor:

Ms. Afarin Rahmanifar (Art and Art History)

Please let me know if you have any questions.

Sincerely,



Dr. Elsa Núñez  
President

Cc: W. Salka, Interim Provost and Vice President for Academic Affairs

EMN/hjr

## **Afarin Rahmanifar** 2018 Application for Promotion and Tenure



**October 10, 2018**

**Dear Committee Members:**

I am pleased to submit my application materials for consideration of promotion and tenure. The enclosed materials demonstrate my performance and contribution as a visual artist and an educator. My work is documented here in accordance with article 4.11.9 of the CSU-AAUP Collective Bargaining Agreement in the four categories of (1) Faculty Load Credit Activity, (2) Creative Activity, (3) Service, and (4) Professional activity.

I received my MFA from The University of Connecticut in Painting & Drawing, Printmaking in 1996. My love for teaching started when I was a teaching assistant at UConn. Working as a TA provided me with the opportunity to design a class, to see what was effective and what was not, and to improve upon my teaching skills. That early teaching experience taught me the importance of creating dynamic and positive experience for students in the classroom. I then became an adjunct at Eastern Connecticut State University for more than ten years, until I was hired as a full time faculty member in 2013. As a full time faculty member I have developed curriculum and have had a role in the Department and University. I was excited to have more involvement with students and introduce them to the world of museums and galleries, through field trips.

In the following dossier, I offer a brief overview of the work I have done in the areas of teaching, creative activity, service, and professional activity. I will highlight the most important areas of my activities during the past five years. The reviewer will subsequently find my complete record of material and documentation, through the on line portfolio, organized by area of evaluation for promotion and tenure.

### **(1) LOAD CREDIT ACTIVITY**

The centerpiece of my priorities at Eastern is teaching, My course load has included introductory courses in the Liberal Arts Core as well as upper level coursework. My teaching involves, exploring creative ideas with students, helping students to achieve professional goals, and involvement with student activities. My approach to each class is to accomplish a set of goals. I first review the student's skill set at the beginning of the class. I then help them to set goals as to where they would like to be at the end of the class. Along the way, I encourage students to develop both intellectual and artistic skills and to be open to risk taking, to "think outside the box".

At Eastern, I have had the pleasure of mentoring many promising students that were accepted to graduate schools or have taken paths that lead to successful career. Mentoring one-on-one with my students has been a great learning experience for them and a very rewarding experience for me. Together we improve upon student's overall educational experiences, but also develops new skills, new awareness, and create positive networking toward their future careers.

I have taught a wide range of courses including Drawing I, Intermediate Drawing, Painting I, Painting II and Advanced, Experimental and Non Traditional Material and Methods, Water Media, Color Theory, Figure Drawing I, Figure Drawing II, Expression With Color Media, Introduction to Studio Art, Independent study, Senior Seminar, and developed internship opportunities for students.

This fall, my teaching load consists of teaching Art 112 – Color Theory, Art 219 Expression with Color, Art 202 Drawing I. Art 112 – Color Theory is an introduction to the effects, principals, and practical applications of color usage. Emphasis is placed on learning color terminology and vocabulary, and how to communicate and define color in studio practice. A critique and group discussion is conducted with students after completing of each project. This course provides a strong foundation and practical guide to color mixing and preparing them for upper level courses in Studio Art.

Art 219 - Expression With Color Media is an introductory course to the characteristics and techniques of color media. This class was created to be part of Eastern's Liberal Arts Core Tier II, Creative Expression. This LAC course is hands-on studio course in a specific medium or genre and students work on multiple creative color projects. In LAC courses, I'll make sure student communicate their creative skills through art, literature and other creative forms. Building their knowledge in foundation arts and humanity classes, student advance their abilities toward not only in creative expression but all academic disciplines and educational activities. Students explore the creative process and enhance creative problem-solving skills through hands-on activities. Each

project places emphasis on the use of paint to create a variety of subjective and expressive images.

Art 202 – Drawing I. This class is also part of Eastern’s Liberal Arts Core Tier II, Creative Expression. Students develop analytical abilities toward the goal of individual or collaborative creative expression. Upon the completion of the requirement of this course student will be able to demonstrate an understanding of the creative process in a specific medium or genre. This LAC course allow student to communicate ideas through art, literature and other creative forms. Drawing I is an Introduction to fundamental issues and techniques of drawing with materials such as charcoal, pencil. This popular class focuses on observational concerns and the process of making objects appear three-dimensional on a two- dimensional picture plane.

Evidence of my effective teaching methods are clearly seen in positive student opinion surveys. The result of my innovative teaching methods are evidenced by consistently positive evaluations I received from my students.

*This class was awesome, so open, so exploratory, so dynamic, and I also appreciated the various artistic talks and reviews of mixed media artists. I love being able to take each project into my desire direction with the lack of specific guidelines. I thoroughly enjoyed the class with seeing with what I came up with, but also the extremely varied work from classmates. Also, I know mixed media is Afarin's specialty, so she was very passionate how this class went with techniques I loved.*

*Afarin is so awesome!! I love her and the way she teaches. She pushes us to be better, and pushes us to make our projects the best we can produce. She showed us some awesome videos that really opened my eyes to experimental arts. Super fun class.*

Additional evidence of my effective teaching can be seen in the artwork produced by my students( Samples are in the digital portfolio). Many of my non-major students become Art majors or Art minors, or decide to continue by taking upper level classes.

Two years ago, I created a new course to explore the boundaries between drawing, painting, sculpture, and other media within a visual art form. This course was first offered to students in Spring, 2017. During this course, students learn how to utilize more than one medium in their artwork. A layering effect is incorporated as part of their final work. The course is entitled Art 312 - Experimental and Non-Traditional Material and Methods. This course was to expose students to multiple medium

options and new ideas during the creation of their work, thereby exposing the students to greater artistic freedom and expression. They also learn to think critically and creatively which can help in all careers. I was fortunate to receive numerous Summer Curriculum Awards to further develop new and creative ideas within the realm of mixed media. These awards have benefited my students greatly.

I also contributed to our department and have been an active participant with the implementation of effective curriculum modifications. Specifically, I worked with colleagues and helped to create a new Studio Art concentration. I believe these changes will directly benefit our students as they pursue excellence in art. Rather than having three different concentrations; faculty and students work together under one concentration.

## **(2) CREATIVE ACTIVITY**

My creative work focuses on stories of women in relation to politics, culture, religion, and sexuality, particularly within repressed societies. As an Iranian-American woman who grew up in Iran, I find myself in a unique position, especially at this time when Iran is essentially an isolated country. My research and paintings reveal female iconic characters that have longstanding and deep-rooted ties to both Eastern and Western cultures. As part of my work, I am concerned with the absence of women's voices. In my work I address issues such as, knowledge, power, sexuality, memory, and collective cultural identity. I depict women as protagonist characters in both Eastern and Western societies. These ideal female figures are seeking to visually challenge the dominant power imposed upon them by repressed societies in both cultures.

My art works have been exhibited extensively nationally and internationally while I have been at Eastern. During 2013-2018 I exhibited in India, China, Canada, New York, and all over Connecticut. In 2013 LQM Gallery invited me to moderate a panel discussion entitled East Meets West. This round table brought together a group of recognized national and international artists. I was then invited to a group exhibition entitled Herstory and Memory at LQM Gallery, New London, Connecticut. In 2014 my work was featured at the William Benton Museum in Storrs, Connecticut. This exhibition was entitled Persepolis Word and Image, and was inspired in format and content by Persepolis, a graphic novel memoir by Marjaneh Satrapi.

In collaboration with Center of Community Engagement and Assistant Professor Alycia Bright Holland from the Department of Performing Arts, I curated an exhibition in 2014 entitled Beneath Raw Skin at Art Space Gallery in Willimantic, CT. This exhibition brought together a number of New York based, transnational artists, as well as local artists to share their work with our community in Willimantic. This creative activity

provided me with an opportunity to mentor students as assistants, giving them real world gallery experience. The Hartford Courant reported on the project and praised the exhibit.

In 2015 after receiving a CSU-AAUP Research Grant for my project entitled Unraveling Stories, Deconstructing and Reconstructing Female Identities, I was able to participate and meet with a worldwide network of artists in residence at the Nantucket School of Design and the Arts. During this time, I produced two mixed media 36" x 36" paintings and conducted an artist talk and workshop. The Unraveling Series was then also exhibited at a number of other group and solo exhibitions in 2015. The solo exhibitions included Unraveling at the Museum of Art, Juniata College in Pennsylvania and at the Charter Oak Cultural Center in Hartford. The group exhibitions included Azadi va Edalat at the Museum of Art, Oglethorpe University in Atlanta, Georgia where I co-curated and exhibited with three artists. In 2015, I attended and exhibited my work entitled Life forms through water at the Gitanjali Gallery in Goa, India. I received the Minority Retention and Recruitment Grant to support and fund this journey.

In 2016 I produced additional paintings for my Unraveling series. From Jan 3 to Feb 3 I had the opportunity to exhibit my work at the China International Life Expo, International Convention Center, Beijing, China. I helped to form another community event/exhibition with two of my interns at Art Space Gallery in Willimantic. I exhibited my work along with the work of a diverse group of artists. This exhibition was entitled Embodied Narratives and was a collaborative work with UConn Art Department Professor John O'Donnell and ECSU Assistant Professor of Performing Arts, Alycia Bright Holland. All exhibitions and performances were well received by the public and the local press including, that Hartford Courant that reviewed the exhibition. Another highlight of my creative activities in 2016 were the E-Book Illustrations I produced in collaboration with Dr. Raouf Mama, English Professor, and Dr. Carmen Cid at ECSU. In order to compliment Dr. Mama's six short stories, I produced a number of images that highlighted each of the characters. In summer of 2016, I then Produced and Directed a 5 minute animation film of images from my paintings. It was entitled Unraveling, and was a collaborative effort with Assistant Professor of Digital Art, Boya Lee. She helped to produce a memorable animated film of my painting images.

My recent research and creative activity is entitled, Women of Shahnameh, Women of Afarin Rahmanifar. I have used funds from the 2016 / 2017 CSU – AAUP Research Grant to produce and develop this new series. This extensive body of work involved researching and studying the epic poem written by Ferdowsi, a poet who lived in Persia approximately 1,000 years ago. His words and ideas are important today; I



bring them to the contemporary world through the work I create. Within the epic stories of Shahnameh, Ferdowsi shapes women as active participants in all aspects of daily life. These women play a role in leadership and decision making. They are presented as lively figures, with warmth and intellect who dare to exercise their liberties and who do not fear death. Within the stories of Shahnameh, these women of strong will and determination are described using words of poetic excitement, and yet, full of love and devotion. In order to depict Ferdowsi's exotic, rebellious, and legendary women, I recently produced nine large scale (3' x 9') mixed media installation paintings. These ceiling hung, mixed media installation paintings were first displayed in a solo artist exhibition in 2017 entitled Memory Between, Women of Shahnameh at the SOHO 20 Gallery in Brooklyn, NY. I then had a major invitational solo exhibition entitled Memory Between, Women of Nobility in the Artwalk Gallery at the Hartford Public Library, Hartford, Connecticut. And I participated in a group exhibition entitled Further On, at the Hans Weiss Newspace Gallery, Manchester Community College, Manchester, CT.

The new works inspired me to produce and direct a second short animation film titled Women of Shahnameh. This project was another collaborative animation film project with Assistant Professor of Digital Art Boya Lee. The two animated films involving my images were presented and screened during my solo exhibitions in 2017 – 18 at SOHO20 Gallery in Brooklyn, ArtWalk Gallery in Hartford, and at The Art Gallery at Three Rivers Community College in Norwich, Connecticut. This year I had another solo exhibition entitled Women of Afarin Rahmanifar at The Art Gallery, Three Rivers Community College, in Norwich, Connecticut. This exhibition was on display for one month from June 11 through July 28<sup>th</sup>. Along with my large scale paintings of The Women of Shahnameh I also screened my second animation film. I will continue to exhibit my work and have a scheduled solo exhibition for 2019-2020 at Asian Arts & Culture Center, Towson University in Baltimore, Maryland.

It is my privilege to also share my art on campus and to work with the other faculty in 2017 and 2018. The Four Seasons was a collaborative effort with Dr. Okan Hwang of the Music Department as well as members of the Performing Arts Department. This was a Multi Media event that combined elements of a conventional music recital with multi-media including on-stage screen projections of my four season painting series, along with student dance performance. I was also included in an on-campus group exhibition of Illustrators. For Kingdom Animalia I presented two, 36" x 36" pieces at The Art Gallery, Fine Art Instructional Center, August 31 through October 12, 2017.

### **(3) SERVICE TO THE UNIVERSITY AND DEPARTMENT**

As a faculty member, I am privileged to serve and contribute my time and effort to the university and my community. As part of my contribution to the University, I have served as a member of the Faculty Development Committee, as well as Research Reassigned Time Committee since fall, 2017. I was elected by my department colleagues and represented my department for two terms on the Senate Committee, from 2015 through 2017.

From 2013 through 2017, I served on the University CREATE Committee. My current responsibilities are to organize the Student Gallery for the 2019 CREATE Conference. I handle the details of installation, reception, and public relations to give positive visibility to the student's work during CREATE.

In 2016 I was invited to be a Subcommittee member on the Arts Pathway committee of the Transfer and Articulation Policy (TAP). The BOR Committee met under the leadership of Professor Gelburd in different institutions around the state to seek agreement about transferring art courses from Community Colleges. There is a cluster of courses that TAP students take at community colleges that qualifies them for the transfer program. I also served on the Committee for My Windham Arts Cultural Project, in 2015 and 2017 which is an ECSU and Willimantic Joint Project in which downtown Willimantic was transferred into a public art space.

I have been continuously involved with my colleagues in the Art and Art History Department. This included being on a Sub-Committee of the Academic Program Review to discuss recommendations and direction for the Studio Art Major Program in the future. In 2017 I served as a search committee member for a Printmaking and Digital Design professor. Finally, in Spring of 2018 I was elected by my peers to be the coordinator for the new Studio Art Concentration that includes painting and drawing, printmaking, and sculpture. I have been contributing my time to curriculum, budget, and scheduling for the Studio Art Concentration. The Art & Art History Department is currently active with promoting the new Studio Art Major Program on social media.

### **(4) PROFESSIONAL ACTIVITY**

Innovation and creativity are fundamental to all academic disciplines and educational activities. I truly believe my professional development progressed because of the great support I received from my department and from the University.

The grants I received from Curriculum Development and Faculty Development allowed me to attend valuable workshops and conferences. Attending workshops not only

added value to my artistic expertise, but also added to my abilities as a passionate and motivated educator in the classroom.

In 2015 The Colin McEnroe Radio Show assembled a group of four professional Iranian-Americans to discuss their work and how it relates to Iranian issues. Two of the attendees were Yale professors and one was an outside scientist. It was a pleasure for me to be invited to Connecticut Public Radio and to join in on this round table discussion. During the hour long conversation, I focused primarily on the role of today's women artists in society as well as arts and culture inside the current Iran.

In 2014 I was invited to serve and continue to serve as a Fine Arts Advisory Board Committee Member at Three Rivers Community College. As part of my networking and meeting national and international artists at my residencies I was invited in 2016 to become a full time member of the very prestigious SOHO 20 Gallery in Brooklyn, New York.

Contemporary Art is a vibrant combination of flexible media, methods, concepts, and subjects. My work and research as a contemporary artist deals with culturally diverse subject matter. Through my artwork, I continue to challenge the boundaries of culture while offering awareness and promoting dialogue about culture, to the viewer.

Thank you for your consideration and time to review my application.

Respectfully Submitted,

**Afarin Rahmanifar**

A handwritten signature in black ink, appearing to read 'Afarin Rahmanifar', written in a cursive style.

**CT BOARD OF REGENTS FOR HIGHER EDUCATION**

**RESOLUTION**

concerning

CSCU Community College Areas of Study

January 25, 2019

**RESOLVED:** That the Board of Regents for Higher Education directs the CSCU System Office, through the leadership of the CSCU Provost and Senior Vice President for Academic and Student Affairs, to develop, implement, and maintain a set of meta-majors, to be known as Areas of Study, consistent with Guided Pathways practices for the CSCU community college, to be established. The Areas of Study will provide an organizational framework for all academic programs and provide students with clear paths to graduation.

The CSCU Areas of Study are established to support ongoing efforts to improve student success at the CSCU community colleges and in the CSCU system. The Areas of Study will cluster existing degree programs under larger thematic umbrellas into sets of related areas of study. This does not change the overall number of programs offered, but it does simplify the way in which program options are presented to students to afford a more informed decision-making process.

The six CSCU Areas of Study are as follows:

- Social and Behavioral Sciences, Education, and Public Service
- STEM (Science, Technology, Engineering, and Math)
- Manufacturing, Industry, and Technical Careers
- Health Careers
- Humanities and Creative Arts
- Business & Hospitality

Programs established for the singly accredited CT community college will exist within one of these six CSCU Areas of Study. Program establishment within a particular Area of Study will be part of the program approval process.

The CSCU System Office, through the leadership of the CSCU Provost and Senior Vice President for Academic and Student Affairs, will maintain this system of Areas of Study as well as ensure the consistency of their application and use.

A True Copy:

---

Erin A. Fitzgerald, Secretary of the  
CT Board of Regents for Higher Education

**ITEM**

Proposal to establish a limited number of Areas of Study for the singly accredited CT community college. The Areas of Study provide an organizational framework for all academic programs and aid in student decision-making.

**RECOMMENDED MOTION FOR FULL BOARD**

**RESOLVED:** That the Board of Regents for Higher Education directs the CSCU System Office, through the leadership of the CSCU Provost and Senior Vice President for Academic and Student Affairs, to develop, implement, and maintain a set of meta-majors, to be known as Areas of Study, consistent with Guided Pathways practices for the future singly accredited CT community college. The Areas of Study will provide an organizational framework for all academic programs and aid in student decision-making.

**BACKGROUND*****What are Meta-Majors?***

Meta-majors are collections of academic degree programs that have related courses and career goals and share common foundational skills (Waugh, 2016). For example, a “health careers” meta-major might include a number of different specific degree programs, such as exercise science, occupational therapy assistant, radiography, respiratory care, surgical technology, nursing, etc. Meta-majors organize existing degree programs into smaller sets of related areas of study. Implementing meta-majors does not change the overall number of programs offered, but it does simplify the way in which program options are presented to students to afford a less anxiety-provoking and more informed decision-making process. For example, instead of trying to select a major from a list of over 100 possible options, students select a broad area of study from among five to eight options. While more options may intuitively seem better, research suggests that too many options results in decision paralysis and impairs effective decision-making (Kahneman, 2011; Schwartz, 2004). The overwhelming number of CT community college students who enroll in General Studies degree programs across the twelve colleges suggests that this may indeed be the case.

***Why Meta-Majors?***

The rationale for meta-majors is convincingly summarized by Waugh (2016):

“We know that the completion statistics for low-income and underprepared students enrolled in certificate and degree programs at community colleges are dismal. A growing body of evidence reveals that a central factor in these low completion rates is the ‘cafeteria’ style approach to college, which provides entering students with a dizzying array of choices and little guidance on navigating those choices. Recent brain science research demonstrates that people feel anxiety and irritation when faced with too many choices and, as a result, are more likely to make poor choices or avoid the situation entirely. A poor decision on which classes to take can cost community college students a significant amount of time and potentially mean the difference

between earning a credential or degree and stopping or dropping out... A key design principle of Guided Pathways is that academic programs of study be structured to provide students with guidance and clear routes to completion. Guided pathways aim to reduce student meandering caused by an overwhelming array of course options, unclear program requirements and a lack of guidance. Meta-majors provide this structure from a student's entry to college all the way through completion.”

Evidence suggests that entering a specific program of study within a year of enrollment is critical to successful completion (Jenkins & Cho, 2012). Meta-majors can thus be particularly beneficial for students who are undecided about their educational and career goals at the time of entry into college, which can be as high as 65% to 70% of all entering students (Albion & Fogarty, 2002). Meta-majors provide an easy-to-understand entry point to the diverse program offerings at our colleges and help students begin to narrow their interests early in their academic journey. Students enter an area of study and complete coursework in this interest area before deciding on a more specific major or program of study. Of course, students who enter the college already having decided on their degree program are still able to choose that major rather than first designating a meta-major.

The benefits of the meta-major framework extend beyond helping students select a course of study. General education and foundational skill courses can be aligned to the different needs within different meta-majors. For example, math requirements may vary by area of study from those requiring statistics (e.g., Behavioral Sciences) to those needing an algebra or calculus sequence (e.g., STEM). Default pathways within each area of study identify the math, and other general education requirements and recommendations, for students up-front. Because academic programs within an Area of Study share similar courses and foundational skills, meta-majors provide a means to ensure that students register for relevant courses within coherent degree programs. This, in turn, means that students can explore multiple transfer and career options within an area of study while maintaining momentum toward completion and increases the likelihood that students will earn a meaningful credential and/or transfer in a timely fashion.







Meta-majors create cohorts of students with related interests, foster early connections between students and faculty experts within an area of study, and allow co-curricular programming (i.e., experiences and activities outside the classroom that support and reinforce class content) matched to student interests. These are all highly effective ways of increasing student engagement. “The research findings are unequivocal. Student learning, persistence, and attainment in college are strongly associated with student engagement. The more actively engaged students are – with college faculty and staff, with other students, with the subject matter they are studying – the more likely they are to persist in their college studies and to achieve at higher levels.” (Center for Community College Student Engagement, 2018)

### ***How were the Areas of Study determined?***

The Guided Pathways Choice Architecture team was established in Spring 2018 and charged with making recommendations concerning a number of academic components of implementing Guided Pathways reforms in the CT community colleges, including identifying possible meta-majors.

The team includes faculty, staff, and administrators from all twelve community colleges, Charter Oak State College, and the CSU’s. Student representatives from SAC also participate in team meetings. Team members represent a wide array of academic disciplines, career programs, governance committees, support services, and functional areas. Past and current team members, including Guided Pathways managers: Rebecca Adams (HCC), Shirley Adams (COSC), Gayle Barrett (MxCC), Kevin Bechard (MCC), Vicki Bozzuto (GCC), Sara (Brinckerhoff) Hanson (MxCC), Mike Buccilli (GCC), Jeff Buskey (ECSU), Jodi Calvert (TRCC), Michelle Coach (ACC), Tamika Davis (TxCC), Joe DeFeo (NVCC), Amy Feest (TxCC), David Ferreira (NCCC), Teresa Foley (ACC), Andre Freeman (CCC), Dan Fuller (GCC), Forrest Helvie (NCC), Debbie Herman (MCC), Mary Ellen Jukowski (TRCC), Amy Kacerik (QVCC), Bev King (NCCC), Laura McCarthy (NCCC), Steve McDowell (SO), Chris Paulin (MCC), Phyllis Perry (SO), Ron Picard (NVCC), Oscar Rivera (SO), Francine Rosselli-Navarra (MCC), Christine Ruggiero (MxCC), Sarah Selke (TRCC), Amanda Sweeney (GCC), Sally Terrell (TxCC), Nora Uricchio (MCC), Emily Verdosci (NVCC, student), Heather Vogt (QVCC, student), and Heidi Zenie (TRCC).

Based on a review of meta-majors implemented at Guided Pathways colleges across the country, the team brainstormed a list of possible meta-majors. Team members brought this list back to their campuses for feedback and the list was refined through discussion of this feedback. The team recommends the following six Areas of Study (note: the icons below are for illustrative purposes only).

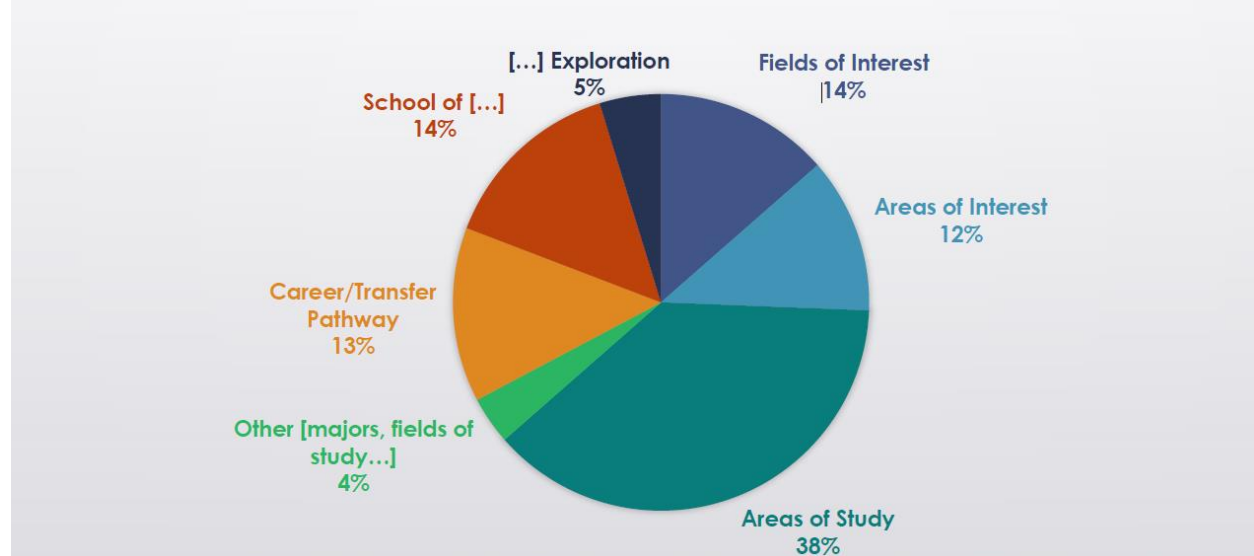
Social & Behavioral Sciences, Education, & Public Service	
STEM (Science, Technology, Engineering, & Math)	
Manufacturing, Industry, & Technical Careers	
Health Careers	
Humanities & Creative Arts	
Business & Hospitality	



### *From Meta-Majors to Areas of Study.*

Feedback from students, faculty, and staff indicated that the term “meta-major” is not intuitively appealing or understandable. In the Spring of 2018, faculty and staff members from the Guided Pathways Choice Architecture team surveyed students to determine their preferred term for the meta-major construct. The survey included the following alternatives to the term meta-major: (1) areas of study, (2) areas of interest, (3) fields of interest, (4) transfer and career pathways, (5) school of [health, business, science, etc.], (6) [health, business, science, etc.] exploration, and (7) a write-in option. As evident in the figure below, “Areas of Study” emerged as the preferred option.

### Student Survey: Preferred term for “meta-major” (Spring 2018; n=726 students @ 5 CT Community Colleges)



### *Mapping Degree Programs into Areas of Study.*

The placement of specific academic programs within each Area of Study involves both theoretical judgments of “best fit” (e.g., an accounting program intuitively appears to fit best within a “Business” Area of Study whereas a music program appears best suited in the “Humanities and Creative Arts” Area of Study) as well as empirical validation that the proposed programs within an Area of Study have some overlap in course-work and career trajectories. Ideally, programs within a single Area of Study should have a similar first semester sequence of courses that includes at least one introductory level content course within that interest area as well as English and math courses aligned to the Area of Study. Mapping programs to Areas of Study is an iterative process that requires collaboration between program faculty and academic administrators. Facilitation and oversight of the process will initially be provided by Guided Pathways leadership and the Choice Architecture team. Following consolidation, changes to the

Areas of Study or programs within an Area of Study will adhere to governance processes established through the consolidation process.

*Areas of Study as part of Guided Pathways reforms*

Consistent with the revised CSCU Students First initiative approved by the Board of Regents on June 18, 2018, implementing Areas of Study is just one in a series of Guided Pathways initiatives designed to improve student success and increase student retention and completion. Guided Pathways design principles recommend that students select an academic and career pathway as early as possible. The Areas of Study are just one way in which Guided Pathways reforms will aid students in this early decision making. A newly re-imagined onboarding process offers the students a streamlined approach to entering the community college system. This on-boarding process will support student career exploration and decision making through the use of interest inventories which, upon completion, will suggest meta-majors for further career exploration. In addition, the newly developed College and Career Success course has been intentionally designed to create a space where students can engage in meaningful career exploration and planning. With faculty guidance, the student will create a comprehensive academic plan and will learn how to evaluate their plan and modify as needed. The College and Career Success course is a vehicle that helps students choose a path and provides the tools students need to stay on a path.

**RECOMMENDATION**

It is the recommendation of the System's Provost and Senior Vice President for Academic and Students Affairs that the Board of Regents give favorable consideration to the establishment of the proposed Areas of Study.

References

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## CSCU Working Group Charge

### Alignment and Completion of Math and English

**Group Name: Alignment and Completion of Math and English (ACME)**

**Group Charge:** To use Guided Pathways design principles and existing expertise in the CSCU community colleges to develop and recommend policies and practices that facilitate student completion of college level math and English within the first year. The group will facilitate the alignment of the appropriate math and English requirements with programmatic, transfer, and workforce needs.

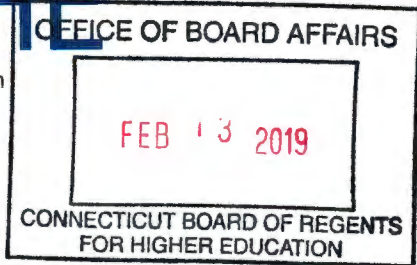
**Group Leads:** Guided Pathways Managers, CSCU: Heidi Zenie (TRCC), Francine Rosselli-Navarra (MCC), Consolidation: Michael Stefanowicz (CSCU). The ACME working group reports to the CSCU Guided Pathways Task Force and will provide updates as needed to the Students First Academic and Student Affairs Consolidation Committee.

**Group Membership:** Members should include faculty (including developmental education and ESL faculty and coordinators), professional staff members (including testing administrators), and administrators from the CSCU community colleges, as well as CSCU System Office staff, the CSCU universities, and other related stakeholders as determined by the group leads. Members will also include the individuals on the Connecticut Coalition of English Teachers (CCET) and the CSCU Math Basic Skills group.

  
Charged by Jane Gates,

CSCU Provost and Senior VP Academic & Student Affairs

  
Charge Date



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Boston College

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Worcester, MA

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College of Our Lady of the Elms

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February 5, 2019

Mr. Matt Fleury  
Board Chair  
Connecticut Board of Regents  
61 Woodland Street  
Hartford, CT 06105

Dear Mr. Fleury:

Enclosed for you is a copy of the New England Commission of Higher Education's letter of January 22, 2019 to President Drummer notifying her of the action taken by the Commission at its November, 2018 meeting. It is being sent to you in keeping with the Commission's policy to routinely inform board chairs of such actions.

Sincerely,



Barbara E. Brittingham

BEB/sjp

Enclosure

cc: President Drummer





January 22, 2019

Dr. Carlee Rader Drummer  
President  
Quinebaug Valley Community College  
742 Upper Maple Street  
Danielson, CT 06239

Dear President Drummer:

I write to inform you that at its meeting on November 15, 2018, the New England Commission of Higher Education considered the report submitted by Quinebaug Valley Community College and took the following action:

that the report submitted by Quinebaug Valley Community College be accepted;

that the comprehensive evaluation scheduled for Fall 2021 be confirmed;

that, in addition to the information included in all comprehensive evaluations, as well as the matters specified in our letter of October 22, 2018, the institution give emphasis, in the Fall 2021 self-study, to its continued success in assessing student learning and achieving its goals to improve retention and graduation rates;

that the Commission notes the proposal by the President of the Connecticut State Colleges and Universities system regarding a possible reconfiguration of community colleges by 2023 and informs Quinebaug Valley Community College that the advancement of those plans may result in changes to the scheduled monitoring of the College.

The Commission gives the following reasons for its actions.

The report submitted by Quinebaug Valley Community College was accepted because it was generally responsive to the concerns raised by the Commission in its letters of November 14, 2016 and July 18, 2017.

The Commission appreciates the progress report submitted by Quinebaug Valley Community College (QVCC) and takes favorable note of the College's efforts to implement the Board of Regents Transfer and Articulation Program (TAP), assess student learning, and improve its retention and graduation rates. We understand that QVCC has implemented 17 of the

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26 Transfer Articulation Pathways developed by the Connecticut State Colleges and Universities (CSCU) System. We are pleased to note that QVCC has collected assessment data from multiple semesters that will be shared with faculty to “improve TAP assessment” as well as with the CSCU TAP Implementation Committee and Learning Assessment Council. The Commission also commends the College on its multiple initiatives to improve retention and graduation rates by addressing student readiness for college, including embedded support in math and English courses, the First-Year Experience course, and its College Career Pathway (CCP) course offerings at the local high schools. We further appreciate that QVCC is working to reduce other barriers to student success: there were 40 classes with a “#NoLo” (No Cost/Low Cost) textbook designation in the Fall 2018 semester, and the College addresses food insecurity issues through a Meal Ticket Program and Help Yourself Boxes. In addition, the Student Success Center offers a LEAP (Learn, Enroll, Assess, Proceed) workshop for students and a New Student Orientation each fall. Advising Services uses email, text messages, telephone calls, and post card mailings to connect with students for advising and registration services. The Commission is gratified to learn that QVCC’s efforts have contributed to a combined retention and graduation rate of 72 percent.

The scheduling of a comprehensive evaluation in Fall 2021 is consistent with Commission policy requiring each accredited institution to undergo a comprehensive evaluation at least once every ten years. The College is asked, in the Fall 2021 self-study, to give emphasis to its continued success in assessing student learning and achieving its goals to improve retention and graduation rates. The Commission recognizes that these matters do not lend themselves to rapid resolution and will require the College’s sustained attention over time; hence, we ask that further information be provided in the self-study.

The Commission notes the proposal by the President of the Connecticut State Colleges and Universities system regarding a possible reconfiguration of the community colleges by 2023. Such a re-organization could result in a change in the schedule of monitoring of Quinebaug Valley Community College.

The Commission expressed appreciation for the report submitted by Quinebaug Valley Community College and hopes that its preparation has contributed to institutional improvement. It appreciates your cooperation with the effort to provide public assurance of the quality of higher education in New England.

You are encouraged to share this letter with all of the institution’s constituencies. It is Commission policy to inform the chairperson of the institution’s governing board and the head of the system of action on its accreditation status. In a few days we will be sending a copy of this letter to Mr. Matt Fleury and Mr. Mark Ojakian. The institution is free to release information about the evaluation and the Commission’s action to others, in accordance with the enclosed policy on Public Disclosure of Information about Affiliated Institutions.

If you have any questions about the Commission’s action, please contact Barbara Brittingham, President of the Commission.

Sincerely,



David Quigley

DQ/sjp

Enclosures

cc: Mr. Matt Fleury  
Mr. Mark Ojakian



OFFICE OF BOARD AFFAIRS

FEB 20 2019

CONNECTICUT BOARD OF REGENTS  
FOR HIGHER EDUCATION

February 5, 2019

Mr. Matt Fleury  
Board Chair  
Connecticut Board of Regents  
61 Woodland Street  
Hartford, CT 06105

Dear Mr. Fleury:

Enclosed for you is a copy of the New England Commission of Higher Education's letter of January 24, 2019 to President Harris notifying him of the action taken by the Commission at its November, 2018 meeting. It is being sent to you in keeping with the Commission's policy to routinely inform board chairs of such actions.

Sincerely,

  
Barbara E. Brittingham

BEB/sjp

Enclosure

cc: President Harris

DAVID QUIGLEY, Chair (2021)  
Boston College

GEORGE W. TETLER, Vice Chair (2019)  
Worcester, MA

HARRY E. DUMAY (2019)  
College of Our Lady of the Elms

JEFFREY R. GODLEY (2019)  
Groton, CT

COLEEN C. PANTALONE (2019)  
Northeastern University

MARIKO SILVER (2019)  
Bennington College

KASSANDRA S. ARDINGER (2020)  
Trustee Member, Concord, NH

RUSSELL CAREY (2020)  
Brown University

FRANCESCO C. CESAREO (2020)  
Assumption College

F. JAVIER CEVALLOS (2020)  
Framingham State University

RICK DANIELS (2020)  
Cohasset, MA

DONALD D. DEHAYES (2020)  
University of Rhode Island

PAM Y. EDDINGER (2020)  
Bunker Hill Community College

THOMAS S. EDWARDS (2020)  
Thomas College

KIMBERLY M. GOFF-CREWS (2020)  
Yale University

MARTIN J. HOWARD (2020)  
Boston University

SUSAN D. HUARD (2020)  
Manchester Community College (NH)

JEFFREY S. SOLOMON (2020)  
Worcester Polytechnic Institute

ELEANOR BAKER (2021)  
Falmouth, ME

KATHERINE BERGERON (2021)  
Connecticut College

PETER L. EBB (2021)  
Trustee Member, Boston, MA

GREGORY W. FOWLER (2021)  
Southern New Hampshire University

DENNIS M. HANNO (2021)  
Wheaton College

LILY S. HSU (2021)  
Johnson & Wales University

ELLEN L. KENNEDY (2021)  
Berkshire Community College

ABDALLAH A. SFEIR (2021)  
Lebanese American University

JOHN M. SWEENEY (2021)  
Providence College

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PAULA A. HARBECKE  
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Lebanese American University

NEIL D. STEINBERG (2021)  
Providence, RI

JOHN M. SWEENEY (2021)  
Providence College

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PAULA A. HARBECKE  
pharbecke@neasc.org

January 24, 2019

Dr. G. Duncan Harris  
Interim Campus Chief Executive Officer  
Capital Community College  
950 Main Street  
Hartford, CT 06103

Dear Dr. Harris:

I write to inform you that at its meeting on November 16, 2018, the New England Commission of Higher Education considered the report submitted by Capital Community College and took the following action:

that the information submitted by Capital Community College regarding the accreditation status of its Medical Assisting Associate Degree program be accepted;

that the progress report submitted by Capital Community College be accepted;

that the interim (fifth-year) report scheduled for consideration in Fall 2021 be confirmed;

that, in addition to the information included in all interim reports, the institution give emphasis, in the Fall 2021 report, to its success in:

- 1) implementing its new strategic plan, including development of an enrollment strategy and progress towards achieving its retention and graduation goals;
- 2) evaluating the impact of the anticipated regional consolidation, with an emphasis on financial and human resource planning, program development and sustainability, and student success.

that the comprehensive evaluation scheduled for Fall 2026 be confirmed;

that the Commission notes the proposal by the President of the Connecticut State Colleges and Universities system regarding a possible reconfiguration of community colleges by 2023 and informs Capital Community College that the advancement of those plans may result in changes to the scheduled monitoring of the College.

The Commission gives the following reasons for its actions.

3 Burlington Woods Drive, Suite 100, Burlington, MA 01803-4514  
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cihe.neasc.org



The information submitted by Capital Community College (CCC) regarding the accreditation status of its Medical Assisting Associate Degree program was accepted because it was generally responsive to the request made by the Commission in its letter of October 28, 2016. We note with favor that at its September 2018 meeting, the Commission on Accreditation of Allied Health Education Programs awarded continuing accreditation to the program and scheduled the next comprehensive evaluation of the program for Spring 2024.

The progress report submitted by Capital Community College was accepted because it was generally responsive to the concerns raised by the Commission in its letter of May 30, 2017.

The Commission commends Capital Community College for its comprehensive and candid progress report. We are pleased that the new Interim CEO and Academic Dean are engaging stakeholders from across the College to address financial resource concerns and to improve student success. We acknowledge that CCC is working to offset a reduction in the state general appropriation (\$12.4 million in FY2016 reduced to \$9.9 million in FY2019) as well as a decline in enrollment (2,475 FTE in FY2012 to 1,671 FTE in FY2018) by identifying cost reductions and efficiencies in both staff and facilities and increasing revenue from the Workforce Development and Continuing Education unit. We appreciate that Capital Community College is developing a "long-term academic advising strategy, along with an enrollment management and retention plan," to stabilize retention rates and, through its participation in Achieving the Dream, is collecting and analyzing data as part of that process. The Commission is also gratified to learn that fall-to-fall retention rates at the College have remained relatively steady (42-46%) since the 2015-2016 academic year and that the graduation rate has improved from 6% in 2016 to 11.5% in 2018.

Commission policy requires an interim (fifth-year) report of all institutions on a decennial evaluation cycle. Its purpose is to provide the Commission an opportunity to appraise the institution's current status in keeping with the policy on Periodic Review. In addition to the information included in all interim reports, the College is asked, in Fall 2021, to report on two matters related to our standards on *Planning and Evaluation, Students, Educational Effectiveness, and Organization and Governance*.

As noted above, the Commission appreciates Capital Community College's plans to develop an enrollment and retention strategy. We are further pleased to learn that CCC has initiated a new strategic planning process. The Commission anticipates being apprised, in Fall 2021, of the College's progress in implementing its new strategic plan and achieving its retention and graduation goals. We are guided here by our standards on *Planning and Evaluation, Students, and Educational Effectiveness*:

The institution plans beyond a short-term horizon, including strategic planning that involves realistic analyses of internal and external opportunities and constraints. The results of strategic planning are implemented in all units of the institution through financial, academic, enrollment, and other supporting plans (2.3).

The institution has a demonstrable record of success in implementing the results of its planning (2.5).

Consistent with its mission, the institution sets and achieves realistic goals to enroll students who are broadly representative of the population the institution wishes to serve (*Students, Statement of the Standard*).

The institution's goals for retention and graduation reflect institutional purposes, and the results are used to inform recruitment and the review of programs and services (5.6).

The institution defines measures of student success and levels of achievement appropriate to its mission, modalities and locations of instruction, and student body, including any specifically recruited populations. These measures include rates of progression, retention, transfer, and graduation; default and loan repayment rates; licensure passage rates; and employment (8.6).

The Commission understands that the Connecticut State College and University System anticipates a regional consolidation of the twelve community colleges. If the consolidation moves forward, Capital Community College will join four other community colleges in the Capital East region. We agree with the institution's assessment that this consolidation will have "long-term implications for the College." The Fall 2021 report will provide an opportunity for CCC to update the Commission on the impact of this anticipated consolidation on its financial and human resource planning, program development, and student success. This section of the report should be informed by our standard on *Planning and Evaluation* (cited above) and *Organization and Governance*:

In multi-campus systems organized under a single governing board, the division of responsibility and authority between the system office and the institution is clear. Where system and campus boards share governance responsibilities or dimensions of authority, system policies and procedures are clearly defined and equitably administered (3.6).

Finally, the scheduling of a comprehensive evaluation in Fall 2026 is consistent with Commission policy requiring each accredited institution to undergo a comprehensive evaluation at least once every ten years.

As noted above, the Commission acknowledges the proposal by the President of the Connecticut State Colleges and Universities system regarding a possible reconfiguration of the community colleges by 2023 and reminds Capital Community College that such a re-organization could result in a change in the schedule of monitoring of the institution.

The Commission expressed appreciation for the report submitted by Capital Community College and hopes that its preparation has contributed to institutional improvement. It appreciates your cooperation with the effort to provide public assurance of the quality of higher education in New England.

You are encouraged to share this letter with all of the institution's constituencies. It is Commission policy to inform the chairperson of the institution's governing board and the head of the state system of action on its accreditation status. In a few days we will be sending a copy of this letter to Matt Fleury and Mark Ojakian. The institution is free to release information about the evaluation and the Commission's action to others, in accordance with the enclosed policy on Public Disclosure of Information about Affiliated Institutions.

If you have any questions about the Commission's action, please contact Barbara Brittingham, President of the Commission.

Sincerely,



David Quigley

DQ/sjp

Enclosures

cc: Matt Fleury  
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