CSCU

BOR ACADEMIC AND STUDENT AFFAIRS COMMITTEE
AGENDA
Monday, November 26, 2018 at 1:00 p.m.
61 Woodland Street, Htfd., CT – Board Room (ground floor)

1. Approval of Minutes
   a. October 5, 2018 – *Page 1*

2. Consent Items
   a. Discontinuations
      i. Basic Business Skills – Certificate – Three Rivers CC – *Page 9*
      ii. Substance Abuse – Certificate – Middlesex CC – *Page 13*
      iii. Juvenile Justice – Certificate - Middlesex CC – *Page 17*

3. Action Items
   a. New Programs
      i. Civic Engagement – Certificate – Tunxis CC – *Page 21*
      ii. Addiction Studies – MS – WCSU – *Page 32*
      iii. Supply Chain Logistics Management – MS – CCSU – *Page 53*
      iv. Athletic Training – BS/MS 3+2 – CCSU – *Page 78*
      v. Data Science – BS – SCSU – *Page 98*

   b. Academic Program Review: 2018-19 Academic Year Schedule – *Page 119*

   c. Comparative Enrollments: 2014-15 Cohort of Newly Established Programs – *Page 125*

   d. BOR Policy Amendments
      i. Academic Program Review – Low Completers – *Page 146*

4. Informational Items
   a. 2019-2020 State Universities Sabbaticals
      i. ECSU – *Page 153*

   b. NECHE Notification of Action Taken - Second Chance Pell Program Instructional Locations
      i. Asnuntuck CC - MacDougall-Walker Correctional Center (Suffield, CT) and Osborn Correctional Institution (Somers, CT) – *Page 158*
      ii. Quinebaug Valley CC – Brooklyn (CT) Correctional Center – *Page 161*
      iii. Three Rivers CC – York Correctional Institution (Niantic, CT) and Radgowski Correctional Institution (Uncasville, CT) – *Page 164*

   c. Below Threshold
      i. Teaching in Technology Education – MAT - PK-12 Specialization – CCSU – *Page 167*
      ii. Sustainable Food Systems – Certificate – Naugatuck Valley CC – *Page 170*

CSCU

CT BOARD OF REGENTS FOR HIGHER EDUCATION

ACADEMIC & STUDENT AFFAIRS COMMITTEE

Meeting – October 5, 2018
9:30 a.m. – 61 Woodland Street, Hartford

MINUTES

Regents Present:	Merle Harris, Naomi Cohen, Aviva Budd (via teleconference), William Lugo, Del Cummings (via teleconference)
Regents Absent:	None
Staff Present:	Jane Gates (via teleconference), Pat Bouffard, Mike Buccilli, Bill Gammell, Lesley Mara, Pat Ryiz, Erika Steiner
Other Attendees:	Missy Alexander (WCSU), Christine Broadbridge (SCSU), Michelle Brown (SCSU), Michelle Coach (ACC), Ilene Crawford (SCSU), David Dauwalder (CCSU), Matthew Enjalran (SCSU), Chris Galligan (CCSU), Michele Howard-Swan (ACC), Chris Kukk (WCSU), Sue Passini (ACC/TxCC), Robert Prezant (SCSU), William Salka (ECSU), Patricia Szczys (ECSU),

The meeting was called to order by Chair Merle Harris at 9:35 a.m.

1. Approval of Minutes from September 7, 2018

A motion to approve the minutes from the September 7, 2018 meeting was made by N. Cohen and seconded by Chair Harris. A vote was taken and the minutes from the September 7, 2018 meeting were unanimously approved.

2. Action Items
   a. New Programs
      i. Massage Therapy – AS – Asnuntuck CC

Michelle Coach, Interim Dean of Academic Affairs, Michele Howard-Swan, Asst. Professor and Allied Health Coordinator, and, Sue Passini, Massage Therapy Instructor, presented the program for Asnuntuck CC. The proposed Massage Therapy A.S. degree is 60-61 credits. Currently Asnuntuck CC offers a non-credit certificate in Massage Therapy through Continuing Education and Workforce Development but students in the non-credit certificate program do not qualify for financial aid. Students in the program must pass the Massage Board Licensing Exam (MBLEx) prior to obtaining CT licensure. Upon passing the exam, graduates will be able to work in any state as massage therapists. According to labor market data, there is a high demand for massage therapists in Asnuntuck's service area in the next ten years. The program is expected to generate income with a minimum of 12 students per year. Asnuntuck also has a Massage Therapy Clinic on campus which generates revenue for the program.

Questions/comments centered on the budget and licensure requirements. Prof. Passini discussed the requirements for licensure in the state of CT: 750 hours of classroom instruction, 60 hours of clinical experience and a passing score on the Massage Board Licensing Exam (MBLEx).

A motion to approve the Asnuntuck CC Massage Therapy AS degree program was made by N. Cohen and seconded by A. Budd. A vote was taken and the Massage Therapy AS degree program was unanimously approved.

b. State University Centers and Institutes: Seven-Year Reports

The Board of Regents approved a new policy for the Establishment of Centers and Institutes in the CT State Colleges and University System on September 19, 2017. The policy requires the chief administrative officer of each center or institute to evaluate the entity in terms of achieving its goals and objectives as well as Board of Regents' goals and must submit a Sunset Report for Continuation or Discontinuation every seven years

i. Continuation of a Center/Institute

a) Central CSU

1) Center for East Asian Studies

A motion to approve the continuation of the CCSU Center for East Asian Studies for an additional seven years, until December 31, 2025, was made by N. Cohen and seconded by A. Budd.

Provost David Dauwalder and Dr. Chris Galligan, VP of Institutional Advancement, discussed the CCSU Center and Institute. The CCSU Center for East Asian Studies has been in operation since 1998, first as the China Resource Center, renamed to the East Asian Studies Center in November 2003. The Center employs four strategies to support Asian and Asian-American students at CCSU: 1) Academic Performance Analysis; 2) the Mentoring Program; 3) the Early Academic Alert System; and 4) Center-sponsored events.

Questions/Comments centered on:

a) *Student Monitoring* – Why do Asian Americans need special monitoring? CCSU is working with the Center's Director to potentially expand the work of the Center.

b) *Can CCSU consider making this an International Center? Or, alternatively, combining this Center other similar Centers?* There are two other similar Centers at CCSU, the Africana Center and the Latin American, Latino and Caribbean Center. Provost Dauwalder noted that he has been at CCSU for seven months and was asked to look at the three centers noted above, but The East Asian Center is up for renewal now. CCSU has hired external consultants to look at the three Centers and to determine how to establish stronger linkages between the Centers and academic programs. President Toro has charged Provost Dauwalder to work with the Center Director to consider changes to the mission of the Center and to develop a five-year Strategic Plan. Chair Harris asked how much time CCSU would need to review the Center and move the recommendations forward to the ASA Committee.

c) *Revenue* – Regent Budd asked how much revenue the Center generated and how it would change if the three Centers were combined. Dr. Lugo

suggested that combining the three centers would result in a "one size fits all" approach, which may not be beneficial to any of the three groups.

d) Student Satisfaction Survey – The 2017 survey for students in the East Asian Center showed that over 48% of the respondents expressed strong dissatisfaction with CCSU as a friendly and supportive campus. Chair Harris stated that while students responded to other questions regarding the campus environment positively; this issue, in addition to student retention, needs to be explored.

Chair Harris recommended that CCSU review the Center to determine whether they want to continue the center or combine it, and other Centers, into an International Center.

A substitute amendment was made by N. Cohen seconded by A. Budd to approve the continuation of the East Asian Center until December 31, 2019 and prior to that date CCSU should submit a recommendation to the ASA Committee to continue the Center, with changes, or to terminate it. A vote was taken on the amended motion and passed unanimously.

2) Institute for Technology and Business Development (ITBD)

A motion to approve the continuation of the CCSU Institute for Technology and Business Development (ITBD) until June 30, 2019 was made by N. Cohen and seconded by A. Budd.

The primary goal of the CCSU Institute for Technology and Business Development (ITBD) is to carry out CCSU's mission to support CT's business community training needs and technology deployment, workforce development, incubation opportunities and conference rentals. President Toro, in a memorandum to Provost Jane Gates dated September 10, 2018, requested approval to continue the ITBD for six months to conduct a strategic planning process that will guide CCSU in the creation of a Center or Institute that will fully serve the needs of CCSU students, faculty, industrial partners and clients. The ITBD has been operating at a deficit for four out of the last five years.

The motion to approve the continuation of the CCSU Institute for Technology and Business Development (ITBD) until June 30, 2019 with a report on the ITBD to be provided to the ASA prior to that date passed unanimously.

b) Eastern CSU

1) Church Farm Center for Arts and Sciences

A motion to approve the continuation of the ECSU Church Farm Center for Arts and Sciences for an additional seven years, until December 31, 2025, was made by N. Cohen and seconded by A. Budd.

Dr. William Salka, Provost and Dr. Patricia Szczys, Professor of Biology and Director of the University Honors Program, discussed the ECSU Church Farm Center for Arts and Sciences. The Church Farm was donated to the ECSU Foundation in 2007 and the Church Farm Center for Arts and Sciences was established in March 2008. The Center is used as a site for student and faculty research, for formal learning experiences for ECSU students and members of the broader community and for cultural activities. A $500,000 grant from the John

C. Hicks Estate funds research conducted on the site. The ECSU Foundation owns and maintains the Church Farm property and allows the Center to use the facility at no cost. The ECSU Foundation will continue to fund the Center. Questions/Discussion centered on The Center's budget - The $500,000 Hicks grant endows a Chair in Biology. The Chair is also the Director of the Church Farm Center. There were questions regarding the budget.

Chair Harris called for a vote to approve the continuation of the ECSU Church Farm Center for Arts and Sciences for an additional seven years, until December 31, 2025. A vote was taken and the vote was unanimous.

c) Southern CSU

1) CSCU Center for Nanotechnology at SCSU

A motion to approve the continuation of the CSCU Center for Nanotechnology at SCSU for an additional seven years, until December 31, 2025, was made by N. Cohen and seconded by A. Budd.

Dr. Robert Prezant, Provost, Dr. Ilene Crawford, AVP for Academic Affairs, Dr. Christine Caragianis Broadbridge, Executive Director, Research and Innovation and Professor of Physics, SCSU, Mary Ann Hanley, Former Director of the Governor's Office for Workforce Competitiveness and current Liaison for Advocacy and Community Alliances for Trinity Health of New England, Deborah Santy, Former Director of the CT SBIR Office and current Small Business Technology Transfer Program Specialist, UCONN and Dr. Matthew Enjalran, Professor and Chairperson for Physics, SCSU, presented on the CSCU Center for Nanotechnology at SCSU. The CSCU Center for Nanotechnology was established in November 2013. The Center is a multi-institutional entity with regional hubs on the campuses of other CT State Universities. The Center's activities include grant-funded projects, publications and presentations of scholarly work, conferences and sponsorship and participation of community outreach and education events. The Center has established itself as a "world-class" research facility and leader in nanotechnology education. More than 200 students have participated in research projects, internships, fellowships or scholarships funded by the center. Hundreds of K-12 teachers have participated in workshops and/or research experiences through the Center. Center personnel have developed productive connections with regional industries, public and private educational institutions (K-Grad) and workforce development and professional organizations. Regent Budd questioned the low and declining numbers in the summer program and the Research Experience for Undergraduates (REU) program. SCSU representatives responded that industry professionals provide business problems to students. The program is funded by the SCSU Foundation and the work that students do leads to internships. The number of students is based on the number of projects which vary from year to year. The work of the Center is very important to the State of CT.

Chair Harris called for a vote to approve the continuation of the CSCU Nanotechnology Center at SCSU for an additional seven years, until December 31, 2025. A vote was taken and the vote was unanimous.

d) Western CSU

1) Center for Compassion, Creativity and Innovation

A motion to approve the continuation of the WSCU Center for Compassion, Creativity and Innovation for an additional seven years, until December 31, 2025, was made by N. Cohen and seconded by A. Budd.

Dr. Missy Alexander, Provost, and Dr. Christopher Kukk, Director of the WCSU Honors Program, presented for WCSU. The Center for Compassion, Creativity and Innovation was established in June 2013. The initial funds to establish the Center were from the Dali Lama, following his visit to the campus, and individual donors. The mission of the Center is to support teaching, research and intellectual discourse exploring the values of compassion, creativity and innovation for students, faculty, staff and the community at large. The Center's faculty has developed and implemented two interdisciplinary courses. The Center has generated fifteen community service projects and co-hosted five projects with the Tibetan Buddhist Center for Universal Peace. Given questions about future funding, Provost Alexander requested 1-2 years for the continuation of the Center with a report back to ASA about the future of the Center. WCSU will develop a strategic plan for the center with goals and a strategy for fundraising. Provost Alexander stated that WCSU will not spend any money on the Center until a fundraising plan is developed. **Regent Cohen presented a substitute resolution seconded by A. Budd to extend the WCSU Center for Compassion, Creativity and Innovation to December 31, 2019 and that no revenues be expended during this time, with a report to the ASA prior to that date. Chair Harris called for a vote to approve the continuation of the WCSU Center for Compassion, Creativity and Innovation until December 31, 2019. A vote was taken and the vote was unanimous.**

2) Center for the Study of Culture and Values

A motion to approve the continuation of the WSCU Center for the Study of Culture and Values for an additional seven years, until December 31, 2025, was made by N. Cohen and seconded by A. Budd. Dr. Missy Alexander, Provost, and Dr. Michelle Brown, Dean, Macricostas School of Arts and Sciences, presented for WCSU. The WCSU Center for the Study of Culture and Values was established in March 2003. The mission of the Center is to expand opportunities and enrich discourse in the university and community related to culture, values, and issues of choice in history and contemporary life. The Center is supported by an endowment fund given by the Macricostas Family Foundation. This fund has been transferred to the WCSU Foundation. The Macricostas Family Foundation has recently endowed the WCSU School of Arts and Sciences, renamed the Macricostas School of Arts and Sciences. Provost Alexander noted that WCSU wants to organize the funding from the Macricostas Family Foundation under one umbrella to manage the endowed funds more effectively and efficiently. WCSU plans to bring the Center under the School of Arts and Sciences, work with donors and faculty governance and revise the MOUs and bylaws of the Center.

N. Cohen moved and A. Budd seconded a substitute resolution to extend the WCSU Center for the Study of Culture and Values to December 31, 2019

with the caveat that expenditures will not exceed revenues during this time, with a report to the ASA before that date. A vote to approve the continuation of the WCSU Center for the Study of Culture and Values until December 31, 2019 was taken and the vote was unanimous.

ii. Discontinuation of a Center/Institute

a) Central CSU

1) Biotechnology Institute

A motion to approve the discontinuation of the CCSU Institute for Biotechnology was made by N. Cohen and seconded by A. Budd.
Provost David Dauwalder and Dr. Chris Galligan, VP of Institutional Advancement, presented for CCSU. The CCSU Biotechnology Institute was established in May 2013. The Institute was established to facilitate productive interactions with area biotechnology companies to enhance academic, research and outreach activities in the biomolecular sciences. The economic climate in CT has changed the landscape for Biotechnology companies and their approach to hiring. The Dept. of Biomolecular Sciences has established other ways to accomplish these tasks and has made a decision that an Institute is no longer needed. All remaining institute funds were expended and there were no activities for the period 2016-2018.
Chair Harris called for a vote to approve the discontinuation of the CCSU Biotechnology Institute. A vote was taken and the vote was unanimous.
A discussion ensued after the vote on the discontinuation of the CCSU Biotechnology Institute regarding CSCU Foundations and Centers/Institutes. Regent Cohen asked about policies around how CSU's accept donations. CFO Erika Steiner stated that the CSU Foundations are audited. Component audits are included in the consolidated audit. The BOR can ask for the reports; but the BOR does not control the CSU Foundations' budget. Every CSU has an agreement with its foundation. Chair Harris stated that this subject requires a separate discussion.

c. Policy Amendments – Dr. Ken Klucznik, TAP Co-Manager, and, Dr. Jane Gates, Provost and SVP Academic and Student Affairs

i. <u>Academic Program Review – Low Completers (DRAFT)</u>

The proposed amendment to the Academic Program Review Policy is designed to define low-producing programs and to outline a process for actionable recommendations or further examination beyond the regular academic program review procedures. Institutions must submit an End-of-Year Report (APR Form 2) identifying Low Completer programs within the academic program review for that year and must decide on a course of action for each program which includes program termination, suspension, consolidation or continuation. Institutions must present and submit their reports and recommendations to the BOR.

A motion to approve the BOR Academic Program/Low Completer Review Process was made by N. Cohen and seconded by A. Budd. Provost Gates reiterated that comments/recommendations from the BOR Faculty Advisory Committee (FAC) to revise the BOR Academic Program/Low Completer Review Process were incorporated in the

draft of the policy excluding the request to "change statutory language". Regent Lugo commented that new language was added to the proposed policy beyond what the FAC provided. He requested that the ASA Committee table the BOR Academic Program/Low Completer Review Process until the FAC has the opportunity to review the new language. **Chair Harris called for a motion to table the BOR Academic Program/Low Completer Review Process pending review by the FAC. The motion was approved by N. Cohen and seconded by A. Budd. A vote was taken to table the BOR Academic Program/Low Completer Review Process and the vote was unanimous.**

ii. Academic Program Approval – Below Threshold

Chair Harris called for a motion to approve the BOR Academic Program Approval Policy for the categorization of programs in the definition of Below Threshold. The motion was approved by N. Cohen and seconded by A. Budd. A vote was taken to approve the BOR Academic Program Approval Policy for the categorization of programs in the definition of Below Threshold and the vote was unanimous.

After the BOR Academic Program Approval Policy for the categorization of programs in the definition of Below Threshold was approved, AVP of Academic Affairs, Ilene Crawford, SCSU, asked for clarification on the language. Provost Gates agreed that the statement appears to have redundancy. Chair Harris stated that the Committee will address the issue at the next ASA Committee meeting on November 16, 2018.

d. CSCU Student Success Key Performance Indicators (KPIs) – Annual Process – Dr. Bill Gammell, Director, Policy, Research and Strategic Planning and Greg DeSantis, Executive Director of the Student Success Center, (via teleconference) presented for the System Office.

The CSCU System Office seeks approval to design, implement and disseminate an annual report on Student Success Key Performance Indicators (KPI) for the CSCU community colleges. The CSCU KPIs are established to support ongoing efforts to improve student outcomes at the CSCU community colleges and in the CSCU system. The CSCU System Office will disseminate an annual Student Success KPI report. All degree and certificate students, both full and part time, who entered in the fall term of each previous academic year will be included in the report. The annual report will include data on the twenty-one KPIs presented in the BOR Resolution for all CSCU community colleges. The CSCU Student Success Center and the CSCU Office of Research and System Effectiveness have collaborated to develop a set of short-term Student Success KPIs for the CSCU community colleges that are likely predictors of long-term completion. Short-term measures will allow CSCU to act more quickly and use resources more efficiently.

Questions/discussion centered on:

i. *Effect on Graduation Rates* – As we see the KPIs improving, we should see improved graduation rates.
ii. *Can this data be found in the IPEDs data?* We can't get this information from IPEDs.
iii. *Will the campus Offices of Institutional Research (OIR) be involved?* All KPI research is done in the System Office of Research and System Effectiveness.
iv. *Will the data capture our part time students?* All full- time and part- time students are included.

v. *Will all institutions in CSCU use the KPIs?* The information will be gathered on the community college students.

Chair Harris called for a motion to authorize the CSCU System Office to design, implement, and disseminate an annual report on Student Success Key Performance Indicators (KPI) for the CSCU community colleges. The motion was moved by N. Cohen and seconded by A. Budd. A vote was taken and the annual report on Student Success Key Performance Indicators (KPI) for the CSCU community colleges was unanimously approved.

3. Executive Session (Campus Safety and Security)

On a motion by N. Cohen and seconded by A. Budd, the Committee voted unanimously to go into Executive Session for discussion concerning the safety and security of the CSCU college campuses. At the request of Committee Chair Harris, Provost Jane Gates (via teleconference), CSCU Counsel Ernestine Weaver, CSCU Asst. Counsel Greg Daniels, and, Dr. Ken Klucznik joined the Committee in Executive Session.

The Committee returned to the open session at 12:10 p.m. Committee Chair Harris advised that there were no votes in executive session and that discussion was limited to the safety and security of the CSCU campuses.

On a motion by N. Cohen and seconded by A. Budd, the Committee voted unanimously to adjourn the regular meeting of the Academic and Student Affairs Committee. The meeting was adjourned at 12:20 p.m.

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

Program Discontinuation

December 13, 2018

RESOLVED: That the Board of Regents for Higher Education approve the discontinuation of a program in Basis Business Skills (CIP Code 24.0102 / OHE# 14951) leading to a Certificate at Three Rivers Community College, with a two-year Phase Out period ending Fall 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 Basis Business Skills leading to a Certificate at Three Rivers Community College

BACKGROUND

Summary

There has been low enrollment of students in this program for five years and few completions during that period, and no new students will be admitted. The new TAP degree in Business Administration and the creation of non-transfer degrees in Business Administration and Accounting will fulfill students' interest in this field.

Phase-Out/Teach-Out Strategy

The two currently enrolled students will be afforded the option of changing their program of study or continuing in the referenced program through the phase-out period ending Fall 2020; since all required courses will still be offered.

Resources

No 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 the discontinuation of this program.

11/26/2018 – BOR Academic & Student Affairs Committee
12/13/2018 – Board of Regents

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

SECTION 1: GENERAL INFORMATION		
Institution: Three Rivers Community College	Date of Submission to CSCU Office of the Provost: October 24, 2018	
Discontinued Program: Basic Business Skills Certificate CIP: 240102 OHE#: 14951 Accreditation Date: 7/28/08 Phase Out /Teach Out Period 2 years Expected Date of Program Termination: Fall 2020		
Program Characteristics Name of Program: Basic Business Skills Degree: Title of Award *(e.g. Master of Arts)* Certificate Certificate: *(specify type and level)* Community College Certificate Modality of Program: X On ground X Online Combined		
Institution's Unit *(e.g. School of Business)* and Location *(e.g. main campus)* offering the Program: TRCC Business Department		
Institutional Contact for this Proposal: James O'Shea	Title: Business Department PC	Tel.: 860.215.9459 E-mail: JOshea@trcc.commnet.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:

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 discontinuance was initiated by the Academic Program Review for all of the business programs. The creation of the BUSINESS ADMINISTRATION TAP degree initiated the integration of all other business degrees into two NON-TRANSFER degrees – BUSINESS ADMINISTRATION (with optional concentration in one of the previous degree majors) and ACCOUNTING.

Given the current financial environment, the enrollment in this certificate does not support its continuation. Below is the enrollment for the last five years. There are only two students currently enrolled and all courses required for these students to complete their certificates in the next two years are still being offered.

Major Code	Program Description	Fall13	Fall 14	Fall 15	Fall 16	Fall 17	5-year Average
K25	Basic Business Skills Certificate	2	2	1	1	2	2

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.)

The two students enrolled, along with their advisors, will be notified and given the option to change their program or to complete the program as specified in the catalog. If the students elect to complete the program they will be given the option to complete the certificate in the next two years. All required courses will still be offered. No new students will be permitted to enroll.

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

Program Discontinuation

December 13, 2018

RESOLVED: That the Board of Regents for Higher Education approve the discontinuation of a program in Substance Abuse (CIP Code: 51.1501 / OHE # 12664) leading to a Certificate at Middlesex Community College, with a one-year Phase Out period ending Fall 2019.

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 Substance Abuse leading to a Certificate at Middlesex Community College

BACKGROUND

Summary

There has been low enrollment of students in this program for seven years and few completions during that period, and no new students will be admitted.

Phase-Out/Teach-Out Strategy

The three currently enrolled students will be the option of completing the program as specified in the college catalog or changing their program of study. Course substitutions, independent study and/or referrals to other CSCU campuses to take any remaining courses are alternatives open to these students. Once the program is removed from the catalog, advisors will be notified to inform students of related degree programs and courses in Human Services or Social Work. It is anticipated that the program will be terminated in Fall 2019.

Resources

No 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.

11/26/2018 – BOR Academic & Student Affairs Committee
12/13/2018 – Board of Regents

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

SECTION 1: GENERAL INFORMATION		
Institution: Middlesex Community College	Date of Submission to CSCU Office of the Provost: 9/26/18	
Discontinued Program: Substance Abuse CIP: 511501 OHE#: 12664 Accreditation Date: 10/20/2003 Phase Out /Teach Out Period 1 year Expected Date of Program Termination Fall 2019		
Program Characteristics Name of Program: Substance Abuse 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: MxCC Social Science		
Institutional Contact for this Proposal: Dr. Steven Minkler	Title: Interim Campus CEO & Dean of Academic Affairs	Tel.: 860-343-5706 e-mail: sminkler@mxcc.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:

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 Substance Abuse certificate program has had a total of 12 completions over the past seven years (2011-18) – an average of 1.7 per year. There are only three students enrolled in this program for the 2018-19 school year. Additionally, this program is not current with workforce trends in social services.

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.)

The three enrolled students will be given the option to change their program or study, and/or allowed to complete the program as specified in the catalog. This may include course substitutions, independent study, or referral to another CSCU campus to take any remaining classes. Once removed from the college catalog, advisors will be notified to steer students to a degree in Human Services or Social Work with direct elective in the area of psychology, sociology, human services/Social work and health and wellness.

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

Program Discontinuation

December 13, 2018

RESOLVED: That the Board of Regents for Higher Education approve the discontinuation of a program in Juvenile Justice (CIP Code: 51.1502 / OHE # 11948) leading to a Certificate at Middlesex Community College, with a one-year Phase Out period ending Fall 2019.

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 Juvenile Justice leading to a Certificate at Middlesex Community College

BACKGROUND

Summary

There has been low enrollment of students in this program for seven years and few completions during that period, and no new students will be admitted.

Phase-Out/Teach-Out Strategy

The one currently enrolled students will have the option of completing the program as specified in the college catalog or changing his/her program of study. Course substitutions, independent study and/or referrals to other CSCU campuses to take any remaining courses are alternatives open to this student. Once the program is removed from the catalog, advisors will be notified to inform students of related degree programs and courses in Human Services or Social Work. It is anticipated that the program will be terminated in Fall 2019.

Resources

No 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.

11/26/2018 – BOR Academic & Student Affairs Committee
12/13/2018 – Board of Regents

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

SECTION 1: GENERAL INFORMATION		
Institution: Middlesex Community College	Date of Submission to CSCU Office of the Provost: 9/26/18	
Discontinued Program: Juvenile Justice CIP: 511502 OHE#: 11948 Accreditation Date: 2/26/2001 Phase Out /Teach Out Period 1 year Expected Date of Program Termination Fall 2019		
Program Characteristics Name of Program: Juvenile Justice 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: MxCC Social Science		
Institutional Contact for this Proposal: Dr. Steven Minkler	Title: Interim Campus CEO & Dean of Academic Affairs	Tel.: 860-343-5706 e-mail: sminkler@mxcc.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:

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 Juvenile Justice certificate program has had a total of 17 completions over the past seven years (2011-18) – an average of 2.4 per year. There is only one student enrolled in this program for the 2018-19 school year. Additionally, this program is not current with workforce trends in social services.

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.)

The one enrolled student will be given the option to change their program or study, and/or allowed to complete the program as specified in the catalog. This may include course substitutions, independent study, or referral to another CSCU campus to take any remaining classes. Once removed from the college catalog, advisors will be notified to steer students to a degree in Human Services or Social Work with directed elective focuses on youth.

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

New Program Approval

December 13, 2018

RESOLVED: That the Board of Regents for Higher Education approve the licensure and accreditation of a Civic Engagement program (CIP Code: 33.0101) leading to a Certificate, requiring 18 course credits delivered via on ground and online modalities, at Tunxis Community College

A True Copy:

_____

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

ITEM

Licensure and accreditation of a new Civic Engagement program leading to a Certificate at Tunxis Community College

BACKGROUND

Summary

The proposed program is a multi-disciplinary curricular initiative of Tunxis' Civic Engagement Institute whose mission is to integrate civic engagement into the campus's curriculum, advance its becoming a civilly engaged institution. These goals are consistent with the institution's mission statement as well as its vision of being a vibrant educational and cultural center responsive to current and emerging student and community needs.

Rationale

A required semester-long internship will afford students the opportunity to gain "real world" experiences as they become acquainted with community needs and learn to communicate effectively and powerfully, make sound decision and effect changes in their communities. The certificate will be paired with the Associate degree of the student's choice, providing a marketable distinction as they further their education or enter the labor market. Pursuit of the proposed certificate will have a positive impact upon the students' persistence in college. Research has demonstrated that college students who participate in civic engagement learning activities not only earn higher grade point averages, but also have higher retention rates and are more likely to complete their college degree.

Resources

Minimal costs will be required to implement the proposed new program. The program will utilize existing courses and resources including faculty and volunteers. Projected revenue will exceed projected expenditures by more than $200,000 over the course of the first 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.

11/26/2018 – BOR Academic & Student Affairs Committee
12/13/2018 – Board of Regents

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION
Connecticut State Colleges & Universities
*APPLICATION FOR **NEW PROGRAM APPROVAL***

SECTION 1: GENERAL INFORMATION

Institution: Tunxis Community College	Date of Submission to CSCU Office of the Provost: 10/22/2018
Most Recent NEASC Institutional Accreditation Action and Date:	

Program Characteristics

Name of Program: Civic Engagement Certificate

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

Certificate: *(specify type and level)* Civic Engagement

Anticipated Program Initiation Date: Spring 2019

Anticipated Date of First Graduation: Fall 2019

Modality of Program: X On ground X Online Combined

If "Combined", % of fully online courses?

Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, GenEd, other)*: 18

Program Credit Distribution

Cr in Program Core Courses: 15

Cr of Electives in the Field: 0

Cr of Free Electives: 0

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

Total # Cr in the Program *(sum of all #Cr above)*: 18

From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: 15

Type of Approval Action Being Sought: Licensure or X Licensure and Accreditation - (see **NOTE** below)

CIP Code No. *(optional)* 33.0101 Title of CIP Code - Citizenship Activities, General

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: History/Political Science, Main Campus

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 addresses the standards of the identified accrediting body or licensing agency)

Institutional Contact for this Proposal: Rafaele Fierro, Ph.D.	Title: Prof.Hist./Poli.Sci.	Tel.: 860-773-1642 e-mail: rfierro@txcc.commnet.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.

SECTION 2: PROGRAM PLANNING ASSESSMENT

Alignment of Program with Institutional Mission, Role and Scope
(Please provide objective and concise statements)

The Civic Engagement certificate is a direct outcome of Tunxis' current commitment to create a civically engaged campus and to integrate civic engagement into the curriculum. This new certificate is in line with Tunxis' mission statement, which reads in part that the college will provide students with the "skills necessary to succeed in an increasingly complex world." This certificate will also nurture Tunxis' commitment to civic engagement as an intrinsic goal, which can be seen through Tunxis' vision statement, which reads as follows: "Tunxis Community College will be a vibrant educational and cultural center responsive to current as well as emerging student and community needs."

The certificate draws upon a multi-disciplinary curriculum to prepare leaders who are well-equipped to communicate effectively and powerfully, make sound decisions, and effect change in their communities given the challenges (political and economic) facing these communities. **The certificate will be paired with a student's Associate's degree (being stackable within both Tunxis' General Studies and Liberal Arts degrees, and is compatible with 8 (eight) current Transfer Tickets at Tunxis: Communication, Criminology, English, History, Mathematics, Political Science, Psychology, and Sociology),** thereby distinguishing students as they enter the labor market and enhance their employment prospects. The certificate helps students who wish to pursue their Bachelor's and advanced degrees in the areas of human services, criminal justice, psychology, sociology, social work, history, political science, etc. by positioning them academically to immediately segue into institutions (including Connecticut's four-year universities) offering these educational opportunities.

For students exploring long-term career options, completing this Civic Engagement certificate will allow them to earn a marketable credential while exploring multiple subject areas, allowing (in essence) a "gap exploratory year' after high school while still moving forward with their education. The certificate will also afford those students who lack "real-world" experience the opportunity to take steps to gain that experience through the semester-long internship option offered by the CEI certificate. This will benefit students by making them more marketable to business and community leaders (who are increasingly interested in students who offer more than a high grade point average) by showing a commitment to making an impact and being part of positive change. Students will have available to them multiple employers and mentors with whom to connect, individuals and programs that can offer invaluable career guidance and support as they decide upon their careers. Finally, this certificate will also offer those students who do not achieve high GPA's the ability to participate in research and hands-on activities traditionally only available to high-achieving students participating in selective programs such as the Phi Theta Kappa honor society.

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 certificate program will acquaint students with community needs and careers in community service. It will offer students theory in their coursework and hands-on experience in how to impact their communities in a positive way through a semester-long internship experience. Students with a certificate in civic engagement, coupled with an Associate's degree, will be able to market themselves more effectively as prospective employees.

  A study from Points of Light shows the strong desire of employers to focus on civic engagement, and that candidates for employment in those companies would be at an advantage in the hiring process:

  - A combined 10,300,000 volunteer hours and $1,800,000,000 contributed to communities around the country from the 2016 Civic 50 companies
  - 56% included community engagement in employees' performance reviews
  - 74% used community engagement to support their diversity and inclusion goals

This new certificate will allow students to obtain key attributes being sought by today's employers. The Job Outlook 2016 survey was conducted from August 5, 2015, through September 13, 2015, among National Association of Colleges and Employers (NACE) employer members. This survey sought to uncover the attributes employers seek on a candidate's resume, based on a scale of 1-5 from employer perspective:

- Has held leadership position - 3.9/5.0
- Has been involved in extracurricular activities (clubs, sports, student government, etc.) - 3.6/5.0
- Has done volunteer work - 2.8/5.0

All three of these attributes are demonstrated by students completing this program.

This new certificate will also allow students to set themselves apart from their community college and university peers by putting them in the top 2% of students who are aggressively involved in activism. Data collected for the 2016-17 Career Services Benchmark Survey Report for Colleges and Universities sought to determine the levels of student activism. The survey was conducted from September 30, 2016, to January 20, 2017, from NACE member institutions; there were 705 respondents, representing 35.3 percent of all eligible respondents.

Level of Student Activism (2014-2017):

- No student activism 78.7%
- Little activism 13.7%
- Moderate activism 5.8%
- Heavy activism 1.5%
- Intense activism 0.2%

With a constant focus by Tunxis on helping our current students persist, additional research demonstrates that college students who participate in civic engagement learning activities not only earn higher grade point averages, but also have higher retention rates and are more likely to complete their college degree. Numerous studies show that the more immersed community college students are in the civic life of the institution, the more their education will matter to them, and the better they will perform (Colby 2007).

Employment for students earning a Civic Engagement Certificate, combined with an Associates Degree, crosses a multitude of career options. A small sample of the current employment opportunities a student with a civic engagement background might consider include: Connecticut Careers Trainee (Social & Human Services), Environmental Protection Assistant, Human Rights and Opportunities Regional Manager, Mental Health Assistant (Department of Mental Health & Addiction Services) (https://www.jobapscloud.com/CT/)

Additional positions relevant to those with a civic engagement background include the following as of the preparation of this document: Community Engagement Specialist (Grand Junction, CO); Engagement Lead (Kapolei, HI), Community Manager (The Obama Foundation, Washington, D.C.); Program and Outreach Coordinator for Civic Engagement (Colby College, Waterville, ME); and Director of Community and Civic Engagement (Menlo School, Atherton, CA) (https://www.indeed.com/q-Civic-Engagement-jobs.html).

Students with a certificate in civic engagement would also be strong candidates for political office, local or national (congressional representative, senator) as well as positions including Social Worker and Attorney.

- 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?

Tunxis Community College faculty have incorporated and will continue to incorporate civic engagement into their multi-disciplinary curricula. The college has shown its commitment to civic engagement through several large, successful initiatives, including a commitment to Service Learning and a campus-wide food pantry (thePantry@Tunxis) that has elevated civic engagement by students and employees at the college. Faculty, staff and administration are supportive of the certificate program and continue to address its relevance to students' education and future career prospects.

- 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

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

  The 11 other community colleges in the system do not have the elaborate civic engagement structure that exists at Tunxis, though two (Middlesex Community College and Manchester Community College) have civic engagement centers. However, each is local in their composition. Thus, duplication will not occur.

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.)

It must be noted the Certificate in Civic Engagement carries with it **no** cost to Tunxis Community College. The certificate utilizes existing college resources. These include volunteers and currently employed faculty (including adjunct professors).

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. Define civic engagement and identify concrete examples of it both in the classroom and in the community.
2. Explain some of the community needs in terms of the social problems that exist in communities across the area.
3. Understand the interdisciplinary nature of required courses as it relates to civic engagement.
4. Describe their civic activity through an internship or practicum.

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)*

Dr. Rafaele Fierro, is a full-time, tenured member of the Tunxis faculty. He is full Professor of History and Political Science.

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?
Dr. Fierro will oversee the Internship course; all other courses will be taught by existing faculty. The courses are regularly offered in other programs, and these courses are not specific to the certificate.

What percent of credits in the program will be taught by adjunct faculty?
This varies because as there are multiple sections of courses required for the certificate.

Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program
Adjunct faculty will be hired within the existing qualifications of the college.

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)*

There are very limited funding needs for this new certificate. Two significant sources of financial support within the college are the Student Government Association (SGA) and the Tunxis Foundation. The CEI will apply for federal grants and other forms of governmental assistance for this project as well as private funding. The CEI has also established a GoFundMe account for purposes of requesting individual support. Funds secured will be used to help pay stipends to students participating in unpaid Civic Engagement Certificate internships.

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. #	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				Other Related/Special Requirements*		
ENG 101 Composition	1	Yes	3	Civic Engagement Practicum/Internship *	1,4	3
POL 111 American Government	2,3	Yes	3			
HSE 101 Introduction to Human Services	2,3	Yes	3			
CJS 101 Introduction to Criminal Justice	2,3	No	3			
HIS 201 US History	2,3	Yes	3	Total Credits Required		18
SOC 101 Principles of Sociology		Yes	3			
Core Course Prerequisites				Elective Courses in the Field		
Placement into Eng. 101 is a prereq. for most core courses				See Program Outline below		
Total Other Credits Required to Issue Credential *(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 Gen. Ed program), 24 credits of courses in Business (3 credits of which apply to the LAC/Gen. Ed), 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 Certificate in Civic Engagement requires a total of 18 credits. Of these, required coursework will be distributed as follows: 3 credits to English Composition; 3 credits to American Government; 3 credits to Human Services OR Criminal Justice; 3 credits to US History; 3 credits to Sociology; and 3 credits to a hands-on practicum experience. The more discipline-specific courses in Criminal Justice and Human Services are intimately related to civic engagement activities and professions; for instance, a West Hartford police officer spoke twice during academic year 2017-18 about crime and its impact on local communities. Virtually every criminal justice issue (e.g., delinquency, the opioid crisis, crime and poverty) is a civic engagement and a human services issue.

A 3-credit internship will be required of all students, this to be arranged and completed with the approval of the faculty advisor and Director of the CEI. This internship will have both an academic and a performance component and final grading will be decided in consultation with the internship coordinator.

Additional Courses in the Field for Students Seeking Coursework beyond the Certificate Requirements (Cont.)

Ant. 101 Introduction to Anthropology
Ant. 205 Cultural Anthropology
BBG 240 Business Ethics
BMG 202 Principles of Management
BMG 220 Human Resources Management
COM 172 Interpersonal Communication
COM 201 Introduction to Public Relations
CJS 102 Introduction to Corrections
CJS 120 Police and the Community
CJS 243 Institutional Treatment
CJS 255 Ethical Issues in Criminal Justice
ECN 101 Principles of Macroeconomics
ECN 102 Principles of Microeconomics
HIS 147 The History and Culture of Immigrant Groups in America
HIS 201 U.S. History 1
HIS 202 U.S. History 2
HIS 225/POL 225 U.S. Constitution
HLT 103 Investigation in Health Careers
HSE 185 Family Violence Intervention
MAT 146 Math for the Liberal Arts
MAT 165 Elementary Statistics with Computer Apps.
PSY 201 Life Span Development
PSY 240 Social Psychology
SOC 103 Social Problems
SOC 114 Sociology of Aging
SOC 210 Sociology of the Family
SOC 240 Criminology
SOC 241 Juvenile Delinquency
SOC 242 Sociology of Deviance
SOC 257 Sociology of Mental Health Illness

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

As noted above, students will be required to complete a 3-credit internship with a community organization. This internship provides students the opportunity to apply and integrate knowledge and skills gained in the Civic Engagement Certificate program through an individualized capstone experience, which includes an internship or project component and a classroom component. Internship involves employment or volunteer engagement in a company, public agency, or non-profit organization. Internship opportunities are diverse and currently include the following organizations: Wheeler Clinic, The Plainville Community Food Pantry, Literacy Volunteers of Connecticut, Jerome Home (New Britain, CT), YWCA Strive Program (New Britain, CT), YMCA Southington, CT, New Britain Museum of American Art, and The Mark Twain House (Hartford, CT). Additional organizations are being actively pursued, and many students come to the CEI with specific organizations already vetted for their specific activism passions.

Alternatively, students may complete the internship component of the Practicum through directed independent project(s) involving advanced analysis, research, and writing. Both the internship experience and the directed projects are designed to assess the students' mastery of the program learning objectives, and to further develop their professional skills.

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.

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 program)*

Faculty Name and Title	Institution of Highest Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities
Rafaele Fierro, Ph.D	University of Connecticut	History and Political Science	General Studies P.C.

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																		
New Students (first time matriculating)			2	5			8	10	7	7			12	15	10	12		
Continuing Students progressing to credential	N/A		5	5			8	10	7	9			12	20	11	18		
Headcount Enrollment			7	10			16	20	14	16			24	35	21	30		
Total Estimated FTE per Year[1]			7	3			16	5	14	4			24	9	21	8		

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[2]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tuition from Internal Transfer[2]	0	0	15624	6130	0	0	35712	12260	31248	9808	0	0	53568	21455	46872	18390	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
Total Annual Program Revenue	0		21754		0		47972		41056		0		75023		65262		0	

PROJECTED Program Expenditures[3]	First Year	Second Year	Third Year
Administration (Chair or Coordinator)[4]	5000	5000	5000
Faculty (Full-time, total for program)[4]	0	0	0
Faculty (Part-time, total for program)[4]	6500	13000	13000
Support Staff (lab or grad assist, tutor)	0	0	0
Library Resources Program	200	200	200
Equipment (List in narrative)	0	0	0
Other[5]	0	0	0
Estimated Indirect Costs[6]	0	0	0
Total Expenditures per Year	11700	18200	18200

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.

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

New Program Approval

December 13, 2018

RESOLVED: That the Board of Regents for Higher Education approve the licensure and accreditation of an Addiction Studies: Evidence-Based Assessment and Treatment program (CIP Code: 42.2899) leading to a Master of Science degree, requiring 38 course credits delivered via a hybrid modality of on-ground and online offerings, 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

Licensure of a new program leading to Master of Science degree in Addiction Studies: Evidence-Based Assessment and Treatment at Western Connecticut State University

BACKGROUND

Summary

Like most area of the nation, Connecticut is in the grip of a devastating opioid crisis. "Opioid addiction and prescription drug misuse is a disease that is impacting nearly every community and people of every background." As noted further by Governor Malloy, "Children and young adults battling substance use need sustained services for recovery to take hold because all the evidence shows relapses are common." There is an urgent need for more and better-trained clinicians and therapists to provide leadership in the field of substance use disorders treatment. Graduates will be prepared for certification as a **Licensed Alcohol and Drug Counselor (LADC).** The LADC in Connecticut requires a Master's degree in a Behavioral Science. as well as supervised experience in the field. After completion of the degree requirements which includes 300 hours of practical training, student would only need two years of supervised work experience to qualify for the LADC.

The website *Careers in Psychology* forecasts: "While the average rate of growth for employment in other fields is 11%, the increase in employment for Substance Abuse Counselors is 22**%** - one of the highest projected growth increases of any occupation listed in the *U.S. Occupational Outlook Handbook*. The median salary for substance abuse and behavioral disorders counselors was $41,070 in 2016, according to the U.S. Bureau of Labor Statistics (BLS). Connecticut has the highest concentration of jobs and location quotients in this occupation in the nation - 2,600 jobs with an average mean wage of $48,660.

Rationale

The proposed program will enable WCSU undergraduates in the Psychology major (300-350 students) to move seamlessly into a graduate program that will prepare them for leadership roles in the rapidly growing area of substance use disorders treatment. The program would also benefit adults already working in the addiction field who hold a Bachelor's Degree in Psychology or associated fields and wish to upgrade their skills to assume greater responsibility in their careers. Graduates can begin their careers with a higher earned income in a more complex job with a more diverse and advanced skillset. A survey of Psychology undergraduates revealed that 60% are very interested (49%) or interested (11%) in enrolling in the proposed program; and 59% are very likely (38%) or somewhat likely (21%) to enroll in this program after graduating with a B.A. degree.

Resources

A new full-time specialist in addition studies would be added to the faculty and new creative instructional practices to permit synchronous and asynchronous learning would have to be developed. Additionally, resources would be needed for internship placement sites, to be developed, and reassigned time for a program coordinator. It is anticipated that the program's revenue would exceed its expenditure during its second year and accelerate thereafter.

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.

11/26/2018 – BOR Academic & Student Affairs Committee
12/13/2018 – Board of Regents

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION
Connecticut State Colleges & Universities
*APPLICATION FOR **NEW PROGRAM APPROVAL***

SECTION 1: GENERAL INFORMATION

Institution: WCSU	Date of Submission to CSCU Office of the Provost: October 1, 2018
Most Recent NEASC Institutional Accreditation Action and Date: June 4, 2014	
Program Characteristics Name of Program: Addiction Studies Evidence-Based Assessment and Treatment Degree: Title of Award *(e.g. Master of Arts)* **Master of Science** Certificate: *(specify type and level)* Anticipated Program Initiation Date: 2019 Anticipated Date of First Graduation: 2020 Modality of Program: On ground Online **Combined** If "Combined", % of fully online courses? 25% (includes hybrid courses) Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, GenEd, other)*: 35 Cr	**Program Credit Distribution** # Cr in Program Core Courses: 17 # Cr of Electives in the Field: 15 # Cr of Free Electives: 0 # Cr Special Requirements *(include internship, etc.):* 6 Total # Cr in the Program *(sum of all #Cr above)*: 38 From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: **16**
Type of Approval Action Being Sought: Licensure or X Licensure and Accreditation - (see **NOTE** below) CIP Code No. *(optional)* 42.2899 Title of CIP Code: Clinical, Counseling and Applied Psychology, Other.	
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: Macricostas School of Arts & Sciences, Midtown Campus	
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: LADC *(As applicable, the documentation in this request should addresses the standards of the identified accrediting body or licensing agency)*	

Institutional Contact for this Proposal: Shane Murphy	Professor	Tel.: 2038379398 e-mail: murphys@wcsu.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.

SECTION 2: PROGRAM PLANNING ASSESSMENT

Alignment of Program with Institutional Mission, Role and Scope

(Please provide objective and concise statements)

This program aligns with the CSCU mission, which seeks to provide an exemplary education that is affordable, innovative, rigorous, and supports economic growth.

The program would enable WCSU undergraduates in the Psychology major (300-350 students) to move seamlessly into a graduate program which would prepare them for leadership roles in the rapidly growing area of substance use disorder treatment. The proposed program would also benefit adults already working in the addiction field who hold a Bachelor's Degree in Psychology or associated fields and wish to upgrade their skills to assume greater responsibility in their careers. Graduates can begin their careers with a higher earned income in a more complex job with a more diverse and advanced skillset.

The graduate program in Addiction Studies will focus on training students in empirically validated best-practice assessment, intervention and prevention strategies. The rigorous emphasis on evidence-based treatment will be a hallmark of this program and is a defining feature of modern and effective intervention programs in the addiction field.

Courses in the program will be scheduled to allow full-time students to graduate after a year of enrollment, so Psychology undergraduate majors can earn a Master of Science degree in 4 + 1 years of school, an affordable and economically effective choice for our students. There will also be a part-time pathway for working program participants.

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)*

In Connecticut, about 206,000 individuals aged 12 or older (6.8% of all individuals in this age group) per year in 2013–2014 were dependent on or abused alcohol within the year prior to being surveyed. In Connecticut, about 88,000 individuals aged 12 or older (2.9% of all individuals in this age group) per year in 2013–2014 were dependent on or abused illicit drugs within the year prior to being surveyed.(Behavioral Health Barometer, Connecticut, 2015).
Connecticut is in the grip of a devastating opioid crisis. "Opioid addiction and prescription drug misuse is a disease that is impacting nearly every community and people of every background," Governor Malloy said. "Children and young adults battling substance use need sustained services for recovery to take hold because all the evidence shows relapses are common"(CT Office of the Governor).
There is an urgent need for more and better-trained clinicians and therapists to provide leadership in the field of substance use disorder treatment.
This degree will give students the skills to understand the development and maintenance of substance use disorder problems and the effective behavioral change interventions to treat them. Graduates will be able to develop and implement individual treatment plans, lead effective group counseling, counsel clients with substance use disorder and related problems, understand current research on the psychopharmacology of addiction, and work with families and community agencies to implement

behavior change and develop effective prevention programs. Graduates will be given the preparation needed to be community leaders in substance use disorder treatment and prevention.

Graduates will be prepared for the certification of:

Licensed Alcohol and Drug Counselor (LADC)

The LADC in Connecticut requires a Master's degree in a Behavioral Science as well as supervised experience in the field. The current undergraduate courses in Addiction Studies offered by WCSU meet the academic requirements for Certification as alcohol and drug counselors (CADC) as defined by the Connecticut Certification Board. The graduate courses in the M.S. in Addiction Studies will meet the further academic requirements necessary for the LADC. Additional requirements for licensure are:

- 300 hours of supervised practical training in Alcohol and Drug Counseling.
- Two years of supervised work experience.

The M.S. of Science will include a supervised internship.

Graduates are expected to be able to apply for jobs as counselors, supervisors, team leaders, inpatient managers, outpatient coordinators, and other careers in the counseling field. Given the unfortunate and devastating surge in opioid abuse in New England, there is every expectation that graduates will be able to gain immediate employment as they work toward the two years of supervised work experience requirement for LADC.

The website *Careers in Psychology* has this to say about job prospects in the field: "While the average rate of growth for employment in other fields is 11%, the increase in employment for Substance Abuse Counselors is 22**%**. That is one of the highest projected growth increases of any occupation listed in the *U.S. Occupational Outlook Handbook*. In 2012 there were 89,600 Substance Abuse Counselors employed in the United States. By the year 2022 the government has predicted there will be 117,700. A recent issue of U.S. News & World Report ran an article, "*The 100 Best Jobs*" wherein it ranked jobs according to salary and employment potential. Substance Abuse Counseling ranked as #38 in the nation and #22 in the category of Best Health Jobs." (Careers in Psychology).

The median salary for substance abuse and behavioral disorder counselors was $41,070 in 2016, according to the U.S. Bureau of Labor Statistics (BLS), www.bls.gov. Connecticut has the highest concentration of jobs and location quotients in this occupation in the nation - 2,600 jobs with an average mean wage of $48,660.

We expect that graduates of this Master of Science in Addiction Studies will be employed in a wide variety of agencies, such as outpatient care centers, psychiatric and substance abuse hospitals, residential intellectual and developmental disability facilities, residential mental health and substance abuse facilities, general hospitals, and at schools, universities, and colleges.

Industries with the highest levels of employment in this occupation:

(Source - https://www.bls.gov/oes/current/oes211011.htm:)

Industry	Employment (1)	Percent of industry employment	Hourly mean wage	Annual mean wage (2)
Outpatient Care Centers	22,250	2.67	$20.64	$42,930
Residential Intellectual and Developmental Disability, Mental Health, and Substance Abuse Facilities	18,240	2.98	$19.08	$39,690
Individual and Family Services	12,560	0.74	$20.10	$41,800
Local Government (OES Designation)	6,620	0.12	$23.30	$48,470
General Medical and Surgical Hospitals	5,050	0.09	$25.31	$52,640

Top paying industries for this occupation:

Industry	Employment (1)	Percent of industry employment	Hourly mean wage	Annual mean wage (2)
Junior Colleges	30	(7)	$35.12	$73,050
Scientific Research and Development Services	260	0.04	$32.33	$67,240
Insurance Carriers	(8)	(8)	$27.17	$56,520
Elementary and Secondary Schools	3,660	0.04	$27.05	$56,260
Colleges, Universities, and Professional Schools	770	0.03	$26.81	$55,760

- 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 program will leverage WCSU's full-time and adjunct faculty strength in substance use treatment and prevention with our existing relationships with northwest Connecticut addiction treatment programs to create a training program to meet the urgent need in the Connecticut workforce for skilled practitioners to deal with the growing opioid and drug crisis in New England.

The WCSU Psychology department established the four-course sequence in Substance Abuse Counseling at WCSU (PSY 392, 393, 394, 395) in 1999. From the beginning, the sequence was designed so that students who completed all four courses during their undergraduate degree could apply for the Connecticut state certification: Certified Alcohol and Drug Counselor (CADC). The 4 undergraduate courses have now been redeveloped and approved within WCSU governance as graduate-level courses (PSY 592, 593, 594, and 595). This 16-credit, four-course sequence will provide the basis of the academic training necessary for the LADC certification in Connecticut:

> At least 360 hours of relevant education. 240 must be specifically related to drug and alcohol abuse. The remaining 120 may pertain to other areas of human behavior.
> Drug and alcohol coursework must include the following:
>
> - Assessment and treatment planning: 30 hours
> - Special populations and ethnically diverse groups: 12 hours
> - Pharmacology: 18 hours
> - Ethics: 12 hours
> - HIV/ AIDS: 6 hours
>
> The counselor must have at least 90 hours of counseling theory and techniques. The A&DC is expected to learn the core counseling functions. (from https://www.addiction-counselors.com/states/connecticut-substance-abuse-counselor.html#licensed)

In October, 2016, the WCSU Psychology department seven-year program review focused in part on the proposed graduate program in Addiction Studies. The comments of the External Review team are as follows:

> WCSU has, for years, utilized full-time and adjunct faculty to work with students on developing skills in understanding, and pursuing graduate training in, addiction and substance use disorder counseling. The documents provided to us showed that the faculty have considered the sequence of courses and have considered the implications of developing such a program. Given the increase in the opiate problem in the Northeast, and the student interest, it appears that such a program would be one that would indeed attract students. Beyond that, the faculty believe that developing a 4+1 program would attract students who might not otherwise be interested in attending WCSU for psychology.
>
> We applaud the faculty for developing a program that would, indeed, work well with the existing faculty and that would complement much of what is already being done at WCSU. We would implore the faculty to consider hiring a program director: the program cannot exist without a full time director who would work with students to ensure adequate progress towards the degree and who could also work with students to identify appropriate internship sites. This person could also work with the undergraduate population on internship sites, effectively serving two purposes.
> We believe the program the department is envisioning looks sound and would serve the community of WCSU well. (Dana S. Dunn – Moravian College; Christopher M. Hakala – Quinnipiac University)

- 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)*

Not Applicable.

Please indicate what similar programs exist in other CSCU institutions, and how unnecessary duplication is being avoided.

There is no similar program within the Connecticut State Universities system or in the region. Central Connecticut State University offers a 36-39 credit MA in Psychology which prepares students for careers in human services or as preparation for further graduate study. CCSU offers three specializations. Community Psychology trains students as practitioners in prevention and community-based research. Health Psychology prepares students for careers in primary care, hospitals, and specialized programs. General Psychology allows students to follow individual interests.

Southern Connecticut State University offers a 30-credit MA in Psychology. It is a research-based program designed to develop creative problem-solving skills applicable in research, clinical, industrial, and educational settings.

No other public or private universities in Connecticut offer a Master's program in Addiction Studies.

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.)

Enrollment in the Addiction Studies program is estimated to begin with a class of about 12 students, and grow to about 15 to 20 students graduating each year once the program has been in full implementation for 3-4 years.

In spring 2016, we surveyed our WCSU Psychology undergraduate majors about their interest in our offering a graduate program in Psychology in the substance use disorder treatment field. 53 students responded: 34% graduating, 28% seniors, 19% juniors, and 13% sophomores. 81% of respondents were female, 19% male, and 42% were transfer students.

Students were provided a description of the program and asked: *Given the description (above) of the proposed Masters' degree in Substance Abuse Counseling, I am interested in enrolling in this program.*

Very interested	**26**	**49%**
Interested	**11**	**21%**
Neutral	**12**	**23%**
Not interested	**4**	**8%**
Total Respondents	**53**	

Students were also asked: *How likely is it that you will enroll in this Master's program after you graduate with your B.A.?*

Very likely		**20**	**38%**
Somewhat likely		**11**	**21%**
Not likely		**15**	**29%**
Undecided		**4**	**8%**
I need to know more		**2**	**4%**
	Total Respondents		**52**

Given that 59% of our surveyed majors indicated that they either very or somewhat likely to enroll in the proposed Master of Science in Addiction Studies, and that we graduate from 60-90 majors a year, it appears that there is sufficient demand for a successful program. Our estimated enrollment numbers in the attached budget are conservative. We expect an initial cohort enrollment of 12 FT and 2 PT students, growing to 18 FT and 5 PT students by Year 3.

Resources

Students will be able to enroll in as many as 10 credits per semester, meeting the minimum for full-time status (9 credits) and access to financial aid. Internship placement sites will need to be developed and students placed every semester. The feedback from the WCSU Psychology Advisory Council of local area program coordinators was that such placements are feasible. There will be a need for reassigned time for a program coordinator. There will be a need for developing creative instructional practices to permit synchronous and asynchronous distance learning instruction when necessary.

Annual assessment will occur for a five-year period at which point the program will be reassessed to determine its feasibility. The program will require a new FT faculty position, a specialist in addiction studies, in addition to the Psychology faculty we currently have at WCSU.

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).*

The MS in Addiction Studies will graduate professionals who can:

1. Apply the diagnostic criteria for Substance Use Disorder (SUD; DSM-5) and related psychological disorders across diverse populations.
2. Develop and implement treatment plans and propose risk reduction interventions.
3. Apply theoretical and evidence-based principles to lead effective individual, family and group counseling for SUD.
4. Employ and articulate the professional values and ethics specific to intervention and prevention in this field.
5. Demonstrate the ability to apply and conduct research on addiction services and psychopharmacological treatment.

Student learning outcomes for each of these criteria and assessment methodologies to be used in measuring the outcomes are described next. Note that learning outcomes are carefully aligned with Connecticut State requirements for the Licensed Alcohol and Drug Counselor (LADC) certification:

1. Apply the diagnostic criteria for Substance Use Disorder (SUD; DSM-5) and related psychological disorders across diverse populations.

a. Evaluate prevalence rates for substance use and abuse in the United States.
b. Comprehend and apply the diagnostic criteria for substance use disorders from the Diagnostic and Statistical Manual of Mental Disorders-5th Edition (DSM-5).
c. Summarize the diagnostic criteria for other mental disorders from the DSM-5.
d. Explain the reasons for differences in prevalence rates for mental disorders across gender, ethnic, and age groups.
e. Analyze etiological explanations for substance use disorders.
f. Interpret and describe psychometric instruments that specifically assess substance use disorders.
g. Detail patterns of responses that identify substance use disorders on traditional psychological tests.
h. Conceptualize differences among individuals with substance use disorders.

Assessment methodologies include examinations, performance assessments, oral presentations, and written projects, as tied to the course and program objectives.
Relevant courses:

PSY 592 Advanced Substance Use Counseling: Assessment and Counseling.
PSY 5YY* Advanced Diagnosis & Assessment in Substance Use Disorder & Co-Occurring Disorders

2. Develop and implement treatment plans and propose risk reduction interventions.

a. Conceptualize differences among individuals with substance use disorders.
b. Evaluate therapeutic procedures with individuals with comorbid disorders (substance abuse and other mental disorders).
c. Interpret how treatment intensity is matched to the level of clinical impairment - determining the necessary level of care.
d. Conceptualize client motivation to change or motivation for treatment.
e. Delineate the functions of professional interventions in conjunction with self-help groups such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA).
f. Provide an explanation of Multisystemic Therapy that can be applied in a therapeutic setting
g. Develop treatment plans for individual and group therapies

Assessment methodologies include examinations, performance assessments, oral presentations, written projects, and internship projects, as tied to the course and program objectives.
Relevant courses:

PSY 592 Advanced Substance Use Counseling: Assessment and Counseling.

3. Apply theoretical and evidence-based principles to lead effective individual, family and group counseling for SUD.

a. Integrate the nonspecific factors promoting change in counseling with those of psychotherapy
b. Provide a synthesis of ambivalence for change in counseling and psychotherapy
c. Redefine client resistance in counseling and psychotherapy
d. Analyze the concept of commitment to change in counseling and psychotherapy
e. Evaluate the active ingredients in brief interventions that result in substantial therapeutic change
f. Conceptualize goals, tactics, and strategies in family counseling and psychotherapy
g. Summarize the goals and methods of group counseling and psychotherapy
h. Explain how the stages of change are adapted in counseling and psychotherapy
i. Synthesize the goals and methods of Twelve Step Facilitation in counseling and psychotherapy
j. Detail the theories and practices of group therapies
k. Integrate the history of AA with that of NA and consider their importance in treatment planning for substance abusers
l. Evaluate the therapeutic process of AA and NA – the active ingredients
m. Summarize self-help interventions other than AA and NA
n. Synthesize the theory, applications, and effectiveness of Behavior Therapy
o. Synthesize the theory, applications, and effectiveness of Cognitive Therapy
p. Relate the theory, applications, and reported effectiveness of Motivational Interviewing therapy

q. Interpret the applications for Relapse Prevention, consider its theoretical foundation and applications, and evaluate its effectiveness
r. Analyze the theory and applications associated with Harm Reduction therapies; evaluate the associated empirical the ethical issues
s. Analyze the theories and practices of group therapies

Assessment methodologies include examinations, performance assessments, oral presentations, written projects, team-building projects, and internship assessments as tied to the course and program objectives.
Relevant courses:

PSY 594 Advanced Substance Use Counseling: Counseling
PSY 595 Advanced Substance Use Counseling: Applied Counseling
PSY 5AA* Psychological Treatment of Drug Use and Misuse for Medical Conditions and across Populations

4. Demonstrate the ability to apply and conduct research on addiction services and psychopharmacological treatment.

a. Evaluate the pharmacology of alcohol and describe mechanisms for tolerance and protocol for withdrawal and detoxification.
b. Demonstrate comprehension of the pharmacology of amphetamines and describe mechanisms for tolerance and protocol for withdrawal and detoxification.
c. Summarize the pharmacology of caffeine and describe mechanisms for tolerance and protocol for withdrawal and detoxification.
d. Explain the pharmacology of cannabis and describe mechanisms for tolerance and protocol for withdrawal and detoxification.
e. Evaluate the pharmacology of cocaine and describe mechanisms for tolerance and protocol for withdrawal and detoxification.
f. Synthesize the pharmacology of hallucinogens and describe mechanisms for tolerance and protocol for withdrawal and detoxification.
g. Analyze the pharmacology of inhalants and describe mechanisms for tolerance and protocol for withdrawal and detoxification.
h. Interpret the pharmacology of nicotine and describe mechanisms for tolerance and protocol for withdrawal and detoxification.
i. Detail the pharmacology of opioids and describe mechanisms for tolerance and protocol for withdrawal and detoxification.
j. Analyze the pharmacology of phencyclidine and describe mechanisms for tolerance and protocol for withdrawal and detoxification.
k. Analyze the pharmacology of sedatives and describe mechanisms for tolerance and protocol for withdrawal and detoxification.
l. Evaluate the pharmacology of ergogenic substances such as anabolic steroids and describe mechanisms for tolerance and protocol for withdrawal and detoxification.
m. Synthesize the methods of transmission, medical, psychological, and neurological effects of HIV/AIDS, and consider substance abuse treatment for patients with HIV/AIDS.
n. Demonstrate knowledge of and ability to apply pharmacological and medication-assisted treatments for substance abuse

o. Create appropriate hypotheses and models to describe intervention processes and outcomes
p. Demonstrate skills in statistical analysis needed for program and outcome evaluation

Assessment methodologies include examinations, performance assessments, oral presentations, written projects, team-building projects, and internship assessments as tied to the course and program objectives.
Relevant courses:

PSY 593 Advanced Substance Use Counseling: Drugs & Behavior
PSY 504* Program Evaluation and Data Analysis
PSY 5XX Drugs and the Brain: The Neuroscience and Psychopharmacology of Addiction

5. Employ and articulate the professional values and ethics specific to intervention and prevention in this field.

a. Analyze the ethical requirements for diagnosis and explore ethical perspectives regarding individual and social rights to health care.
b. Interpret the familial, social and community issues related to pharmacological treatments for substance abuse
c. Detail and understanding of an integrated model of counseling and psychotherapy
d. Synthesize the issues related to ethnicity, gender, age, LGBT, and health status in counseling and psychotherapy
e. Integrate standards for ethical practice in counseling and psychotherapy
f. Examine the ethical standards for substance abuse counselors
g. Provide an analysis of counseling that is consistent with the traditions of AA, NA, Rational Recovery, and Women for Sobriety.
h. Examine the actions necessary to adopt sustainable lifestyles through individual, local, societal or global behavior change, and evaluate potential outcomes – understand interventions that prevent the onset and maintenance of substance abuse as well as practices that build behavioral competencies

Assessment methodologies include examinations, performance assessments, oral presentations, written projects, team-building projects, and internship assessments as tied to the course and program objectives.
Relevant courses:

PSY 595 Advanced Substance Use Counseling: Applied Counseling
PSY 5FF* Ethics and Self-Care for Treatment Providers
PSY 506 Internship in Addiction Studies

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 Psychology Department Chair and/or Associate Chair will assume initial program administration responsibilities. A three-credit reassigned time allocation is expected for developing and initiating the program. (FTE load should be reassessed once the program is underway).

Program administration will include internship and supervision coordination (although this could be a separate responsibility once the new FT faculty member is hired). The administrator should be experienced in clinical/counseling issues, especially in the addiction field, and is expected to develop and maintain effective relationships with community resources, placement sites, and sponsors.

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?

One additional full-time faculty member will be needed to staff the graduate-level courses. Qualifications for new full-time faculty: Ph.D. or Psy.D. in Clinical or Counseling Psychology will be required. Must be licensed. Track record of published research on addiction and ability to obtain grant funding in the field is preferred. Experience in direct patient care and/or service delivery in substance use disorder treatment, or in community prevention, is required.
Rationale: The Psychology department already utilizes a large number of part-time adjunct faculty to teach our popular undergraduate program, and taking full-time teaching hours away from our undergraduate major to teach graduate-level courses would necessitate an undesirable increase in the use of part-time faculty.
Additionally, recruiting an additional faculty member with training and experience in Addiction Studies will add expertise to our department in this area, bringing recent research and models to curriculum development and training.

What percentage of the credits in the program will they teach?
50%

What percent of credits in the program will be taught by adjunct faculty?
25%

Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program

Several of our adjunct faculty members have considerable expertise and many years of applied experience in the substance use treatment field. Minimal qualifications of such adjunct faculty are:

Ph.D. or Psy.D. in Clinical or Counseling Psychology. Must be licensed in the state of Connecticut, or able to apply for licensure immediately upon hire. Highest preference will be given to those currently working in direct patient care and/or service delivery in substance use disorder treatment, or in community prevention. Such faculty can provide the best supervision and training to our graduate students.

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)*

Resources required to begin the graduate program are already available at WCSU thanks to the long-standing course sequence designed for CADC certification. Library collections, assessment materials and online resources will be allocated to the new graduate program with no immediate budgetary ramifications.

There will be a need for strategic marketing plans to create a presence for the program on relevant websites and through outreach activities such as direct marketing, promotion to employers, professional conferences, and coordination with Connecticut's Department of Mental Health and Addiction Services (DMHAS).

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)*

Core Addiction Studies Courses

Course Number and Name	LO	Pre-Requisite	Cr Hrs
PSY 999 Introduction to the M.S.		Graduate standing or permission of the instructor	1
PSY 592 Advanced Substance Use Counseling: Assessment and Counseling	1, 2	Graduate standing or permission of the instructor and PSY 202 (Abnormal Psychology), PSY 324 (Experimental Psychology), and either PSY 306 (Internship in Applied Psychology), PSY 332 (History of Psychology), PSY 334 (Psychological Assessment), PSY 341 (Child & Adolescent Abnormal Psychology), PSY 346 (Moral Development), PSY 352 (Cognitive Neuroscience), or PSY 439 (Community Psychology).	4
PSY 593 Advanced Substance Use Counseling: Drugs & Behavior	5	As above	4
PSY 594 Advanced Substance Use Counseling: Counseling Techniques	2, 3, 4	As above	4
PSY 595 Advanced Substance Use Counseling: Applied Counseling	3, 4, 6	As above	4

Special Requirements

PSY 506* Internship in Addiction Studies	2, 3, 4, 6	Graduate standing or permission of the instructor and PSY 592 or PSY 593 or PSY 594 or PSY 595	3
PSY 526* Masters Project	5, 6	Graduate standing or permission of the instructor	3

Additional Required Courses

PSY 504* Program Evaluation and Data Analysis	5, 6	Graduate standing or permission of the instructor	3
PSY 5FF* Ethics and Self-Care for Treatment Providers	1, 2, 4, 6	Graduate standing or permission of the instructor	3
PSY 5XX*	5	Graduate standing or permission of the instructor	3

Drugs & the Brain: The Neuroscience & Psychopharmacology of Addiction & Treatment			
PSY 5YY* Advanced Diagnosis & Assessment in Substance Use Disorder & Co-Occurring Disorders	1, 2	Graduate standing or permission of the instructor	3
PSY 5AA* Psychological Treatment of Drug Use and Misuse for Medical Conditions and across Populations	1, 2, 4	Graduate standing or permission of the instructor	3

(* indicates proposed new course)

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.")*

The M.S. in Addiction Studies degree requires 38 credits.

17 credits are included in the core sequence, and an additional 15 credits of complementary coursework are required. An internship (3 credits) and Master's project (3 credits) are also required.

Admission requirements: WCSU students can apply for pre-admission to the Masters' program when they reach junior year of the Psychology major. They must maintain a GPA of 3.0. All applicants will be interviewed in the junior or senior year to assist in the admission process.
Other applicants are required to have a Bachelor's degree from an accredited school. Students with psychology, social work and similar backgrounds are encouraged to apply. Admission will be based on a review of academic record and an interview.

Work and Internship Affiliations: The program will work with Danbury and other northwest Connecticut substance use disorder treatment programs to provide graduate quality internship experiences for all graduate students. This program will emphasize the importance and value of the simultaneous internship and coursework. The Internship Coordinator will focus on ensuring that the internship placements fit the needs of the program and the student and that the school advisor and the agency supervisor and the student intern all understand the expectations and needs of each party.

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

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 program)*

Faculty Name and Title	Institution of Highest Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities
Nicholas Gallucci	Ph.D, University of Louisville	Substance Use Disorder Counseling/Community Psychology	
Shane Murphy	Ph.D., Rutgers University	Health Psychology	Department Chair
To be hired	Ph.D. or Psy.D.	Addiction Studies	Internship/Supervision Coordinator
Mary Nelson	Ph.D., Iowa State University	Research and Statistics	
Bernie Gee	Ph.D., University of Rochester	Neuroscience, Biological Psychology, Psychopharmacology	
Tara Kuther	Ph.D., Fordham University	Developmental Psychology: Risk-taking behavior in adolescents	
Dan Barrett	Ph.D. Arizona State University	Social Psychology, Social Influence/Persuasion, Cross-Cultural Psychology	Associate Chair of Department
Maya Aloni	Ph.D., State University of New York at Buffalo	Social Psychology: The Psychology of Close Relationships	
Robin Gustafson	Ph. D., Columbia University	Cognitive Psychology, Technology and Learning	
Patricia O'Neill	Ph.D., University of California Riverside	Cognitive Psychology, Statistics, Evolutionary Psychology	
Jessica Kraybill	Ph.D., Virginia Tech University	Developmental Psychology, Statistics	
Rondall Khoo	Ph.D., Pennsylvania State University	Cognition, Thinking and Reasoning, and Cognitive Learning	

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																		
New Students (first time matriculating)	12	2					15	4					18	5				
Continuing Students progressing to credential			11	2	11	2		2	14	4	14	4		4	17	5	17	5
Headcount Enrollment	12	2	11	2	11	2	15	6	14	4	14	4	18	9	17	5	17	5
Total Estimated FTE per Year[1]	10.0	1.66	10.08	1.83			12.5	4.33	12.83	3.66			15	6.16	15.58	4.58		

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[2]	41,760	5,390	38,280	6,160	92,113	16,030	53,760	20,644	50,176	12,704	119,609	33,012	66,456	30,266	62,764	16,360	148,652	42,490
Tuition from Internal Transfer[2]																		
Program Specific Fees (lab fees, etc.)																		
Other Revenue (annotate in narrative)																		
Total Annual Program Revenue	$199,733						$289,905						$366,988					

PROJECTED Program Expenditures[3]	First Year	Second Year	Third Year
Administration (Chair or Coordinator)[4]	32,930	34,410	35,958
Faculty (Full-time, total for program) [4]	98,791	103,230	107,874
Faculty (Part-time, total for program) [4]	81,657	85,326	89,162
Support Staff (lab or grad assist, tutor)			
Library Resources Program			
Equipment (List in narrative)			
Other[5]			
Estimated Indirect Costs[6]			
Total Expenditures per Year	$213,378	$222,966	$232,994

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.

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.

*FT Pathway enrollments are based upon a path of Summer, Fall, Winter, Spring and Summer classes
**PT Pathway enrollments are based upon a path of Summer, Fall, Winter, Spring, Summer, Fall and Winter classes

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

New Program Approval

December 13, 2018

RESOLVED: That the Board of Regents for Higher Education approve the licensure and accreditation of a Supply Chain Logistics Management program (CIP Code: 52.1301) leading to a Master of Science degree, requiring 33 course credits delivered via an online or hybrid modality, at Central Connecticut State University

A True Copy:

_____

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

ITEM

Licensure and accreditation of a new Supply Chain Logistics Management program leading to a Master of Science degree at Central Connecticut State University

BACKGROUND

Summary

Employers seeking to hire personnel in logistics operations have indicated a preference for students with one or more professional certifications. The proposed program, built upon existing courses and existing faculty resources and expertise, will prepare its graduate to receive five distinct industry-recognized certifications upon graduation or during various stages of their career. The program's curricular focus will include strategic supply management and logistics, global sourcing, partnerships, demand and inventory management, data analysis, tracking logistics issues, global information and processes across organizations (retailers, warehouses, distribution centers, and manufacturing plants).

Rationale

Connecticut is home to several major original equipment manufacturers and their supply chains consist of hundreds of small and medium manufacturers. In the coming years, there will be a dramatic increase in production at these major manufacturers. Additionally, the changing landscape of the state's business and industry has brought about a greater need for trained professionals in the field of Supply Chain and Logistics Management. The Bureau of Labor Statistics forecasts two percent annual growth in supply chain and logistics employment in the entire United States through 2024.

Resources

The proposed program has been designed to be extremely cost effective, utilizing existing resources. All courses are currently offered in the department and other key resources are already in place. Projected revenue is expected to exceed projected expenditures during each year in the program's first 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.

11/26/2018 – BOR Academic & Student Affairs Committee
12/13/2018 – Board of Regents

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION
Connecticut State Colleges & Universities
*APPLICATION FOR **NEW PROGRAM APPROVAL***

SECTION 1: GENERAL INFORMATION

Institution: Central Connecticut State University | Date of Submission to CSCU Office of the Provost: Mar 01, 2018

Most Recent NEASC Institutional Accreditation Action and Date:

Program Characteristics

Name of Program: **Supply Chain Logistics Management**

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

Certificate: *(specify type and level)*

Anticipated Program Initiation Date: Spring 2019

Anticipated Date of First Graduation: Fall 2021

Modality of Program: On ground Online x Combined

If "Combined", % of fully online courses?

Two versions: (i) **Hybrid** (49%), (ii) **Online** (100%)

Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, GenEd, other)*: 33

Program Credit Distribution

Cr in Program Core Courses: 21

Cr of Electives in the Field: 0

Cr of Free Electives: 12

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

Total # Cr in the Program *(sum of all #Cr above)*: 33

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

Type of Approval Action Being Sought: Licensure or X Licensure and Accreditation - (see **NOTE** below)

CIP Code No. *(optional)* 52.1301 Title of CIP Code: Management Science

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:

The Department of Manufacturing and Construction Management (MCM) will offer a new master's degree program of **Supply Chain Logistics Management** housed in the School of Engineering, Science and Technology (SEST) at Central Connecticut State University (CCSU), New Britain, CT 06053.

Upon approval, the program will welcome the first students in Spring 2019.

The program focus is on the strategic supply management and logistics, global sourcing, partnerships, demand and inventory management, data analysis, tracking logistics issues, global information and processes across organizations (retailers, warehouses, distribution centers, and manufacturing plants).

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 addresses the standards of the identified accrediting body or licensing agency)

Employers are seeking to hire students with one or more of the following professional certifications CTL, CPSM, CPIM, and CSCP. Each professional certification is described below. Graduates of the M.S. in Supply Chain and Logistics Management program will be prepared to receive certifications that are recognized by thousands of U.S. employers. Graduates of Supply Chain and Logistics Management program can further receive industry-recognized certification at any stage of their careers.

Following are distinguished designations:

- **CPSM** Certified Professional in Supply Management designation from ISM (Institute of Supply Management.
- **CPIM** Certified in Production and Inventory Management from APICS (Professional Association for Supply Chain Management)
- **CSCP** Certified Supply Chain Professional from APICS
- **CTLD** Certified in Transportation, Logistics, and Distribution from APICS.
- **CPL** Certified Professional Logistician from SOLE (The International Society of Logistics)

These leading supply chain organizations offer Certification Blanket Waivers to academic programs that recognize students' coursework in lieu of taking certification exams.

For example, CCSU graduates from Supply Chain & Logistics Management program will receive CTL (Certified in Transportation and Logistics) designation from APICS. Upon approval of this new master's degree program, the MCM department will immediately submit application to APICS, ISM, and SOLE to receive Certification Blanket Waiver program status.

Current approved CTL Academic Program Schools is in **Appendix A**.

Institutional Contact for this Proposal: Dr. Paul Resetarits	Title: Professor, Manufacturing & Const. Management	Tel.: (860) 832-1834 e-mail: resetarits@ccsu.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.

SECTION 2: PROGRAM PLANNING ASSESSMENT

Alignment of Program with Institutional Mission, Role and Scope
(Please provide objective and concise statements)

The Supply Chain Logistics Management (MS-SCLM) graduate program at Central Connecticut State University reflects strong commitment to business and industry for advancing knowledge and applications in the supply chain and logistics management. It will build upon existing courses in the Technology Management, MS in the Department of Manufacturing and Construction Management and existing faculty resources and expertise. The Manufacturing and Construction Management (MCM) department currently offers the following:

B.S. Manufacturing Management and Technology Management programs at the undergraduate level. Students in these programs take the course **Supply Chain and Purchasing Strategy**. Graduates are employed in Supplier Quality and Materials Management positions where they are responsible for assuring part quality and managing materials and subcomponents supply.

M.S. Technology Management Program has been offered for over 20 years. This program has six core courses and five elective courses which allow students to specialize in Supply Chain and Logistics Management area. The new MS program will use these core areas of concentration and students will pursue their individual interests from the elective courses.

Official Certificate Program (OCP) in Supply Chain and Logistics Management is a four-course sequence that has been offered for the past 10 years. These courses will become part of the core requirements of the new M.S. in Supply Chain and Logistics Management.

Fit with Institutional Mission. The MS-SCLM degree program will support the University's distinctive commitment as a comprehensive public university to provide broad access to quality degree programs at all levels and respond to workforce needs to enhance the state's economic development. Consistent with this mission, the M.S. in Supply Chain and Logistics Management will operate in concert with the Master of Science in Technology Management and the OCP programs to prepare students to be knowledgeable and effective professionals who contribute to their employers' success.

Fit with School of Engineering, Science and Technology: The MS-SCLM program is consistent with the mission of SEST:

- The School of Engineering, Science and Technology will strive to provide an innovative and unique educational experience to every student, develop the most qualified engineers, scientists and technologists. The School will maintain academic excellence in a wide variety of traditional disciplines and develop innovative disciplines in emerging fields, creating interdisciplinary educational and research programs, and building the infrastructure to support the expansion of programs.

The School will be a leader in developing cross-disciplinary initiatives that combine and expand the talents of its students and faculty in all disciplines and prepares our graduates for a multidisciplinary world through a flexible and diverse curriculum; and, meets the needs for a well-educated and skilled workforce.

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)*

Graduates will be prepared to accomplish logistics operational excellence and challenging aspects of operations by creating links between manufacturers, suppliers, and consumers. The operational leadership will be achieved by coordinating new technologies and the processes to achieve budgets, metrics and customer goals and expectations.

The US companies widely adopted supply chain management and logistics due to increased globalization. Our local manufacturing enterprises are driven to pursue a global manufacturing strategy. These companies transcend national boundaries to leverage raw materials, resources, outsourcing capabilities and marketing worldwide.

Every company in the state of Connecticut is involved with and has need for knowledge of Supply Chain Logistics Management; all organizations purchase some kind of supplies, raw materials, software, hardware, services, packaging, etc. on a regular and recurring basis. Therefore, every company has the need to purchase products from the supply chain and ship products or provide services to customers requiring logistic support. The demand for professionals in this field represents a growing opportunity

Students will seek out the Supply Chain Logistics Management (SCLM) Master's Degree program from the following sources:

1. Students with technology management or engineering technology major, as well as any science or business major.
2. Professionals from manufacturing industries employed in supply chain functions.
3. Professionals in service industries employed in warehousing and logistics functions.
4. Professional from manufacturing industries and service companies who are employed in allied fields such as engineering, quality, finance, and IT.
5. Federal government (e.g. Department of Defense) personnel seeking advanced degrees.
6. State and local government employees engaged in purchasing and supply chain management.

Thriving Supply Chain Jobs in the State of Connecticut:

Connecticut is home to major Original Equipment Manufacturers (OEM) integrated with Global Supply Chain. The major manufactures: Pratt & Whitney, Electric Boat, and Sikorsky and a supply chain of over 600 small and medium manufacturers (SMMs) experience a dramatic Increase in Production Goal in aerospace and naval sectors.

- **Pratt & Whitney** (P&W) expects to more than double engine production by 2020. Much of this production work will be performed by SMMs: 80% of P&W's engine parts are manufactured by their supply chain and anticipates new hiring includes supply chain professionals to increase by 25,000 by 2025.

- **Three major Navy programs,** Virginia-Class Submarine, Columbia-Class Submarine and Virginia Payload Module, will require that Electric Boat hires 14,000 new employees over the next decade to meet Navy requirements.

- **Sikorsky** is expected to inject $6.5 billion into its supply chain under the deal, increase full-time employment in Connecticut to more than 8,000 workers, double current spending of $350 million per year with in-state suppliers, and increase capital spending by 22%.

Hartford area employment (numbers in thousands)	Sep. 2017	Change from Sep. 2016 to Sep. 2017	
		Number	Percent
Total nonfarm	572.3	-0.4	-0.1
Mining, logging, and construction	19.6	-1.7	-8.0
Manufacturing	56.5	0.5	0.9
Trade, transportation, and utilities	90.7	0.9	1.0
Information	11.3	-0.3	-2.6
Financial activities	56.8	-0.4	-0.7
Professional and business services	75.7	2.2	3.0
Education and health services	107.6	0.6	0.6
Leisure and hospitality	47.0	-1.3	-2.7
Other services	23.0	1.2	5.5
Government	84.1	-2.1	-2.4

Source: U.S. BLS, Current Employment Statistics.
Web link: https://www.bls.gov/regions/new-england/summary/blssummary_hartford.pdf

Supply Chain Logistics Manager Jobs, 2016-17 (City, CT)

CT	April '17	Sep '17	Nov 29, '17
Stamford	110	105	90
East Hartford	54	51	45
Wilton	23	38	28
Hartford	29	22	18
Windsor Locks	19	23	16
Shelton	18	19	15
Danbury	16	14	13
Norwalk	21	15	13
Stratford	11	18	12
New Haven	15	9	10

Supply Chain Logistics Manager Jobs, (Company, CT)

Job Type	Company
Full-time (376)	Deloitte (56)
Contract (36)	Pratt & Whitney (40)
Commission (4)	Auto Plus Pep Boys (19)
Temporary (4)	ASML (16)
Internship (2)	UTC Aerospace Systems (13)
Part-time (1)	Nestlé Waters North America (13)

Source: www.indeed.com, Nov 29, 2017

The changing landscape of Connecticut's Business and Industry community has brought about a greater need for trained professionals in the field of Supply Chain and Logistics Management. The Supply Chain Logistics Management MS program will support the state's manufacturing and advanced manufacturing industries. It will also support the state's service sector, through filling positions in supply chain, logistics, or both.

Example 1: Durable Goods Manufacturing

Pratt & Whitney has gone from a business model where 80% of their engine parts were made by Pratt & Whitney and 20% made by suppliers to where currently 80% of their parts are made by their various suppliers in the global supply chain. Pratt & Whitney currently only makes 20% of their own engines. This model is being repeated throughout the United States thus creating great demand for professional in Supply Chain and Logistics Management. http://www.pw.utc.com/Videos/Story/supply-chain-critical-role/All/Global%20Supply%20Chain

Example 2: Online Order Fulfillment Service

Amazon recently opened at large distribution center in Connecticut. The move to online shopping has created greater demand for shipping the products purchased online. Amazon, UPS, and FedEx are hiring supply chain and logistics professionals at unprecedented levels to keep up with demand. UPS just announced that it will hiring 6,000 people and expanding its service to include Saturday deliveries. http://money.cnn.com/2017/04/03/news/companies/ups-saturday-delivery/

The Supply Chain Logistics Management master's degree program responds to the employment needs of manufacturing and service industries in the state of Connecticut. It also responsive to the feedback from our department's Industry Advisory Board (IAB) members that our graduates should acquire skills in the supply chain and logistics management field. This new master's degree will further strengthen our commitment to the industrial community.

Companies in Connecticut have steadily expanded hiring in supply chain and logistics management since the mid-1990s due to increased globalization. Local manufacturing enterprises have been driven by their customers to pursue global manufacturing strategies. These strategies transcend national boundaries to leverage raw materials and related resources, technical and managerial capabilities, and sales and marketing worldwide.

According to Mr. Dean Vella: "Today, successful companies rely on the skills of supply chain management professionals to keep their goods and services flowing to the marketplace quickly, efficiently, and as cost-effective as possible. Supply chain management is a bright spot among up-and-coming careers, with employment opportunities in a wide variety of industries, in firms of all sizes. If you're interested in a challenging career with a variety of specializations, as well as prospects for advancement, you might want to check out supply chain management."
http://www.inboundlogistics.com/cms/article/supply-chain-management-a-needed-and-growing-opportunity/

According to the 20th annual Third-Party Logistics Study: "The logistics industry is facing an unprecedented labor shortage", unveiled at the Council of Supply Chain Management Professionals annual conference in San Diego (http://www.3plstudy.com/). The shortage of supply chain and logistics workers nationwide has been the subject of numerous conferences, articles in national business and trade publications, and national television news shows.

Over the last 20 years, production has become globalized. In the early years, staffing was inadequate to support this major change in business process. As a result, they have experienced various types of disruptions in supply, thereby impacting their customers' satisfaction. Connecticut and other U.S. companies have learned that higher levels of staffing are necessary to properly oversee supply, logistics, warehousing, quality, and supplier performance.

The Bureau of Labor Statistics forecasts two percent annual growth in supply chain and logistics employment in the entire United States through 2024. The median pay for supply chain management personnel in 2015 was $59,620 per year ($28.66 per hour), while the median pay for logistics personnel in 2015 was $74,260 per year $35.70 per hour (https://www.bls.gov/ooh/business-and-financial/buyers-and-purchasing-agents.htm and https://www.bls.gov/ooh/business-and-financial/logisticians.htm).

In many Connecticut companies, that the number of available positions is likely to increase in the next 10 years as the Baby Boomer generation reaches retirement age, and the need for workers with experience in supply chain management and logistics management continues to rise.

There is a significant amount of collaboration and relationship management required between manufacturers, suppliers, distributors, and the customers to be successful in industry. Global manufacturing activities have been dispersed and carried out in diverse locations. As a result, new knowledge and skills are required to perform technical job requirements, relationship management, and monitoring and improving supplier performance. Local industries demand new talent for supply chain management and logistics management positions.

Among the organizations which CCSU's MCM department work with the partners:

- The Connecticut Center for Advance Technology (CCAT),
- Connecticut Business and Industry Association (CBIA)
- Aerospace Components Manufacturers (ACM)
- American Association for Quality (ASQ) Hartford Chapter
- The Regional Center for Next Generation Manufacturing (RCNGM)
- PL Worldwide: Connecticut Logistics (http://www.3plworldwide.com)

The practical curricula and applied research done by the faculty provide Connecticut employers with students who are work-ready upon graduation. With minimal orientation, our graduates will quickly become contributing members of staff.

- 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 core academic courses that support the M.S. in Supply Chain Logistics Management program already exist and have successfully been offered at the graduate level for ten years. The faculty are currently in place, but one additional faculty member could be utilized to support the new program and ensure a level of quality that is recognized and supported by Connecticut businesses. The computer laboratories and software needed to support the program currently exist.

Central Connecticut State University (CCSU) by its very name is centrally located geographically within the state of Connecticut, and thus giving easy access to students and employers throughout the state. CCSU has long been known for its School of Engineering and Technology. The laboratory facilities, computers and manufacturing facilities are well equipped with state of the art equipment and software.

The Department of Manufacturing and Construction Management is well known and respected in the Connecticut manufacturing and service industries, including local logistics providers. Faculty publish research articles and give professional presentations to local, national, and international conferences and symposiums. Faculty expertise is also utilized by many manufacturing and logistics providers through the Institute for Technology and Business Development (ITBD). ITBD was developed and administered originally by faculty of the School of Engineering and Technology to meet the needs of Connecticut manufacturers.

Over the years, the MCM department has worked with many organizations placing students in the Connecticut workforce with internship and Co-op positions that are a requirement for undergraduate programs. MCM department have learned the concern of the local manufacturing enterprises through personal meetings, professional conferences, and industry advisory board meetings. Students are sought by employers for a wide range of different permanent positions upon graduation.

Another resource is our Industrial Advisory Board (IAB), composed of leaders from area manufacturing and service companies. The board members guide the faculty and the department towards future employment needs and help ensure that our undergraduate and graduate programs meet their needs. These industry partners are committed sponsors of this new master's degree program. They will support the program through enrollments of their employees, and through employment opportunities for new graduates.

The new MS-SCLM degree program will strengthen CCSU's ability to educate the leaders who will advance the understanding of global supply chain and logistics challenges that exist currently, and skill sets for the future challenges.

- 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)*

Following are the community colleges in Connecticut offer Associate Degree in Supply Chain Management: Three Rivers CC, Norwich, CT; Manchester CC, Manchester, CT; Naugatuck Valley Community College, Waterbury, CT; Quinebaug Valley Community College, Danielson, CT. Students

from these programs could transfer to our B.S. programs and then enroll in the M.S. program in SC&LM

Academic Credit will be granted for students who have previously earned any of the five professional certifications listed below:

- **CPSM** The Certified Professional in Supply Management® designation from ISM (Institute of Supply Management.
- **CPIM** Certified in Production and Inventory Management from APICS (Professional Association for Supply Chain Management)
- **CSCP** Certified Supply Chain Professional from APICS
- **CTLD** Certified in Transportation, Logistics, and Distribution from APICS.
- **CPL** Certified Professional Logistician from SOLE (The International Society of Logistics)

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

The Supply Chain and Logistics Management is the only master's degree program of its type in the CSCU system.

There is no duplication. This is a unique program that will exist at CCSU.

A list of peer program in Supply Chain and Logistics Management offered at the graduate level (not offered in the state of Connecticut) in the U.S. presented in **Appendix B**.

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.)

This program has been designed to be extremely cost effective. It utilizes all existing resources and will require no new resources. All courses are currently successfully offered in the department.
The following resources are already in place: program coordinator, teaching faculty, library resources, department secretary.

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)*

Upon successful completion of all program requirements, graduates will be able to:

1. Apply knowledge of technology and management principles to the contemporary supply chain and logistics practices as the following
   - Sourcing raw materials and parts, flow of materials
   - Manufacturing and assembly operations support, scheduling
   - Warehousing, inventory, data analysis, tracking
   - Forecasting, order entry and order management
   - Transportation, distribution network, delivery to the customer
2. Identify, analyze, and solve supply chain and logistical problems using continuous improvement methods.
3. Develop and manage relationships with suppliers inside and outside the organization.
4. Apply knowledge and skills to meet the current and evolving challenges of global supply chains and logistics.
5. Communicate effectively in written, oral, graphic and visual modes. Coordinate and communicate with key stakeholders inside and outside the organization.

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)*

Dr. Bob Emiliani will assume the program coordinator role of the new MS SCLM program
[He is currently graduate coordinator of (MS) Technology Management program]

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?

No new faculty needed to hire for the first three years of this program. Based on the projected growth of the MS SCLM program, additional resources should be needed at the fourth year.

What percentage of the credits in the program will they teach?

What percentage of the credits in the program will they teach? 85%

What percent of credits in the program will be taught by adjunct faculty?

What percent of credits in the program will be taught by adjunct faculty? 15%

Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program

Adjunct faculty must possess an M.S. degree and relevant industry experience in the subject matter of the course they will be assigned to teach.

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)*

No special resources or laboratory equipment needed for this program.

The new program will run using all the existing resources.

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. # [1]	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				**Other Related/Special Requirements***		
SCLM 562: Supply Chain Strategy	1, 3		3			
SCLM 563: Strategic Logistics Management	4		3			
SCLM 564: Quality Systems Management	2, 5		3			
SCLM 565: Logistics: Traffic & Transportation	1		3			
SCLM 566: Distribution & Warehouse Management	1, 4		3			
TM 510: Industrial Operations Management	1, 5		3			
TM 561: Applications of Lean Principles	2		3			
Core Course Prerequisites				**Elective Courses in the Field**		
				TM 500: Product Life Cycle Management	1, 4	3
				TM 502: Human Relation & Behavior in Complex Organizations	3, 5	3
				TM 512: Principles of Occupation Safety	1	3
				TM 464: Six Sigma Quality	2	3
				TM 490: Advanced Six Sigma Quality	2	3
				TM 551: Project Management	3, 5	3
				TM 572: Innovative Leadership	5	3
				AC 521: Accounting and Performance Measurement for Lean Enterprise	1	3
				SET 590: International Field Studies: Global Supply Chain	1, 4	3
Total Other Credits Required to Issue Credential *(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.")*

***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.

[1] From the Learning Outcomes enumerated list provided at the beginning of Section 3 of this application

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 program)*

Faculty Name and Title	Institution of Highest Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities
Bob Emiliani, Professor	PhD, Brown University	Supply chain Management, Lean Systems, Innovative Leadership	
Paul Resetarits, Professor	PhD, University of Connecticut	Quality Systems Management, Product Life Cycle, Global Supply Chain	
Haoyu Wang, Associate Professor	PhD, Syracuse University	Mechanical CAD, Manufacturing Processes, Optimization	
Ravindra Thamma, Professor	PhD, Iowa State University	Automation, Quality, Programming, Advanced Manufacturing	
Mohammad Rahman, Assoc. Professor	PhD, Louisiana State University	Supply Chain & Logistics Systems, Transportation, Statistical Modeling	
Jacob Kovel, Associate Professor	PhD, Georgia Institute of Technology	Systems Engineering, Logistics Strategy, and Processes	
Hassan Shibly, Associate Professor	PhD, Carnegie Mellon University	Data Mining, System Analysis, Testing of Prototype Systems	
Pano Koukopoulos, Adjunct Professor	MS, Western CT State University	Industrial Safety, Supply Chain Management	
Peter E. Teti, Adjunct Professor	M.S, Rensselaer Polytechnic Institute at Hartford	Six Sigma Quality, Suppliers Quality	
Mohamed A. Saleh, Adjunct Professor	MS, Central Connecticut State University	Application of Lean Principles	
David Stec, Adjunct Professor	MS, Massachusetts Institute of Technology (MIT)	Operations Management, Project Management	

ASAC 11-26-2018 Page 69 of 173

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION
Connecticut State Colleges & Universities
*APPLICATION FOR **NEW PROGRAM APPROVAL***

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	5	5	4	0	6	2	6	2	7	0	3	2	6	2	7	0	3
New Students (first time matriculating)	2	6	3	6	0	8	3	8	5	8	0	9	4	8	5	8	0	9
Continuing Students progressing to credential	0	0	0	0	0	0	6	11	8	10	0	14	6	14	7	15	0	12
Headcount Enrollment	6	11	8	10	0	14	11	25	15	25	0	26	12	28	14	30	0	24
Total Estimated FTE per Year[1]	10		11		5		19		23		9		21		24		8	

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[2]	$11,835	$11,772	$17,753	$11,772	0	$15,456	$53,258	$37,278	$76,928	$25,506	0	$21,252	$59,175	$43,164	$71,010	$23,544	0	$25,116
Tuition from Internal Transfer[2]	$23,670	$9,810	$29,588	$7,848	0	11592	$11,835	$11,772	$11,835	$13,734	0	0	$11,835	$11,772	$11,835	$13,734	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
Total Annual Program Revenue	$151,095						$263,397						$271,185					

PROJECTED Program Expenditures[3]	First Year	Second Year	Third Year
Administration (Chair or Coordinator)[4]	$12,333	$12,333	$12,333
Faculty (Full-time, total for program)[4]	$122,837	$143,309	$143,309
Faculty (Part-time, total for program)[4]	$0	$27,908	$27,908
Support Staff (lab or grad assist, tutor)			
Library Resources Program	$1,125	$1,525	$1,750
Equipment (List in narrative)			
Other (marketing)[5]	$3,000	$3,000	$3,000
Estimated Indirect Costs[6]			
Total Expenditures per Year	$139,295	$188,076	$188,301

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.

ASAC 11-26-2018 Page 70 of 173

Appendix A: Certification Blanket Waiver
(List of CTL Academic Program Schools)

ABOUT SHOP PARTNER & EVENT FINDER APICS FOR BUSINESS APICS SCC CONTACT LOGIN

APICS is the premier professional association for supply chain management.

APICS RESEARCH EDUCATION CERTIFICATION PARTNERS MEMBERSHIP

Certification and Education > Certification > Logistics > CTL > CTL Academic Programs

CTL Academic Programs

The Board of Examiners has approved college programs that are aligned with the exam modules required for the Certified in Transportation and Logistics (CTL) professional certification program. If you are graduating within the next two months or have graduated from any of the approved CTL academic program schools listed below in the past six months, you may apply for the blanket waiver for your CTL Certification.

How do you benefit from this program?

- Potential employers know you have gone that additional step to prove your commitment to the profession.
- Studies show a professional credential increases salaries by 10 to 20%
- Membership in APICS offers access to a global network of industry professionals through the members only search engine, LinkedIn Group and FaceBook page.

Approved CTL Academic Program Schools

The coursework in the following schools meets the requirement for the CTL Professional Certification. These institutions are approved by the Board of Examiners as an Approved CTL Academic Program School for students graduating with an undergraduate degree, Master of Science, or Ph.D. in an industry related field.

Air Force Institute of Technology
Arkansas State University
Auburn University
Bellevue University
California State University/San Bernardino
East Carolina University
Embry-Riddle Aeronautical University
Georgia Southern University
Indiana University
Iowa State University
John Carroll University
Maine Maritime Academy
Michigan State University
N.C. A&T State University
Ohio State University
Pennsylvania State University
Syracuse University
University of Arkansas
University of British Columbia
University of Denver (undergrad) (graduate)
University of Houston
University of Maryland/College Park
University of North Florida
University of North Texas
University of Rhode Island
University of Southern Mississippi
University of Tennessee
University of Texas/Dallas
University of Wisconsin/Superior
U.S. Merchant Marine Academy

Credential Verification
APICS credential verification

Logistics Exams and Waivers
Logistics exams and waivers

Logistics Maintenance
Logistics maintenance requirements

Related Links
APICS CTL program
APICS GLA program
APICS PLS program
APICS CPIM program
APICS CSCP program
APICS SCOR-P program
Logistics FAQs

APICS Member Advantage
Not an APICS member? APICS members save on APICS online courses and exams. Join APICS.

APICS Supply Chain Channel
Interested in earning an APICS credential? Discuss it with your peers in the Supply Chain Channel.

- Request a CTL Certification Blanket Waiver

Appendix B: Peer Program in Supply Chain Management in the U.S.

	Peer Program Schools	Name of Program	Website
1	American Intercontinental University	MBA with a concentration in Supply Chain Management	http://dunwoody.aiuniv.edu/degree-programs/masters-degree-supply-chain-management-mba/
2	American Military University	Logistics Management Certificate	http://www.amu.apus.edu/Catalog/08/graduate/degree/certificates/logistics/logistics.htm
3	American Military University	Master of Arts in Transportation and Logistics Management	www.amu.apus.edu
4	American Society of Transportation and Logistics Inc.	Certificate in Transportation and Logistics	http://www.astl.org/i4a/pages/index.cfm?pageid=1
5	Arizona State University	Transportation Systems Graduate Certificate Program	http://design.asu.edu/transportation/
6	Arizona State University	MBA with a Specialization in Supply Chain Management	http://wpcarey.asu.edu/mba/ft/
7	Baruch College The City University of New York	Import Trade Operations and Procedures Certificate	http://www.baruched.com/programs/certificates/internationaltradeoperationsandprocedures.htm
8	Baruch College The City University of New York	Export Trade Operations and Procedures Certificate	http://www.baruched.com/programs/certificates/internationaltradeoperationsandprocedures.htm
9	Baruch College The City University of New York	Internal Supply Chain Security and Compliance Certificate	http://www.baruched.com/programs/certificates/internationaltradeoperationsandprocedures.htm
10	California State University	Master of Arts in Global Logistics	http://www.uces.csulb.edu/extension/course_listing/programdescription.aspx?&Group_Number=226&Group_Version=1
11	Clarkson University	MBA with Global Supply Chain Management Track	http://www.clarkson.edu/business/mba/curriculum/global.html
12	Columbus State Community College	Logistics Certificate	http://www.cscc.edu/projecteagle/about/student.htm
13	Columbus State Community College	Global Trade Certificate	http://www.cscc.edu/projecteagle/about/student.htm
14	Columbus State Community College	SCM Certificate	http://www.cscc.edu/Programs/descriptions/logi.htm
15	East Carolina University	Master of Science in Technology Systems-Concentration in Industrial Distribution and Logistics	http://www.tecs.ecu.edu/tsys/grad/msts/idl.htm
16	Elmhurst College	Master of Science in Supply Chain Management	http://public.elmhurst.edu/scm
17	Florida Institute of Technology	Transportation Management Certificate	http://uc.fit.edu/dl/academics/certificates/index.html
18	Florida Institute of Technology	Master of Science in Logistics Management	http://uc.fit.edu/
19	George Mason University	Master of Arts in Transportation Policy, Operations, and Logistics	http://policy.gmu.edu/Home/AcademicProfessionalPrograms/MastersPrograms/TransportationPolicyOperationsLogistics/tabid/108/Default.aspx
20	Georgia College and State University	Master of Science in Administration-Logistics Management	http://www.gcsu.edu/graduate/gradpages/logisticsmanagement.html
21	Georgia Institute of Technology	Executive Masters of Science in International Logistics	www.emil.gatech.edu
22	Georgia Institute of Technology	The Supply Chain & Logistic Certificate	http://www.scl.gatech.edu/professional-education/certificates/

23	Golden Gate University	Operations and Supply Chains-Graduate Certificate	http://www.ggu.edu/academic_programs/operations_and_supply_chain
24	Illinois Institute of Technology	Professional Master of Transportation Engineering	http://www.iit.edu/engineering/cae/programs/grad/ms_ce.shtml
25	Indiana University	MBA with Specialization in Supply Chain and Operations	http://kelley.iu.edu/mba/academics/majorMinor.cfm?area=SPCHNOPMBA
26	Indiana University	Master of Science in Global SCM	http://www.kd.iu.edu/programs/msgscm/overview.htm
27	Institute of Logistical Management	Certified Logistics Practioner (CLP)	http://www.logistics-edu.com/
28	International Import-Export Institute at Dunlap-Stone University	Certificate in International Trade Logistics Specialist	http://www.expandglobal.com/
29	Iowa State University	Master of Science in Transportation	http://www.ctre.iastate.edu/mstrans/index.htm
30	Iowa State University	MBA with Specialization in Supply Chain Management	http://www.bus.iastate.edu/mba/common/supplychain.asp
31	Lehigh Universtiy	Supply Chain Management Certificate	http://lehighmba.com/certPrograms.asp#scm
32	Lenoir Community College	Global Logistics Technology Skills Certificate	http://www.lenoircc.edu/nsite/academicprogs/globalogA25170.htm
33	Maine Maritime Academy	Masters in Global Supply Chain Logistics	http://ibl.mainemaritime.edu/graduate.php
34	Marshall University	Master of Science in Technology Management with an Emphasis in Transportation Systems and Technology	http://www.marshall.edu/cite/academics/Programs/PDescTmGCur.htm
35	Massachusetts Institute of Technology	Master of Engineering in Logistics	http://web.mit.edu/mlog/program/index.html
36	Massachusetts Institute of Technology	Master of Science in Transportation	http://cee.mit.edu/index.pl?id=15054
37	Michigan State University	Master of Science in SCM	http://www.bus.msu.edu/supplychain/msscm/
38	Michigan State University	Ph.D. in Logistics	http://www.bus.msu.edu/supplychain/phd/logistics/index.html
39	Mississippi State University	Master of Science in Civil Engineering with a Specialization in Transportation Engineering	http://www.bagley.msstate.edu/
40	North Dakota State University	Ph.D. in Transporation and Logistics	http://www.mountain-plains.org/education/tlprogram/
41	North Dakota State University	Master of Science in Military Logistics	http://www.ugpti.org/mml/
42	Northwestern University	Technology and Operations Program-Supply Chain Management	www.kellogg.northwestern.edu/execed
43	Ohio State University	Master in Business Logistics Engineering	http://www.cob.ohio-state.edu/prospective/graduate/mble
44	Pennsylvania State University	MBA with Concentration in SCM	http://www.smeal.psu.edu/mba/curric.html/scmcon.html
45	Pennsylvania State University	Supply Chain Certificate	http://www.smeal.psu.edu/psep/topic
46	Purdue University	MBA with Concentration in Global Supply Chain Management	http://www.mgmt.purdue.edu/programs/masters/Degree_Programs/Full_Time/MBA/Options/GSCM.asp
47	Rutgers, The State University of New Jersey	MBA with Concentration in SCM	http://business.rutgers.edu/default.aspx?id=80
48	Syracuse University	MBA with Concentration in Supply Chain Management	http://whitman.syr.edu/Academics/Marketing/SupplyChain/

49	Texas A&M University	Master of Science in Transportation Engineering	http://www.civil.tamu.edu/areas/transportation/index.html
50	Texas Christian University	MBA with Certificate in Supply and Value Chain Management	http://neeley.tcu.edu/default.asp?nodeid=168
51	University of Alaska	Graduate Certificate in Supply Chain Management	http://www.cbpp.uaa.alaska.edu/logonlinegradcertificate.asp
52	University of Alaska	Certificate in Logistics	http://www.cbpp.uaa.alaska.edu/logoperationscareer.asp
53	University of Arkansas	MBA Program with Career Track of SCM	http://gsb.uark.edu/
54	University of Arkansas	Master of Information Science with Concentration in Transportation/Logistics Technology Management	http://gsb.uark.edu/ISYS/default.asp
55	University of Arkansas	Master of Science in Transportation Engineering	http://www.cveg.uark.edu/861.php
56	University of Denver	Master of Science in Intermodal Transportation Management	http://www.du.edu/transportation/ExecutiveMastersProgram/index.html
57	University of Minnesota	Transportation Studies Certificate	http://www.cts.umn.edu/Education/Certificate/
58	University of Missouri-St. Louis	MBA Program - Emphasis in Logistics & Supply Chain Management	http://www.umsl.edu/divisions/business/mbaonline/emphasis-logistics.htm
59	University of North Texas	MBA with Concentration in Logistics and Supply Chain Management	http://www.coba.unt.edu/programs/masters/mba-logistics.php
60	University of Tennessee-Knoxville	MBA with a Concentration in Logistics	http://mba.utk.edu/Concentrations/logi_pros.htm
61	University of Texas-Arlington	M.S. in Logistics	http://ieweb.uta.edu/jrogers/MS%20Log%20Program2007.htm
62	University of Washington	GTTL Certificate	http://depts.washington.edu/gttl/
63	University of Wisconsin	Wisconsin MBA with Specialization in SCM	http://www.bus.wisc.edu/mba/
64	University of Wisconsin	Transportation and Logistics Management Certificate	http://exed.wisc.edu/transportation/default.asp
65	University of California Riverside Extension	Purchasing, Logistics and Supply Chain Management Certification	http://www.iep.ucr.edu/Programs/academic_logistics.html
66	University of Florida	Executive Master of Science in Information Systems and Operations Management with a Concentration in SCM	http://www.cba.ufl.edu/isom/cscm/execmsisom/
67	University of Michigan	M.S. In Supply Chain Management	http://www.bus.umich.edu/Admissions/MSCM/WhySupplyChain.htm

SCM= Supply Chain Management

Appendix C: Sample Supply Chain Logistics Management Jobs in Connecticut and Salary

Internship, Global Supply Chain
United Technologies Corporation – East Hartford, CT
$62k-$100k
Whitney Global Supply Chain Internship Program will be enrolled in a BS Degree program in Business, Supply Chain Management, Operations... extensive exposure to the worlds of operations and supply chain management throughout Pratt & Whitney's value stream. The intern program...

10-22-1017

Supply Chain Manager
Barnes Group Inc. – Windsor, CT
$75k-$117k
will act as a subject matter expert in the area of supply chain management. He/she will develop and manage the materials planning... Qualifications: Five to ten years of related Supply Chain Management experience in an Engineer-to-order manufacturing, OEM...

10-21-1017

Supply Chain Manager
Pratt & Whitney - 374 reviews - Middletown, CT
Bachelor's Degree - Engineering, Supply Chain, Operations, Business or related technical field. Bachelor Degree Required - Supply Chain, Business, Engineering,...

10-19-1017

Supply Chain Buyer
Triumph Group – West Hartford, CT
$56k-$91k
distribution of aerospace materials, parts, equipment, and supplies for the organization by performing the following duties.... for various purchased items and advises team members and/or management on the appropriate supplier to be used. Negotiates the lowest...

10-18-1017

Shop Assist- Supply Chain
United Technologies Corporation – East Hartford, CT
$61k-$98k
projects, good time management Experience in negotiating Education: Bachelor Degree in business, supply chain, technical discipline... The Global Supply Chain team is responsible for working closely with suppliers across the world to ensure we deliver affordable...

10-17-1017

Supply Chain Manager
Manufacturing Company in Waterbury, CT area - Naugatuck, CT 06770
$70,000 - $75,000 a year
Supply Chain Manager responsibilities and duties*. Supply Chain Management:. Flabeg Technical Glass is looking for an experienced Supply Chain Manager who can...

10-15-1017

Supply Chain Manager
Bohan & Bradstreet - New Haven, CT +1 location
$95,000 - $115,000 a year
As Supply Chain Manager, will work directly with internal stakeholders from staff to executive level as well vendors both domestic and international....

10-11-1017

Manager - Supply Chain Operations
Hartford Health Care – Hartford, CT
$73k-$116k
Plan management of Supply Chain Management. Provides project management leadership and coordination for strategic Supply Chain... 3-5 years relevant Supply Chain Management experience 5 years relevant healthcare Supply Chain Management experience...

10-10-1017

Supply Chain Management 17-00514
Open Systems Technologies (NYC) – Windsor, CT
$75k - $119k
Supply Chain/Asset Management Specialist Windsor CT, 06095 Long Term Contract Resource will provide a relationship management... internal/external service providers to the IT organization. Management of IT components within the scope of the service definition

10-07-1017

Purchasing Manager Supply Chain
Clinical Management Consultants - Middletown, CT
$87,713 - $114,419 a year
Purchasing Manager Supply Chain Job in Middletown CT. A healthcare leadership opportunity is now available in the coastal region of Connecticut for a Purchasing...

09-25-1017

Supply Chain Manager, APU
Pratt & Whitney - 374 reviews - East Hartford, CT
5 years of experience in supply chain, material/logistics, operations. +10 years' experience in operations, supply chain or logistics management....

09-23-1017

Supply Chain Manager- HSMC Raw Materials
Pratt & Whitney - 374 reviews - East Hartford, CT
The role of the Supply Chain Manager (SCM) is both exciting & challenging. 10+ Operations, Supply Chain or Manufacturing exp....

09-23-1017

F135 Logistics Material Manager
Pratt & Whitney - East Hartford, CT
The Logistics Material Manager. The Logistics Material Manager will be responsible for: Good logistics, interpersonal and teaming abilities. UTC

03-27-2017

Logistics Coordinator
TRUMPF Inc. - Farmington, CT
Schedule and coordinate all domestic machine deliveries and returns. Communicate shipping info to various internal Trumpf departments (buyers, service).

03-29-2017

Distribution Operations Manager
Thule Group AB - Milford, CT
Coordinate daily, monthly and annual maintenance tasks. Thule Group

04-05-2017

Franchise Program Manager - Aerospace (Global Logistics)
EcoServices, LLC - Wethersfield, CT
Global Logistics & Program Implementation:. Export laws and regulations (EAR and ITAR)· Maturity, judgment and consultative ability to interact effectively with...

03-26-2017

Warehouse Manager
Lyman Products - Middletown, CT 06457
Warehouse Manager Lyman Products, a leading manufacturing in the Shooting Sports Accessory industry is seeking a dynamic, hard-working professional with a .

03-25-2017

Sr. Operations Project Manager- PMP
Community Health Center, Inc. - Middletown, CT
Operations Project Manager. Operations Process Manager is responsible for the overall management and day-to-day activity of process improvement and programs to...

03-22-2017

Logistics Manager
etouches - Norwalk, CT 06854
Proven working experience as a logistics manager (2 -3 years of experience working with Inventory management systems)....

03-21-2017

Supply Chain Analyst
The Chef's Warehouse, Ridgefield ,CT
Job Title: Supply Chain Analyst Location: Ridgefield, CT Department: Supply Chain Operations. The Supply Chain Analyst will work closely with the executive management team to provide quantitative analysis to help drive more profitability to the corporation through supply chain improvements. Will work with cross functional teams (operations, purchasing, sales, IT, finance, HR) at the executive an...

03-15-2017

Supply Market Planner
Stanley Black & Decker, Inc., New Brittan ,CT
Requisition Number 38382BR Title Supply Market Planner Business US - GTS - Operations State / Country / Province Connecticut City New Brittan No. of Positions 1 Job Description Job Specifications: This individual will be a key member of the Supply Planning Team The primary responsibility is to provide superior Service Level while maintaining appropriate control of Inventory and ensuring cr...

03-19-2017

Supply Chain Analyst
Campbell Arnott, Norwalk ,CT
Imagine...working for a company that knows that its people are the key to its success in the marketplace. A company in which achieving extraordinary results and having a stimulating work experience are part of the same process.

03-14-2017

Supply Chain Planner
Medtronic Inc., North Haven ,CT
Help us to excel at everything we make and have a direct impact on patient care and lives. Does this work inspire you? This supply chain planning position is responsible for the coordination of production plans and the management of the supply chain functions

03-23-2017

Supply Chain Analyst
Campbell Arnott, Norwalk ,CT
Imagine ...working for a company that knows that its people are the key to its success in the marketplace. A company in which achieving extraordinary results and having a stimulating work experience are part of the same process.

03-21-2017

Logistics Analyst - Financial Reporting
Page Group Stamford, Stamford ,CT
The purpose of this role is to assists in the design, creation and publishing of reports to help operators and planners better understand and account for spend within the logistics function. This role will also be critical for identifying areas for improvement

03-17-2017

Cheshire, CT - Macy's Logistics: Manager, Shift
Macy's Org., Cheshire ,CT
Job Overview: Macy's is looking for a talented individual to fill the role of Manager, Shuttle who Coordinates and oversees the day-to-day management within a department. Manages the daily activities and develops short and long term strategic planning.

03-12-2017

Research Director, Customer Service Supply Chain Analyst, Logistics:
Gartner, Stamford ,CT
Job Description Description Gartner is recruiting for a candidate with experience in customer logistics in Consumer Goods. The ideal candidate must have experience of working on joint value creation with retail customers and operational experience .

01-27-2017

Research Director, Customer Service Supply Chain Analyst, Logistics:
Software Advice, Stamford ,CT
Description Gartner is recruiting for a candidate with experience in customer logistics in Consumer Goods. The ideal candidate must have experience of working on joint value creation with retail customers and operational experience of

01-26-2017

92Y Unit Supply Specialist - Warehouse Manager
Army National Guard, NEW LONDON ,CT
92Y Unit Supply Specialist - Warehouse Manager Job ID: 753209 Job Views: 438 Location: NEW LONDON, Connecticut, United States ZIP Code: 06320 Job Category: Logistics Support Posted: 03.15.2016 Job Description Army National Guard Unit Supply Specialists

02-27-2017

Supply Chain Facility Director/Manchester CT
J. C. Penney Company, Inc., Manchester ,CT
General Description Manages and administers all operations of a Logistics Center to ensure the most cost efficient and timely distribution of merchandise consistent with Company standards of service to attain divisional sales and profit objectives.

Specific careers and professions available to Supply Chain and Logistics Graduates	
Job Title	**Salary Range**
Consultant	150,000-200,000
Cargo & Freight Manager	60,000-80,000
Supply Chain Manager	91,000-100,000
Warehouse Manager	61,000-70,000
Global Alliance Manager	100,000-150,000
Industrial Manager	71,000-80,000
Inventory Manager	51,000-80,000
First-Line Supervisor	51,000-60,000
Logistics Analyst	71,000-80,000
Maintenance Supervisor	41,000-60,000
Procurement Specialist	71,000-80,000
Production Control Analyst	71,000-80,000
Production Planner	71,000-80,000
Purchasing Analyst	51,000-60,000
Shipping & Receiving Analyst	81,000-90,000
Storage & Distribution Manager	51,000-80,000
Production control Manager	81,000-90,000
Traffic Coordinator	61,000-70,000
Field / Customer Service Representative	51,000-70,000

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

New Program Approval

December 13, 2018

RESOLVED: That the Board of Regents for Higher Education approve the licensure and accreditation of an Athletic Training program (CIP Code: 51.0913) leading to both a Bachelor of Science degree and a Master of Science degree, requiring 162 course credits delivered via an on ground modality, at Central Connecticut State University

A True Copy:

_____

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

ITEM

Licensure and accreditation of a new Athletic Training program leading to both a Bachelor of Science degree and a Master of Science degree at Central Connecticut State University

BACKGROUND

Summary

The proposed program will meet new requirements by the accreditation body in alliance with related professional associations that mandate a master's degree with two years of clinical experience at the graduate level to become a Certified Athletic Trainer.

Rationale

The state of CT has one of the highest employment rates in the field of Athletic Training. Changes in legislation and in accreditation standards will broaden the future employment opportunities for the Certified Athletic Trainer beyond what is considered the "traditional" settings in high school and intercollegiate athletics. These "non-traditional settings include hospitals, wellness centers, health centers, tactical units (police, fire, military) and the performing arts.

CCSU is well positioned to transition its Bachelor's program into a 3+2 BS/MS model. It has been educating students to pursue the profession of Athletic Training since 1966. The program received initial accreditation in 2000. Since the program's founding, more than 300 individuals - undergraduate, graduate, and internship students have contributed to the overall achievements of the program and have become successful health care providers.

Resources

All resources (personnel, facilities and equipment) to transition from a BS to a BS/MS program are in place. Costs of additional library resources, course development and staff support are minimal. Projected revenue will exceed projected expenditures during each year of the program's first 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.

11/26/2018 – BOR Academic & Student Affairs Committee
12/13/2018 – Board of Regents

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION
Connecticut State Colleges & Universities
*APPLICATION FOR **NEW PROGRAM APPROVAL***

SECTION 1: GENERAL INFORMATION

Institution: Central Connecticut State University	Date of Submission to CSCU Office of the Provost: 3/28/2018
Most Recent NEASC Institutional Accreditation Action and Date: 11/07/2013, 5th year Interim Report Accepted	
Program Characteristics Name of Program: Athletic Training Degree: Title of Award *(e.g. Master of Arts)* BS/MS 3+2 Certificate: *(specify type and level)* Anticipated Program Initiation Date: Fall 2019 Anticipated Date of First Graduation: Spring 2023 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)*: UG-120, GR 30	Program Credit Distribution # Cr in Program Core Courses: UG 68, GR 60 # Cr of Electives in the Field: 0 # Cr of Free Electives: 1 # Cr of General Education: 44 # Cr Special Requirements *(include internship, etc.):* 23 Total # Cr in the Program *(sum of all #Cr above)*: UG: 120 GR: 60 3+2: 162 (due to 18 credits satisfying requirements for both degrees) From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: 68
Type of Approval Action Being Sought: Licensure or X Licensure and Accreditation - (see NOTE below) CIP Code No. *(optional)* 510913 Title of CIP Code Athletic Training/Trainer	
If establishment of the new program is concurrent with discontinuation of related program(s), please list for each program: Program Discontinued: BS Athletic Training CIP: 510913 OHE#: 006923 Accreditation Date: Phase Out Period 2019-2022 Date of Program Termination 2022	
Institution's Unit *(e.g. School of Business)* and Location *(e.g. main campus)* Offering the Program: SEPS, CCSU	
Other Program Accreditation: • If seeking specialized/professional/other accreditation, name of agency and intended year of review: Commission on Accreditation of Athletic Training Education (CAATE) • If program prepares graduates eligibility to state/professional license, please identify: Proposed program prepares students to become licensed Athletic Trainers in the State of CT and throughout the country upon successful passing of the National Board of Certification Exam. *(As applicable, the documentation in this request should addresses the standards of the identified accrediting body or licensing agency)*	

Institutional Contact for this Proposal: Peter Morano	Title: Program Coordinator	Tel.: 860-832-2069 e-mail: moranop@ccsu.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.

SECTION 2: PROGRAM PLANNING ASSESSMENT

Alignment of Program with Institutional Mission, Role and Scope

School of Education & Professional Studies (SEPS) Mission

The faculty of the School of Education and Professional Studies constitute a professional school dedicated to the quality preparation of professionals in education and other human service settings. As an integral part of Central Connecticut State University's history and traditions, the faculty in the school embrace the university's mission and commitment to "encourage the development and application of knowledge and ideas through research and outreach activities." Guided by the purpose of preparing leaders for service in diverse communities, it is our mission to provide leadership for:

- Preparing beginning teachers to serve in the region, the state, and the nation;
- Preparing entry level, culturally competent, generalist social workers for practice;
- Preparing entry level professional nurses;
- Providing entry level preparation for athletic trainers and exercise science specialists;
- Providing advanced preparation to administrators, teachers, literacy specialists, and other educational leaders;
- Providing advanced preparation to specialists in counseling and physical education;
- Applying principles of learning and assessment through a variety of technologies to guide our own best practice and that of practitioners in the professions;
- Developing knowledge, skills, and dispositions necessary for professional practice and community service through learning experiences that are rich in diversity of perspectives, values, attitudes, and beliefs and that are enhanced by active reflection;
- Influencing educational and social policies at the local, state, and national levels.

As an academic department within the School of Education and Professional Studies, the Department of Physical Education and Human Performance is dedicated to the achievement of the missions of the School and the University. The mission of the Department of Physical Education and Human Performance is multifaceted and is guided by the following principles:

- Providing coursework and experiences which enable students to become qualified, dedicated physical educators for the elementary and secondary schools in Connecticut.
- Providing coursework and experiences which enable students to become qualified, dedicated, exercise and fitness professionals for the corporate sector.
- Providing coursework and experiences which enable students to become qualified, dedicated athletic trainers which service the public schools as well as private and professional organizations in the community.
- Providing coursework and experiences in the general education program which enable students to develop and maintain optimal levels of physical health, wellness and lifetime activity skills.
- Values education in the physical, social, and psychological realms. A physically educated person has learned skills necessary to perform a variety of physical activities, is physically fit, does participate regularly in physical activity, knows the implications of and benefits from involvement in physical activity, and values physical activity and its contributions to a total healthy lifestyle.

Guided by these principles and values, the department aspires to the excellence of program.

The faculty of the Athletic Training Education Program strives to provide the students with the necessary theoretical and practical knowledge needed to enter the profession and to pursue advanced study in athletic training or related allied health professions. At Central Connecticut State University, importance is placed on the program's commitment to quality classroom instruction and providing ample opportunities for the development of the athletic training student's practical skills through clinical contact with the student-athletes of the university, while under the supervision of a certified athletic trainer. The athletic training faculty places emphasis on the student's analytical skills, problem-solving abilities, and the performance of practical skills during the athletic training student's clinical rotations in a coeducational setting.

The Athletic Training Education Program is designed to prepare the student to assume the role of an entry-level athletic trainer upon graduation and successful completion of the Board of Certification (BOC) Examination.

There are 120 credits needed to satisfy the requirements for the BS in Exercise Science degree in years 1-4. There are 60 credits needed to satisfy the requirements for the MS in Athletic Training in years 4-5. Because this is an accelerated program (3+2), 18 credits in year 4 will satisfy requirements for both the BS in Exercise Science and MS in Athletic Training. This results in 162 total credits for both degrees.

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 future Master's degree change is required by the Athletic Training Strategic Alliance which is made up of the Board of Certification, Commission on Accreditation of Athletic Training Education, the National Athletic Trainer's Association and the NATA Research & Education Foundation. All undergraduate Athletic Training Programs will no longer be able to accept students after the fall of 2022. A requirement of all Master's Degree programs is that the clinical experience must be a minimum of 2 years at the graduate level. A 3/2 program will be needed to meet this requirement instead of a 4/1.

The state of CT has one of the highest employment rates in the field of Athletic Training (see page 5). Changes in legislation and in accreditation standards will broaden the future employment opportunities for the Certified Athletic Trainer beyond what is considered the "traditional" settings in high school and intercollegiate athletics. These "non-traditional settings include the following:

- Hospitals
- Wellness Centers
- Corporate/Industrial/Occupational Health Centers
- Orthopedic Centers
- Tactical Units (police, fire, military)
- Performing Arts

With the rising costs of medical care, many companies and corporations understand the importance of injury prevention in reducing time-loss and financial loss in the workplace. "Prevention of Injury and Illness" is the first domain of the Athletic Training profession. According to the Occupational Safety

and Health Administration (OSHA), 40% of workplace injuries are orthopedic in nature which result in an average of 8-27 days (depending on the nature of the ailment). Employers spend up to $20 billion per year on musculoskeletal work-related injuries and 5 times that on indirect costs. A survey by the National Athletic Trainer's Association reported the following findings on return on investment (ROI) from employers in occupational and industrial settings:

SURVEY HIGHLIGHTS

The wide range of knowledge and expertise of an athletic trainer allows them to provide numerous health and safety programs, which according to the survey respondents has lead to the following benefits:

- Of companies that kept return on investment (ROI) data, 100 percent reported a positive ROI with more than 80 percent indicating a ROI of $3 or more for every $1 invested.
- More than 85 percent of companies reported that both the number and costs of work-related injuries decreased by at least 25 percent.
- More than 90 percent of respondents indicated employee days away from work decreased by 25 percent or more at their company.
- Almost half of the companies had their emergency room costs reduced by 50 percent or more.
- More than 50 percent of surveyed companies reported a decrease in costs associated with workplace injuries.
- Of these companies, 35 percent reported a decrease in costs of more than 50 percent.

WORKERS COMPENSATION AND HEALTHCARE COSTS

Of companies that tracked their workers' compensation:

- 63 percent reported that the athletic trainer made an impact on their workers compensation costs within 6 months.
- 96 percent reported that the athletic trainer made an impact on their workers compensation within 1 year.
- 68% of the companies indicated that the certified athletic trainer helped to decrease restricted workdays and workers' compensation claims for musculoskeletal disorders (MSDs) by more than 25%.
- 50% of companies reported that the number of injuries decreased by at least 50%
- 46% of the companies that provided on-site physical rehabilitation indicated that health care costs had decreased by more than 50%.

Ergonomics Plus is consulting firm that helps other companies find ways to reduce healthcare costs specifically by reducing musculoskeletal injuries. They list 5 reasons why an Athletic Trainer should be on a company's Occupational Health & Safety team (http://ergo-plus.com/workplace-athletic-trainer/) :

1. Athletic Trainers are trained specifically in injury prevention
2. Athletic Trainers have unique knowledge of the human body's capabilities and limitations.
3. Athletic Trainers provide personalized attention to employees.
4. Athletic Trainers are able to educate and train employees on prevention and wellness.
5. Athletic Trainers help people get back to 100% health faster.

Ergonomics Plus list dozens of clients that have utilized their service and also cite 3 case studies of

companies and their cost savings from hiring an Athletic Trainer:

1. Square D is a market-leading supplier of electrical distribution industrial control and automation products, systems and services. Square D achieved zero musculoskeletal disorders during the year of the study.
2. Pelco by Schneider Electric are singularly focused on the development of video surveillance and security solutions that provide the information necessary to make real-time, business-enabling decisions. Pelco reported that "sprain/strain-related injuries were reduced by 50+%, contributing to an overall reduction in injuries vs. 2011 by 50+%. Jill has been, and continues to be, a viable asset to our team."
3. Juno Lighting Group is a leading manufacturer of lighting fixtures and related products. Juno Lighting reported a reduction of OSHA Recordable Injuries by 93%.

The reason why the above information is important in Connecticut is because HB 7171 was recently signed into law. This bill titled *An Act Concerning Athletic Trainers* broadened the scope of practice for Athletic Trainer's in the state of CT. Prior to HB 7171 Athletic Trainers can only work on "athletes" defined by the previous Practice Act as "any person who is a member of any professional, amateur, school or other sports team, or is a regular participant in sports or recreational activities, including, but not limited to, training and practice activities, that require strength, agility, flexibility, range of motion, speed or stamina. For purposes of this subdivision, "regular" means not less than three times per week. The term "athlete" is replaced by "physically active individual". This will broaden the patient base and allow companies to hire ATC's to work in industrial settings without a fear of liability and violating state law. Another change in the new Practice Act is the removal of the time requirement of 3 times per week. Connecticut was the only state that had a time/week requirement to define a patient base for Athletic Trainers.

- 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?

Central Connecticut State University has been educating students to pursue the profession of Athletic Training since 1966. The Athletic Training Program is housed within the Department of Physical Education and Human Performance in the School of Education and Professional Studies. Carl F. Krein, retired Head Athletic Trainer, Professor, and National Athletic Trainer's Association Hall of Fame member, established the Athletic Training Internship Program and developed it into a nationally known and respected curriculum. The program received initial accreditation in 2000. Since the program's founding, more than 300 individuals - undergraduate, graduate, and internship students have contributed to the overall achievements of the program and have become successful health care providers.

The core AT faculty consists of Peter Morano, PhD, ATC; Kathy Pirog, MEd, ATC; and Thomas McCarthy, MS, ATC. Each core faculty member is NATABOC certified as well as licensed to practice in the state of Connecticut. Each core faculty member has extensive experience in the field having worked in various settings which include youth, high school, collegiate, and professional athletics, and with non-athletic populations in physical therapy settings. Kathy and Tom, who teach the clinical courses, currently practice in the field as staff Athletic Trainers with CCSU's varsity athletics. The core faculty has been and continues to be active in the profession by serving at the state and regional professional organizations and have been recognized for their contributions to the field. Kathy Pirog has received the "Most Distinguished Athletic Trainer Award" by the National Athletic Trainer's Association; Tom McCarthy has received the "National Athletic Trainer's Association Service Award"

and both have been elected to the Connecticut Athletic Trainer's Association Hall of Fame. Kathy Pirog was recently inducted into the Eastern Athletic Trainer's Association Hall of Fame which is the regional professional organization in Athletic Training. All other faculty that will teach non-clinical courses in the MSAT degree will have terminal degrees.

One of the unique features of the ATEP at CCSU is the quality of the team physicians and the relationship between the team physicians and the ATEP. Dr. Robert Waskowitz is the ATEP Medical Director and team orthopedic surgeon. Dr. Brown is trained in sports medicine and practices in Primary Care Sports Medicine. Both physicians have a great relationship with the AT staff and students. Each week the physicians hold a clinic in the Athletic Training facility where they see patients. Younger AT students observe clinic, while the upper level AT students are assigned to present the clinical case, current treatment plan, follow–up care, MD management plan and assist with medical documentation. Professional interaction with the team physicians is emphasized along with appropriate patient care during clinic. Both physicians routinely instruct and quiz the AT students during these clinical sessions.

A strength of the program is the emphasis on Emergency Medicine. CCSU is the only AT program in CT that requires EMT certification prior to formal clinical experiences. CCSU also has a strong partnership with New Britain Emergency Medical Service Academy (NBEMS). The AT students at CCSU and the paramedic recruits at NBEMS Academy participate in an emergency simulation scenario each April. The setting, type of emergencies and number of victims vary year to year. After the emergency simulation, the AT staff and EMS staff debrief the students on the positives and negatives of their handling of the emergency scenario.

The EXS faculty at CCSU provides outstanding teaching and educational opportunities for students in both EXS and AT. Many of the foundation courses include Exercise Physiology, Biomechanics, Sport Psychology, Anatomy/Physiology, and Nutrition are taught by experts in their respective fields.

CCSU Athletic Training Students have been recognized for their academic excellence by receiving scholarships from national, regional and state organizations. The ATEP at CCSU has a 95% five years aggregate first-time BOC pass rate.

The Carl Krein Athletic Training Center services both the Department of Athletics and the Athletic Training Educational Program. It provides a setting for athletic training student's clinical experience and is utilized as an academic setting for the instruction of athletic training courses. The athletic training facility boasts over 3,000 square feet including areas for: hydrotherapy, rehabilitation, cardiovascular conditioning, evaluation, treatment, and a spacious taping area.

Treatment and rehabilitation equipment include: 3 whirlpools, 4 ultrasound units, 4 electrical muscle stimulation units, 5 portable TENS units, 4 neuromuscular stimulation units 4 hot hydrocollators, A 10 person taping station, 10 treatment tables, 1 lumbo-pelvic traction unit, 1 cervical traction unit, 2 cold compression units, 1 intermittent compression unit, 1 iontophoresor unit, 1 Biodex isokinetic unit with balance unit, Biodex gait trainer, various aerobic and resistance training equipment. The athletic training room contains an emergency simulation station which includes 1 High-fidelity 3G Sim-man.

The Waskowitz Family Physician's Room and Academic Center honors the late Dr. William Waskowitz, CCSU team physician, and his father, Dr. David Waskowitz, who served in that capacity in

the early years of Central athletics. This facility includes a treatment table, portable C-arm fluoroscopy unit, auditory and ophthalmic diagnostic tools, a research area and conference table.

Our Exercise Physiology lab contains 1 Quinton EKG unit, 1 Parvo VO2 Max unit, 1 Bod Pod, and ~15 Monark cycle ergometers. The Biomechanics lab includes a Biodex Isokinetic unit and a state-of-the-art motion capturing system with force plates. The Biomechanics lab and equipment will make an excellent facility for graduate research in athletic training. The Biodex and Force Plates can be used in a variety of injury related research (prevention, rehabilitation).

- 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)*

The creation of this program will facilitate the transfer of community college students into the Athletic Training major at Central Connecticut State University. The existing undergraduate program requires students to complete four years on CCSU's campus. The BS/MS program will permit students to complete their associates at the community colleges and enroll directly into the BS in Exercise Science and subsequently into the MSAT program provided they meet the entrance requirements. The entry-level master's degree program in athletic training should be very desirable among the Exercise Science graduates of Gateway, Norwalk and Three Rivers Community Colleges, the allied health majors of Middlesex and Northwestern Community Colleges and the Health Careers majors of Housatonic Community College. The program will offer graduates of physical therapy assistant programs at Naugatuck and Norwalk Community Colleges the opportunity to earn advanced degrees in a related health profession. All of these institutions will be contacted prior to final approval of the program to develop specific articulation agreements. CCSU has had numerous students from Community Colleges Transfer into the Athletic Training Program over the years and many have had success. We expect this degree change to make it easier for CC students to transfer into the MSAT program.

Our department has been in discussion with Western Connecticut State University with regard to establishing an easy transfer policy that would enable WCSU students to meet the prerequisite requirements for the proposed MSAT program at CCSU.

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

There are five universities in the state of Connecticut that have undergraduate Athletic Training programs. Three programs are offered in public institutions (CCSU, SCSU and UCONN). Two programs are in private universities (Sacred Heart University and Quinnipiac). Currently only Sacred Heart University has transitioned to a Master's Degree Program. CCSU successfully completed the AT program's re-accreditation during the 2015-2016 AY which will last through the 2020-2021 AY. The transition to an entry-level Master's program will not create any duplication since the program is already in existence.

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.)

The recruiting and initial enrollment of AT students has gone well. The initial ATS enrollment the past 5 years is as follow:

o AY 16/17 – 37 students

- AY 15/16 – 41 students
- AY 14/15 – 52 students
- AY 13/14 – 49 students
- AY 12/13 – 38 students

Approximately 80% of the students who enter CCSU for Athletic Training change majors, most to Exercise Science, while some changed to a major outside of the PEHP department and some dropped out of CCSU. Through informal discussion with students who changed to EXS, a main reason for the change of major was their inability or perceived inability to handle the time commitment required of Athletic Training. A number of these students who started off as AT and changed to EXS are varsity athletes who felt that the time demand of their sport and AT was overwhelming. The ATEP faculty feels that a 5 year (3/2) BS/MS program will remedy some of the aversion to the time demand of AT education. Students will no longer need to make a career decision toward or away from Athletic Training at 18 yrs old. Currently, students who are pursuing Athletic Training are required to amass observation hours and pre-clinical rotations during their first 2 years of college. This time commitment is often overwhelming and many students change majors to one with less of a time demand. With the proposed 3/2 format, students will have 3 years of undergraduate education before making the decision to pursue AT. During the initial 3 years, students grow in maturity and develop better time management skills which will better serve them when they do need to increase their time commitment during the clinical experiences. Also, those varsity athletes who were initially interested in AT could now participate in their sport without conflict and pursue AT during their 4th and final year of sport eligibility. A non-athlete would be able to complete a BS and MS in 5 years while a varsity athlete would need 5.5 years. Seeing the option for a Master's degree in-house with only 1-1 ½ years of continued education will be appealing for students who are in their 3rd year. We feel this would be an easy sell to students who would be in the department earning a BS in Exercise Science.

The current UG AT program is appropriately funded for the clinical aspects of the ATEP. The undergraduate ATEP program will dissolve and be replaced by the Master's degree program. There is an existing undergraduate Athletic Training Education Program, many of the physical resources are already available (taping/bracing equipment, therapeutic modalities, emergency equipment, including a SIMMAN 3G/high fidelity simulator (owned by AT program).

The CCSU Athletic Training facility is a modern facility (4400 sq. ft.) built in 2000 and was renovated in 2011 and a "face lift" in 2016. The Athletic Training facility serves as both a clinical and educational setting. Several AT lab and practicum courses are taught there prior to noon and then the room services ~400 student athletes. The AT facility includes a taping station, treatment area, therapeutic exercise area, hydrotherapy area and a physicians' office. The physician's office also serves as a learning center for the ATS.

Once we transition to a MSAT program, anyone who wishes to major in AT will have to start in an undergraduate program and take MSAT prerequisite courses. The current EXS program will meet the MSAT prerequisites and would be the ideal feeder program into the MSAT. Members of the Physical Education & Human Performance Department at CCSU are currently in discussions with Exercise Science representatives from several Community Colleges to establish a Transfer Agreement so CC

students will have an easier transition to CCSU's Exercise Science program, beyond the existing TAP.

There are currently 5 schools that offer undergraduate degrees in Athletic Training (CCSU, SCSU, Sacred Heart University, Quinnipiac University and UCONN). UCONN, Sacred Heart, and Quinnipiac have tuition and expenses that far exceed CCSU while SCSU has comparable tuition and expenses. Currently, Sacred Heart University is the only school that has a graduate AT program that is operational.

Their first cohort of 4 students started this past May 2018. The addition of 2-6 semesters of education will further push the tuition/expenses at UCONN and the 2 private universities beyond what might be considered a reasonable return on investment for the students. Adding to the cost-effectiveness for students, they will earn a graduate degree and only pay one year of graduate tuition & fees. SCSU currently has an accelerated Master's degree program in Chemistry. Students in that program pay undergraduate tuition/fees through year four because they will remain coded as an undergrad until they complete the requirements for the BS degree that lead into the MS even though some of the credits earned during the 4th year will count toward the BS and MS degrees.

Our plan is to add new off-site clinical affiliations within the Hartford Area. These new off-site locations could offer our students a wide variety of clinical experiences. The trend in Athletic Training is for students to gain clinical experience with non-athletic populations. This could also open up the possibility of a fellowship or residency program for our students immediately after graduation. The fellowship and residency programs are designed to further enhance the entry level certified athletic trainer's skills and clinical experiences.

We anticipate cohort classes of 12 students therefore we do not anticipate any immediate need for additional supplies or facilities. CCSU is an ideal location for clinical placements. There are no competing universities in the same geographic region. Lab fees could be included in the future to offset any potential additional costs for materials and supplies or to ease the financial burden of SEPS and the PEHP department. The lab fees could be used to purchase non-reusable supplies while the current budget could be better spent on other resources and materials.

A curriculum map is diagrammed below in the Program Outline. If students enter CCSU with the goal of earning a Master's Degree in Athletic Training, they will initially major in Exercise Science for their undergraduate degree. The undergraduate degree is split into two phases: pre-professional and professional. During the pre-professional phase, students need to meet specific academic requirements (successful completion of EXS 109 Introduction to Human Performance, EXS 207/211 Human Anatomy Lecture & Lab, either EXS 280 Leadership in Group Fitness or EXS 275 Training for Sport Performance (both course are required for degree completion in EXS), have an overall GPA of 2.5 and major GPA of 2.7 and completion of 45 credits. Once students meet these requirements, they will apply to the professional phase of the Exercise Science program which typically occurs during the Sophomore year. Students who wish to pursue the MSAT degree will apply to the graduate school during the spring semester of their Junior year. If accepted, they will begin clinical coursework for the MSAT program during the summer between the spring of their junior year and fall of their senior year. During the fourth year, students will continue with graduate work while completing their undergraduate requirements. Approximately 17 credits during the fourth year will be counted toward both degrees. The fourth and fifth year will focus on clinical coursework and clinical experiences as required by CAATE. The final

semester will include a capstone experience of a clinical nature resulting in a completed research project.

If approved, there will be a one-time fee to The Commission on Accreditation of Athletic Training Education of $3000.00-$6000.00. The $3000.00 will be for the "Substantive Change" application. An additional $3000.00 may be invoiced if a site visit is needed.

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. Knowledge (Cognitive) • Demonstrate the acquisition of knowledge and understanding necessary for the safe practice as a health care professional in the areas of prevention, clinical evaluation, diagnosis, immediate care, treatment and rehabilitation. • Demonstrate the ability to document findings of initial evaluations, management plans, and referrals.	* Preceptor evaluations of AT students following each clinical rotation. * Written exams * BOARD OF CERTIFICATION pass-rate
2. Knowledge (Skills and Application) • Demonstrate the acquisition of the established necessary skills that are the basis for clinical proficiency. • Demonstrate the ability to investigate, integrate concepts and problem solve in order to communicate the assessment findings to the patient and other health care team members. • Demonstrate the ability to use comprehensive therapeutic judgment and the ability to identify modifying influences or deviations from the norm.	* Preceptor evaluations of AT students following each clinical rotation. * Practical exams * BOARD OF CERTIFICATION pass-rate
3. Practice Ethically, Professionally and Compassionately • Demonstrate the ability to provide health care services of an athletic trainer to a variety of patient populations without prejudice to age, activities, gender, and social or cultural difference. • Demonstrate the ability to function as a health care provider during challenging situations by remaining composed and professional, while affording quality compassionate care to the patient. • Practice confidentiality and abide by professional ethical standards of the profession.	* Preceptor evaluations of AT students following each clinical rotation.
4. Professional Development and Collaboration • Practice with the intent to advance personal professional knowledge and clinical skills by remaining current in the profession through participation in seminars and research, in order to best serve the patient population through the practice of evidence-based medicine. • Participate in advocating the athletic training profession through engagement with local community events by volunteering time and	* Preceptor evaluations of AT students following each clinical rotation. * Research project

professional skills. • Practice with a commitment to share the knowledge and skills of the athletic trainer in support of joint collaboration efforts that lead to improving the quality of patient care.	

1.

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)*

Dr. Peter Morano, Program Director, 9 LH of EXS/ATR courses and 3 LH for administrative duties

Dr. David Harackiewicz, Department Chair for Physical Education and Human Performance

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?

We do not anticipate an immediate need for any new full-time faculty members. Our current staffing consists of 3 core faculty members and 2 associate faculty members from the Exercise Science program that meet the needs of the proposed program.

What percentage of the credits in the program will they teach?

What percent of credits in the program will be taught by adjunct faculty?

6.5%: ATR 506 will be taught by an adjunct faculty member as wells as BMS 380. Both of which are part of the 3+2 program. BMS 380 is a 6 credit course and the instructor would receive a 6 credit faculty load for teaching this course. ATR 506 is a 6 credit course for the students but the faculty load for this would be 0.5 per student enrolled.

Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program

If the adjunct faculty will teach clinical courses or courses unique to the MSAT degree, the minimum qualifications will be at least a Master's degree with LATC or a licensed physical therapist credentials. If the adjunct faculty does not teach a clinical course or a course that is unique to the MSAT degree, then at least a Master's degree will be required or specialized certification.

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)*

All resources are currently in place. We have an existing Athletic Training Program with sufficient resources which will be phased out and replaced with the Master's in Athletic Training Program.

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. # [1]	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				Other Related/Special Requirements		
EXS 109 Intro to Human Performance			3			
EXS 207 Anatomy & Physiology I Lec		BIO/BMS	3			
EXS 211 Anatomy & Physiology I Lab		BIO/BMS	1			
EXS 275 Training for Sport Performance		EXS 207/211	3			
EXS 208 Anatomy & Physiology II Lec		CHEM	3			
EXS 212 Anatomy & Physiology II Lab		CHEM	1			
EXS 307 Human Nutrition		CHEM	3			
EXS 216 Kinesiology		AP I & II	3			
BMS 380 Emergency Medical Technician			6			
EXS 311 Stress Management		PSY 112	3			
EXS 408 Exercise Physiology		AP I & II	3			
EXS 411 Research Methods		STAT	3			
EXS 409 Clinical Exercise Physiology		EXS 408	3			
EXS 415		EXS 408	3			
EXS 376 Theories of Strength & Conditioning		AP I & II	3			
EXS 416 Graded Exercise Testing		EXS 408	3			
ATR 512 Principles of Professional Practice	1,3	Admit to MSAT Program	3			
ATR 517 Prevention and Care in Sports Medicine	2,3	Admit to MSAT Program	3			
ATR 518 Clinical Application of Prevention and Care in Sports Medicine	2,3	ATR 517	1			
ATR 519 Seminar: Emergency Medicine in Sport	1,2,3	ATR 517 & 518	1			
ATR 500 Pre-Clinical in Athletic Training	2,3	Admit to MSAT Program	2			
ATR 501 Clinical I – Acute Care & Emergency Medicine	2,3	ATR 500	2			
ATR 540 Therapeutic Interventions	1,2,3	ATR 517	3			
ATR 527 Therapeutic Exercise	1,2,3	Admit to MSAT Program	3			
ATR 528 Clinical Exam & Diagnosis in	1,2,3	ATR 517	3			

[1] From the Learning Outcomes enumerated list provided at the beginning of Section 3 of this application

Sports Medicine I						
ATR 521 Pharmacology in Sports Med	1,3	EXS 307	3			
ATR 502 Clinical II – Rehabilitation	1,2,3	ATR 501	2			
ATR 513 Organization & Administration in Sports Medicine	1,3,4	Admit to MSAT Program	3			
ATR 529 Clinical Exam & Diagnosis in Sports Medicine II	1,2,3	ATR 528	3			
EXS 597 Research in Physical Education & Exercise Science I	1	Admit to MSAT Program	3			
EXS 598 Research in Physical Education & Exercise Science II	1	Admit to MSAT Program	3			
ATR 503 Clinical III – Orthopedics	1,2,3	ATR 502	2			
ATR 504 Clinical IV – PPE/Pre-Season Experience	1,2,3,4	ATR 503	2			
EXS 519 Sport Biomechanics	1	EXS 216	3			
EXS 505 Clinical V – General Medical	1,2,3,4	ATR 504	3			
ATR 532 Psychosocial Aspects of Injury and Rehabilitation	1	Admit to MSAT Program	3			
ATR 506 Clinical VI – Non-Sport & Adolescent	1,2,3,4	ATR 505	6			
ATR 590 Capstone Experience in Athletic Training	1,2,3,4	ATR 500-505	3			
Core Course Prerequisites				Elective Courses in the Field		
EXS 207 Anatomy & Physiology I Lecture			3			
EXS 211 Anatomy & Physiology I Lab			1			
EXS 208 Anatomy & Physiology II Lecture			3			
EXS 212 Anatomy & Physiology II Lab			1			
BMS 380 Emergency Medical Technician			6			
EXS 408 Exercise Physiology			3			
EXS 216 Kinesiology			3			
EXS 307 Human Nutrition			3			
Total Other Credits Required to Issue Credential *(e.g. GenEd/Liberal Arts Core/Liberal Ed Program)*						

Program Outline

- With the shared courses, the total number of credits students willneed to complete for the 3+2 MSAT program is 162. The total number of credits of each program considered independent of the other is 180; however, 18 are shared. Students wishing to pursue the 3+2 MSAT degree must initially enroll as an undergraduate Exercise Science major. During the student's first 3 years, they need to take specific courses (see Core Course Prerequisites above) that are prerequisites for the MSAT program, attain a GPA of a 2.7 or higher. Students will apply to the graduate school during their Junior year and begin graduate coursework during the summer after their Junior year. Some of the coursework during their fourth year will count toward their Bachelor's degree and their Master's degree.
- Students entering the MSAT program will participate in clinical rotations on and off campus. Practicum courses are tied to each rotation (ATR 500-506). The majority of the clinical rotations will be with CCSU varsity athletic teams. The students will have several rotations with a number of off-campus affiliations with the purpose of exposing the students to non-sport and non-orthopedic patient populations. We currently have affiliations with Select Medical, Orthopedic Associates of

Hartford, Orthopedic Associates of Middletown, New England Urgent Care, Hartford Medical Group and Windsor Physical Therapy. Attaining other affiliations are currently in progress.

***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.

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 program)*

Faculty Name and Title	Institution of Highest Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities
Dr. Peter Morano, ATC	Michigan State University, PhD	Athletic Training, Professional Practice	ATEP Program Director, Clinical Coordinator
Ms. Kathy Pirog, ATC	Trenton State College, MEd	Athletic Training, Injury Evaluation, Administration	
Mr. Tom McCarthy, ATC	Central Connecticut State University, MS	Athletic Training, Emergency Care	
Dr. Cassandra Forsythe-York	University of Connecticut	Exercise Physiology	
Dr. Michael Voight	University of Southern California	Exercise Science (Sport Psychology Specialization)	
Dr. David Harackiewicz	Springfield College, DPE	Exercise Science	Exercise Science Coordinator
Dr. Sean Walsh	University of Maryland, PhD	Exercise Physiology	
Dr. Jason Melnyk	Virginia Tech University	Muscle Physiology	Department Chair (Interim)
Dr. Chee-Hoi Leong	University of Utah, PhD	Exercise Science	
Dr. Matthew Orange	University of Medicine Dentistry of New Jersey; New Brunswick, Rutgers University, PhD	Exercise Science	Anatomy and Physiology Coordinator

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	5		5				5		5				5		5			
New Students (first time matriculating)	20		20				20		20				20		20			
Continuing Students progressing to credential	0		0				25		25				50		50			
Headcount Enrollment	25		25				50		50				75		75			
Total Estimated FTE per Year[1]	25.0		25.0				50		50				75		75			

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[2]	105,760		105,760				237,960		237,960				370,160		37,160			
Tuition from Internal Transfer[2]	26,440		26,440				26,440		26,440				26,440		26,440			
Program Specific Fees (lab fees, etc.)																		
Other Revenue (annotate in narrative)																		
Total Annual Program Revenue			$264,400						$528,800						$793,200			

PROJECTED Program Expenditures[3]	First Year	Second Year	Third Year
Administration (Chair or Coordinator)[4]			
Faculty (Full-time, total for program)[4]	$198,172	$402,950	$561,488
Faculty (Part-time, total for program)[4]			$ 13,954
Support Staff (lab or grad assist, tutor)	$ 4,800	$ 9,600	$ 9,600
Library Resources Program	$ 1,000	$ 1,000	$ 1,000
Equipment (List in narrative)			
Other[5] **(Student Svcs. & Marketing)**	$ 20,000	$ 14,000	$ 14,000
Estimated Indirect Costs[6]	$. 7,125	$ 7,125	$ 7,125
Total Expenditures per Year	$231,097	$434,675	$607,167

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.

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

New Program Approval

December 13, 2018

RESOLVED: That the Board of Regents for Higher Education approve the licensure and accreditation of a Data Science program (CIP Code: 27.0304) leading to a Bachelor of Science degree, requiring 120 course credits delivered via an on ground modality, at Southern Connecticut State University

A True Copy:

_____

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

ITEM

Licensure and accreditation of a new Data Science program leading to a Bachelor of Science degree at Southern Connecticut State University

BACKGROUND

Summary

The proposed program is an interdisciplinary effort between the institution's Mathematics and Computer Science departments, with a curriculum based upon best practices identified through the study of exemplar programs – "Data Science for Undergraduates: Opportunities and Options" by the National Academies of Science.

Rationale

The proposed program is the first step in the institution's plan to establish a comprehensive program in Data Science. Subsequently, SCSU intends to propose the establishment of a Master of Science degree program and a 4 + 1 MS/BS degree program. The impetus for the proposed program comes from the skyrocketing demand for graduates with deep analytic skills and the ability to work with "big data", evidenced by market research, Bureau of Labor Statistics, on-line research on open related positions in the state and the region, and the referenced study of exemplar programs.

Resources

Using a conservative enrollment model, SCSU projects a modest and attainable enrollment over the course of the first three years of the proposed program. Estimated expenditures during this period are minimum and have been reviewed by university administrators and deemed to be appropriate.

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.

11/26/2018 – BOR Academic & Student Affairs Committee
12/13/2018 – Board of Regents

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION
Connecticut State Colleges & Universities
*APPLICATION FOR **NEW PROGRAM APPROVAL***

SECTION 1: GENERAL INFORMATION

Institution: SCSU	Date of Submission to CSCU Office of the Provost: Oct. 19, 2018
Most Recent NEASC Institutional Accreditation Action and Date: 5th year interim report accepted February, 2017	
Program Characteristics Name of Program: Data Science Degree: Title of Award *(e.g. Master of Arts)* Bachelor of Science Certificate: *(specify type and level)* Anticipated Program Initiation Date: Fall 2019 Anticipated Date of First Graduation: Spring 2023 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)*: 120	Program Credit Distribution # Cr in Program Core Courses: 63 # Cr of Electives in the Field: # Cr of Free Electives: 10 # Cr General Education (LEP): 47 Total # Cr in the Program *(sum of all #Cr above)*: 120 From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: 61
Type of Approval Action Being Sought: Licensure or X Licensure and Accreditation - (see NOTE below) CIP Code No. *(optional)* **27.0304** Title of CIP Code Computational and Applied Mathematics	
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 Offering the Program: SCSU School of Arts and Science, main campus.	
Other Program Accreditation: • If seeking specialized/professional/other accreditation, name of agency and intended year of review: ABET, 2024 • If program prepares graduates eligibility to state/professional license, please identify: *(As applicable, the documentation in this request should addresses the standards of the identified accrediting body or licensing agency)*	

Institutional Contact for this Proposal: Dr. Robert S. Prezant	Title: Provost and VP for Academic Affairs	Tel.: (203) 392-5350 e-mail: prezantr1@southernct.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.

SECTION 2: PROGRAM PLANNING ASSESSMENT

Alignment of Program with Institutional Mission, Role and Scope

(Please provide objective and concise statements)

The BS in Data Science proposal described in this application is the first step towards a comprehensive program in Data Science at SCSU. The original concept, which includes not only the BS in Data Science (BSDSC) but Professional Science Masters/MS and 4+1 degrees, was presented to the AC of the BOR in November of 2017. This proposal represents an interdisciplinary effort between the Mathematics Department and the Computer Science Department at SCSU, with a curriculum based on best practices identified through the study of exemplar programs highlighted by the American Statistical Association (see New Undergraduate Data Science Programs, AMSTATNEWS, July/August 2015) and informed by the National Academies of Sciences report "Data Science for Undergraduates: Opportunities and Options" (National Academies Press, 2018). The program will be seeking external accreditation through the Accreditation Board for Engineering and Technology (ABET) in 2024 (the earliest possible date; ABET requires the program to have graduates before accreditation). In addition to accreditation through ABET, an advisory board comprised of individuals in business, industry, and technology will be formed to help assess program quality, to measure graduate performance and skillset efficacy, and to work towards continuous improvement (ABET Continuous Improvement Criterion).

In alignment with SCSU's commitment to academic excellence, the Computer Science Department has offered its ABET accredited computer science program for over 20 years with its mission to "prepare students for professional careers in computing and related areas as well as graduate studies in computer science". The mission of the Mathematics Department at SCSU focuses on enabling students to succeed in the practice of mathematics in a variety of domains. In particular, the Department seeks to "provide its graduates with the coursework and experiences which will enable them to become successful in a mathematics related career in business, industry, or government." These missions are well-aligned with SCSU's overall mission of providing "exemplary graduate and undergraduate education in the liberal arts and professional disciplines." More importantly, as a STEM degree addressing demonstrable needs in business, industry, and government, the BSDSC reinforces key components of the university's vision of striving "to meet the workforce needs of the state and nation…in STEM disciplines". To these ends, the proposed BS in Data Science (BSDSC) has been created to address the growing demand within business, industry, and government at the state and national levels for individuals capable of working with "big data". The demand is real, and the skills needed to meet the demand are complex and require study at an advanced level.

The BSDSC program draws on two closely related programs that are established areas of strength for SCSU, mathematics and computer science. As such, it meets the criteria for seeking simultaneous licensure and accreditation:

> "Simultaneous licensure and accreditation is generally sought for new degrees and certificate programs that are closely related to a set of already existing programs and aligned with institutional strengths."

Veteran students cannot use VA-disbursed financial aid for programs until they are accredited. Therefore, wherever possible, SCSU seeks simultaneous licensure and accreditation in order to make new programs available to veteran students as soon as they are available to other students.

ABET is the leading accrediting agency for computing, engineering, and applied science programs worldwide. The proposed BS in Data Science (BSDSC) will be offered with the same level of commitment, rigor and focus on academic excellence. The design of the BSDSC is perfectly aligned with ABET's accreditation criteria in Computing Programs and, once the program has its first graduates, would be eligible for ABET's national accreditation. Such distinction would clearly align the program with the University's mission of "academic excellence". In addition, SCSU is well known for being *the* university committed to access and social justice. The Computer Science Department has achieved national recognition as a NCWIT Pacesetter for its commitment to increasing the number of women and under-represented minorities in its programs by providing an open, accessible and inclusive environment, the same commitment will be given to the BSDSC program. Graduates of the BSDSC program will then help to create a diverse talent pool that is critical in technology, and especially in the area of data science.

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 impetus for the proposed program comes from the skyrocketing demand for graduates with deep analytic skills and the ability to work with "big data". Evidence of this demand comes from several sources:

1. In 2015, SCSU commissioned a market research brief from EAB ("Program Opportunity Analysis for Southern Connecticut State University, Potential Opportunities for Programs in Analytics", copyright 2015, The Advisory Board Company). The brief made three very specific observations, namely:
    - SCSU should create a data science program.
    - Overall employer demand for analytics professionals should increase.
    - Peer and competitor institutions do not generally offer cross-disciplinary analytics programs.
2. The Committee on Envisioning the Data Science Discipline of the National Academies of Sciences, Engineering, and Medicine issued a report entitled "Data Science for Undergraduates: Opportunities and Options" (National Academies Press, 2018). The report included several actionable recommendations including:
    - Academic institutions should embrace data science as a vital new field that requires specifically tailored instruction delivered through majors and minors in data science as well as the development of a cadre of faculty equipped to teach in this new field.
    - Academic institutions should provide and evolve a range of educational pathways to prepare students for an array of data science roles in the workplace.
3. The Bureau of Labor Statistics is currently projecting a *conservative* 19% increase for data scientists between 2016 and 2026 (data obtained from www.bls.gov). This rate of increase is dramatically higher than the average for all occupations. IBM is forecasting a 28% increase by 2020, as recently reported in *Forbes* magazine (May 2017), and LinkedIn reports "data scientist" as its fastest growing job (*Forbes*, December 2017). The *Harvard Business Review*, in the prescient article "Data Scientist: The Sexiest Job of the 21st Century" (October 2012) was already noting that "the shortage of data scientists [was] becoming a serious constraint in some sectors."
4. Entry level positions in this field (BS) typically pay between $50,000 and $75,000. With a masters degree in Data Science, graduates can expect a median starting pay of $118,840 (also www.bls.gov).
5. The State of Connecticut, though subject to financial vicissitudes of late, does possess a high-tech/data corridor running from Stamford/Bridgeport, through New Haven, and up to Hartford/Farmington. As noted at mastersindatascience.org,
    - Hartford is home to major insurance companies like Aetna, Hartford Financial Services Group, and Cigna, as well as institutions that are deeply invested in medical care and research.
    - In the greater Hartford area are companies like Vlink as well as the Jackson Laboratory for Genomic Medicine and UCONN Health in Farmington.
    - New Haven has fast-growing companies like Arvinas (pharmaceuticals), SeeClickFix (digital communications), and Continuity (compliance management systems).
    - Gartner is headquartered in Stamford, and employs almost 2,000 IT research analysts and consultants in the service of its clients.
6. Recent on-line research into open positions in data science, statistics, and applied mathematics yielded the following returns (source: glassdoor.com, October 2018):
    - Searching "data science" and "Connecticut" produced 445 positions.
    - Searching "data analytics" and "Connecticut" produced 1,388 positions.
    - Searching "statistics" and "Connecticut" produced 1,693 positions.
    - Searching "applied mathematics" and "Connecticut" produced 102 positions.

Expanding the search to the Northeast region (NY, NJ, CT, RI, MA, VT, ME, and NH) and searching "data science", "statistics", and "applied mathematics" yielded more than 12,000 position listings.

What is Data Science?

Data Science is the science of everything associated with data: creation of algorithms, software, tools, and techniques (i.e., creation of process), mathematical/statistical theory and practice of analysis, theory and practice of visualization and presentation, and data engineering.

Data Mining is the process of knowledge discovery through the use of algorithms, software, tools, and techniques.

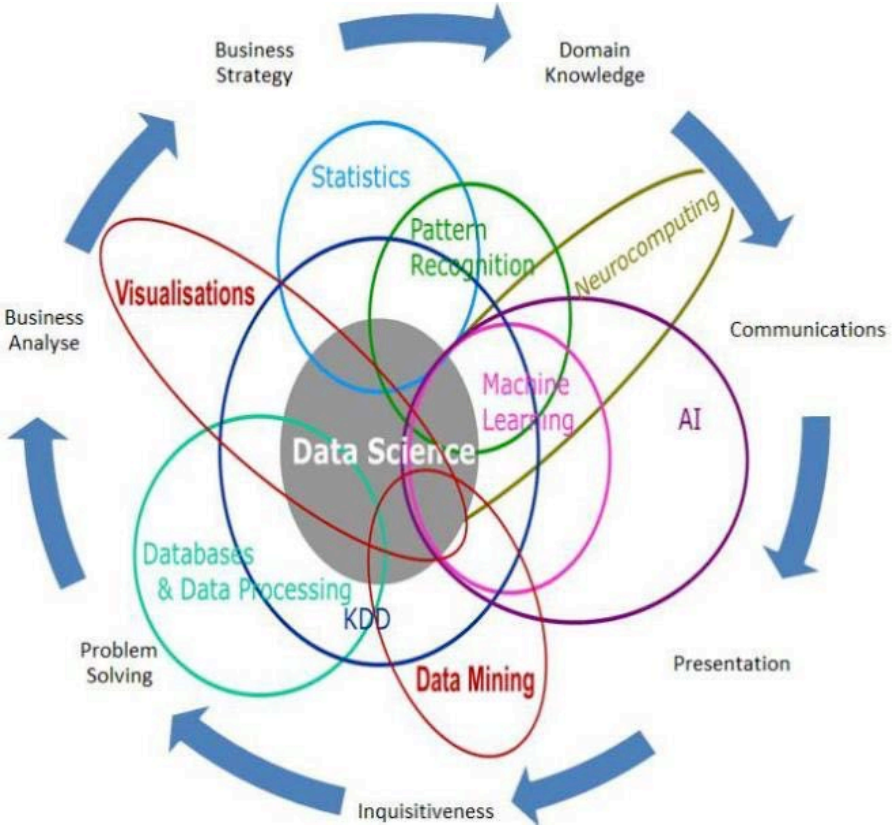
Machine Learning refers to the artificial intelligence (AI) algorithms and statistical techniques used by computers to automatically uncover structure in data sets.

Analytics (as in Business Analytics, etc.) is the application of Data Science to the data generated in a specific sector/industry.

Big Data refers to extremely large data sets with billions (or trillions) of observations held in terabytes of storage and which requires data science techniques for its analysis.

Who Uses Data Science? just about everyone! A degree in Data Science can lead to a career in business or industry and work in dozens of fields from bio-technology to finance to business analytics.

The Data Science Universe



(Image originally SAS, 1998; modified by Brendan Tierney, 2012)

- 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?

  Curriculum and Faculty: the proposed program utilizes a wide variety of high-quality classes available at SCSU offered by the Department of Mathematics and the Department of Computer Science. In addition, the program has leveraged the expertise of faculty in both departments in the creation of new data science and statistics courses including DSC 100: Data Science I, DSC 101: Data Science II, DSC 490: Data Science Capstone, MAT 328: Time Series Analysis, MAT 329: Bayesian Analysis and Decision Making, MAT 428: Mathematical Foundations of Machine Learning, and MAT 429: Modern Non-parametric Statistics. Courses in the proposed program will be taught by faculty with tremendous breadth and depth of experience in data science, statistics, programming, and applied mathematics.

  Location: as mentioned above, SCSU's New Haven campus sits inside Connecticut's high tech/data corridor running from Stamford/Bridgeport, through New Haven, and up to Hartford/Farmington. This makes SCSU centrally located with respect to the cities in Connecticut having a need for a trained, local workforce of data science professionals. New Haven is also arguably a "midpoint" between Boston and New York City, two of the largest data centers on the East Coast, if not in the entire United States. This proximity to these major data hubs would provide students in the program with a host of opportunities for internships and collaborations.

- 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)*

  Once this proposal has been approved, a TAP DSC (Data Science) AA degree pathway can be created. Currently, the proposed BS in Data Science has been aligned with both the TAP CSC AA and the TAP MAT AA in order to facilitate transfer from the community colleges in the CSCU system.

  Shown below are two tables. The first (Comparison of the existing TAP pathways in CSC and MAT to the proposed Data Science major at SCSU) shows how the AA degrees align with the first two years of study under the proposed BS in Data Science. The second (Credits remaining at SCSU after completion of the TAP AA degree in either Computer Science or Mathematics) explain likely paths to completing the BS in Data Science once a student transfers to SCSU under both transfer tickets.

Comparison of the existing TAP pathways in CSC and MAT to the proposed Data Science major at SCSU

TAP CSC AA degree	TAP MAT AA degree	DSC 4-year degree at SCSU
Written Communication I	Written Communication I	Tier 1—INQ 101
Written Communication II	Written Communication II	Tier 1—ENG 112
MAT 186, Precalculus	MAT 186, Precalculus	Tier 1—Quantitative Reasoning
Section B Gen Ed 1	Section B Gen Ed 1	Tier 1—Critical Thinking
Section B Gen Ed 2	Section B Gen Ed 2	Tier 1—Technological Fluency
		Tier 1—Multilingual Communication (waived with the AA degree)
Scientific Reasoning (BIO,CHE or PHY sequence)	Scientific Reasoning (BIO,CHE or PHY sequence)	Tier 2—Natural World I
Scientific Reasoning (BIO,CHE or PHY sequence)	Scientific Reasoning (BIO,CHE or PHY sequence)	Tier 2—Natural World II
Historical Knowledge	Historical Knowledge	Tier 2—Time and Place
Social Phenomena	Social Phenomena	Tier 2—Social Structure, Conflict and Consensus
Aesthetic Dimensions	Aesthetic Dimensions	Tier 2—Cultural Expressions
CSC/CST—web design		Tier 2—Creative Drive
CSC—programming	CSC programming course	Elective credit—CSC 152
CSC—Java programming		Major requirement—CSC 229
EET/CST/CSC—digital circuits		Elective credit—CSC 207
CSC/CSA—database design		Major requirement—CSC 235
MAT 254—Calculus I	MAT 254—Calculus I	Major requirement-MAT 150
MAT 256—Calculus II	MAT 256—Calculus II	Major requirement-MAT 151
MAT 210/285—Discrete Math		Major requirement-MAT 178
	MAT 268—Calculus III	Elective credit—MAT 252
	Select one: MAT 274, 285, 287 (DSC students should be advised to take MAT 274)	Major requirement-MAT 372
	7-9 open elective credits—DSC students should be advised to take the CSC required Java programming course, the CSC database design course, and the MAT 210/285 Discrete math course	Major requirements CSC 229, CSC 235, and MAT 178

Credits remaining at SCSU after completion of the TAP AA degree in either Computer Science or Mathematics

TAP CSC AA degree credits remaining	TAP MAT AA degree credits remaining
Tier 2 course 1	Tier 2 course 1
Tier 2 course 2	Tier 2 course 2
MAT 372 Linear Algebra	Tier 2 course 3
MAT 221 (4 cr) Intermediate Statistics	MAT 221 (4 cr)) Intermediate Statistics
DSC 100 Data Science I	DSC 100 Data Science I
DSC 101 Data Science II	DSC 101 Data Science II
CSC 212 Data Structures	CSC 212 Data Structures
CSC 321 Algorithm Design and Analysis	CSC 321 Algorithm Design and Analysis
CSC 330 Software Design and Development	CSC 330 Software Design and Development
CSC 335 Database Systems	CSC 335 Database Systems
CSC 463 Distributed and E-Commerce Applications	CSC 463 Distributed and E-Commerce Applications
CSC 477 Data Mining	CSC 477 Data Mining
MAT 326 Regression Analysis	MAT 326 Regression Analysis
MAT 328 Time Series Analysis	MAT 328 Time Series Analysis
MAT 329 Bayesian Analysis and Decision Making	MAT 329 Bayesian Analysis and Decision Making
MAT 429 Modern Non-parametric Statistics	MAT 429 Modern Non-parametric Statistics
MAT 428 Mathematical Foundations of Machine Learning or CSC 481 Artificial Intelligence	MAT 428 Mathematical Foundations of Machine Learning or CSC 481 Artificial Intelligence MAT 428 or CSC 481
Tier 3 DSC 490 Data Science Capstone	Tier 3 DSC 490 Data Science Capstone
Elective 1	Elective 1
Elective 2	Elective 2
Total of 20 courses = 61 credits	Total of 20 courses = 61 credits

Note: all classes are 3 credits unless otherwise noted.

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

As mentioned above, the proposed Data Science program at SCSU is an interdisciplinary effort between the Mathematics Department and the Computer Science Department. The proposed program represents best practices as determined by the review of exemplar data science programs at other institutions that were highlighted in the American Statistical Association's AMSTATNEWS articles *New Undergraduate Data Science Programs* (AMSTATNEWS #457, July 2015, p. 22 – 29 and #458, August 2015, p. 12 – 17).

No other CSCU institution offers an interdisciplinary, stand-alone major in data science at the undergraduate level or graduate level; consequently, SCSU's proposed BSDSC program will be the first of its kind within CSCU. ECSU, with its BS in Mathematics concentration in Data Science, and UCONN, with its BS in Business Data Analytics, come closest to "similar programs", but differ substantially in scope, breadth, and depth of curriculum. The table below (Overview of Similar Programs at Other CSCU Institutions) summarizes the details of the programs at SCSU, ECSU, and UCONN (CCSU offers only a MS in Data Mining, while WCSU has no Data Science related offerings).

Overview of Similar Programs at Other CSCU Institutions

Institution	Degree	Details
SCSU	BS Data Science (Proposed)	Students must complete DSC 100 and 101 (Data Science I and II), DSC 490 (Data Science Capstone), 25 (or 22)* mathematics and statistics credits beyond Calculus II (Discrete Mathematics, Intermediate Statistics, Linear Algebra, Bayesian Analysis and Decision Making, Machine Learning, Modern Non-parametric Statistics, Regression Analysis, and Time Series Analysis) and 24 (or 21)* computer science credits beyond CSC 152 Programming Fundamentals (Data Structures, Database Systems, Distributed and E-Commerce Applications, Object-oriented Programming, Web and Database Development, Algorithm Design and Analysis, Software Design and Development, and Data Mining). A senior Data Science capstone project required for graduation. * depending on whether the student completes MAT 429 Machine Learning or CSC 481 Artificial Intelligence, only one of which counts towards degree completion.
CCSU	NA (MS in Data Mining)	NA
ECSU	BS Mathematics Concentration in Data Science	In addition to a variety of courses specific to a math major (Number Theory or Geometry, Calculus III, 6 credits of Real Analysis, and 9 elective math credits), students must complete MAT 230 Discrete Structures, MAT 310 Applied Linear Algebra, MAT 315 Applied Probability & Statistics, MAT 342 Explorations in Data Science, CSC 210 Programming I, CSC 231 Programming II, and CSC 305 Data Mining and Applications.
UCONN	BS Business Data Analytics	The major requirements for this degree include the Common Body of Knowledge and Capstone Requirements for business majors, 9 business elective credits, and 9 operations and information management credits (OPIM 3505 Business Database Management, OPIM 3510 Business Data Analytics I, and OPIM 3511 Business Data Analytics II).
WCSU	NA	NA

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.)

Please see the attached pro forma budget for specific details. Over the period FY 2020 – FY 2022, the proposed program will need no additional resources, and will require only minor expenditures that will be offset by gains in enrollment revenue.

Using a conservative enrollment model, SCSU is projecting modest and attainable enrollment over the first three years of the proposed program. An initial enrollment of approximately 25 students is anticipated in the Fall of 2019, with the earliest projected graduation date being Spring 2023. Enrollment will be positively affected by the efforts of SCSU's marketing team and Office of Institutional Advancement, both of which are committed to providing outreach and promotion in support of the program.

Estimated expenditures have been assessed by Arts & Sciences and University administration, and are seen as reasonable and appropriate. These include allocations for program marketing, co-coordinator release time, adjunct hires, and a graduate administrative assistant. Note that the adjunct hires (covering a projected 6 credits per semester) would be used to cover lower level courses currently being taught by proposed program faculty, thereby freeing them to teach upper level data science courses in support of the program. No additional expenditures will be required over the first three years of the program as there is enough capacity to absorb the projected student enrollment.

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)*

(ABET Program Educational Objectives Criterion) We have identified three critical program outcomes in addition to seven learning outcomes. The program outcomes (PO's) are:

[PO1]. Use critical thinking skills: to identify a problem; to choose and apply appropriate methods of analysis; and to communicate results of the analysis with appropriate recommendations.

[PO2]. Have an understanding of and ability to apply computer science principles relating to data representation, retrieval, programming, and analysis.

[PO3]. Have an understanding of and ability to apply mathematical and statistical models and concepts to detect patterns in data, and to draw inferences and conclusions supported by data.

(ABET Student Outcomes Criterion) The learning outcomes (LO's) are: upon program completion, students should be able to:

[LO1]. Identify and assess organizational needs for data science.

[LO2]. Acquire data which can be used to address needs identified.

[LO3]. Store and manage data acquired for data science tasks.

[LO4]. Safeguard data throughout all operational stages; treat data and its analysis/application ethically.

[LO5]. Devise and implement data science solutions based on knowledge of related models and their applicability.

[LO6]. Interpret model results and understand the limitations of, and assumptions in, the model.

[LO7]. Communicate results effectively to different audiences and in different formats that include professional presentations and technical writing, with an emphasis on the visual display of data.

(ABET Students Criterion) Outcome assessment will be completed through student progress measurement and overall program performance. Student progress will be measured through: successful completion of the program/degree requirements (all); progress in individual courses (all); and successful completion of the capstone. The learning outcomes described above will be assessed through graded assignments in required courses. A mapping of objectives to specific courses is shown in the Curriculum section below. The program will be evaluated through the use of senior and alumni surveys to assess program efficacy (all); and program graduate tracking (all). The program will adhere to university standards with respect to level and requirements.

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 Data Science program will be jointly administered by the Mathematics and Computer Science Departments. We are proposing a co-coordinator structure with one coordinator from each Department working in conjunction with the Department chairs. Coordinators will be full-time, tenure or tenure-track faculty members, each receiving 1 credit reassigned time for managing the program (see attached pro forma budget). Coordinators will be selected from existing faculty.

Coordinator (Mathematics): TBD

Coordinator (Computer Science): TBD

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?

No new hires will be needed for this program during the first three years. However, we note that the Mathematics Department is presently engaged in a search for a statistician to fill an open position within the Department, the result of a tenure-track member leaving for another opportunity.

What percentage of the credits in the program will they teach?

0%.

What percent of credits in the program will be taught by adjunct faculty?

0%. Adjunct faculty will not teach classes in the proposed program.

Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program

NA.

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)*

No Special Resources are required for this program.

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)*

(ABET Curriculum Criterion) Please refer to the attached curriculum map. The mapping of LO's to courses as well as the course pre-requisites are shown below. The remaining details can be found on the curriculum map.

Course Number and Name	P.O. # [1]	L.O. # [2]	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses					Other Related/Special Requirements*		
CSC 212 Data Structures	2	3	DSC 101	3			
CSC 229 OOP	2		CSC 212	3			
CSC 235 Web & DB Development	2	2,3,4	CSC 212	3			
CSC 321 Algorithm Design/Analysis	2	5,6	MAT 178 CSC 229	3			
CSC 330 Software Design and Development	2	5,6	CSC 229 CSC 235	3			
CSC 335 DB Management	2	2,3,4	CSC 235	3			
CSC 463 Distributed Computing	2	3,4	CSC 235	3			
CSC 477 Data Mining	1,2	2,3,4,5,6	MAT 221 CSC 235	3			
CSC 481 Artificial Intelligence (or MAT 428; only 1 for credit)	1,2	5,6	MAT 221 CSC 229	3			
* DSC 100 Data Science I	1 – 3	1 – 7	MAT 112 Or higher	3			
* DSC 101 Data Science II	1 – 3	1 – 7	DSC 100	3			
* DSC 490 Data Science Capstone	1 – 3	1 – 7	Departmental Permission	3			
MAT 150 Calculus I	3		MAT 122	4			
MAT 151 Calculus II	3		MAT 150	4			
MAT 178 Intro to Discrete Math	3		MAT 150 DSC 101	3			
MAT 221 Intermediate Statistics	1,3	2,5,6,7	MAT 122 Or higher	4			
MAT 326 Regression Analysis	1,3	5,6	MAT 221	3			
* MAT 328 Time Series Analysis	1,3	5,6	MAT 326 MAT 372	3			
* MAT 329 Bayesian Analysis and Decision Making	1,3	5,6	MAT 221	3			
MAT 372 Linear Algebra	3	5,6	MAT 150	3			
* MAT 428 Machine Learning (or CSC 481; only 1 for credit)	1,3	5,6	MAT 221 MAT 372	3			
* MAT 429 Nonparametric Stats	1,3	5,6	MAT 329	3			

[1] From the Program Outcomes enumerated list provided at the beginning of Section 3 of this application
[2] From the Learning Outcomes enumerated list provided at the beginning of Section 3 of this application

Southern Connecticut State University

SCSU

Data Science BS

Academic Map

Fall	Credits
LEP Tier 1: INQ 101 Intellectual and Creative Inq.	3
LEP Tier 1: Written Communication	3
LEP Tier 1: Quantitative Reasoning (MAT 122)	4
LEP Tier 1: Critical Thinking	3
DSC 100: Data Science I	3
Total	16

Spring	Credits
LEP Tier 2: Natural World I	4
MAT 150: Calculus I	4
MAT 221: Intermediate Applied Statistics	4
DSC 101: Data Science II	3
Total	15

Fall	Credits
LEP Tier 1: Tech Fluency	3
MAT 372: Linear Algebra	3
MAT 151: Calculus II	4
CSC 212: CS2: Data Structures	3
Free Elective	3
Total	16

Spring	Credits
LEP Tier 1: Multilingual Communication	3
LEP Tier 2: Option 1	3
MAT 178: Elementary Discrete Mathematics	3
CSC 229: Object-oriented Programming	3
CSC 235: Web and Database Development	3
Total	15

Fall	Credits
LEP Tier 2: Option 2	3
LEP Tier 2: Natural World II	4
MAT 329: Bayesian Analysis and Decision Making	3
CSC 335: Database Systems	3
Free Elective	3
Total	15

Spring	Credits
LEP Tier 2: Option 3	3
MAT 326: Regression Analysis	3
CSC 321: Algorithm Design and Analysis	3
CSC 330: Software Design and Development	3
Free Elective	3
Total	15

Fall	Credits
LEP Tier 2: Option 4	3
LEP Tier 2: Option 5	3
MAT 428 or CSC 481: Machine Learning or AI	3
MAT 429: Modern Nonparametric Statistics	3
CSC 463: Distributed and E-Commerce Apps	3
Total	15

Spring	Credits
LEP Tier 2: Option 6	**3**
LEP Tier 3: DSC 490 Data Science Capstone	**3**
MAT 328: Time Series Analysis	**3**
CSC 477: Data Mining	**3**
Free Elective	**1**
Total	**13**

New Course Descriptions

DSC 100: Data Science I This course acts as the stepping stone to the realm of data science. The students will learn concepts from data science using python as the programming language. Course contents include: computing and programming, Python language fundamentals, basic concepts from linear algebra, statistics, and probability for data science, and topics from various stages of the data science pipeline. This course provides the necessary bases for the students to develop an understanding of data science from a technical perspective and to move forward to advanced topics.

DSC 101: Data Science II This course introduces data science life cycle. Topics include data science problem formulation, data preprocessing, data visualization, feature extraction, and decision making using machine learning methods including regression, classification, clustering, and anomaly detection. Python language and related tools will be used for solving data science problems.

DSC 490: Data Science Capstone A culminating project that revolves around a student-selected data problem. Course activities parallel the various stages of the data science lifecycle. These include project conception, data acquisition, data cleaning and transformation, visualization, model building and evaluation, and presentation of findings.

MAT 328: Time Series Analysis[1] The course is aimed at providing a solid introduction to the methods and underlying theory of modern time series analysis. The main focus will be on modeling and forecasting second order stationary processes with ARMA models. The latter part of the course may cover more advanced/specialized topics like spectral analysis, state-space models, and GARCH models. Applications will involve the use of R.

MAT 329: Bayesian Analysis and Decision Making[1] An introduction to Bayesian analysis and inference. Topics covered in a standard frequentist survey course (such as MAT 221) are reconsidered from a Bayesian perspective. These include: gathering datasets, summarizing datasets, probability, Bayes Theorem, Bayesian inference for discrete random variables, Bayesian inference for continuous random variables, comparing Bayesian and frequentist approaches to inference, Bayesian prediction intervals for a single mean and single proportion, Bayesian inference for two means and two proportions, and Bayesian inference for linear regression.

MAT 428: Mathematical Foundations of Machine Learning A broad introduction to machine learning by using the tools of basic knowledge of programming and probability theory, including classification; support vector machines; neural networks; clustering, feature selection, ensemble learning and reinforcement learning. The course will also discuss recent applications of machine learning, such as to computer science, data mining, bioinformatics, and so on.

MAT 429: Modern Nonparametric Statistics Nonparametric statistics is the study of statistical techniques that do not rely on data belonging to any particular distribution or assume that the structure of a particular statistical model is fixed. Topics include empirical distribution functions, inference using bootstrapping, permutation test, density estimation and nonparametric linear regression.

[1] – while MAT 328 and MAT 329 are new courses, they can also be used as electives for students in the existing BA Mathematics and BS Applied Mathematics degree programs. Consequently, they are not included in the "#Cr that are part of/belong in an already approved program(s) at the institution" field on page 1 of this application.

ABET Accreditation

Southern will be seeking national accreditation under ABET's general criteria for Computing Programs. Assuming a Fall 2019 start, the first graduating class of the newly proposed BSDSC program is expected in the Spring of 2023. Since ABET requires that a program has graduates, the earliest we can apply for their accreditation will be in the 2024 – 2025 ABET accreditation cycle.

Each of the 2018-19 ABET Computer Programs general criteria (version 2.0) is listed below, followed by a brief description of how the proposed Data Science program will meet the given criteria:

ABET General Criterion	Satisfied By
Students	Student performance will be evaluated throughout the program; student progress will be monitored during academic advisement sessions conducted prior to each semester.
Program Educational Objectives	The program's education objectives are clearly stated and they are aligned with the mission of the university; periodic reviews will be conducted regularly.
Student Outcomes	The student outcomes are clearly articulated and meet program criteria 1 through 5 as stated in ABET's general criteria for Computing Programs.
Continuous Improvement	The program will be regularly assessed using a documented process that will lead to continuous improvement.
Curriculum	The curriculum meets the technical, professional and general education components required such that student outcomes and the program's educational objectives can be met.
Faculty	Members of both the Math Department and the Computer Science Department have deep expertise in data science, cloud computing and machine learning.
Facilities	Classrooms and laboratories are equipped with adequate tools to create a conducive learning environment. The library services and computing infrastructure currently meet the ABET standards as evidenced by a successful ABET visit for the Computer Science-General program.
Institutional Support	University leadership fully supports the data science program as evidenced by the support of this newly proposed program. In addition, the institutional support was deemed adequate from the 2015 ABET visit to the Computer Science Department. The CS department also has a dedicated full-time technical support specialist that will support the newly proposed BSDSC program.

Program Outline
The BS in Data Science requires 47 Liberal Education Program (LEP) credits, 10 free elective credits, 9 data science specific credits (3 of which also count towards the LEP), 24 – 27 credits of computer science classes (the difference depending on whether a student completes CSC 481 Artificial Intelligence or MAT 428 Mathematical Foundations of Machine Learning, only one of which may be completed for program credit), and 30 – 33 credits of mathematics/statistics classes (as above).

***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.

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 program)*

(ABET Faculty Criterion)

Faculty Name and Title	Institution of Highest Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities
Imad Antonios	Ph.D., University of Connecticut	Queueing Theory, Performance Modeling, Reliability Theory.	
MD Shafaeat Hossain	Ph.D., Louisiana Tech University	Machine Learning, Smartphone Security, Cyber-behavioral authentication, Multi-biometric verification, and Computer Vision.	
Lisa Lancor	Ph.D., University of Connecticut	Information Security, CyberSecurity, Penetration Testing, Ethical Hacking, Identification & Authentication, Computer Science Education .	Chairperson, Department of Computer Science
Mohammad Tariqul Islam	Ph.D., University of Kentucky	Computer Vision, with image geo-localization and analysis of large scale image data.	
Therese Bennett	Ph.D., University of Pittsburgh	Approximation of functions, numerical analysis, linear algebra, and computer aided geometric design.	Director of LEP Advisement and Policy
Aaron Clark	Ph.D., The University at Albany, SUNY	Topology, dynamical systems, applied mathematics.	
Ray Mugno	Ph.D., Stony Brook University, SUNY	Statistics, adaptive designs, and multivariate analysis.	
Julei Pang	Ph.D., Texas Tech University	Nonlinear dynamic systems, switching systems, stochastic process, and machine learning.	
Hrovje Podnar	Ph.D., Stony Brook University, SUNY	Fiber optic network traffic optimization by means of Branch & Bound trees and Genetic Algorithms, Optimization (Linear, Nonlinear), Network Design, Optimal/Heuristic Solution approaches, Game Theory/Cost Allocations.	

Faculty Name and Title	Institution of Highest Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities
Replacement hire, statistics (This hire is to fill an open position in the Mathematics Department, the result of a faculty member leaving for another opportunity; it is NOT a hire being made explicitly for the proposed program, though the faculty member will teach courses in support of the program.)	Ph.D., Statistics or Applied Mathematics	Open area of specialization. University teaching experience required.	

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION
Connecticut State Colleges & Universities
*APPLICATION FOR **NEW PROGRAM APPROVAL***

PROJECTED Enrollment	First Year – FY2020						Second Year – FY2021						Third Year – FY2022					
	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	10	2	10	2			5	2	5	2								
New Students (first time matriculating)	11	2	15	2			19	2	21	2			28	6	31	6		
Continuing Students progressing to credential (from Community Colleges)	4		5				5		6				6		7			
Continuing Students - All							30	4	30	4			57	8	57	8		
Headcount Enrollment	25	4	30	4			59	8	62	8			91	14	95	14		
Total Estimated FTE per Year[1]	2.08	.33	2.50	.33			4.92	.67	5.17	.67			7.58	1.17	7.92	1.17		

PROJECTED Program Revenue	First Year – FY2020						Second Year – FY2021						Third Year-FY2022					
	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[2]	73,410	6,720	97,880	6,720			264,276	20,160	278,958	20,160			445,354	47,040	464,930	47,040		
Tuition from Internal Transfer[2]	48,940	6,720	48,940	6,720			24,470	6,720	24,470	6,720								
Other Revenue (annotate in narrative)	881	141	1,058	141			2,080	282	2,186	282			3,208	494	3,349	494		
Total Annual Program Revenue			**$ 298,271**						**$ 650,764**						**$ 1,011,909**			

PROJECTED Program Expenditures[3]	First Year-FY2020	Second Year-FY2021	Third Year-FY2022
Administration (Chair or Coordinator)[4] Two Credits per semester = .167 release time plus 65% fringe benefits for EXISTING faculty in YR 1 & YR 2 and .25 release time in YR 3.	24,800	24,800	37,125
Faculty (Adjunct- two 3 credit courses per semester including F/B @ 40%)	27,384	27,384	27,384
Support Staff (Graduate Assistant)	9,600	9,600	9,600
Library Resources Program			
Equipment (List in narrative)			
Other[5] - Marketing	10,000	10,000	10,000
Estimated Indirect Costs	9,754	9,754	11,099
Total Expenditures per Year	**$81,538**	**$81,538**	**$95,208**

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.

ASSUMPTIONS:

- Students will take 4 years to complete the program; the program consists of 120 credits.
- Analysis DOES NOT reflect annual tuition increases, bargaining unit increases or inflationary adjustments.
- Other than the expenses shown above, there will be no additional budget required as there is current available capacity to absorb these students.
- We anticipate revisiting the question of additional faculty in year 4 of the program (based on program enrollment); the program can be launched with existing FT faculty.
- New and continuing student enrollment projections reflect recent enrollment trends at SCSU, with about 90% of new students arriving in the Fall and 10% in the Spring.
- It is hoped that in a few years, this program will be open to foreign markets.

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

Scheduling of Academic Program Review

December 13, 2018

RESOLVED: That the Board of Regents for Higher Education ratify the schedule for Academic Program Review at the CSCU institutions for the 2018-19 academic year.

A True Copy:

_____

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

ITEM

Academic Program Review Schedule for 2018-19

BACKGROUND

The Board of Regents Academic Program Review Policy was established by a Board resolution on August 21, 2014. This Policy established a process wherein the System's Provost and Senior Vice President for Academic and Student Affairs will confer with the institutions' Presidents and Chief Academic Officers to inventory a schedule of academic programs to be reviewed over the course of the academic year. Subsequently, a consolidated schedule is to be presented to the Board's Academic and Student Affairs Committee for its consideration. Upon the Committee's approval, the schedule is to be presented to the Board for its ratification.

PROCESS

Per the guidelines approved by the Board, the System's Provost and the institutions' Chief Academic Officers have collaboratively set a schedule for Academic Program Reviews for the 2018-19 academic year that is attached. For the 2018-19 academic year, a total of 126 academic programs or other programmatic offerings have been scheduled for review.

Annually, the summative results from the individual academic program reviews will be presented to the Board of Regents at a September or October meeting. If warranted, the Board will take appropriate action regarding a specific review or institutional processing, which may include further study.

RECOMMENDATION

The System's Provost and Senior Vice President for Academic and Students Affairs recommends that the Board of Regents ratify the CSCU institutional schedules of academic program review for the 2018-19 academic year.

11/26/2018 – BOR Academic & Student Affairs Committee
12/13/2018 – Board of Regents

Connecticut State Colleges & Universities
Academic Program Review Process
2018-19 Academic Year Schedule

Institution	Academic Program	Means of Review
Asnuntuck Community College	Communications	Internal
	Criminal Justice	Internal
	General Studies	Internal
	Human Services	Internal
Capital Community College	Architectural Engineering Technology	Internal
	Biotechnology	Internal
	Computer Networking	Internal
Gateway Community College	Automotive Technology	Internal
	Automotive Technology, (GM) Certificate	Internal
	Biomedical Engineering Technology	Internal
	Business Administration	Internal
	Business Office Technology	Internal
	Clean Water Management	Internal
	Computer Science	Internal
	COT / Technology Studies	Internal
	Culinary Arts	Internal
	Early Childhood Ed. Admin. & Leadership Certificate	Internal
	Environmental Science & Toxicology	Internal
	Exercise Science & Wellness	Internal
	Fire Technology & Administration	Internal
	Firefighter I & II	Internal
	Food Service Management	Internal
	Hotel Management	Internal
	Human Services Gerontology	Internal
	Interdisciplinary Peace & Conflict	Internal
	Manufacturing Engineering Technology	Internal
	Meetings, Conventions & Special Events	Internal
	Natural Science & Math	Internal
	Nuclear Medicine Technology	Internal
	Professional Baker's Certificate	Internal
	Radiation Therapy Technology	Internal
	Retail Management/Fashion Merchandising	Internal
	Retail Manage./Fashion Merch., Certificate	Internal
	Studio Art	Internal

Institution	Academic Program	Means of Review
Housatonic Community College	Accounting	Internal
	Business Administration	Internal
	Computer Information Systems	Internal
	COT: Technology Studies	Internal
	Fine Art	Internal
Manchester Community College	Culinary Arts	Internal & External
Middlesex Community College	Fine Arts and Fine Arts: Graphic Design Option	Internal & External
	Liberal Arts & Sciences	Internal & External
	Technology Studies: Computer Engineering Technology Option	Internal & External
Naugatuck Valley Community College	Business Administration: Business Computer Applications	Internal
	Business Management	Internal
	Early Childhood Education	External
	Criminal Justice	Internal
	Hospitality Management	Internal
	Human Services	Internal
	Legal Assistant/Paralegal	Internal
Northwestern Connecticut Community College	Environmental Science/Natural Resources	Internal
	General Studies	Internal
Norwalk Community College	Accounting	Internal
	Architectural Engineering Technology	Internal
	Communication Arts	Internal
	Computer Science	Internal
	Computer Smartphone Application Developer	Internal
	Construction Technology	Internal
	Early Childhood Education	External
	Interior Design	Internal

Institution	Academic Program	Means of Review
Quinebaug Valley Community College	Computer Networking/Computer Services/Cyber Security	Internal
	Sciences- Natural and Physical, (discipline)	Internal
	Medical Laboratory Technician	External & Internal
	Early Childhood Education	External & Internal
Three Rivers Community College	Accounting Career	Internal
	Accounting, Certificate	Internal
	Environmental Engineering Tech.	Internal
	Lean Manufacturing, Certificate	Internal
	Manufacturing Engineering Tech.	Internal
	Manufacturing Engineering Tech., Laser Manufacturing Option,	Internal
	Mechanical Engineering	Internal
	Nursing	Internal
	Supply Chain Management, Certificate	Internal
Tunxis Community College	Business Administration	Internal & External
	Computer Information Systems	Internal
	Computer Science/Math Honors	Internal
	Engineering Studies	Internal
	Technology Studies	Internal
Charter Oak State College	Business Administration	Internal
	History	Internal
	Human Resources	Internal
	Organizational Leadership	Internal
Central Connecticut State University	Accounting, BS	Internal & External
	Accounting, MS	Internal & External
	Biomolecular Sciences, BS	Internal & External
	Biomolecular Sciences, MA	Internal & External
	Business Administration, MBA	Internal & External
	Construction Management, BS	Internal & External
	Counselor Education, MS	Internal & External
	Criminal Justice, MS	Internal & External
	Criminology, BA	Internal & External
	Finance, BS	Internal & External
	Management Information Systems, BS	Internal & External
	Management, BS	Internal & External
	Marketing, BS	Internal & External
	Psychological Science, BA	Internal & External
	Psychology, MA	Internal & External

Institution	Academic Program	Means of Review
Eastern Connecticut State University	Asian Studies (minor)	Internal & External
	Biochemistry	Internal & External
	Computer Science	Internal & External
	Environmental Earth Science	Internal & External
	Geographic Information Systems (minor)	Internal & External
	History/History and Social Science	Internal & External
	Latin American Studies (minor)	Internal & External
	New Media Studies	Internal & External
	Performing Arts, Theatre	Internal & External
	Political Science	Internal & External
	Spanish	Internal & External
Southern Connecticut State University	Art Education	Internal
	Art History	Internal
	Communication Disorders: Speech Language Pathology	Internal & External
	General Studies	Internal
	Interdisciplinary Studies, BA	Internal
	Interdisciplinary Studies, BS	Internal
	Music	Internal & External
	Nursing Education	Internal
	Psychology, BA	Internal
	Psychology, BS	Internal
	Psychology, MS	Internal
	Studio Art, BA	Internal
	Studio Art, BS	Internal
Western Connecticut State University	Chemistry BA/BS	External
	Health Promotion Studies BS	External
	Nursing BS/MS	External
	Nursing Education, Online Ed.D.	External
	Business Administration BBA/MBA	External

ITEM
Enrollments in Newly Established Program (2014-15 Cohort)

BACKGROUND
When CSCU institutions propose to establish a new academic program, they are required to project enrollments for the program's first three academic years. The Academic and Student Affairs (ASA) Committee has expressed an interest in comparing projected enrollments to actual enrollments for its edification. Previously, the Office of the System's Provost has informed the ASA of projected enrollments in comparison to actual enrollments for Year Three, for those academic program approved by the Board of Regents during the 2011-12 and 2012-13 academic years. Those reports illustrated projected Year Three enrollments to often be problematic for a number of reasons, including program approvals late in the preceding academic year. Thus, in presenting comparative enrollments for those academic programs approved by the Board during the 2013-14 academic year, a grace period of one academic year was taken into consideration - projected enrollments for Year Three were compared to actual enrollments in the 2017-18 academic year. The ASA was presented with comparative enrollments for the 2013-14 cohort of newly established programs at its June 11, 2018 meeting. At that time, members of the ASA expressed concern regarding institutional failures to meet enrollment projections and requested of the Office of the Provost that they be provided elucidatory information.

Subsequently, the Office of the Provost forwarded informational charts to the pertinent CSCU institutions with directions to ascertain:

- succinct explanations as to why the referenced program's projected enrollment was not met,
- brief outline of an improvement plan established and/or will be established to rectify not meeting the enrollment projection, and
- disclosure of the financial impact of not meeting the projection has had upon the institution's fiscal bottom line

The institutional responses were presented to the ASA at its September 7, 2018 meeting. The ASA Regents generally perceived the disclosures from Capital Community College to be most appropriately responsive, especially in regards to the fiscal impact of actual enrollments not meeting their projections. The ASA also expressed a desire that data and information on comparative enrollments be presented earlier than June.

THE 2014-15 COHORT
Accordingly for the next cohort, the attached table presents explanatory responses for those programs that did not meet their projected enrollment for Year Three in comparison to actual enrollment for the 2018 Fall semester; among the 28 academic programs approved by the Board of Regents during the 2014-15 academic year. At the end of this table is a roster of those programs that did meet or exceed its enrollment projection.

Among those 28 academic programs, 20 were established by the community colleges and 8 by the four-year institutions. To facilitate analysis, full-time and part-time enrollments for both projected and actual enrollments are converted to full-time equivalence (FTE). The difference between the "projected enrollment for Year Three" and "actual enrollment for Fall 2018" is termed a **differential**.

Within the community colleges, 2 of the 20 programs have been or will be discontinued. Among their remaining 18 programs, 5 met or exceeded their enrollment projection and 13 did not. The numerical differential in full-time equivalence for all 18 programs ranged from -42.0 to +9.3. On average, the 13 programs established by the community colleges that did not meet their projected enrollments did so by 19.6 FTE students.

Among the four-year institutions, 3 programs met or exceeded their enrollment projections and 5 did not. The numerical differential in full-time equivalence for all 8 programs ranged from -33.0 to +10.0. On average, the 5 programs established by the four-year institutions that did not meet their projected enrollments did so by 11.5 FTE students.

ACTION

The Academic and Student Affairs Committee decides what action if any it takes in reacting to the individual explanatory responses.

Connecticut State Colleges & Universities

Comparative Enrollments: 2014-15 New Programs

DIRETIONS: In column (a), the academic program approved by the BOR during the 2014-15 year and its credential is stated with the projected Year 3 enrollment compared to the actual enrollment for Fall 2018. In column (b), the institution is asked to succinctly explain why the projected enrollment was not met. In column (c), the institution is asked to succinctly outline the improvement plan that was established and/or will be established to rectify not meeting the projection. In column (d), the institution is asked to succinctly disclose the financial impact of not meeting the projection has had upon its fiscal bottom line.

Capital Community College

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
CIS: Mobile Application Developer Option / A.S. Degree and Mobile Application Developer Certificate *Note: These degree and certificate programs were combined in the original program proposal documentation and projections approved by the BOR, therefore current (actual) numbers have also been combined.* Projection: 21 f/t & 24 p/t = 29 FTE Actual: 2 f/t and 3 p/t = 3 FTE Differential: -19 f/t & -21 p/t = -26 FTE	The Year 3 enrollment for this degree option and related certificate fell short of the combined projection by -26 FTE, therefore the Mobile Application Developer program option will be consolidated into the parent CIS degree program during the 2018-19 academic year.	There are three courses that are unique to the Mobile Application Developer program option. The consolidation will entail consolidating these three courses into two courses, allowing these courses to be taken as electives in the CIS parent degree program, and discontinuing the dedicated Mobile Application Developer degree option (GA98) and related certificate (GJ12). A plan for the students in the Mobile Application Developer degree option or related certificate will be put in place to ensure they can complete their program.	After comparison of related impacts on program revenues and expenditures resulting from the comparative enrollments, we estimate the following: Projected Revenue: $46,332 Actual Revenue: $14,759 Projected Expenditure: $9,400 Actual Expenditure: $0* **Courses are the same for both degree and certificate students. There is no need to hire additional faculty for the certificate program.* Total Fiscal impact: Projected earnings: $36,932 Actual earnings: $14,759 Difference: -$22,173 less earnings than projected

Capital Community College

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
Computer Networking / A.S. Degree Computer Networking Certificate and CCNA Certificate *Note: These degree and certificate programs were combined in the original program proposal documentation and projections approved by the BOR, therefore current (actual) numbers have also been combined.* Projection: 16 f/t & 12 p/t = 19 FTE Actual: 4 f/t and 10 p/t = 7.3 FTE Differential: -12 f/t & -2p/t = -11.7 FTE	The Year 3 enrollment for these combined programs fell short of the combined projection by -11.7 FTE, however, we believe this shortfall was due to higher than anticipated success of the Cyber Security option (consisting of a degree option and related certificate) that was approved concurrently Cyber Security Option: Computer Networking: Cyber Security Degree Option Cyber Security Certificate Total enrollment for the Cyber Security option exceeded overall projections for Year 3 by 9.3 FTE. When analyzed together, the Year 3 combined enrollment of the Computer Networking parent program plus Cyber Security program option resulted in 10 fewer full-time and 20 more part-time students than projected. This resulted in a net difference of -2.4 FTE overall, yet overall earnings were higher than projected due to higher actual tuition and fees.	We anticipate continued growth in each of these programs in the coming years which would exceed overall combined enrollment projections and continue to exceed overall earnings projections for the parent program and its related option and certificates.	See next page

Capital Community College

(a)	(d)		
Academic Program / Credential	**Financial Impact**		
Computer Networking / A.S. Degree Computer Networking Certificate and CCNA Certificate (continued)	After comparison of related impacts on program revenues and expenditures resulting from the comparative enrollments (projected v/s actual) we estimate the following: **Computer Networking Program** *(GA99, GJ99, GJ96 combined)* Projected Revenue: $98,065 Actual Revenue: $41,436 Projected Expenditure: $43,910 Actual Expenditure: $43,910* Total Fiscal impact: Projected earnings: $54,155 Actual earnings: $-2,474 Difference: -$56,629 less earnings than projected	**Computer Networking: Cyber Security Program Option** *(GB01, GJ98 combined)* Projected Revenue: $85,779 Actual Revenue: $150,686 Projected Expenditure: $43,910 Actual Expenditure: $43,910* Total Fiscal impact: Projected earnings: $41,869 Actual earnings: $106,776 Difference: +$64,907 more earnings than projected	**Joint analysis** *(GA99, GJ99, GJ96, GB01, GJ98 combined)* Projected Revenue: $183,844 Actual Revenue: $192,122 Projected Expenditure: $87,820 Actual Expenditure: $87,820* Total Fiscal impact: Projected earnings: $96,024 Actual earnings: $104,302** Difference: +$8,278 more overall earnings than projected**
	** Courses are the same for both degree and certificate students. There is no need to hire additional faculty for the certificate programs.* *** Though there were fewer FTEs than projected overall, total earnings were higher than projected due to higher actual tuition and fees.*		

Charter Oak State College

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
Business Administration / BS Degree Projection: FT 29, PT 245, FTE 110.7 Fall 2018: FT 52, PT 172, FTE 109.3 Differential: FT +23,PT -73, FTE -1.3	Fall 2018 came in slightly under the projection.	We had based enrollment projections on numbers from 2014. Since then overall enrollment has declined. However, we increased marketing of the major and overall our enrollment is up this fall over last year. We are using PowerBI to track enrollment by program so we can better target recruitment activities.	Using a ratio of 80% in-state T&F yields an estimated $138,950 in unrealized gross charges for Fall 2018. Gross charges: $620,688 Direct faculty cost: $205,957 Surplus prior to indirect costs: $414,731
Organizational Leadership / MS Degree Projection: FT 8, PT 117, FTE 47.0 Fall 2018: FT 7, PT 85, FTE 35.3 Differential: FT -1, PT -32, FTE -11.7 Note: Fall 2018 is only the second year of the program.	Fall 2018 came in greatly under the projection.	Our original proposal had the program starting a year earlier than we actually started it, so this is actually the second year of the program. We are increasing marketing, we reduced the starts dates, and we added some certificates to increase enrollment. We are using PowerBI to track enrollment by program so we can better target recruitment activities.	Using a ratio of 80% in-state T&F yields an estimated $108,409 in unrealized gross charges for Fall 2018. Gross charges: $302,464 Direct faculty cost: $91,344 Surplus prior to indirect costs: $211,120

Central Connecticut State University

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
Strategic Communications / B.A. Degree Projection: 135 f/t & 18 p/t = 141 FTE Actual: 130 f/t & 29 p/t = 139.7 FTE Differential: -5 f/t & +10 p/t = -1.3 FTE	Program was within 1% or 1.3 FTE students of meeting the enrollment goal. In Fall 2017, the FTE enrollment was 145.7 which exceeded the goal by 4.7 FTE students. **Note:** this program along with Strategic Communications were once concentrations within the BA in Communication and are the result of transitioning the general communication program into two, more specific degree programs	Continue as planned	No negative financial impact.

Gateway Community College

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
Automotive Technology / General Motors Certificate Projected: 8 f/t & 14 p/t 12.7 FTE Actual: 1 f/t & 2 p/t 1.7 FTE Differential: -7 f/t & -12 p/t -11.0 FTE	This certificate is linked to the A.S. Degree. It received final BOR approval in late fall 2014 and new students did not enter until the following fall. The program was only recently published in the catalog so the program is still ramping up to expected capacity.	We are expecting at least ten graduates by the end of the fall 2018 semester.	This program uses all resources in place for the A.S. Degree. No additional resources or sections are required to run this program.
Data Security Specialist / A.S. Degree Projected: 29 f/t & 35 p/t 40.7 FTE Actual: 6 f/t & 3 p/t 7.0 FTE Differential: -23 f/t & -32 p/t -33.0 FTE	There was some confusion for students and advising regarding the career options for this degree. Also, with the retirement of a full time faculty in this area, advising and direct communication with students interested in this degree was reduced.	More direct communication with advisors and students to understand the focus of this degree. Connections with high schools and businesses in the area will be cultivated. The fall 2018 enrollment in the specialized courses (CST 284, CST 280) for this degree has increased tremendously with most courses at or close to maximum capacity.	Most courses in this program are utilized for the general Computer Science degree. Specialized courses are now running at or close to maximum capacity.

Gateway Community College

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
Mobile Application Development / A.S. Degree Projected: 29 f/t & 35 p/t 40.7 FTE Actual: 1 f/t & 2 p/t 1.7 FTE Differential: -28 f/t & -32 p/t -39.0 FTE	There was some confusion for students and advising regarding the career options for this degree. Also, with the retirement of a full time faculty in this area, advising and direct communication with students interested in this degree was reduced.	More direct communication with advisors and students to understand the focus of this degree. Connections with high schools and businesses in the area will be cultivated. The fall 2018 enrollment in the specialized courses (CSC 215, CSC 262) for this degree has increased tremendously with most courses at or close to maximum capacity.	Most courses in this program are utilized for the general Computer Science degree. Specialized courses are now running at or close to maximum capacity.

Housatonic Community College

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
Paramedic Studies/AS Projection: 30 p/t 10 FTE Actual: 2 f/t & 5 p/t 3.7 FTE Differential: +2 f/t & - 25 p/t -6.3 FTE	This Associate in Science Degree program is a collaborative effort between the Bridgeport Emergency Medicine Institute and Housatonic Community College. It provides a pathway for graduates of the Bridgeport Emergency Medicine Institute who have passed the National Registry as Paramedics to obtain their Associate in Science Degree from Housatonic Community College so that they can then move into a four-year program or a registered nursing program. Graduates of BEMI from 1995 and later, when the program which was accredited in 2014 was substantively in place, are eligible for the Associate Degree, provided the Paramedic has maintained licensure. The 30 credits obtained through the Bridgeport Emergency Medicine Institute do not cost HCC anything. The remaining credits are general education credits already being offered through our General Studies program.	We developed this program at the request of the community we serve and it is offered at no cost to HCC. Although enrollment is low this year, we feel that we need to continue offering the credential to those members of the community who both qualify and wish to take advantage of it as part of our mission.	This program is a service to the community we serve and has no cost to HCC.

Housatonic Community College

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
Theater Arts Performance Track, Certificate Projection: 5 f/t & 9 p/t 8.0 FTE Actual: 0 f/t & 2 p/t .7 FTE Differential: -5 f/t & -7 p/t -7.3 FTE	Over the course of the 16 year existence of the Theater Arts Program, of which this certificate is a part, its enrollment has remained a very consistent 22-28 students per year. The challenge has come in ensuring their completion. Many factors are involved with our students affecting their ability, as well as their desire, to complete their degree requirements. As of August, 2018, there are 22 enrollees, 17 having fewer than 30 credits, 5 having 30 or more. Many of the students enrolled in the Theater Arts Program will also qualify for and receive the certificate even though they are not currently enrolled in the certificate program.		This program is a service to the community we serve and has no cost to HCC over and above the cost of its parent program.

Manchester Community College

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
Computer-Aided Manufacturing / Certificate Projected: 54 f/t 18 FTE Actual: 27 f/t 27 FTE Differential: -27 f/t -27 FTE Note: The enrollment numbers will increase by approximately 16 when a new cohort of students starts in January 2019.	Through a federal grant for the Connecticut Advanced Manufacturing Initiative (CAMI), Manchester Community College was awarded $6 million funds to serve as the lead college of the consortium working collaboratively with the other 11 Connecticut community colleges, Charter Oak State College, and the Connecticut State Colleges and Universities System office. When first created the credited Computer Aided Manufacturing Certificate program followed a non-credit Conventional Precision Manufacturing Certificate program. Since then the two programs have been merged to create a 38 credit certificate in Precision Manufacturing.	• Maintain business contacts, and establish new contacts, with local manufacturers. • Increase out-reach for perspective students through guidance counselor contacts at local high schools. • Attend college/career days at local high schools. • Hire a full-time Precision Manufacturing program director that will be shared with Middlesex Community College. • Increased marketing through system wide initiatives, such as the state wide manufacturing apprenticeship program being proposed by the Department of Labor. • Increased local marketing through MCC's marketing department	The financial impact is the cost of a program director, shared with Middlesex Community College, in addition to a budget of $48,000 (FY '19) that supports two educational assistants, supplies and materials, for the program at MCC.

Middlesex Community College

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
Biotechnology, Undergraduate Certificate Projection: 3 f/t & 16 p/t = 8.3 FTE Actual: 0 f/t & 1 p/t = 0.3 FTE Differential: -3 f/t & -15 p/t = 8.0 FTE	The Biotechnology Certificate builds on recently approved revisions to the Biotechnology Associate's Degree, developed under the Health & Life Sciences Career Initiative (HLSCI). The Biotechnology Associate's Degree was revised to improve curriculum for better articulation and employment potential, and included the creation of two new courses and altered program requirements. Part of the mission of the grant, and a recognized strategy in higher education, is to ensure stacking and latticing of curriculum. This Certificate established a stackable program with both the Biotechnology A.S. and through it with other higher degrees. In addition, it provides students with existing related A.S. or B.S. degrees from the U.S. or abroad to return to school for employment and technology based training. The Certificate is comprised entirely of courses in the revised Biotechnology A.S.	See "Financial Impact."	All courses in this certificate program are also required within the Associate Degree program in Biotechnology. Even with low enrollment, this Certificate has a positive fiscal impact in that Certificate students are occupying what would otherwise be "unsold" seats in these courses.

Middlesex Community College

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
Computed Tomography Undergraduate Post-Primary Certification Projection: 0 f/t & 12 p/t = 4.0 FTE Actual: 0 f/t & 7 p/t = 2.3 FTE Differential: 0 f/t & -5 p/t = 1.7 FTE **And** Mammography Undergraduate Post-Primary Certification Projection: 0 f/t & 12 p/t = 4.0 FTE Actual: 0 f/t & 7 p/t = 2.3 FTE Differential: 0 f/t & -5 p/t = 1.7 FTE	MxCC has a strong partnership with Middlesex Hospital that dates back to the year 1970. Together, our institutions offer an associate degree program in Radiologic Technology that is fully accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Program graduates enjoy a 100% job placement rate within six months. In 2015, the BOR approved two new "post-primary" certifications in Computed Tomography and Mammography. These credentials are available only to students who are certified by the American Registry of Radiologic Technology (ARRT) and are licensed to work in the field. Often, they are graduates of MxCC and other Connecticut community college radiology programs. Students come to the program from around the state with a variety of primary certifications. MxCC has leveraged our partnership with the hospital such that clinical courses are	These programs are currently promoted via word-of-mouth to MxCC radiology students and alumni, and employees at Middlesex Hospital and other clinical partners that the college works with. Didactic courses can be offered online, which opens up the possibility to market these programs to radiology professionals in neighboring states provided MxCC can work out clinical arrangements with local facilities. We anticipate the CSCU system to join the national SARA agreement to allow us to market these online courses beyond our state's borders.	**Computed Tomography** **(Fall 2018 + Spring 2019, assuming no attrition)** ***net income to college:$6,399*** Income: $31,129 21 credits (10 fall + 11 spring) @ $4,447 in tuition, clinical program fees, and college services fees X 7 students Expenses: $24,730 • Instruction, per contract with Middlesex Hospital = $15,022 • Revenue Sharing Agreement, per contract with Middlesex Hospital = $2,224 (one student over the minimum of 6 students) • Program Coordinator release at 3 contact hours at $1,663 = $4,989 plus 50% fringe = $2,495

	taught by qualified hospital employees in the hospital's state-of-the-art facilities. The contract that governs this relationship is designed to be revenue-positive with enrollment as low as 6 students. **The college only runs the Computed Tomography or Mammography program when enrollment is sufficient to cover all expenses.** Of particular note is that the numbers used for the "low completers" calculation began with AY 2014-15 and were skewed because our first cohort of student did not start until AY 2015-16, effectively meaning one of the years was 0 even when the program did not exist. For Computed Tomography, the true numbers for total completers are as follows: 2015-16 = 5, 2016-17 = 6, 2017-18 = 9. The true numbers for average completers over the three years the program had students 2015-2018 = 6.66. This exceeds the low completer's threshold of 4; meaning, *a more accurate look at the numbers shows this program is not a "low completer."* Additionally, our		**Mammography** **(One semester program, at 7 students per semester)** ***net income to college: $3,203*** Income: $24,990 $1,785 per student (8 credits in tuition, clinical program fees, and college services fees) X 7 students X 2 semesters Expenses: $21,787 • Instruction, per contract with Middlesex Hospital = $6,259 x 2 semesters = $12,518 • Revenue Sharing Agreement, per contract with Middlesex Hospital = $893 per semester (one student over the minimum of 6 students) x 2 semesters = $1,785 • Program Coordinator release at 3 contact hours at $1,663 = $4,989 plus 50% fringe = $2,495

	graduates have a 100% passing rate on their boards. Similarly, the Mammography program's true numbers for total completers are as follows: 2015-16 = 5, 2016-17 = 4, 2017-18 = not offered. The true numbers for average completers over the three years the program had students 2015- 2018 = 4.50. This exceeds the low completer's threshold of 4; meaning, *a more accurate look at the numbers shows this program is not a "low completer."* Additionally, our graduates have a 100% passing rate on their boards.		

Quinebaug Valley Community College

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
Engineering Science / STEM Certificate <u>Projected: 30 f/t & 40 p/t</u> 43.3 FTE <u>Actual: 1 f/t & 1 p/t</u> 1.3 FTE <u>Differential: -29 f/t & -39 p/t</u> -30.0 FTE	Decreasing demographics. Engineering/STEM students that complete the certificate can transition into the Engineering Science or Technology Studies associate degree. The certificate also transfers into an Engineering, Technology, Mathematics, or Science bachelor's degree.	No improvement plan is required at this time. The Engineering/STEM certificate program costs nothing to continue as there are no unique faculty or program coordinator positions associated with this program. Classes are only run when there are enough registered students to cover the costs of running the class. In addition, the Engineering / STEM certificate program benefits the college as it serves us as a recruiting tool for our other programs.	Zero fiscal impact.

Quinebaug Valley Community College

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
Technology Studies / STEM Certificate Projected: 24 f/t & 46 p/t 39.3 FTE Actual: 0 f/t & 0 p/t 0.0 FTE Differential: -24 f/t & -46 p/t -39.3 FTE	Decreasing demographics. Technology/STEM students that complete the certificate can transition into the Technology Studies or Engineering Science associate degree. The certificate also transfers into an Engineering, Technology, Mathematics, or Science bachelor's degree.	No improvement plan is required at this time. The Technology Studies / STEM certificate program costs nothing to continue as there are no unique faculty or program coordinator positions associated with this program. Classes are only run when there are enough registered students to cover the costs of running the class. In addition, the Technology Studies / STEM certificate program benefits the college as it serves us as a recruiting tool for our other programs.	Zero fiscal impact.

Southern Connecticut State University

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
Respiratory Therapy / B.S. Degree Projection: 35 f/t & 19 p/t = 41.3 FTE Actual: 25 p/t = 8.3 FTE Differential: -35 f/t & +6 p/t = -33.0 FTE	CT and SCSU were not members of SARA when the BSRT was launched. BSRT classes were offered in an onground format. SCSU's general education requirements for students transferring with AS degrees in hand disincentivized ASRT degree holders from choosing SCSU.	SCSU has joined SARA, which expands opportunities to enroll students from other. All BSRT classes are now offered online. New general education policies have been implemented to make the program more accessible to ASRT degree holders. The BSRT will be marketed to emphasize its accessibility to target populations, esp. PT distance learners who hold the ASRT. CC transfers students' retention and Registered Respiratory Therapist credential rates vs. competitor institutions to be monitored.	Mitigated by eliminating planned expenses in the original budget: reassigned time for the program coordinator was eliminated ($34,591/yr), part-time faculty were not hired ($4,578/yr) and the planned Director of Clinical Education position ($51,887 year 1; $86,478/years 2 and 3) was not filled. The one BSRT FT faculty member also teaches classes that are part of other programs, including the new BS Healthcare Studies and BS Health Sciences programs.

Western Connecticut State University

(a)	(b)	(c)	(d)
Academic Program / Credential	**Explanation**	**Improvement Plan**	**Financial Impact**
Applied Behavior Analysis / M.S. Degree Projected: 120 p/t 40 FTE Actual: 2 f/t and 84 p/t 30 FTE Differential: +2 f/t -36 p/t -10 FTE	In 2014-2015 when the program was launched, there was only one full-time faculty in the program and therefore enrollment was limited. A second faculty member was recruited in 2016 and therefore a second cohort was added. In Fall 2018, the program received a third faculty member. Furthermore, the ABA certificate program classes are run concurrently with the MSED in ABA program to cut costs. There were 9 graduate students in that program by Year 3. Therefore the MSED ABA program had a net revenue of $133,869 by Year 3 and has the potential to increase enrollment with the addition of a third faculty member.	While we are very happy with our outcomes, we still see untapped opportunity. Next steps will include • Increase advertising of the program. Currently there is no advertising of the program beyond listing it on the Board Certified Analyst Behavioral (BCAB) website. • Work with local agencies to promote the program in Connecticut and New York. • Increase virtual presence through web and social media (Twitter, Facebook).	After comparison of related impacts on program revenues and expenditures resulting from the comparative enrollments (projected v/s actual), we estimate the following: Projected Revenue Year 3: $520,152 Actual Revenue Year 3: $710,501 Projected Expenditure: $386,283 Actual Expenditure: $442,950 Total Fiscal impact: Projected earnings: $133,869 Actual earnings: $267,551 Difference: $133,682 overall more earnings than projected

Connecticut State Colleges & Universities

Comparative Enrollments: 2014-15 New Programs

Appendix:

Academic Programs that Met or Exceeded their Year Three Enrollment Projections

Institution	Academic Program / Credential	Projected Enrollment For Year Three	Actual Enrollment Fall 2018	Differential
Capital CC	Computer Networking Cyber Security Degree Option / A.S. Degree	15 f/t & 10 p/t 18.3 FTE	17 f/t & 32 p/t 27.7 FTE	+2 f/t & +22 p/t +9.3 FTE
Central CSU	Media Studies / B.A. Degree	110 f/t & 18 p/t 116 FTE	118 f/t & 24 p/t 126 FTE	+8 f/t & +6 p/t +10 FTE
Charter Oak SC	Psychology / B.S. Degree	20 f/t & 135 p/t 65 FTE	32 f/t & 100 p/t 65.3 FTE	+12 f/t & -35 p/t +0.3 FTE
Housatonic CC	Medical Assisting / A.S. Degree	44 f/t & 18 p/t 50 FTE	41 f/t & 52 p/t 58.3 FTE	-3 f/t & +34 p/t +8.3 FTE
Norwalk CC	Mobile Programming / A.A.S. Degree	225 f/t & 15 p/t 230 FTE	Special degree programs for P-TECH, a dual enrollment program in collaboration with IBM and the Norwalk Public Schools. Both programs are considered fully enrolled.	
Norwalk CC	Software Engineering / A.A.S. Degree	105 f/t & 15 p/t 110 FTE		
Three Rivers CC	Graphic Design / A.S. Degree	13 f/t & 70 p/t 36.3 FTE	31 f/t + 31 p/t 41.3 FTE	+18 f/t -39 p/t +5 FTE
Western CSU	Partnership for Preparation of Elementary Educators / B.S. Degree	75 f/t 75 FTE	80 f/t & 7 p/t 82.3 FTE	+5 f/t & +7 p/t +7.3 FTE

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

Policy Amendment

October 18, 2018

RESOLVED: That the Board of Regents for Higher Education amend its Academic Program Review Policy to mandate one of four optional institutional recommendations for the Board's action regarding an academic program's review; wherein the three-year average number of credentials awarded meet the definition of Low Completer, as defined and procedurally outlined in the document - Academic Program/Low Completer Review Process.

A True Copy:

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

STAFF REPORT ACADEMIC AND STUDENT AFFAIRS COMMITTEE

ITEM

Amendment of Academic Program Review Policy – Low Completer

BACKGROUND

The Board's Academic Program Review Policy mandates that all academic programs undergo a "comprehensive review" on a periodic basis – at least once every seven years; and established a process wherein the Board would monitor the institutional review procedures. However, the Policy does not quantify productivity of academic programs; thus, allowing diverse determinations by the individual institutions in the Connecticut State Colleges and Universities System.

This policy amendment is proposed for the expressed purpose of facilitating a process to conduct reviews of low producing academic programs in terms of the program's productivity over a three-year period; as defined in the Policy Statement, Academic Program Review – Low Completers. The assessment analysis and outcomes that result will contribute to making higher education more efficient, sustainable, and valuable to the state of Connecticut and its citizenry.

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 referenced policy amendment.

11/26/2018 – BOR Academic & Student Affairs Committee
12/13/2018 – Board of Regents

Connecticut Board of Regents for Higher Education

Academic Program/Low Completer Review Process

Proposal

Amend Academic Program Review Policy

History

The Board of Regents established the Academic Program Review Policy on August 21, 2014 declaring academic program review to be integral to academic planning and assessment efforts at the institutional level. The Board considers APR to be a means of ensuring continuous quality improvement of academic programs and an informative instrument to facilitate dialogue among the Regents, System administrators and institutional administrators. Key elements of such discussions include reflections on educational practices and the review of academic programs within the totality of academic offerings at the institutional level.

Purpose

State statutes empower the Board of Regents (BOR) to grant accreditations to the institutions of the Connecticut State Colleges and Universities (CSCU) System and their academic programs; therein authorizing them to operate and confer higher educational credentials (Connecticut General Statutes, Sections 10a-143, 10a-87 and 10a-72). Degrees are conferred by the BOR in their capacity as the board of trustees of the specific constituent unit.

Among the BOR's responsibilities is assuring the public about the educational quality and effectiveness of the credential-granting institutions it governs. NECHE standard 3.15, however, notes, "The [accredited] institution places primary responsibility for the content, quality, and effectiveness of the curriculum with its faculty. Faculty have a substantive voice in matters of educational programs,…" Therefore, when the BOR questions the efficacy of a program the faculty and academic dean/provost at that institution shall be encouraged to offer data and documentation supporting the retention of the program if they believe maintaining the program is in the best interests of their students and their community.

The BOR's Academic Program Review (APR) Policy is its chief instrument for quality assurance - the principal, catalytic mechanism for assessing program quality and effectiveness, and providing information for the continuous quality improvement of teaching and learning. In determining program viability, the BOR relies heavily upon the CSCU institutions to employ APR as a tool for quality control. Within that control is a forthright self-study, which specifically includes an examination of the degree to which an academic program actually confers the credential(s) for which it was established.

This policy amendment is enacted to facilitate a process to conduct reviews of low producing academic programs in terms of the program's productivity over a three-year period – see Definition below. This aspect of program review is also applicable to considerations regarding

the duplication of existing programs as an evaluative tool to determine a program's viability and continuation. The assessment analysis, and outcomes that result will contribute to making higher education more efficient, sustainable, and valuable to the state of Connecticut and its citizenry.

Definition

An academic program is to be examined as a **Low Completer** if it has, at the point of its periodic reporting to the BOR, a three-year average fewer than the following number of credentials conferred:

Credential	Productivity Level
Undergraduate Certificate	12 (avg. 4 per year)
Associate Degree	24 (avg. 8 per year)
Bachelor's Degree / Post-Bachelor's / Graduate Certificate	30 (avg. 10 per year)
Masters' Degree / Post-Masters	15 (avg. 5 per year)
Doctoral	3 (avg. 1 per year)

In the interest of uniformity, all programs at all institutions will be subject to these guidelines. This includes programs granted some type of maintenance provision (temporary, conditional or unconditional) in the most recent review.

Preliminary Screening

The System's Office of Research & System Effectiveness (ORSE) will provide each CSCU institution with a roster of academic programs that appear to meet the **Low Completer** definition. ORSE will compile data from the federal Integrated Postsecondary Education Data System (IPEDS) reporting for the 2014-15, 2015-16 and 2016-17 academic years. Hence, the institutions will be afforded the opportunity to ***examine programs that meet the low completer designation,*** adding completions data for the 2017-18 academic year. Consequently, the institutions must decide upon a course of action outlined below in the Process. Recommendations resulting from the preliminary screening are to be presented to the Board of Regents for its consideration via the System Office of the Provost and Senior Vice President for Academic and Student Affairs.

In subsequent years, the examination of **Low Completer** programs becomes an element of the annual academic program review process. The APR Policy requires "all academic programs to undergo a comprehensive review" and states that "at a minimum, each degree and certificate granting program is subject to review at least once every seven-years." An APR formal report, per the CSCU institution's format/structure, is due to the institution's chief academic officer or his/her designee by June of the program's reporting year. The institution's synopsis of all the formal reports submitted that reporting year is due to the System Office of the Provost in August. In that synopsis – the End-of-Year Report (APR Form 2) – those academic programs meeting the

Low Completer definition must be identified in column (d), with one of the four recommending actions stipulated below:

Process

The reporting academic program deemed a **Low Completer** in consultation with the institution's chief academic officer must recommend one of the following actions to the BOR at designated periods of time:

1. Program Termination
2. Program Suspension
3. Program Consolidation
4. Program Continuation

Termination

Community College and Charter Oak State College program officials, with the explicit approval of the institution, submits an *Application for Discontinuation of Existing Program*, per the System's existing procedures and instructions of the application form which includes a Phase Out / Teach out Strategy. State University officials shall follow the process set forth in the CSU-AAUP BOR Collective Bargaining Agreement.[1]

Suspension

Program officials, with the explicit approval of the institution, submits an *Application for Suspension of Existing Program*, per the System's existing procedures and instructions of the application form which includes a Phase Out / Teach out Strategy, as well as a projected reinstatement or termination date.

Consolidation

Program officials, with the explicit approval of the institution, submits a rationale for program consolidation that address each of the following issues:

- A brief description of what the consolidation would entail and a plan for implementation, including program modality and any curricular adjustments;
- Reasons why a consolidated program would succeed as compared to previous arrangements;
- Anticipated fiscal impact and opportunities for reinvestment, with consolidation;
- All relevant issues identified in the program's formal APR report

[1] See Section 5.20 CSU-AAUP BOR Collective Bargaining Agreement.

Continuation

Program officials, with the explicit approval of the institution, submits an–A. Improvement Plan B. Zero Fiscal-Impact Statement; or C. A rationale for program continuation that addresses contributions of the Program to Students, the Community, and/or the Institution.

A. An Improvement Plan to increase program completions should address each of the following applicable issues in the order presented:

1. Brief description of the program, to include enrollment by year classification, faculty supporting the program by type (T/TT, FT, PT, adjunct, other), space/facilities, and administrative support;
2. Projected enrollees and completers for the next five years with justification for such projections.

B. The program is deemed to have a zero fiscal impact it was to be either continued or terminated; and the following issues are addressed:

1. The parent degree program and its actual enrollments and completions for the preceding three academic years;
2. Any curricular elements required for the certificate but not for the degree, and their faculty inputs;
3. Projected program enrollees and completers for the degree program, for the next three years with justification for such projections; and
4. Projected total revenue and total expenditures for the degree program, for the next three years.

C. A description of the contributions of the program to students, the community, and/or the institution should address each of the applicable items in the order presented:

1. The parent degree program and its actual enrollments and completions for the preceding three academic years (this need not be repeated, if the rationale for continuation includes A or B above);
2. Contribution to economic development (and/or workforce) of the state;
3. Uniqueness or relevance of the program to the region or area;
4. Institutional need to maintain this program to support other programs, contributions of program faculty to General Education, or to maintain accreditation. Measures of productivity of program faculty (i.e. number of student credit hours taught by faculty affiliated with the program or academic discipline) can be included;
5. Documented costs of revenue loss anticipated with elimination (e.g., recent major investments, external funding support, tuition, etc.);
6. Placement of graduates (positions held, places of employment, enrollment in graduate or baccalaureate study);
7. Passage rate of completers on licensure/certification exams or measures;
8. Program quality as reflected by regional or national reputation, faculty qualifications, and the documented achievements of program graduates;

9. Measures of program productivity other than numbers of graduates (grants, publications or other); and
10. In the case where program duplication exists (other programs in the statewide inventory within the same CIP code and level), evidence to warrant the continuation of the degree program when similar programs are available within the state. Plans for collaboration or sharing resources with other programs or new delivery mechanisms may be included as applicable.

After the institution presents and submits its report and recommendation, the BOR will either (a) accept the report or (b) request further information from the institution and program.

EASTERN CONNECTICUT STATE UNIVERSITY
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Office of the President

November 2, 2018

Mr. Mark Ojakian
President
Connecticut State Colleges & Universities
61 Woodland Street
Hartford, CT 06105

Dear President Ojakian:

Attached are my recommendations for the 2019 - 2020 sabbatic leaves for instructional faculty. As the brief project descriptions show, the leaves are requested to pursue a variety of scholarly and creative endeavors that strengthen the professional competence of faculty or enrich their teaching. I am confident that these sabbatic leaves will bring merit to the University.

The recommendations are submitted for your information and that of the Board of Regents.

Sincerely,

Elsa Núñez
President

EMN/hjr

Attachment

cc: Dr. Jane McBride Gates, Provost & Senior VP Academic & Student Affairs, BOR
Mr. Steven Weinberger, Vice President for Human Resources, BOR
Ms. Erin Fitzgerald, Associate for Board Affairs, BOR
Dr. William M Salka, Interim Provost and Vice President for Academic Affairs
Dr. Carmen Cid, Dean, School of Arts and Sciences
Dr. Elizabeth Scott, Dean, School of Education and Professional Studies

Eastern Connecticut State University
Sabbatical Recommendations for Instructional Faculty
For Academic year 2019-2020

1. **Dr. Amy Groth**
   Biology Department
   Spring 2020

Dr. Groth will continue her research into the important, evolutionarily conserved odd-skipped transcription factors. She will use the microscopic worm, C. elegans, to study the expression patterns of *odd-1/odd-2*, effects of the gene *fos*-1 on the expression of *odd-2*, and the effect of expressing *odd-2* in the germline. She will also create figures and written material for publication, present work at the Allied Genetics Conference and work with Eastern students, who will gain valuable research skills. Eastern's reputation will benefit from the publication of the work and presentations made by Dr. Groth and her students.

2. **Dr. Sukeshini Grandhi**
   Business Administration Department
   Spring 2020

This proposal requests sabbatical leave to further Dr. Grandhi's scholarship and professional goals with two specific objectives. First, to write three manuscripts for publication on social media use and design, for which data collection is complete, and in-depth qualitative analysis is required. Second, to develop a research agenda for a new project to investigate the social use of personal genomics information from genetic testing services such as *23andMe.* These activities will contribute foundational research to the literature, as well as opportunities to foster competitive cross-disciplinary undergraduate research and new teaching modules at Eastern.

3. **Dr. Matthew Graham**
   Biology Department
   Fall 2019

Camel spiders are an important group of desert arachnids that are notoriously difficult to study. Dr. Graham and a colleague were recently awarded over a million dollars from the National Science Foundation to revolutionize our understanding of camel spiders in North America, train students in marketable biological skills from genomics, and assess how geo-climatic changes influence camel spiders and their fragile desert ecosystems. A sabbatic leave will allow Dr. Graham to spend time in the field and lab working on this project. This project will benefit Eastern with new equipment, a postdoctoral scholar, and student training in genomics.

4. **Dr. Bryan Oakley**
   Environmental Earth Science
   Fall 2019

This proposal seeks sabbatic leave to allow Dr. Oakley to summarize the results of two on-going, externally funded projects into manuscripts, while moving a third project forward for future engagement with Eastern students both in class and as part of student research experiences. These projects involve various aspects of shoreline change, sediment deposition, and the impact

of shoreline engineering structures and will inform current, science based management of these valuable resources. The results of this sabbatical offers several tangible benefits to Eastern. The resulting publications, conference presentations and future grants will allow multiple venues to showcase the breadth and depth of research being conducted by the students and faculty at Eastern, and further Dr. Graham's ability to mentor students in high-quality, impactful undergraduate research.

5. **Dr. Maureen McDonnell**
   English Department
   2019-2020 Academic Year

This project will allow Dr. McDonnell to develop scholarship on dramatic embodiment of underrepresented communities, and to present that work to both academic and public audiences. The first project is a book-length manuscript on the production and reception of American Sign Language (ASL) on stage and film. The second project includes public humanities work for The Shakespeare Center of Los Angeles, contributions that vary from producing webinar lectures to collaborating with faculty in their teacher training program. Both projects contribute to Eastern's scholarly and community profiles and to Dr. McDonnell's own professional development, thereby enriching her teaching.

6. **Dr. Meredith Clermont-Ferrand**
   English Department
   Spring 2020

This sabbatic leave is intended to allow Dr. Clermont-Ferrand to finish her book, "Queer Spaces, Identity, and Poetry of the Early Fifteenth Century: The Poetry of Thomas Hoccleve," and submit it for publication to Boydell & Brewer who have requested chapter samples. The book builds on the extensive research and conference presentations she has done on queer and disability literary theory and its application to the poetry of Thomas Hoccleve (1368-1426). When published, the book will contribute to both Eastern's reputation for excellence in scholarship and showcase Eastern's inclusivity and pluralism.

7. **Professor William (Andy) Jones**
   Art and Art History Department
   Fall 2019

A semester-long sabbatical will allow Professor Jones to accomplish several objectives. First, to complete two large-scale studio paintings (4' x 6') of the Blue Ridge Mountain range in western North Carolina. Second, to develop a new painting technique based on the renowned Hudson River School. Third, to submit new work for the 2020 Faculty Exhibition and juried exhibitions throughout the U.S. Fourth, to incorporate new painting methods in advanced painting courses, especially ART 314 Landscape Painting, and inspire students by demonstrating how established artists continue to evolve their subjects and techniques.

8. **Dr. Mehdi Khorami**
   Mathematical Sciences Department
   Spring 2020

This project is an interdisciplinary research collaboration between Mathematics and Performing Arts with the goal of applying concepts from Mathematical Knot Theory to create novel choreography. The project is in collaboration with Mary Percy from the University of Connecticut, Department of Dramatic Arts, and it has already revealed a deep connection between two seemingly unrelated fields. This project has two main objectives. One, to use the existing knowledge from Knot Theory to create novel sequences of harmonized movements in space that feel "right" in the body of the performer. Two, to investigate the purely mathematical questions in Knot Theory that arise from this connection. The expected outcomes include publication of two papers and related conference presentations, as well as new topics for undergraduate research projects.

9. **Dr. Jennifer Leszczynski**
   Psychology Department
   Fall 2019

Dr. Leszczynski is requesting sabbatic leave to work on two manuscripts for publication in peer-reviewed journals. She has worked with eleven undergraduate research assistants to collect data for two projects. The first project examined love, romance, and gender stereotypes across the lifespan. The second project investigated generational differences in gender and beliefs about feminism. Dissemination of this work will benefit her as a researcher and a scholar, but will also benefit her students to have an instructor who remains active within the discipline.

10. **Dr. Jeff Calissi**
    Performing Arts Department
    Spring 2020

Dr. Calissi intends to compose a sinfonia concertante for a percussion duo and accompaniment based on the voyage of General Rochambeau and the music of Colonial America. He will research Rochambeau and his historic march through Connecticut and arrange several pieces from the Colonial Period, as the sinfonia concertante form was popular in the Classical era with composers such as Mozart. The outcome will be a performance ready multi-movement programmatic composition for Dr. Calissi and adjunct instructor Matthew Bronson, as percussion soloists accompanied by the ensembles of the Eastern Music Program and the Windham community.

11. **Dr. Bradley Davis**
    History Department
    2019-2020 Academic Year

Dr. Davis' project uses archival and ethnographic research to examine how political projects in Vietnam have attempted, and failed, to control various forms of life. During the nineteenth century, the imperial Vietnamese state developed knowledge practices related to plants, non-human life, and human beings that influenced later French colonial and postcolonial nationalist

efforts to regulate, control, and predict time and space. Through an environmental humanities approach, "Empire of Life" elucidates the contours of these political projects and places the language of imperial rule into a critical conversation with present-day understandings of development, animality, and ethnic diversity.

12. Dr. Raouf Mama
English Department
Fall 2019

This proposal seeks to complete and prepare for publication a novel entitled Burning Candles. Owing to two successive CSU Summer Research Grants in 2016 and 2017, Dr. Mama has made considerable headway in writing the novel. At present, his agent is sending queries to various publishers along with a sample of the manuscript. Dr. Mama anticipates completing the second half of Burning Candles and working with his agent to refine the whole manuscript and get it published.

13. Dr. David Frye
History Department
Fall 2019

Dr. Frye is proposing to undertake a historical investigation into the subject of creativity. This will be an interdisciplinary project looking at how external factors, as opposed to innate ones, have affected artists, authors, architects, philosophers, filmmakers, composers, and other individuals in creative fields. The sabbatical will provide time to initiate research on what could become an important book, filling a significant gap in our understanding of a topic viewed as profoundly important in contemporary society.

14. Dr. Christopher Torockio
English Department
Fall 2019

This project seeks to complete a draft of a novel, tentatively titled Summerhill. The novel, set primarily in Dublin, Ireland, seeks to explore the struggles of aging, the presence of violence in contemporary America, and the quiet confusion of despair—and, hopefully, subtly suggest that despair may, at times, be redemptive. The completion of this project will further Dr. Torockio's reputation as a novelist on the national level.

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Providence College

President of the Commission
BARBARA E. BRITTINGHAM
bbrittingham@neasc.org

Sr. Vice President of the Commission
PATRICIA M. O'BRIEN, SND
pobrien@neasc.org

Vice President of the Commission
CAROL T. ANDERSON
canderson@neasc.org

Vice President of the Commission
LAURA M. GAMBINO
lgambino@neasc.org

Vice President of the Commission
PAULA A. HARBECKE
pharbecke@neasc.org

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FOR HIGHER EDUCATION

October 30, 2018

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 October 22, 2018 to President Lombella notifying him of the action taken by the Commission at its September, 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 Lombella
Mr. Mark Ojakian

3 Burlington Woods Drive, Suite 100, Burlington, MA 01803-4514
Toll Free: 855-886-3272 | Tel: 781-425-7785 | Fax: 781-425-1001
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lgambino@neasc.org
Vice President of the Commission
PAULA A. HARBECKE
pharbecke@neasc.org

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New England Commission of Higher Education

October 22, 2018

Dr. James P. Lombella
President
Asnuntuck Community College
170 Elm Street
Enfield, CT 06082-3811

Dear President Lombella:

I am pleased to inform you that at its meeting on September 21, 2018 the New England Commission of Higher Education considered the report submitted by Asnuntuck Community College regarding its Second Chance Pell locations as well as the report of the evaluator and took the following action:

> that the report regarding the College's Second Chance Pell program be accepted and inclusion of the instructional locations at the MacDougall-Walker Correctional Institution in Suffield, Connecticut and the Osborn Correctional Institution in Somers, Connecticut within the institution's accreditation be confirmed;
>
> that the interim (fifth-year) report scheduled for Fall 2020 be confirmed;
>
> that, in addition to the information included in all interim reports, as well as the matters specified in our letter of April 5, 2016, the Fall 2020 report provide an update on the Second Chance Pell program;
>
> 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 Asnuntuck 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 action.

The Commission accepted the report submitted by Asnuntuck Community College (ACC) and confirmed inclusion of the instructional locations at the MacDougall-Walker Correctional Institution (MCI) in Suffield, Connecticut, and the Osborn Correctional Institution (OCI) in Somers, Connecticut within the institution's accreditation because the report provided evidence that the College is implementing the Second Chance Pell program in a manner consistent with Commission standards and policies.

3 Burlington Woods Drive, Suite 100, Burlington, MA 01803-4514
Toll Free: 855-886-3272 | Tel: 781-425-7785 | Fax: 781-425-1001
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The Commission is pleased to learn of the initial success of Asnuntuck Community College's Second Chance Pell program offered at the MacDougall-Walker Correctional Institution and the Osborn Correctional Institution. We concur with the evaluator that the program is a "clear fit with the college's mission and purposes." The Commission notes that, as part of the program, a small cohort of inmates take classes at the Advanced Manufacturing Technology Center on ACC's campus. We commend the College for this innovative approach, its communication to the Asnuntuck community about the program, and the steps it took to ensure the comfort and safety of all its students. We are further pleased to note the voluntary assignment of full-time faculty and staff to the program and the hiring of a retired Department of Corrections worker to serve as liaison for the program. We appreciate ACC's success in providing effective academic and student support resources and services (adapted as necessary to the MCI and OCI populations) to students in the program. We share the judgment of the evaluator that ACC is offering a "high quality academic experience" and are gratified to learn that, at the time of the visit, course completion rates in the Second Chance Pell program were comparable to all ACC students and that 17 students in the program had qualified for inclusion in the Phi Theta Kappa honor society. The Commission appreciates that, should the U.S. Department of Education discontinue funding for the Second Chance Pell program, ACC is already working with the Department of Corrections to find alternate funding to provide classes to eligible students and will welcome inmates to continue their studies on campus upon their release.

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 provided in all interim reports and the matters specified in our letter of April 5, 2016, we look forward, in Fall 2020, to receiving an update about the College's Second Chance Pell program.

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 Asnuntuck Community College.

The Commission expressed appreciation for the reports prepared by Asnuntuck Community College and the evaluator and hopes that the evaluation process has contributed to institutional improvement. It appreciates your cooperation in 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

David Quigley

DQ/sjp

cc: Mr. Matt Fleury
Mr. Mark Ojakian
Mr. Todd Slover

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pharbecke@neasc.org

October 30, 2018

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 October 22, 2018 to President Drummer notifying her of the action taken by the Commission at its September, 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
Mr. Mark Ojakian

3 Burlington Woods Drive, Suite 100, Burlington, MA 01803-4514
Toll Free: 855-886-3272 | Tel: 781-425-7785 | Fax: 781-425-1001
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DAVID QUIGLEY, Chair (2021)
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President of the Commission
BARBARA E. BRITTINGHAM
bbrittingham@neasc.org

Sr. Vice President of the Commission
PATRICIA M. O'BRIEN, SND
pobrien@neasc.org

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canderson@neasc.org

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lgambino@neasc.org

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NECHE
New England Commission of Higher Education

October 22, 2018

Dr. Carlee Rader Drummer
President
Quinebaug Valley Community College
742 Upper Maple Street
Danielson, CT 06239

Dear President Drummer:

I am pleased to inform you that at its meeting on September 21, 2018 the New England Commission of Higher Education considered the report submitted by Quinebaug Valley Community College regarding its Second Chance Pell location as well as the report of the evaluator and took the following action:

that the report regarding the College's Second Chance Pell program be accepted and inclusion of the instructional location at the Brooklyn Correctional Institution within the institution's accreditation be confirmed;

that the comprehensive evaluation scheduled for Fall 2021 be confirmed;

that, in addition to the information included in all self-studies, the Fall 2021 self-study provide an update on the College's Second Chance Pell program;

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 action.

The Commission accepted the report submitted by Quinebaug Valley Community College (QVCC) and confirmed inclusion of the instructional location at the Brooklyn Correctional Institution (BCI) within the institution's accreditation because the report provided evidence that the College is implementing the Second Chance Pell program in a manner consistent with Commission standards and policies.

The Commission is pleased to learn of the initial success of Quinebaug Valley Community College's Second Chance Pell program offered at the Brooklyn Correctional Institution in Brooklyn, Connecticut. We concur with the evaluator

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that the program is a "clear fit with the college's mission and purposes." The Commission appreciates that students in the Second Chance Pell program take the same courses as those offered on campus and are taught by full-time or part-time QVCC faculty. We note QVCC's success in providing effective academic and student support resources and services (adapted as necessary to the BCI population) to students enrolled in the program. We share the judgment of the evaluator that QVCC is offering a "high quality academic experience" and are pleased to learn that, at the time of the visit, 13 students had completed an Applied Management Certificate and an additional 15 were on track to have completed their manufacturing classes by May 2018. As noted in the report of the evaluator, should the U.S. Department of Education discontinue funding for the Second Chance Pell program, the College will need to develop a "long-term strategy for sustainability" or a plan for a "graceful withdrawal."

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. In addition to the information provided in all self-studies, we look forward, in Fall 2021, to receiving an update about the College's Second Chance Pell program.

Finally, 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 reports prepared by Quinebaug Valley Community College and the evaluator and hopes that the evaluation process has contributed to institutional improvement. It appreciates your cooperation in 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 of action and the head of the system 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 report 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

David Quigley

DQ/sjp

Enclosure

cc: Mr. Matt Fleury
Mr. Mark Ojakian
Mr. Todd Slover

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OFFICE OF BOARD AFFAIRS
NOV - 5 2018
CONNECTICUT BOARD OF REGENTS
FOR HIGHER EDUCATION

October 30, 2018

Mr. Matt Fleury
Connecticut Board of Regents
61 Woodland Street
Hartford, CT 06104

Dear Mr. Fleury:

Enclosed for you is a copy of the New England Commission of Higher Education's letter of October 22, 2018 to President Jukoski notifying her of the action taken by the Commission at its September, 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 Jukoski
Mr. Mark Ojakian

3 Burlington Woods Drive, Suite 100, Burlington, MA 01803-4514
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bbrittingham@neasc.org

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pharbecke@neasc.org

NECHE
New England Commission
of Higher Education

October 22, 2018

Dr. Mary Ellen Jukoski
President
Three Rivers Community College
574 New London Turnpike
Norwich, CT 06360

Dear President Jukoski:

I am pleased to inform you that at its meeting on September 21, 2018 the New England Commission of Higher Education considered the report submitted by Three Rivers Community College regarding its Second Chance Pell locations as well as the report of the evaluator and took the following action:

that the report regarding the College's Second Chance Pell programs be accepted and inclusion of the instructional locations at the York Correctional Institution in Niantic, Connecticut and the Radgowski Correctional Institution in Uncasville, Connecticut within the institution's accreditation be confirmed;

that the comprehensive evaluation scheduled for Fall 2022 be confirmed;

that, in addition to the information included in all self-studies, as well as the matters specified in our letter of January 18, 2018, the Fall 2022 self-study provide an update on the Second Chance Pell locations;

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 Three Rivers 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 action.

The Commission accepted the report submitted by Three Rivers Community College (TRCC) and confirmed inclusion of the instructional locations at the York Correctional Institution (YCI) and the Radgowski Correctional Institution (RCI) within the institution's accreditation because the report provided evidence that the College is implementing the Second Chance Pell locations in a manner consistent with Commission standards and policies.

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The Commission is pleased to learn of the initial success of TRCC's Second Chance Pell program offered at the York Correctional Institution in Niantic, Connecticut and the Radgowski Correctional Institution in Uncasville, Connecticut. We concur with the evaluator that the program is a "clear fit with the college's mission and purposes." We note with favor that faculty who teach in the program "receive an in-depth orientation" and are "provided a handbook specific to working in the prisons." The Commission acknowledges TRCC's efforts to provide effective academic and student support resources and services (adapted as necessary to the YCI and RCI populations) to students in the program. We also appreciate that students in the Second Chance Pell program have access to faculty mentors, volunteer tutors, and peer study groups. We share the judgment of the evaluator that TRCC is offering a "quality academic experience" and are pleased to learn that, at the time of the visit, the course completion rate for students in the program was approximately 78%. Lastly, the Commission is pleased to learn, as noted in the report of the evaluator, that the College is currently seeking alternative funding strategies and managing new enrollments in the program should the U.S. Department of Education discontinue funding for the Second Chance Pell program.

The scheduling of a comprehensive evaluation in Fall 2022 is consistent with Commission policy requiring each accredited institution to undergo a comprehensive evaluation at least once every ten years. In addition to the information provided in all self-studies and the matters specified in our letter of January 18, 2018, we look forward, in Fall 2022, to receiving an update about the College's Second Chance Pell program.

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 Three Rivers Community College.

The Commission expressed appreciation for the reports prepared by Three Rivers Community College and the evaluator and hopes that the evaluation process has contributed to institutional improvement. It appreciates your cooperation in 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

cc: Mr. Matt Fleury
Mr. Mark Ojakian
Mr. Todd Slover

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION
Connecticut State Colleges & Universities
BELOW-THRESHOLD **NEW ACADEMIC OFFERING** *INFORMATION REPORT FORM*

SECTION 1: BELOW-THRESHOLD GENERAL PROGRAM INFORMATION[1]

Institution: Central Connecticut State University	Date of Submission to CSCU Office of the Provost: October 23, 2018
Characteristics of Below-Threshold Offering Name of Offering: Master of Arts in Teaching in Technology Education PK – 12 Type of Offering: Master of Arts Degree Anticipated Initiation Date: May 2019 Anticipated Date of First Completion *(if applicable)*: June 2020 Modality of Program: On ground Online X Combined If "Combined", % of fully online courses? 8%	Credit Distribution of the Offering # Cr in Core Courses: 43 # Cr of Electives: 0 # Cr of Other: 0 # Cr Special Requirements *(e.g. internship):* 6 Total # Cr Institution Requires to Award the Credential 49
CIP Code No. *(if applicable)* 13.0101 Title of CIP Code MAT Program	
Institution's Unit *(e.g. School of Business)* and Location Offering the Program: School of Education and Professional Studies	

Description of Offering, Context and Justification *(Please provide a concise description of the proposed offering and learning objectives, including a list of courses if necessary for clarity. In one paragraph, please address need and anticipated benefits of the offering)*

The only change to the program is the addition of "Technology Education PK-12" to the list of specializations associated with the Master of Arts in Teaching degree. No additional courses need to be added because the course required to complete the MAT Technology Education PK-12 are the same courses already being taught in support of the other specializations. The Master of Arts in Teaching (MAT), Technology Education PK-12 will allow students to be workforce ready in a shortage area within Connecticut.

The MAT program focuses on certifying teachers in areas in which the state has faced a shortage of qualified teachers. Specific areas of teacher shortages for the upcoming academic year (2018-2019) include many of the existing and proposed MAT specializations: Comprehensive Special Education K-12, Mathematics 7-12, Science 7-12, Technology Education PK-12, and World Languages 7-12. Adding this program will address specific needs within the state. Lastly, the program learning outcomes are as follows: 1. Possesses strong knowledge of content, content pedagogy, and learner development; 2. Creates an inclusive and culturally responsive learning environment; 3. Uses data, content knowledge, and evidence-based pedagogical content knowledge to critically examine practice for the purpose of improving student learning; 4. Designs and delivers instructional and assessment strategies that facilitate significant learning for all students including struggling learners and those with disabilities; 5. Designs, delivers, and assesses literacy/language strategies to deepen literacy and content learning within the discipline; and 6. Acts collaboratively ethically, and responsibly to ensure student growth and advance the profession.

Cost Effectiveness and Availability of Adequate Resources *(As applicable, please provide a one paragraph narrative addressing resources, financial aspects of the program and how it will be sustained)*

The MAT program is both an interdisciplinary graduate and teacher preparation program, and therefore its operation is governed by several groups beyond the typical department and school structure. Resources for the proposed modification have minimal-to-no impact on the financial aspects of the program; any additional credit load for content-specific coursework will be cross-listed and/or taught within

[1] This information report pertains to academic programs not reaching the threshold requiring Board of Regents action. Information is shared with the BOR-Academic Council and included in the BOR-Academic and Student Affairs Committee meetings. Most CSUs and COSC cases will only require the completion of Section 1. **All Community College programs require the completion of detailed course information in Section 2.**
The following academic programs are considered Below Threshold and do not require a BOR resolution:
a) new minors, concentrations/options, specializations or certificate programs, outlined above, i.e.:
i. an undergraduate certificate of program of 30 credit hours or fewer which falls within an approved program,
ii. a new baccalaureate minor of 18 or fewer semester credit hours,
iii. a new undergraduate option or certificate program of 15 or fewer semester credit hours,
iv. a new graduate option or certificate program of 12 or fewer semester credit hours
b) programs that do not qualify students to become eligible for federal financial aid.

the 12-credit contractual faculty load.		
Institutional Contact for this Proposal: Dr. Megan Mackey	Title: Master of Arts in Teaching Program Coordinator	Tel.: 860-832-2404 e-mail: mackey@ccsu.edu

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

Notes regarding Application:
Approved CIP Code No. *(if applicable):* Title of CIP Code:
Log of Steps Toward Approval:
Date of Approval:
Date for Inclusion in BOR-ASA Meeting Package:
Comments:

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION
Connecticut State Colleges & Universities
BELOW-THRESHOLD **NEW ACADEMIC OFFERING** *INFORMATION REPORT FORM*

SECTION 2: DETAILS OF NEW OFFERING *(Community Colleges)*

Curriculum

*(Please provide details of the courses for the proposed offering. Mark any new courses with an asterisk * and attach descriptions. Mark any courses that are delivered fully online with a double asterisk **. Please modify this format as needed for each case)*

Course Number and Name [2]	L.O. #	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses		All courses require admission to the MAT program		Other Related/Special Requirements		
MAT 510 Research on Teaching Diverse Learners	1,2,6		5	MAT 540 Internship in the Certification Area: Student Teaching	1-6	6
MAT 511 Introduction to Special Education**	1,4		1			
MAT 519 High Leverage Content in the Discipline	1		3			
MAT 520 Design and Delivery of Instruction with Field Experience	2,4,6	MAT 510 (grade C or better)	4			
MAT 529 Content Pedagogy for Secondary Candidates I.	1,3,4	MAT 510 (grade C or better)	3			
MAT 530 Meeting the Needs of Special Learners in the Classroom	1,2,4	MAT 511, MAT 520 (C or better)	2			
MAT 531 Addressing Language and Literacy in the Classroom	5	MAT 520 (C or better)	3			
LING 521 Meeting the Needs of ELLs in the Classroom	4,5		1			
MAT 532 Intervention Capstone I.	1-6		3			
MAT 533 Field Experience in the Certification Area	1-6	MAT 520 and MAT 529 (C or better)	3			
MAT 534 Creating Productive Learning Environments	2	MAT 520 (C or better)	3			
MAT 539 Content Pedagogy for Secondary Candidates II.	1,3,4	MAT 520 (C or better)	3			
MAT 541 Internship Seminar	1-6		3			
MAT 551 Perspectives on Educational Policy and Practice**	1,6	MAT 510 (C or better)	3			
MAT 550 Intervention Capstone II.	1-6	MAT 532, MAT 540, MAT 541 (Grade C or higher)	3			
Core Course Prerequisites				Elective Courses in the Field		
Total Other Credits Required to Issue Modified Credential *49*						

[2] Make any detail annotations for individual courses as needed to understand the curricular modifications taking place

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION
Connecticut State Colleges & Universities
BELOW-THRESHOLD **NEW ACADEMIC OFFERING** *INFORMATION REPORT FORM*

SECTION 1: BELOW-THRESHOLD GENERAL PROGRAM INFORMATION[1]

Institution: Naugatuck Valley Community College	Date of Submission to CSCU Office of the Provost: 11/5/2018
Characteristics of Below-Threshold Offering Name of Offering: Sustainable Food Systems Type of Offering *(e.g. Grad Certificate, Minor, Option)* Certificate Anticipated Initiation Date: Fall 2019 Anticipated Date of First Completion *(if applicable)* : Fall 2020 Modality of Program: X On ground Online Combined If "Combined", % of fully online courses?	Credit Distribution of the Offering # Cr in Core Courses: 10 # Cr of Electives: 6 # Cr of Other: # Cr Special Requirements *(e.g. internship):* Total # Cr the Institution Requires to Award the Credential 16
CIP Code No. *(if applicable)* 010308 Title of CIP Code Agroecology and Sustainable Agriculture	
Institution's Unit *(e.g. School of Business)* and Location *(e.g. main campus)* Offering the Program: STEM Division, NVCC Waterbury Campus	

Description of Offering, Context and Justification *(Please provide a concise description of the proposed offering and learning objectives, including a list of courses if necessary for clarity. In one paragraph, please address need and anticipated benefits of the offering)*

The Sustainable Food Systems certificate program falls within two approved programs at NVCC: Horticulture and Hospitality Management. This certificate, which grew out of an industry summit and was developed in close collaboration with the Northwest Regional Food Hub and the Northeast Organic Farming Organization, combines resources of two strong, viable programs (Horticulture and Hospitality). In so doing, it provides students with career skills in both the agriculture and food-service industry. To earn this certificate, Horticulture students need take one additional class in Hospitality; Hospitality students can take several Horticulture courses.

Students will learn the fundamentals of food safety, fruit and vegetable production, integrated pest management, and associated food service issues. Graduates of the program will be well-versed in the current farm-to-table and organic foods movements, and they will be qualified to work in a variety of positions associated with local food processing facilities, which includes farm-table operations, agricultural enterprises, and wholesale food distribution centers. The curriculum allows students to pursue professional certification as a Qualified Food Operator and Commercial Pesticide Applicator.

In March 2017 Governor Malloy put in monies to establish and grow the indoor agriculture industry in CT. Interest and investment in sustainable food systems is increasing in the state, from Trifecta Ecosystems to Four Season Farm, aquaponics facilities and vertical farming is making Connecticut become a leader in controlled environment agriculture (CEA). In nearby

[1] This information report pertains to academic programs not reaching the threshold requiring Board of Regents action. Information is shared with the BOR-Academic Council and included in the BOR-Academic and Student Affairs Committee meetings. Most CSUs and COSC cases will only require the completion of Section 1. **All Community College programs require the completion of detailed course information in Section 2.**
The following academic programs are considered Below Threshold and do not require a BOR resolution:
a) new minors, concentrations/options, specializations or certificate programs, outlined above, i.e.:
i. an undergraduate certificate of program of 30 credit hours or fewer which falls within an approved program,
ii. a new baccalaureate minor of 18 or fewer semester credit hours,
iii. a new undergraduate option or certificate program of 15 or fewer semester credit hours,
iv. a new graduate option or certificate program of 12 or fewer semester credit hours
b) programs that do not qualify students to become eligible for federal financial aid.

Litchfield, the Northwest Connecticut Food Hub recently received support from the Comprehensive Economic Development Strategy in CT to promote sustainable agriculture and healthy lifestyles in northwest CT.

Additionally, demonstrating the growing demand for sustainable food systems, large grocery stores are capitalizing on the interest and necessity of space-conserving efforts of eco-friendly urban farms. For example, New England grocer, Big Y, is partnering with Wellspring Harvest Greenhouse Cooperative that uses hydroponic growing methods. Opportunities also exist outside of CT as well: Bowery in neighboring NJ is growing their automated indoor farming.

In short, the overall outlook for careers in Sustainable Food Management/Production in Connecticut is strong. From 2007-2015, the total job growth of food production/processing careers was 11%. Agricultural food production within the state generates $541 million in sales revenue annually, of which 45% is greenhouse/nursery crops, 8% fruit production, and 8% vegetable and melon farming. Food-processing (or the added-value of raw materials through canning, packaging, etc.) generates an additional $1,200 million in sales. [*Ref: Economic Impacts of Connecticut's Agricultural Industry: Update 2015. Zwick Center for Food and Resource Policy. Lopez, Rigoberto; Boehm, Rebecca; Pineda Marcela*.]

These conditions illustrate the opportunity to address workforce needs through proper technical skill training and community engagement.

Other relevant employment opportunities include nursery worker, nursery manager, farm workers, farm managers, food service supervisor, food science technician and pesticide handlers among others. Data was collected from the U.S. Department of Labor, the U.S. Bureau of Labor Statistics, and the CT Department of Labor.

Cost Effectiveness and Availability of Adequate Resources *(As applicable, please provide a one paragraph narrative addressing resources, financial aspects of the program and how it will be sustained)*

The Sustainable Food Systems courses are courses that are used for both the Horticulture and Hospitality degrees. The only new cost is the cost of the adjunct instructor for one new course – Vegetable and Herb Production. Fruit and Vegetable Production was one course and was approved to be split into two courses starting in the fall 2018 semester. The adjunct cost was based on the Tentative Agreements signed between the BOR and the collective bargaining units. The year 1 cost is 5.5% greater than the cost in academic year 2017-2018. Years 2 and 3 were both assumed to be 5.5% greater than the year 1 cost.

Since this is a 16 credit certificate, it was assumed any student that starts as a full-time (12 credit) student would become a part-time student in the next semester. Part-time students were all assumed to be 6 credit students. The tuition cost is the academic year 2018-2019 cost for all three projected years.

Institutional Contact for this Proposal: Dr. H. Justin Moore	Title: Associate Dean, STEM	Tel.: 203-596-8690 e-mail: hmoore@nv.edu

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

Notes regarding Application:

Approved CIP Code No. *(if applicable):* Title of CIP Code:

Log of Steps Toward Approval:

Date of Approval:

Date for Inclusion in BOR-ASA Meeting Package:

Comments:

SECTION 2: DETAILS OF NEW OFFERING *(Community Colleges)*

Curriculum

*(Please provide details of the courses for the proposed offering. Mark any new courses with an asterisk * and attach descriptions. Mark any courses that are delivered fully online with a double asterisk **. Please modify this format as needed for each case)*

Course Number and Name	L.O. # [2]	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				Other Related/Special Requirements*		
HSP*H109: Food Safety Certification	1	None	1			
HRT*H106: Fruit Production	3,4	None	3			
HRT*H107: Vegetable & Herb Production	3,4	None	3			
HRT*H215: Integrated Pest Management	2	None	3			
Electives Courses in the Field		See Below	6			
Core Course Prerequisites				Elective Courses in the Field		
				HSP*H101: Principles of Food Preparation	1	3
				HSP*H102: Food Production & Purchasing	1	3
				HSP*H125: Wine & Viticulture 1	1,2,3	3
				HRT*H222: Greenhouse Operations & Management	2,3,4	4
				HRT*H224: Plant Propagation & Hybridization	3,4	4
				ACC*H133: Principles of Financial Accounting		3
				BMG*H202: Principles of Management		3
				BMG*H105: Supervision & Organizational Behavior		3
				HRT*H290: CWE/COOP	2,3,4	3
				HSP*H103: Principles of Baking	1	3
				HSP*H216: Artisan Bread	1	3
				HSP*H237: Hospitality Marketing		3
				ECN*H101: Principles of Macroeconomics		3

Learning Outcomes - L.O. *(Please list up to three of the most important student learning outcomes for the offering and concisely describe assessment methodologies to be used in measuring the outcomes. If the program will seek external accreditation or qualifies the completer to opt for a professional/occupational license, please frame outcomes in attention to such requirements.)*

1. Students will learn and apply the commercial food safety standards for preventing food-borne illness, including associated legal regulations and national SERVSAFE certification.
2. Students will learn and apply proper safety protocols for pesticide application and handling utilizing national

integrated pest management standards. These applications will be in-class and field based studies which include biological control mechanisms and congenital chemical applications.

3. Students will demonstrate proficiency in agricultural operations which will include equipment operation and troubleshooting, nutrient analysis, and crop scheduling/succession.
4. Students will learn proper production methods for fruit and vegetable crops as it relates to commercial agricultural enterprises.