BOR ACADEMIC AND STUDENT AFFAIRS COMMITTEE
AGENDA
Friday, December 5, 2014 – 9:30 a.m.
61 Woodland Street, Hartford, CT   06105
3rd Floor Board Conference Room

1. Approval of Minutes – October 2, 2014

CONSENT ITEMS
2. Terminations
    a. Technical Writing Certificate – Three Rivers CC

3. Modification
    a. Therapeutic Recreation Certificate – Middlesex CC
    b. Human Services – A.S. – Quinebaug Valley CC

ACTION ITEMS
4. Student Advisory Council – Resolution on Undocumented Students

5. New Programs
    a. Biotechnology Certificate – Middlesex CC
    b. Data Security Specialist – AS – Gateway CC
    c. Mobile Application Development – AS – Gateway CC
    d. COT's Engineering Science/STEM Certificate – Quinebaug Valley CC
    e. COT's Technology Studies/STEM Certificate – Quinebaug Valley CC
    f. Health Care Science – AS – Quinebaug Vallely CC
    g. Graphic Design – AS – Three Rivers CC
    h. Accelerated Advanced Manufacturing Machining – Certificate – Tunxis CC

6. Old Business – Remove from Table
    a. Interdisciplinary Peace Studies and Conflict Resolution – Certificate – Gateway CC

7. TAP
    a. College of Technology (COT) – Technology Pathway

8. Policy Amendments
    a. Sexual Misconduct Reporting, Support Services and Processes Policy
    b. Student Code of Conduct Policy Regarding Hearing Process
   c. Policy on FERPA and Directory Information

INFORMATION ITEMS
9. Non-Substantial Modification
    a. Educational Leadership – Ed.D. – Central CSU

10. Below Threshold
    a. Language, Literature, and Writing Minor – Southern CSU

11. UPDATES
   a. Status Report on NCATE report and Library Science program – Southern CSU
   b. CSCU Accreditation Schedule
   c. Report – Grants
        i. Health & Life Sciences Grant
       ii. Grants Inventory

12. OTHER BUSINESS
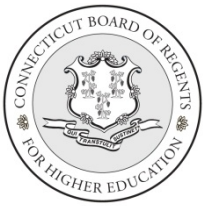
CT BOARD OF REGENTS FOR HIGHER EDUCATION

ACADEMIC & STUDENT AFFAIRS COMMITTEE

Meeting October 2, 2014
9:30 a.m. – 61 Woodland Street, Hartford

<u>MINUTES</u>

Regents Present: Merle Harris, Stephen Adair, Eugene Bell (by conf), Naomi Cohen (by conf.), Lawrence DeNardis,

Regents Absent: Craig Lappen, Catherine Smith

Staff Present: Michael Gargano, Elsa Nunez, Corby Coperthwaite, William Gammell, Duncan Harris, Leslie Mara, Maureen McClay, Linda Perfetto, Arthur Poole, Erika Steiner

Other Attendees: Shirley Adams (COSC), Missy Alexander (WCSU), Ann Atkinson (WCSU), Kimberley Bean (SCSU), Bette Bergeron (SCSU), Ann Branchini (TRCC), Janet Burke (WCSU), Ruth Eren (SCSU), Rhona Free (ECSU), Michelle Ganon (WCSU), Jane Gates (WCSU), Ray Hughes (CCC), Carl Lovitt (CCSU), Scott McGregor (WCSU), Kevin McNamara (SCSU), Wilfredo Nieves (CCC), Sandra Palmer (MCC), Kate Rickard (CCC), Michael Rooke (TXCC), Barbara Tucker (ECSU)

Chair Merle Harris called the meeting to order at 9:33 a.m.

1. Minutes of September 5, 2014 – **A motion to approve was made by L. DeNardis, seconded by E. Bell and unanimously approved.**

2. New Policy – Normalize Credit Hours. Dr. Gargano introduced the resolution and described the process. **A motion to approve by L. DeNardis, seconded by E. Bell. The motion was unanimously approved.** Chair Harris thanked all involved for their work resolving issues and the workable resolution.

3. Suspension of Existing Academic Program – New Media Communication – Tunxis CC. **A motion to approve by L. DeNardis, seconded by N. Cohen.** Dr. Gargano explained there was currently no model for a suspension but noted that with a determined sunset date it would be agreeable. There was discussion on timing of a sunset date with Regent DeNardis noting two years seemed more reasonable than three. Regent DeNardis moved to amend the resolution to include the two-year sunset date. It was seconded by N. Cohen and unanimously approved. **Regent DeNardis moved to approve the amended resolution, seconded again by N. Cohen. The amended resolution was unanimously approved.**

4. Modification of Program – MBA-Concentration in Accounting – Western CSU. **A motion to approve by L. DeNardis, seconded by N. Cohen.** Professor Scott McGregor described the proposal noting the need for 150 credit hours for national state licensing requirements. In response to questions, more details were provided regarding online modules, process, grading, and courses. Chair Harris commended the system. **The vote was taken and unanimously approved.**

5. New Programs
    a. Business Administration – BS – Charter Oak SC. **A motion to approve by L. DeNardis, seconded by E. Bell.** Dr. Gargano introduced the two programs from COSC noting they were changing concentrations to majors. Provost Adams described the process and details and answered questions on the program. **The vote was taken and unanimously approved.**
    b. Psychology – BS – Charter Oak SC. **A motion to approve by N. Cohen, seconded by L. DeNardis.** Provost Adams noted this was similar to the previous program and provided details. She recapped assessment and capstone pieces in response to a question on learning outcomes. **The vote was taken and unanimously approved.**
    c. Applied Behavior Analysis – MS – Western CSU. **A motion to approve by L. DeNardis, seconded by N. Cohen.** Dr. Gargano introduced Dr. Burke and the program. Dr. Burke described the program, mentioning the 19 credits needed to sit for the license exam. In response to a question by Regent DeNardis, Dr. Burke described the tremendous need and requests for students from employers. More details were provided regarding online methods, waiting lists, and more. **The vote was taken and unanimously approved.**

6. Continuation of State University Centers and Institutes – 5 Year Review Reports. Dr. Gargano provided an overview of Centers and Institutes. He mentioned the plan to create a committee to look at all centers and institutes with a fresh perspective and in line with national norms, federal funding, the new Office of Sponsored Programs, research and publications, and the relationship to Transform initiatives. Regents were in favor and asked about a timeline. A first report would be provided in January.
    a. Center for Teaching and Faculty Development – Central CSU. **A motion to approve by N. Cohen, seconded by L. DeNardis.** Provost Lovitt provided a description and information, stating a new director was to be hired and plans for more improvements. There were questions about sharing more with other institutions. **The vote was taken and unanimously approved.**
    b. David M. Roth Center for Connecticut Studies – Eastern CSU. **A motion to approve by L. DeNardis, seconded by N. Cohen.** Provost Free introduced Director Barbara Tucker who described the initiation and purpose of the Center, noting their collection, research on Connecticut studies, outreach to area schools, symposiums, workshops and plays. Dr. Free mentioned the connection with the university's mission. **The vote was taken and unanimously approved.**
    c. Center for Communication Disorders – Southern CSU. **A motion to approve by L. DeNardis, seconded by N. Cohen.** Provost Bergeron introduced Director Kevin McNamara who provided background and mission. He noted the services provided to the university and the greater New Haven area, remarking on its three missions and research. He said the budget was self-sustaining through client revenue. Chair Harris pointed out discrepancies on the budget pages that were to be corrected. She also mentioned the importance of the endeavor. **The vote was taken and unanimously approved.**
    d. Center of Autism Spectrum Disorders – Southern CSU. **A motion to approve by L. DeNardis, seconded by N. Cohen**. Provost Bergeron introduced Director Ruth Eren. Also introduced was a new colleague and former student Dr. Kimberly Bean. Dr. Eren described the center and its needs and goals, noting the three divisions. Dr. Bean described her initiative noting her research will be presented at two national conferences. In answer to questions, increased numbers were explained. **The vote was taken and unanimously approved.**
    e. Meteorological Studies and Weather Center – Western CSU. **A motion to approve by L. DeNardis, seconded by N. Cohen.** Provost Gates introduced Dr. Missy Alexander who described the long history and successful employment rate, noting the curriculum development, the daily operations, and reporting. Also mentioned was the new bridge program for STEM programs. Some discussion followed. **The vote was taken and unanimously approved.**

f. Institute for Financial Literacy – Western CSU. Dr. Gates introduced Dr. Michelle Ganon who provided a history and functions of the center, noting the students call it "WCSU Your Money". She highlighted the use of peer leaders. After some discussion, it was observed although the center was for Western's own students the online module was very robust and accessible to all. **There was a motion to approve by L. DeNardis, seconded by N. Cohen and unanimously approved.**

7. Discontinuation of State University Centers and Institutes. **The three discontinuation requests listed below were moved by N. Cohen, seconded by L. DeNardis.** There were no questions. **The vote was taken and unanimously approved.**
    a. David T. Chase Free Enterprise Institute – Eastern CSU
    b. Center for Financial Forensics and Information Security – Western CSU
    c. Center for Graphics Research – Western CSU

8. Establishment of a Middle College – Capital CC. The resolution determines that Capital CC will continue discussions with the Hartford Public Schools Board of Education on the creation of Capital Community College Magnet Academy and the college will provide for review and approval by the System Office all contract terms and finance agreements. Upon System Office approval, there will follow formal review and approval of the ASA Committee and the full Board of Regents. **A motion to approve by L. DeNardis, seconded by N. Cohen.** President Nieves described the initiative stating Capital was working with the local Board of Education on formal documents. Regent Harris asked about issues with high school students on campus. Dr. Nieves noted they were examining best practices, remarked on their previous experience, and mentioned the students would be juniors and seniors only. Regent DeNardis commented this was one of a variety of education opportunities stipulated by the Sheff vs. O'Neill case. In answer to a question regarding costs, it was noted per student costs will be paid to the college. **The vote was taken and unanimously approved.**

9. Old Business –
    a. Promotion and Tenure Recommendation – Central CSU. A motion to remove from table was made by N. Cohen, seconded by L. DeNardis and unanimously approved. A **further motion to approve the recommendation was made by N. Cohen, seconded by L. DeNardis.** There was brief discussion. **The vote was taken and unanimously approved.**

10. Information Items
    a. Review of 2014 approved programs. Dr. Gargano gave an overview of the review of programs. He recommended programs of significant need would report again next year. He also noted next year's new programs report would include those that were approved this year too late to accrue data.
    b. Below-threshold–Pathway to Teaching Careers – Quinebaug Valley CC. The item was indicated.

11. Other Business
    Dr. Gargano mentioned the certificate programs review at the legislature, giving an overview of the presentation to the PRI Committee and noting the work still to be done.

    Dr. Harris mentioned two items to be on the December agenda – a review of the policy on sexual misconduct and the student code of conduct and the issue with Southern CSU's education program.

There was no other business. **A motion to adjourn was made by L. DeNardis, seconded by N. Cohen and unanimously approved.**

The meeting adjourned at 11:40 a.m.

ITEM
Termination of a program in Technical Writing leading to an undergraduate certificate (C2) at Three Rivers Community College, with a phase out period for the currently enrolled students.

BACKGROUND

Summary
The Technical Writing Certificate program was approved at Three Rivers Community College (TRCC) on July 18, 2005, for the purpose of improving student writing skills in the workplace. Since that time, there has been insufficient student and employer demand for the certificate. Only two students have earned the certificate since Summer 2009. TRCC seeks to terminate the Technical Writing Certificate program.

Rationale
The low student completion rate indicates there is insufficient demand for this certificate. In addition, TRCC offers a number of Business Certificates that address any student and employer needs.

Phase Out/Teach Out Strategy
The three students currently enrolled in the certificate have been identified and will be allowed to complete it. Their expected graduation dates are within the 2015-16 academic years.

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

Termination of a Program

December 18, 2014

RESOLVED: That the Board of Regents for Higher Education approve the discontinuation of the Technical Writing Certificate at Three Rivers Community College with a phase-out period of two years until December 30, 2016.

A True Copy:

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

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

*APPLICATION FOR **DISCONTINUATION OF EXISTING PROGRAM** (Public Higher Education Institutions) - 01/20/12*

SECTION 1: GENERAL INFORMATION	
Institution: Three Rivers Community College	Date of Submission to BOR Office: 9/2014
Discontinued Program: ==*Technical Writing Certificate*== CIP: 231303 DHE# (if available): 014895 Accreditation Date: 2012 Phase Out /Teach Out Period *Earliest allowed by Board Policy* Expected Date of Program Termination *Immediately*	
Program Characteristics Name of Program: Degree: Title of Award *(e.g. Master of Arts)* Certificate: *(specify type and level)* **C2** 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: Norwich campus	

Institutional Contact for this Proposal: Dr. *Ann Branchini,*	Title: *Dean of Academic Affairs*	Tel.: *(860) 215-9004* e-mail: *ABranchini@trcc.commnet.edu*

BOR REVIEW STATUS *(For Office Use Only - please leave blank)*
BOR Sequence Number (to be assigned):   Log of BOR Steps Towards Discontinuation Approval:
Resolution number for BOR Approval: Date of Approval: Conditions for Discontinuation Approval (if any)

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.

Few students have completed this certificate and there is insufficient employer demand for it. Only 2 students have earned the certificate since Summer 2009. TRCC offers a number of Business Certificates that address any student and employer needs.

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 3 students currently enrolled in the certificate program will be allowed to complete it.

Student 1 could graduate in Spring, 2015 if she successfully completes GRA* 140 this fall and registers for the appropriate courses needed to complete the certificate. She will still need to complete ENG* 200 and a restricted elective.

Student 2 could graduate in Fall, 2015 if she registers for GRA* 140 in the spring and then takes ENG* 200 either in the spring or fall and the remaining two restricted electives in the fall. She is currently registered this semester but not for classes required for this certificate.

Student 3 could graduate in either the Fall 15/Spring 16 semester. She is currently registered for ENG* 101 and has COM* 173 from transfer credit. If planned appropriately she could complete in two to three semesters.

ITEM

Academic Program Modification for Certificate in Therapeutic Recreation at Middlesex
Community College

BACKGROUND
<u>Summary of the Proposal: Background for the Modifications</u>

Middlesex Community College (MxCC) is proposing several modifications to its existing
Certificate program in Therapeutic Recreation that will:

- Change several course requirements to make the program more attractive to students who
  seek different career options in this field;
- Change several course requirements to encourage greater enrollment; and,
- Increase the total number of credits from 24 to 30 (two courses).

The Therapeutic Recreation Certificate Program at MxCC is designed to prepare students to
meet the standards established in the Public Health Code for the State of Connecticut to work in
convalescent nursing homes and other facilities with nursing supervision.

Though the program meets the needs of students seeking employment in long term care facilities,
many students have expressed a desire to work with other populations, such as children and
adults living with developmental disabilities, substance abuse, or mental illness; or, those who
are part of the Juvenile or Criminal Justice Systems. Some students have expressed an interest in
pursuing a Bachelor's Degree in Recreation and Leisure or Therapeutic Recreation. They would
benefit from taking courses that are transferable from the community colleges to an institution
such as Southern Connecticut State University, which offers a baccalaureate program in
Recreation and Leisure with four different tracks, including Therapeutic Recreation.

Toward that end, these proposed modifications will provide additional options for students who
complete the certificate. For students who wish to work with older adults, additional courses will
strengthen their knowledge and skills and give them the option to transfer credits to an Associate
Degree in either Human Services or Therapeutic Recreation. For students who wish to work with
populations other than older adults, the modified program offers relevant and necessary courses
for knowledge and skill development and for academic transfer.

This Program Modification Proposal is one result of intensive curriculum development
happening at the college, brought about by its participation in a consortium of CSCU institutions
known as the Health & Life Sciences Initiative. This initiative has been funded by a $12 million
Trade Adjustment Assistance Community College and Career Training (TAA-CCCT) grant, with
an implementation period of October 2012 through September 2015. Consortium members are
Capital, Gateway, Manchester, Middlesex, and Norwalk Community Colleges; Eastern
Connecticut State University, and Charter Oak State College. The consortium will provide
targeted certifications, industry-recognized credentials, and Associate degrees to prepare
veterans, TAA impacted, dislocated, and other under-employed workers statewide for careers in
health and life sciences.

<u>Need for the Program</u>

Employment for Recreational Therapists is projected to grow 13 percent from 2012-2022. This reflects, in part, the fact that the large baby boom generation is aging and will be faced with a myriad of challenges, some of which can be met best by Recreational Therapists. It also reflects the increase in community based programs for other target populations. Therapeutic Recreation professionals work as part of a health care team in the treatment of age-related and chronic illnesses, developmental and psychiatric disabilities, and behavioral disorders. Specifically, Therapeutic Recreation professionals are employed by nursing care facilities, senior centers, hospitals, psychiatric and substance abuse facilities and hospitals, juvenile justice facilities, prisons, and other social service facilities. Connecticut ranks second in "states with the highest concentration of jobs and location quotients in this Occupation." Connecticut also ranks second in "Top paying States for this Occupation" (Occupational Outlook Handbook, January, 2014). Recent reviews on the job search engine, Indeed.com, indicate consistent job availability for Recreational Therapists, Therapeutic Recreation Directors, Therapeutic Recreation Assistants, and Activity Directors.

Most of the students enrolled in the current certificate program are seeking employment in long-term care facilities. Some are already employed as Therapeutic Recreation Assistants and seek certification to fulfill an employer's mandate or for job promotion. Some students may have either their AS or BS degree in a related field and seek the necessary credits in Therapeutic Recreation for employability.

All students complete 130 hours of internship experience. Most are placed in long-term care facilities. However, some find placements in facilities serving those with psychiatric or developmental disabilities or in the juvenile or criminal justice system. These internships offer valuable opportunities for students to apply the theories and practices of Therapeutic Recreation and to strengthen the skills necessary to meet the needs of the workforce. The college does not presently have a mechanism for tracking the employment success of those who graduate with this certificate, but anecdotal evidence suggests that a majority of students achieve employment either from their internship site or soon after graduation. For those who graduate with both a Therapeutic Recreation Certificate and an Associate Degree in Human Services, the employment options are more varied and include entry level positions with populations other than older adults. As stated, the program modifications provide transfer opportunities for students seeking Baccalaureate degrees in Recreation Leisure/ Therapeutic Recreation. A Baccalaureate Degree will expand a student's employment options in facilities working with populations other than older adults, thereby meeting the workforce needs in our State.

<u>Curriculum</u>

The proposed modifications will broaden the scope of the existing program, provide students with more career exploration and learning opportunities, and offer additional transfer options to Associate and Baccalaureate Degree Programs. Of special note:

- The addition of six elective credits enables a student to take courses that pertain to the target population they may want to work with.
- There are no admission requirements for the existing or proposed program.
- Approximately 40% of the courses in the proposed program are available online.

- Changes to the required courses will introduce a greater focus on skills necessary in the workplace, and transfer to Associate and Baccalaureate degree programs.

Current Program	Modified Program
ENG*101, "Composition" (3 credits)	ENG*101, "Composition" (3 credits)
PSY*111, "General Psychology" (3 credits)	PSY*111, "General Psychology" (3 credits)
RLS*121, "Introduction to Therapeutic Recreation" (3 credits)	RLS*121, "Introduction to Therapeutic Recreation" (3 credits)
HSE*288, "Developmental Practicum" (3 credits)	HSE*288, "Developmental Practicum" (3 credits)
SOC*120, "Group Dynamics" (3 credits)	SOC*120, "Group Dynamics" (3 credits)
SOC*114, "Sociology of Aging" OR PSY*208, "Adult Development and Aging" (3 credits)	SOC*114, "Sociology of Aging" OR PSY*208, "Adult Development and Aging" (3 credits)
SOC*225 Death and Dying (3 credits)	*Removed from program*
HSE*288, "Developmental Practicum" (3 credits)	HSE*288, "Developmental Practicum" (3 credits)
SOC*120, "Group Dynamics" (3 credits)	SOC*120, "Group Dynamics" (3 credits)
SOC*114, "Sociology of Aging" OR PSY*208, "Adult Development and Aging" (3 credits)	SOC*114, "Sociology of Aging" OR PSY*208, "Adult Development and Aging" (3 credits)
	Added course (new to the college): RLS*122, "Processes and Techniques in Therapeutic Recreation" (3 credits)
	Added course (existing at the college): PSY*103, "Introduction to Holistic Wellness" (3 credits)
	Added course (existing at the college): HSE*202, "Introduction to Counseling and Interviewing" (3 credits)
RLS*221, "Therapeutic Recreation"	*Plus one elective (3 credits) chosen in consultation with a faculty advisor – all existing courses at the college:* RLS*221, "Therapeutic Recreation" PSY*245, "Abnormal Psychology" PSY*251, "Behavior Disorders of Childhood and Adolescence"

Learning Outcomes

Upon completion of the Certificate in Therapeutic Recreation, the student will be able to:

1. Meet the state Department of Public Health requirements for certification in Therapeutic Recreation;
2. Demonstrate the ability to comprehend and apply the necessary skills required of a Therapeutic Recreation Professional;
3. Explain the positive outcomes of therapeutic recreation intervention for special populations, such as older adults, or individuals with developmental, psychiatric, or behavioral disorders, children and youth with special needs, or those who are part of the juvenile or criminal justice system;
4. Demonstrate the ability to successfully assess, plan, implement, and evaluate therapeutic recreation programs in both a community or clinical setting;
5. Employ the necessary leadership, interpersonal, and communication skills necessary to work in the Therapeutic Recreation field;
6. Demonstrate empathetic and non-judgmental oral and written communication skills;
7. Illustrate, through classroom and internship experiences, the ethical values and attitudes of a helping professional.
8.

Students

Enrollments & Graduates, Fall 2011 through Fall 2014

Therapeutic Recreation	Fa11	Sp12	Fa12	Sp13	Fa13	Sp14	Fa14
Full-Time	0	0	0	1	2	0	0
Part-Time	5	8	8	13	8	7	12
Total Enrollment	**5**	**8**	**8**	**14**	**10**	**7**	**12**
Graduates (Spring)		3		12		5	

Faculty

Faculty Name and Title	Institution of Higher Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities
Judith Felton, Professor of Human Services and Psychology. Program Coordinator of Human Services AS Degree, Therapeutic Recreation, Juvenile Justice, and Substance Abuse Education Certificate Programs	Boston University, MSW	Human Services/Social Work Gerontology Mental Health Counseling Community Engagement	Professor in the following courses: HSE 202, Introduction to Counseling; HSE 288/289, Practica; HSE 101, Introduction to Human Services; PSY 201, Life Span Psychology; PSY 204, Child/Adolescent Psychology; PSY 245, Abnormal Psychology; PSY 208, Adult Development and Aging; SOC 225, Death and Dying. Coordinator, Center for Community Engaged Learning TAP Psychology representative Club Advisor, Human Services Student Association Faculty representative: MxCC Foundation

Faculty Name and Title	Institution of Higher Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities
Dr. Rebecca Loew, Assistant Professor/Sociology	Heller School, Brandeis University, Ph.D.	Sociology Public Health Aging	Teaches all of our Sociology course offerings. Teaches our Public Health Course. Active in Community Engaged Scholarship. Active on many college wide committees. Club Advisor, Human Services Student Association. Faculty representative, MxCC Foundation
Angelina Field Adjunct	Southern Connecticut State University, BS and Certification in Therapeutic Recreation	Therapeutic Recreation	Practitioner in Therapeutic Recreation. Teaches our current TR courses
Sheila Dupuis Adjunct	California School of Professional Psychology, Ph.D.	Psychology	Teaches core Psychology courses and Death and Dying
Ronald Brone, Adjunct	Fordham University Ph.D.	Clinical Psychology	Teaches core Psychology courses; Abnormal Psychology; Juvenile Delinquency
Christopher Arnold, Adjunct	Central Connecticut State University, MS in Education and Counseling	Counseling; Child/Adolescent Psychology; Life Span Psychology	Teaches Introduction to Counseling; Child and Adolescent Psychology; Behavior Disorders of Childhood and Adolescence

Learning Resources & Facilities

The college has adequate learning resources and facilities to continue this program for the foreseeable future.

Fiscal Note:

As indicated in the attached Pro-Forma Budget, the college anticipates: 1) program enrollment to increase from 7 FTE to 20 FTE within the next two years; 2) additional expenses to be largely the result of part-time lecturer contracts to accommodate growing enrollment; 3) program administration to continue as part of the duties of an existing full-time Program Coordinator; and, 4) growing income that will exceed expenses.

Review of Documents:

a) Campus Review
b) Campus Budget and Finance
c) Campus President
d) Academic Council
e) System Office

Accreditation:

This program is not separately accredited, but rather falls under the general accreditation of the college by the New England Association of Schools and Colleges.

Connecticut Board of Regents for Higher Education
APPLICATION FOR NEW PROGRAM APPROVAL PRO FORMA ¹ BUDGET - RESOURCES AND EXPENDITURE PROJEC

Institution	Middlesex Community College			Date
Proposed Program	**NAME OF PROGRAM** Therapeutic Recreation			

PROJECTED Enrollment	Spring 2015		Fall 2015		F...
	Full Time (12+ cr.)	Part Time (<12 cr.)	Full Time (12+ cr.)	Part Time (<12 cr.)	Full Time (12+ cr
Internal Transfers *(from other programs)*	0	1	2	1	3
New Students *(first time matriculating)*	0	3	3	5	5
Continuing *(students progressing to credential)*	0	10	0	10	5
Headcount Enrollment	0	14	5	16	13
Estimated "Credits Sold" to Students assumes Full-Time Student = avg. of 13.5 credits Part Time Student = avg. of 7.5 credits	0	105	67.5	120	175.5
Total Estimated FTE per Year (Credits Sold / 15)	7.0		12.5		

PROJECTED Program Revenue	Spring 2015		2015-16		2...
	Full Time	Part Time (@ 8 cr/sem)	Full Time	Part Time (@ 8 cr/sem)	Full Time
Tuition & fees*	$0	$18,158	$19,717	$42,334	$52,2...
Lab Fees	$0	$0	$0	$0	
Other Rev. *(Annotate in text box below)*	$500		$0		
Total Annual Program Revenue	$18,658		$62,051		$

Tuition is calculated using 2014-15 rates, with 2% added in each subsequent year   **NOTE: Other revenue is educational supplies from the HLSC t...**

PROJECTED Expenditures*	2014-15		2015-16		2...
	Number *(as applicable)*	Expenditure	Number	Expenditure	Number
Administration *(Chair or Coordinator)*	EXISTING Level 2 Program Coordinator; no new expenses	$0		$0	
Faculty *(Full-time, total for program)*	No additional	$0	0	$0	0
Faculty (**Workload Units** of Part-time Lecturers - total for program-specific courses)**	3	$6,876	13	$31,288	13
Support Staff	No additional	$0		$0	
Library Resources Program	Disciplinary Journals	$500		$500	
Equipment	Ed. Supplies	$500		$0	
Other *(e.g. student services)*	Consumable supplies	$0		$0	
Estimated Indirect Cost *(e.g. student services, operations, maintanance)*	calculated at $200 per FTE per year	$1,400		$2,500	
Total ESTIMATED Expenditures		$9,276		$34,288	
NET New Revenue		$9,382		$27,763	

* Note: Capital outlay costs, institutional spending for research and service, etc. can be excluded.
** average PTL rate plus 50% fringe

¹ This PRO FORMA budget provides reasonable assurance that the program can be established and is sustainable. Some assumptions and/or formulaic methodology may be used and ar...

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

Modification of a Program

December 18, 2014

RESOLVED: That the Board of Regents for Higher Education approve the modification of a
program in the Therapeutic Writing Certificate at Middlesex Community College to
substantively change the curriculum.

A True Copy:

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

SECTION 1: GENERAL INFORMATION

Institution: **Middlesex Community College**	Date of Submission to BOR Office: **November 2014**

Most Recent NEASC Institutional Accreditation Action and Date: **April 22, 2014 – Reaccredited**; Next Evaluation Fall 2022

Original Program Characteristics CIP Code No.: 512309 Title of CIP Code: Recreational Therapy CIP Year: 2000 or 2010 x2014 Name of Program: **Therapeutic Recreation** Degree: Title of Award *(e.g. Master of Arts)* Certificate: *(specify type and level)* **Certificate** Date Program was Initiated: **1994** Modality of Program: On ground Online X Combined If "Combined", % of fully online courses? 60% (based on courses that are available as online *option*) Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, GenEd, other)*: 24 credits	**Original** Program Credit Distribution # Cr in Program Core Courses: 21 # Cr of Electives in the **Field:** 0 **# Cr of Free Electives:** 0 Open Electives # Cr Special Requirements *(include internship, etc.):* **3** Total # Cr in the Program *(sum of all #Cr above)*: 24 From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: 100%

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

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

X Significant Modification of Courses/Course Substitutions

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

     Change of Degree Title or Program Title

Modified Program Characteristics Name of Program: **Therapeutic Recreation** Degree: Title of Award *(e.g. Master of Arts)* Certificate [1]: *(specify type and level)* **Certificate** Program Initiation Date: Spring 2015 Modality of Program: On ground Online X Combined If "Combined", % of fully online courses? approximately 40% (based on estimated number of courses with online *option*) Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, GenEd, other)*: **30 credits** Other:	**Modified** Program Credit Distribution # Cr in Program Core Courses: **21** # Cr of Electives in the Field**: 6** # Cr of Free Electives: 0 # Cr Special Requirements *(include internship, etc.):* **3** Total # Cr in the Program *(sum of all #Cr above)*: **30** From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: **30**

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

Program Discontinued: CIP: DHE# (if available):   Accreditation Date:

Phase Out Period   Date of Program Termination

Institution's Unit **Human Services** and Location *(e.g. main campus)* Offering the Program: **MxCC 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: Dr. Steven Minkler	Title: Dean of Academic Affairs	Tel.:860.343.5706 e-mail: sminkler@mxcc.edu

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

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

*APPLICATION FOR **MODIFICATION OF ACCREDITED PROGRAM** (Public Higher Education Institutions) - 01/20/12*

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[2] Final CIP assignment will be done by BOR staff in consideration of suggested number (if provided) and in consultation with administrative offices at the institution and system proposing the program. For the final assignment, the 2010 CIP definitions will be used.

SECTION 2: BACKGROUND, RATIONALE AND NATURE OF MODIFICATION
(Please Complete Sections as Applicable)

Background and Rationale *(Please provide the context for and need for the proposed modification, and the relationship to the originally approved program)* Currently, our Therapeutic Recreation Certificate Program is designed for students interested in working in long term care facilities or other facilities serving older adults. It meets the requirements set forth by the Department of Public Health for Certification in Therapeutic Recreation.

Though our program meets the needs for students seeking employment in long term care facilities, many of our students have expressed a desire to work with other populations, such as children and adults living with developmental disabilities, substance abuse, or mental illness, or are part of the Juvenile or Criminal Justice Systems. In addition, we have students who are interested in pursuing a Bachelor's Degree in Recreation and Leisure/ Therapeutic Recreation and would benefit from taking transferable courses at the Community College.

Toward that end, the program modifications will provide additional post-certification options for students. For students who wish to work with older adults, the modified Therapeutic Recreation Certificate offers additional courses that will strengthen their knowledge and skills and enable them the option to transfer credits to either an AS Degree in Human Services or Therapeutic Recreation. Additionally, for students who will work with populations other than older adults, the modified program offers relevant and necessary courses for knowledge and skill development and for transfer.

- **How does the program address CT workforce needs and/or the wellbeing of CT society/communities?** *(Succinctly present as much factual evidence and evaluation of stated needs as possible)* Employment for recreational therapists is projected to grow 13 percent from 2012-2022. This reflects, in part, the fact that the large baby boom generation is aging and will be faced with a myriad of challenges, some of which can be met best by Recreational Therapists. It also reflects the increase in community based programs for other target populations. Therapeutic Recreation Professionals will continue to work as part of a health care team in the treatment of age-related and chronic illnesses, developmental and psychiatric disabilities, and behavioral disorders. Specifically, Therapeutic Recreation Professionals are employed by Nursing Care Facilities, Senior Centers, Hospitals, Psychiatric and Substance Abuse Facilities and Hospitals, Juvenile Justice Facilities, Prisons, and other social service facilities. Connecticut ranks second in "States with the highest concentration of jobs and location quotients in this Occupation." Connecticut also ranks second in "Top paying States for this Occupation." (Occupational Outlook Handbook, January, 2014.) Recent reviews on the job search engine, *Indeed.com*, indicate consistent job availability for Recreational Therapists, Therapeutic Recreation Directors, Therapeutic Recreation Assistants, and Activity Directors.

Most of our students who are enrolled in our current TR program are seeking employment in long-term care facilities. Some are already employed as TR Assistants and seek certification to fulfill an employer's mandate or for job promotion. We also have students who may have either their AS or BS degree in a related field and seek the necessary credits in Therapeutic Recreation for employability. All of our TR students complete 130 hours of internship experience. For students seeking internships, 100% find placements. Most TR students are placed in long-term care facilities. However, some students find placements in facilities serving those with psychiatric or developmental disabilities or in the Juvenile or Criminal Justice System. The internships offer valuable opportunities for students to apply the theories and practice of Therapeutic Recreation and to strengthen the skills necessary to meet the needs of the workforce. Though we do not presently have a mechanism for tracking the employment success of those who graduate with a Therapeutic Recreation Certificate, we have anecdotal evidence that a majority of students achieve employment either from their internship site or soon after graduation. For those who graduate with both a TR Certificate and an AS Degree in Human Services, the employment options are more varied and include entry level positions with populations other than older adults. As stated, the program modifications provide transfer opportunities for students seeking Baccalaureate degrees in Recreation Leisure/ Therapeutic Recreation. A Baccalaureate Degree will expand a student's employment options in facilities working with populations other than older adults, thereby meeting the workforce needs in our State.

- 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? Both the Middletown Campus and Meriden Center of Middlesex Community College are located in communities rich with social services. Close to 75 long- term care facilities are located in Middlesex County and the Meriden/Wallingford area. In addition, Middletown is the home of Connecticut Valley Hospital, Whiting Forensic Institute, Adelbrook Behavioral and Developmental Services, Albert J. Solnit Children's Center, and several residential programs providing Therapeutic Recreation for clients. These agencies are significant partners with the College. They provide useful community engagement and employment opportunities for our students. Given the wealth of social service agencies in Middlesex County and the Meriden/Wallingford Area, our students are successful in completing their academic and vocational goals.

As with the current Therapeutic Recreation Program, the modified program offers courses that transfer seamlessly to our AS Degree in Human Services. Therefore, the Therapeutic Recreation program can be seen as a first step in an academic journey that begins with a Certificate, transfers to an Associate's Degree and ultimately to a Baccalaureate Degree.

Adjunct faculty who are practitioners in the field teach the Therapeutic Recreation courses. They provide expertise and opportunities for students to partner with facilities for the purpose of observation and service. Both full time and adjunct faculty teach the other courses in the curriculum. All faculty have expertise in their disciplines and have strong connection with our community partners. Therefore, faculty integrates community engagement opportunities relevant to course objectives. This commitment to community engaged learning by our faculty supports student retention and success. The Therapeutic Recreation Certificate Program Coordinator who is also the Program Coordinator of the Human Services AS Degree carefully advises all students.

The Program Modification is made possible by the Health and Life Science Career Initiative which can also provide financial support for course development, student retention, promotion and marketing, and internship/job placement. These additional resources will contribute to the success of the revised certificate.

Lastly, Middlesex Community College is centrally located in the State, enabling easy commutes to educational institutions with advanced Therapeutic Recreation Degrees.

Please describe any transfer agreements with other institutions under the BOR 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 program modifications offer transfer opportunities to the Therapeutic AS Degree at Manchester Community College and the BS Degree in Recreation Leisure/Therapeutic Recreation at Southern Connecticut State University. At this point, discussions have occurred regarding course by course articulation to ensure that students can transfer course credits.

Please indicate what similar programs exist in other institutions within your constituent unit [3]**, and how unnecessary duplication is being avoided**

COLLEGE	DEGREES	CERTIFICATE
Gateway		Certificate in Therapeutic Recreation
Manchester	*AS in Therapeutic Recreation*	*Certificate in Therapeutic Recreation*
Northwestern	*AS in Therapeutic Recreation*	*Certificate in Therapeutic Recreation*

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[3] Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

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

  Connecticut ranks second in "States with the highest concentration of jobs and location quotients in this Occupation." Connecticut also ranks second in "Top paying States for this Occupation." (Occupational Outlook Handbook, January, 2014.) Recent reviews on the job search engine, *Indeed.com*, indicate consistent job availability for Recreational Therapists, Therapeutic Recreation Directors, Therapeutic Recreation Assistants, and Activity Directors. The average salary in Connecticut is $45-$47000, with starting salaries higher than the national average of $35,000. The job outlook nationally is favorable, indicating a 13% increase from 2012-2022.

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

The following proposed modifications (see attached table of proposed changes) will broaden the scope of the existing program, provide students with more career exploration and learning opportunities, and offer additional transfer options to Associate and Baccalaureate Degree Programs:

- Two-track program: The addition of six credits in Directed Electives enable a student to take courses that pertain to the target population they may want to work with. For example, students who wish to work with older adults in long term care facilities will take "Sociology of Aging" *or* "Psychology of Adult Development and Aging," and RLS 221, "Therapeutic Recreation." Students who wish to work with other populations such as youth or adults with developmental or psychiatric disabilities, substance abuse, behavioral disorders, or who are clients of the Juvenile or Criminal Justice System will take PSY* 245 "Abnormal Psychology" and PSY* 251 "Behavior Disorders of Childhood and Youth." All students will take the core courses.

- Addition of new required core courses: HSE* 202, "Introduction to Counseling and Interviewing" - this course provides an introduction to basic helping and interviewing skills; PSY* 103, "Introduction to Holistic Wellness" - this course provides an introduction to theories related to wellness, stress reduction, health, and well-being and it articulates to the wellness courses offered in the AS and BS Therapeutic Recreation Programs; RLS* 122, "Processes and Techniques in Therapeutic Recreation" - this course provides an exploration of methods and materials utilized to lead people in a variety of therapeutic recreation and leisure activities and is a new course to MxCC.

- Deletion of courses from the core courses in current program: RLS* 221, "Therapeutic Recreation" - this course is being deleted from the modified program's core courses but will be offered as a Directed Elective for students pursuing certification in order to work with older adults; SOC* 225, "Death and Dying" - material from this course is covered in some of the core courses and students can take this course as an elective if pursuing the AS Degree in Human Services, General Studies, and Liberal Arts and Sciences.

- There are no admission requirements for the existing or proposed program.

- Approximately 40% of the courses in the proposed program are available online.

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

Implementation of changes to the Therapeutic Recreation program will require no additional start-up costs or capital purchases. For the new Therapeutic Recreation course, the hiring of one new adjunct may be required. Other required courses will be taught with existing full time and adjunct faculty.

Faculty Resources:

Faculty Name and Title	Institution of Higher Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities
Judith Felton, Professor of Human Services and Psychology. Program Coordinator of Human Services AS Degree, Therapeutic Recreation, Juvenile Justice, and Substance Abuse Education Certificate Programs	Boston University, MSW	Human Services/Social Work Gerontology Mental Health Counseling Community Engagement	Professor in the following courses: HSE 202, Introduction to Counseling; HSE 288/289, Practica; HSE 101, Introduction to Human Services; PSY 201, Life Span Psychology; PSY 204, Child/Adolescent Psychology; PSY 245, Abnormal Psychology; PSY 208, Adult Development and Aging; SOC 225, Death and Dying. Coordinator, Center for Community Engaged Learning TAP Psychology representative Club Advisor, Human Services Student Association Faculty representative: MxCC Foundation
Dr. Rebecca Loew, Assistant Professor/Sociology	Heller School, Brandeis University, Ph.D.	Sociology Public Health Aging	Teaches all of our Sociology course offerings. Teaches our Public Health Course. Active in Community Engaged Scholarship. Active on many college wide committees. Club Advisor, Human Services Student Association. Faculty representative, MxCC Foundation
Angelina Field adjunct	Southern Connecticut State University, BS and Certification in Therapeutic Recreation	Therapeutic Recreation	Practitioner in Therapeutic Recreation. Teaches our current TR courses
Sheila Dupuis Adjunct	California School of Professional Psychology, Ph.D.	Psychology	Teaches core Psychology courses and Death and Dying
Ronald Brone, Adjunct	Fordham University Ph.D.	Clinical Psychology	Teaches core Psychology courses; Abnormal Psychology; Juvenile Delinquency
Christopher Arnold, Adjunct	Central Connecticut State University, MS in Education and Counseling	Counseling; Child/Adolescent Psychology; Life Span Psychology	Teaches Introduction to Counseling; Child and Adolescent Psychology; Behavior Disorders of Childhood and Adolescence

Other Considerations

Previous Three Years Enrollment and Completion for the Program being Modified

ACTUAL Enrollment	First Term, Year 2012		First Term, Year 2011		First Term, Year 2010	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Internal Transfers*	0	0	0	0	0	0
New Students	0	6	0	2	0	0
Returning Students	0	2	0	3	2	9
ACTUAL Headcount Enrollment	0	8	0	5	2	9
ACTUAL FTE per Year	4.0		2.5		6.3	

Curriculum Details for a Program Modification *(to be use as appropriate for specific modification request)[4]*						
Course Number and Name [5]	L.O. #	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				**Other Related/Special Requirements**		
ENG* 101, College Composition		Placement scores	3	Directed Elective: SOC* 114, Sociology of Aging or PSY* 208, Adult Development and Aging		3
PSY* 111, General Psychology		eligible for ENG*101	3	Directed Elective: RLS* 221, Therapeutic Recreation		3
RLS* 121, Introduction to Therapeutic Recreation		none	3	Directed Elective: PSY* 245, Abnormal Psychology		3
RLS* 122, Processes and Techniques in Therapeutic Recreation		none	3	Directed Elective: PSY* 251, Behavior Disorders of Childhood and Adolescence		3
PSY* 103, Introduction to Holistic Wellness		eligible for ENG*101	3			
HSE* 202, Introduction to Counseling and Interviewing		PSY 111	3			
HSE* 288, Developmental Practicum		Permission	3			
SOC* 120, Group Dynamics		Eligible for ENG 101	3			
Core Course Prerequisites				**Elective Courses in the Field** *(12 credits required)*		
Total Other Credits Required to Issue Modified Credential						

[4] **Details of course changes for Community College institutions should be provided with enough detail to introduce necessary changes in the centralized programmatic database for that system.**

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

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

Upon successful completion of all Therapeutic Recreation Certificate Program requirements, graduates will:

1. Meet the state Department of Public Health requirements for certification in Therapeutic Recreation;
2. Demonstrate the ability to comprehend and apply the necessary skills required of a Therapeutic Recreation Professional;
3. Defend the positive outcomes of therapeutic recreation intervention for special populations, such as older adults, or individuals with developmental, psychiatric, or behavioral disorders, children and youth with special needs, or those who are part of the juvenile or criminal justice system;
4. Demonstrate the ability to successfully assess, plan, implement, and evaluate therapeutic recreation programs in both a community or clinical setting;
5. Express the necessary leadership, interpersonal, and communication skills necessary to work in the Therapeutic Recreation field;
6. Demonstrate empathetic and non-judgmental oral and written communication skills;
7. Reflect the ethical values and attitudes of a helping professional.

SECTION 3: RESOURCE AND FINANCIAL CONSIDERATIONS

Two-Year Cost Effectiveness and Availability of Adequate Resources

In progress.

(Please provide attach a Pro-Forma Budget for the modification of program in the format provided)

Connecticut Board of Regents for Higher Education
APPLICATION FOR NEW PROGRAM APPROVAL PRO FORMA [1] BUDGET - RESOURCES AND EXPENDITURE PROJECTIONS

Institution	Middlesex Community College				*Date*	11.5.14
Proposed Program	NAME OF PROGRAM Therapeutic Recreation					

PROJECTED Enrollment	Spring 2015		Fall 2015		Fall 2016	
	Full Time (12+ cr.)	Part Time (<12 cr.)	Full Time (12+ cr.)	Part Time (<12 cr.)	Full Time (12+ cr.)	Part Time (<12 cr.)
Internal Transfers *(from other programs)*	0	1	2	1	3	2
New Students *(first time matriculating)*	0	3	3	5	5	7
Continuing *(students progressing to credential)*	0	10	0	10	5	8
Headcount Enrollment	0	14	5	16	13	17
Estimated "Credits Sold" to Students assumes Full-Time Student = avg. of 13.5 credits Part Time Student = avg. of 7.5 credits	0	105	67.5	120	175.5	127.5
Total Estimated FTE per Year (Credits Sold / 15)	7.0		12.5		20.2	

PROJECTED Program Revenue	Spring 2015		2015-16		2016-17	
	Full Time	Part Time (@ 8 cr/sem)	Full Time	Part Time (@ 8 cr/sem)	Full Time	Part Time (@ 8 cr/sem)
Tuition & fees*	$0	$18,158	$19,717	$42,334	$52,288	$45,880
Lab Fees	$0	$0	$0	$0	$0	$0
Other Rev. *(Annotate in text box below)*	$500		$0		$0	
Total Annual Program Revenue	$18,658		$62,051		$98,168	

Tuition is calculated using 2014-15 rates, with 2% added in each subsequent year   **NOTE: Other revenue is educational supplies from the HLSCI Grant**

PROJECTED Expenditures*	2014-15		2015-16		2016-17	
	Number *(as applicable)*	Expenditure	Number	Expenditure	Number	Expenditure
Administration *(Chair or Coordinator)*	EXISTING Level 2 Program Coordinator; no new expenses	$0		$0		$0
Faculty *(Full-time, total for program)*	No additional	$0	0	$0	0	$0
Faculty (***Workload Units*** *of Part-time Lecturers - total for program-specific courses)***	3	$6,876	13	$31,288	13	$31,288
Support Staff	No additional	$0		$0		$0
Library Resources Program	Disciplinary Journals	$500		$500		$500
Equipment	Ed. Supplies	$500		$0		$0
Other (e.g. student services)	Consumable supplies	$0		$0		$0
Estimated Indirect Cost *(e.g. student services, operations, maintenance)*	calculated at $200 per FTE per year	$1,400		$2,500		$4,040
Total ESTIMATED Expenditures		$9,276		$34,288		$35,828
NET New Revenue		$9,382		$27,763		$62,340

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

** average PTL rate plus 50% fringe

ITEM
Modification of the Human Services degree at Quinebaug Valley Community College.

BACKGROUND
Summary
The Quinebaug Valley Community College's human services degree program needs modification for three reasons.

1. The current program does not offer the best transfer pathway for students. At this time, students are only required to meet the most minimal transfer requirements.
2. The current program does not adequately prepare students for human services careers in 2014 and beyond. Most of the entry level positions in human services require training in and experience with mental health and/or substance abuse. The current program does not adequately address these knowledge and skill bases.
3. The current program needs to be modified to remain competitive with other human services programs. Of the 10 Connecticut State Community Colleges that offer a human services degree, QVCC offers the fewest number of human services electives and only offers the minimal number of required human services courses to confer a degree.

Need for the Program
According to the U.S. Department of Labor Occupational Outlook Handbook job opportunities in community and social service occupations are expected to be excellent for associates degree, bachelor degree, and graduate degree holders. In Connecticut, the Occupational Forecast projects a 17.5% increase for health services managers and a 23.4% projected increase for social and community service managers who hold bachelor and graduate degrees: this underscores the importance of a robust transfer degree. Starting salary ranges for human services professionals with an A.S. degree is 25-35K, with a B.A/B.S.W. is 35-55K, and with a M.A./M.S.W. is 45-75k.

Curriculum

Course Number and Name [1]	L.O. #	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				General Education Courses		
ANT*105 Introduction to Cultural Anthropology	2, 6		3	ENG* 101 Composition COM*173 Public Speaking or BMG*204 Business & Professional Communication	6	3 3
HSE*101 Introduction to Human Services	1-5, 7		3	ENG*102 Introduction to Lit & Comp, or ENG*110 Introduction to Lit, or PHL*111 Ethics	6 or 4	3
HSE*141 Addiction/Mental	2-4		3	ART*101 Art History or		3

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

Health				ART*102 Art History: 1400 to Present		
HSE*243 Human Services Skills & Methods	1-7		3	BIO*115 Human Biology		4
HSE*281 Field Work 1	2-7		3	MAT*146 Math for Liberal Arts		3
PSY*111 General Psychology	2		3	POL*111 American Government	2	3
HSE*292 Human Services Internship, or BMG*210 Organizational Behavior, or any 200 level social science	2-7		3	ECN*101Macroeconomics or ECN*102 Microeconomics	2	3
SOC* 210 Sociology of the Family or PSY*211 Psychology of Women	2		3	SOC*101 Principles of Sociology	2	3
SOC*201 Contemporary Social Issues or SOC*221 Social Inequality	2		3	CSA*105 Introduction to Software Applications or BBG*115 Business Software Applications		3

Students: enrollment projection

PROJECTED Enrollment	First Term Year 1		First Term Year 2	
	Full Time	Part Time	Full Time	Part Time
Internal Transfers (from other programs)	na	na	na	na
New Students (first time matriculating)	15	17	16	18
Continuing (students progressing to credential)	25	53	26	54
Headcount Enrollment	40	70	42	72
Total Estimated FTE per Year	64		65	

Faculty
Heath Hightower: The Program Coordinator (PC) is a fully licensed clinical social worker with 18 years of mental health and substance abuse recovery practice experience. Concurrently, the PC has trained undergraduate and graduate students, either in the field or in the classroom, for 16 years.

Learning Resources
No additional laboratory or classroom equipment will be purchased to accommodate this program

Facilities
No change in facilities and no additional costs

Fiscal Note

PROJECTED Program Revenue	Year 1		Year 2	
	Full Time	Part Time (3 creds)	Full Time	Part Time (3 creds)
Tuition *(Do not include internal transfers)*	$81,320	$36,960	$87,276	$38,808
Program-Specific Fees				
Other Rev. *(Annotate in text box below)*				
Total Annual Program Revenue	$118,280		$126,084	

PROJECTED Expenditures*	Year 1		Year 2	
	Number *(as applicable)*	Expenditure	Number	Expenditure
Administration *(Chair or Coordinator)*				
Faculty *(Full-time, total for program)*	1	$89,175	1	$93,630
Faculty *(Part-time -total for program)*	2	$25,940	2	$27,235
Support Staff				
Library Resources Program				
Equipment *(List as needed)*				
Other (e.g. student services)				
Estimated Indirect Cost *(e.g. student services, operations, maintanance)*		$3,455		$3,625
Total ESTIMATED Expenditures		$118,570		$124,490

Review of Documents:
   a)   Campus Review
   b)   Campus Budget and Finance
   c)   Campus President
   d)   Academic Council

e)   System Office

<u>Accreditation:</u>

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

Modification of a Program

December 18, 2014

RESOLVED: That the Board of Regents for Higher Education approve the modification of a
program in the Human Services (A.S.) degree at Quinebaug Valley Community
College to substantively change the curriculum.

A True Copy:

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

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

*APPLICATION FOR **MODIFICATION OF ACCREDITED PROGRAM** (Public Higher Education Institutions) - 01/20/12*

SECTION 1: GENERAL INFORMATION	
Institution: Quinebaug Valley Community College	Date of Submission to BOR Office:

Most Recent NEASC Institutional Accreditation Action and Date:	April 2012 (Two Year Accreditation)

Original Program Characteristics	**Original Program Credit Distribution**
CIP Code No. **511502** Title of CIP Code **Human Services** CIP Year:	# Cr in Program Core Courses: **24**
Name of Program: **Human Services**	# Cr in General Education Courses: **31**
Degree: **Associates of Science**	# Cr of Electives in the Field: **6**
Certificate: *(specify type and level)*	# Cr of Free Electives: **0**
Date Program was Initiated:	# Cr Special Requirements *(include internship, etc.)*:**6**
Modality of Program: **X** On ground Online **X** Combined	Total # Cr in the Program *(sum of all #Cr above)*: **61**
If "Combined", % of fully online courses?	From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: **(ALL)**
Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, GenEd, other)*:	

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

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

X Significant Modification of Courses/Course Substitutions

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

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

Change of Degree Title or Program Title

Modified Program Characteristics	**Modified Program Credit Distribution**
Name of Program: **Human Services**	# Cr in Program Core Courses: **27**
Degree: **Associates of Science**	# Cr in General Education Courses: **31**
Certificate [1]: *(specify type and level)*	# Cr of Electives in the Field:**3 (see Description of Modification)**
Program Initiation Date: **Fall 2015**	# Cr of Free Electives: **0**
Modality of Program: **X** On ground Online Combined	# Cr Special Requirements *(include internship, etc.)*:**3**
If "Combined", % of fully online courses?	Total # Cr in the Program *(sum of all #Cr above)*:
Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, GenEd, other)*: Other:	From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: **61**

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

Program Discontinued: CIP: DHE# (if available):   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: Danielson

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: **Heath Hightower**	Title: **Human Services Program Coordinator**	Tel.:**860-932-4139** e-mail: hhightower@qvcc.commnet.edu

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

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

*APPLICATION FOR **MODIFICATION OF ACCREDITED PROGRAM** (Public Higher Education Institutions) - 01/20/12*

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[2] Final CIP assignment will be done by BOR staff in consideration of suggested number (if provided) and in consultation with administrative offices at the institution and system proposing the program. For the final assignment, the 2010 CIP definitions will be used.

SECTION 2: BACKGROUND, RATIONALE AND NATURE OF MODIFICATION
(Please Complete Sections as Applicable)

<u>Background and Rationale</u> *(Please provide the context for and need for the proposed modification, and the relationship to the originally approved program)* The Quinebaug Valley Community College's human services degree program needs modification for three reasons. First, the current program does not offer the best transfer pathway for students. At this time, students are only required to meet the most minimal transfer requirements. This puts QVCC students at a disadvantage when competing with other, more optimally prepared, students for admissions to Eastern Connecticut State University (QVCC's primary receiving school) or the other state universities: the proposed changes offer a more seamless transfer. Second, the current program does not adequately prepare students for human services careers in 2014 and beyond. Most of the entry level positions in human services require training in and experience with mental health and/or substance abuse. The current program does not adequately address these knowledge and skill bases. Third, and finally, the current program needs to be modified to remain competitive with other human services programs. Of the 10 Connecticut State Community Colleges that offer a human services degree, QVCC offers the fewest number of human services electives and only offers the minimal number of required human services courses to confer a degree.

<u>As applicable, please describe:</u>

<u>How does the program address CT workforce needs and/or the wellbeing of CT society/communities?</u> *(Succinctly present as much factual evidence and evaluation of stated needs as possible)*
Based on human services job listings for the 06241, 06239, and 06626 zip codes (January 2014-August 2014), 60% to 80% of the available job descriptions either require or strongly prefer training in mental health and/or substance abuse recovery. By modifying the program curriculum to emphasize mental health and substance abuse recovery, QVCC students will be more competitive for entry level human services jobs (residential counselors, social work assistants, mental health workers) and admissions to bachelor degree programs in human services and social work.

<u>How does the program make use of the strengths of the institution (</u>*e.g. curriculum, faculty, resources)* <u>and of its distinctive character and/or location?</u>
The Program Coordinator (PC) is a fully licensed clinical social worker with 18 years of mental health and substance abuse recovery practice experience. Concurrently, the PC has trained undergraduate and graduate students, either in the field or in the classroom, for 16 years. Thus, these professional training and teaching experiences make use of the PC's strengths. Additionally, QVCC is located in and/or near communities affected by substance abuse, mental health, and a range of other social and economic concerns. This reality provides an opportunity for QVCC and the human services program to better address these social problems through education and service.

<u>Please describe any transfer agreements with other institutions under the BOR that will become instituted as a result of the approval of this program</u> *(Please highlight details in the Quality Assessment portion of this application, as appropriate)* Transfer agreements with other CSCUs is anticipated as a result of the T.A.P. process.

<u>Please indicate what similar programs exist in other institutions within your constituent unit ³, and how unnecessary duplication is being avoided.</u> None.

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[3] Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

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

According to the U.S. Department of Labor Occupational Outlook Handbook job opportunities in community and social service occupations are expected to be excellent for associates degree, bachelor degree, and graduate degree holders. According to the U.S. Department of Labor, the professional/managerial area of labor employment represents the second fastest sector of projected growth. In Connecticut, the Occupational Forecast projects a 17.5% increase for health services managers and a 23.4% projected increase for social and community service managers who hold bachelor and graduate degrees: this underscores the importance of a robust transfer degree.

Description of Modification *(Please provide a summary of the modifications to curriculum, admissions or graduation requirements ,mode of delivery etc., and concisely describe how the institution will support these changes.* Increased rigor and transferability drive the proposed changes. The proposed changes include modifications to general education and human services program core requirements. In terms of general education core changes, there will be a limited number of prescribed electives. To fulfill communication skills requirements, student may choose either COM* 173 or BMG* 204. To fulfill humanities requirements, students may choose ENG* 102, 110, or PHL* 111, and ART* 101 or 102. The math requirement is being increased to MAT* 137 or higher. To fulfill the social science requirement students must take SOC * 101 and can choose between ECN* 101 or 102.

In terms of the human services program requirements, HSE* 141 Addiction/Mental Health and 243 Human Services Skills and Methods will be added. HSE* 281 Field Work 1 will be modified: students will not be in internships, rather they will learn the knowledge bases and skills required to successfully complete an internship. HSE* 282 Field Work 2 will be modified: this course will be offered as a tutorial and will be optional. Students currently working in the field will be allowed to use their place of employment as their internship site. Students not currently working in the field will complete a 120 hour internship. All students taking HSE* 292 will complete an agency-community analysis project. In lieu of HSE* 292, students will need to select another social science elective: this will be recommended for students who are currently working in the field and plan on transferring to a four year college or university. Finally prescribed electives include SOC* 210 or PSY* 211, SOC* 201 or SOC* 221, and HSE* 147 or 210.

No new modes of delivery are required.

These changes are currently supported by QVCC: no new resources will needed to be allocated at this time.

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Description of Resources Needed *(As appropriate please summarize faculty and administrative resources, library holdings, specialized equipment, etc. Details to be provided in the next section, as appropriate)*
No additional resources are needed at this time.

Other Considerations

Previous Three Years Enrollment and Completion for the Program being Modified

ACTUAL Enrollment	First Term, Year 2014		First Term, Year 2013		First Term, Year Fall 2012	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Internal Transfers	na	na	na	na	na	na
New Students	15	17	18	22	11	25
Returning Students	25	53	21	53	17	60
ACTUAL Headcount Enrollment	110	(FT and PT)	114	(FT and PT)	113	(FT and PT)
ACTUAL FTE per Year	64	(Fall Term ONLY)	57	(Fall & Spring 2013	56	(Fall & Spring 2012

			Terms)		Terms)
Size of Credentialed Group for Given Year					

AcadYR	Credit Hours	FTE	
2012_13	1670	56	Fall & Spring Terms FTE: Sum of Credit Hours divided by 30
2013_14	1722	57	
2014_15	960	64	Fall Term FTE: Sum of Credit Hours divided by **15**

Curriculum Details for a Program Modification *(to be use as appropriate for specific modification request)*[4]						
Course Number and Name [5]	L.O. #	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				**General Education Courses**		
ANT*105			3	ENG* 101 COM*173 **or** BMG*204		3 3
HSE*101			3	ENG*102, **or** ENG*110, or PHL*111		3
HSE*141			3	ART*101 **or** ART*102		3
HSE*243			3	BIO*115		4
HSE*281			3	MAT*137 **or** higher		3
PSY*111			3	POL*111		3
HSE*292, **or** BMG*210, or any 200 level social science			3	ECN*101 **or** ECN*102		3
SOC* 201 or PSY*211			3	SOC*101		3
SOC*201 or SOC*221			3	CSA*105 **or** BBG*115		3
HSE* 147 or HSE*210			3			
Core Course Prerequisites				**Available Program Elective Courses**		
			30			31
*HSE 292 should be taken by students who have no experience in the human services field.						

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[4] **Details of course changes for Community College institutions should be provided with enough detail to introduce necessary changes in the centralized programmatic database for that system.**

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

Total Other Credits Required to Issue Modified Credential				61

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

- be able to identify, describe, and analyze the historical and philosophical foundations of social welfare.
- be able to identify, analyze, and apply a range of social science frameworks to micro-, mezzo-, and macro-systems.
- be able to define, describe, analyze, and apply assessment and problem-solving approaches to a range of social problems.
- be able to identify, describe, analyze, and apply ethical principles and frameworks.
- be able to build and sustain professional relationships with diverse populations.
- be able to apply active listening, verbal, non-verbal, and written communication skills with diverse populations.
- be able to self-evaluate thoughts, feelings, and behaviors to ensure professional conduct.

SECTION 3: RESOURCE AND FINANCIAL CONSIDERATIONS

Two-Year Cost Effectiveness and Availability of Adequate Resources
(Please provide attach a Pro-Forma Budget for the modification of program in the format provided)

No additional resources are required to support the implementation of the program. Current programmatic budget and staffing level is considered to be sufficient to facilitate program management.

CT Board of Regents for Higher Education
Modification of an Accredited Program <u>PRO FORMA</u> [1] BUDGET 1/20/12

Institution: QVCC   *Date*   9/30/2014

Proposed Program: Human Services

PROJECTED Enrollment	First Term Year 1		First Term Year 2			
	Full Time	Part Time	Full Time	Part Time		
Internal Transfers *(from other programs)*	na	na	na	na		
New Students *(first time matriculating)*	15	17	16	18		
Continuing *(students progressing to credential)*	25	53	26	54		
Headcount Enrollment	40	70	42	72		
Total Estimated FTE per Year	64		65			

PROJECTED Program Revenue	Year 1		Year 2			
	Full Time	Part Time (3 creds)	Full Time	Part Time (3 creds)		
Tuition *(Do not include internal transfers)*	$81,320	$36,960	$87,276	$38,808		
Program-Specific Fees						
Other Rev. *(Annotate in text box below)*						
Total Annual Program Revenue	$118,280		$126,084			

PROJECTED Expenditures*	Year 1		Year 2			
	Number *(as applicable)*	Expenditure	Number	Expenditure		
Administration *(Chair or Coordinator)*						
Faculty *(Full-time, total for program)*	1	$89,175	1	$93,630		
Faculty *(Part-time -total for program)*	2	$25,940	2	$27,235		
Support Staff						
Library Resources Program						
Equipment *(List as needed)*						
Other (e.g. student services)						
Estimated Indirect Cost *(e.g. student services, operations, maintanance)*		$3,455		$3,625		
Total ESTIMATED Expenditures		$118,570		$124,490		

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

Please provide any necessary annotations: Estimated Indirect Cost was calculated as 3% of wages. It is assumed it is operations, maintenance, and student services costs.

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning
SUPPORT OF INSTITUTIONAL FINANCIAL AID FOR ALL STUDENTS REGARDLESS OF IMMIGRATION STATUS
in the CONNECTICUT STATE UNIVERSITY SYSTEM

WHEREAS, Many undocumented immigrant students cannot afford higher education because they are not eligible for any state or federal need-based financial aid;

WHEREAS, Connecticut enacted H.B. No. 6390 in 2011 to provide qualified undocumented students with access to in-state tuition rates, but many undocumented students are still financially deterred from obtaining post-secondary education due to high tuition costs and the lack of available financial aid;

WHEREAS, Currently, state colleges and universities provide institutional aid to students who demonstrate financial need by allocating fifteen percent of tuition dollars towards need-based financial aid purposes;

WHEREAS, undocumented students therefore pay into the pool of money that they are denied access to;

WHEREAS, Additionally, Conn. Gen. Stat. § 10a-77(f) and Conn. Gen. Stat. § 10a-99(f) permits community colleges and state universities to set aside one percent of anticipated tuition revenue for students "who would not otherwise be eligible for financial assistance but who do have a financial need.";

WHEREAS, Unlike state aid, institutional aid does not require that its recipients be residents of the state under Conn. Gen. Stat. § 10a-99; therefore, undocumented students eligible for in-state tuition should be eligible to apply for such aid.

BE IT RESOLVED THAT, The Board of Regents prohibit state universities and community colleges from denying institutional aid based on immigration status;

BE IT FURTHER RESOLVED THAT, The Board of Regents of Higher Education implements an application process that would permit students to demonstrate financial need without the use of a Social Security number; the Student Advisory Council to the Board of Regents of Higher Education recommends such forms as the CSS Profile, NEED Access, and the CA DREAM Act;

BE IT FURTHER RESOLVED THAT, The Student Advisory Council to the Board of Regents of Higher Education fully supports and recommends the adoption of a policy and the implementation of a form to make institutional aid and the one percent set-aside aid available to undocumented students.

ITEM

Certificate in Biotechnology at Middlesex Community College

BACKGROUND

Summary

Middlesex Community College is proposing a new, 22-credit certificate in Biotechnology. The proposed Biotechnology Certificate would build on the 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 proposed Certificate would establish a stackable program with both the Biotechnology A.S. and through it with other higher degrees. In addition, it would provide 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.

The current coordinator of the Biotechnology A.S. degree program frequently finds that students taking her advanced classes already have a bachelor's degree in some field. Students with prior educational related backgrounds are the main candidates for this Certificate, which can be completed in one year when attending full-time. Since the program is fully stackable with the Associate's Degree there is no penalty for students who subsequently decide to switch to pursuit of the A.S.

This new certificate proposal is one result of intensive curriculum development happening at the college, brought about by its participation in a consortium of CSCU institutions known as the Health & Life Sciences Initiative. This initiative has been funded by a $12 million Trade Adjustment Assistance Community College and Career Training (TAA-CCCT) grant, with an implementation period of October 2012 through September 2015. Consortium members are Capital, Gateway, Manchester, Middlesex, and Norwalk Community Colleges; Eastern Connecticut State University, and Charter Oak State College. The consortium will provide targeted certifications, industry-recognized credentials, and Associate degrees to prepare veterans, TAA impacted, dislocated, and other under-employed workers statewide for careers in health and life sciences.

Need for the Program

The biotechnology industry is currently experiencing resurgence in Connecticut. New companies are starting up and old ones are growing. The state has invested heavily with new initiatives, logistical support groups, and funding to promote growth of revenue and jobs in these companies. The majority of these companies are located in the southwestern region of the state, with the densities highest in New Haven County. This is leading to a growth in jobs and a need for trained professionals and expanded educational opportunities at all levels.

In 2013, the State of Connecticut announced that it will invest $200 million in a 10-year BioScience Innovation Fund. Governor Dannel P. Malloy stated that the fund will help in "positioning Connecticut to be a leader in the creation of 21st Century jobs." As reported in HartfordBusiness.com (2014, January 6), "The BioScience Facilities Fund helps qualified firms build out wet laboratory and related space to propel Connecticut's bioscience industry. Since its inception in 1998, the program has committed more than $37M translating into over 350,000 sq. ft. of lab and support space throughout the state, including 10,600 sq. ft. of transitional wet laboratory space in New Haven's Science Park at Yale." In the Farmington area, Jackson Laboratory serves as the "face" of the state's billion-dollar Bioscience Connecticut initiative. This new 189,000 square foot facility will be focused on genomics and medical research and is hoped to spawn nearly 16,000 jobs over 25 years. They also believe that they will create momentum in the area generating new collaborations between academia, spin-off companies and attracting new biotech investors to the region.

At the national level, the demand for biological technicians is expected to grow on average by 14% in the coming decade, equivalent to the average growth rate of all jobs.[1] This number is considerably higher for other job titles that fall under the broad field of biotechnology like biochemists and biophysicists who have an expected growth rate of 31% in this decade and medical and clinical laboratory technologists and technicians expected to increase by 22.5%.[3] While these professions require advanced degrees, training and education at the undergraduate level can enhance their success and help students choose their profession. Chemical technicians, requiring an Associate's degree, are expected to experience the average growth rate nationally.

In the state of Connecticut employment as a biological technician is predicted to grow faster than average and has a projected 16.1% increase in job growth. [2] It has been placed on the CT DOL list of in-demand occupations which notes the fastest growing occupations in Connecticut. Associated occupations in Connecticut include chemists which have a job outlook expected to increase by 14.7%, and medical scientists (31.5%).[3] chemical technicians, requiring only an A.S. are expected to experience relatively average growth in the state (15%).[4]

<u>Curriculum</u>

The proposed new certificate will increase and improve the laboratory techniques skills set taught in the Associate Degree program in Biotechnology. With so many research fields in biology, new discoveries are made every day. Biotechnology is no exception, and instead is a cornerstone of this continued advancement. Therefore, it is imperative that the college update its

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[1] Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2012-13 Edition, Biological Technicians,
http://www.bls.gov/ooh/Life-Physical-and-Social-Science/Biological-technicians.htm (visited November 25, 2013).
[2] Connecticut Department of Labor, Labor Market Information,
http://www1.ctdol.state.ct.us/jcc/profile.asp?strMethod=keyword&sstrOccupationCode=194021 (accessed September 9th, 2014).
[3] Connecticut Labor Market Information, Fastest Growing Occupations in Connecticut. Date accessed: December 5, 2013. http://www1.ctdol.state.ct.us/lmi/hotnot_results.asp
[4] Connecticut Department of Labor, Labor Market Information,
http://www1.ctdol.state.ct.us/STEMs/stemoccprofile.aspx?strOccCode=19-4031.00

biotechnology program to reflect a curriculum that includes bioinformatics and a higher level of biotechnology skills. Biotechnology businesses are looking for individuals that not only have the skills and knowledge, but also emphasize good management practices that focus on quality, sterility, documentation, regulatory compliance, and safety in the laboratory environment.

The Biotechnology Certificate consists of 6 courses:

- BIO*109, "Principles of Biotechnology" (3 credits)
- BIO*222, "Molecular Biotechniques" (4 credits)
- BIO*235, "Microbiology" (4 credits) **or** BIO*263, "Molecular Genetics" (4 credits)
- CHE*220, "Biochemistry" (4 credits) **or** CHE*112, "Organic Chemistry/biochemistry" (4 credits)
- CHE*250, "Instrumental Analysis" (4 credits)
- BIO*296, "Biotechnology Internship" (3 credits)

All of the courses listed above currently existing in the Biotechnology A.S. degree program.

Upon completion of the Biotechnology certificate, graduates will be able to:

1. Conduct themselves as lab technicians in a biotechnology laboratory with the basic skills and knowledge required to function effectively in a research setting.
2. Demonstrate proficiencies in both basic and advanced principles of chemistry and biology that are required by a person working as a lab technician or planning to enter into a four-year college science program.
3. Explain the basic principles of genetics, molecular biology, cell biology, chemistry, biochemistry, and microbiology.
4. Employ sterile technique in the handling of microbial cultures with knowledge of what is safe and what is hazardous.
5. Prepare solutions and perform accurate measurements using precision instruments such as balances and micropipettors.
6. Demonstrate skills in the use of recombinant DNA techniques, PCR, DNA sequence analysis, HPLC, gas chromatography, mass spectroscopy, IR spectroscopy, UV/VIS spectroscopy, as well as the use of the computer to collect and analyze experimental data.
7. Recognize the ethical issues that are relevant to the field of biotechnology.

<u>Students</u>

Biotechnology A.S. Program Enrollments & Graduates AY2009- Y2013

Biotechnology	Fa09	Sp10	Fa10	Sp11	Fa11	Sp12	Fa12	Sp13	Fa13	Sp14
FT Enrollment	5	7	9	6	9	7	11	12	5	6
PT Enrollment	7	10	7	9	8	9	10	7	9	8
Total Enrollment	12	17	16	15	17	16	21	19	14	14

Graduation Numbers (spring)		2		5		2		4		0
Forensic Science	**Fa09**	**Sp10**	**Fa10**	**Sp11**	**Fa11**	**Sp12**	**Fa12**	**Sp13**	**Fa13**	**Sp14**
FT Enrollment	8	7	6	4	6	5	12	8	10	4
PT Enrollment	1	1	3	7	4	5	3	5	4	6
Total Enrollment	9	8	9	11	10	10	15	13	14	10
Graduation Numbers (spring)		0		0		0		3		2
Total Biotech Enrollment	**21**	**25**	**25**	**26**	**27**	**26**	**36**	**32**	**28**	**24**

It is anticipated that the currently enrolled cohort in the biotechnology A.S. degree would contain a number of students that would benefit from the certificate option over the longer A.S. route as they may already have a B.S. from another country or are career changers.

Faculty:

Faculty Name and Title	Institution of Higher Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities
Kimberly Thomas Associate Professor	Ph.D. Chemistry, University of Rhode Island, 2000 M.S. Chemistry, Saint Joseph College, 1994 B.S. Biology, Southern Connecticut State University, 1987	Chemistry	Responsible for teaching chemistry courses at the introductory and advanced level including instrumentation.
Michelle Tipton Assistant Professor and Biotechnology Program Coordinator	Ph.D. Biology, Wesleyan University, 2013 M.A. Ecology and Environmental Science, Central Connecticut State University B.S. Marine Biology, University of Rhode Island	Biology, Ecology, and Molecular Genetics including research in phylogenetics	Responsible for teaching introductory biology and upper level biology courses. Current coordinator duties include preparing, placing, and guiding biotechnology students into internships.
Madhavi Shah Instructor	Ph.D. Microbial Biology, Rutgers University 2013 B.S. Microbiology, Rutgers University, 2008	Genetics, biochemistry, microbiology, general biology	Coordinates and teaches microbiology labs.

<u>Learning Resources & Facilities</u>

The college has adequate learning resources and facilities to continue this program for the foreseeable future.

<u>Fiscal Note:</u>

As indicated in the attached Pro-Forma Budget, this new certificate is fully covered in the currently existing biotechnology A.S. degree program. Thus, there are no additionally funds needed and enrollment is not forecast to exceed the A.S. degree program.

<u>Review of Documents:</u>

a) Campus Review
b) Campus Budget and Finance
c) Campus President
d) Academic Council
e) System Office

<u>Accreditation:</u>

This program is not separately accredited, but rather falls under the general accreditation of the college by the New England Association of Schools and Colleges.

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

Licensure of a NewProgram

December 18, 2014

RESOLVED: That the Board of Regents for Higher Education license a program in Biotechnology leading to a Certificate at Middlesex Community College for a period of three years until December 30, 2017.

A True Copy:

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

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION
APPLICATION FOR NEW PROGRAM APPROVAL (Public Higher Education Institutions) - 01/20/12

SECTION 1: GENERAL INFORMATION

Institution: Middlesex Community College	Date of Submission to BOR Office:

Most Recent NEASC Institutional Accreditation Action and Date: April 22, 2014 – Reaccredited; Next Evaluation Fall 2022

Program Characteristics	Program Credit Distribution
Name of Program: **Biotechnology Certificate**	# Cr in Program Core Courses: **19**
Degree: Title of Award *(e.g. Master of Arts)* **Certificate**	# Cr of Electives in the Field: 0
Certificate: *(specify type and level)* **Biotechnology Certificate**	# Cr of Free Electives: 0
Anticipated Program Initiation Date: **Spring 2015**	# Cr Special Requirements *(include internship, etc.):* **3**
Anticipated Date of First Graduation: **Spring 2016**	<u>Total # Cr in the Program</u> *(sum of all #Cr above)*: **22**
Modality of Program: X On ground Online Combined	From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: **22**
If "Combined", % of fully online courses? 0%	
Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, GenEd, other)*: **22**	

Type of Approval Action Being Sought: X Licensure OR   Licensure and Accreditation
Suggested CIP Code No. *(optional)*   Title of CIP Code   CIP Year: 2000   or 2010

If establishment of the new program is concurrent with discontinuation of related program(s), please list for each program:
Program Discontinued: CIP: DHE# (if available):   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: **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: Dr. Steven Minkler	Title: **Dean of Academic Affairs**	Tel.: **860.343.5706** e-mail: sminkler@mxcc.edu

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

BOR Sequence Number (to be assigned):
Approved 2010 CIP Code No. [1]   Title of CIP Code
Log of BOR Steps Towards Program Approval:

Nature and Resolution number for BOR Approval: Date of Approval:
Conditions for Approval (if any)

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[1] Final CIP assignment will be done by BOR staff in consideration of suggested number (if provided) and in consultation with academic offices at the institution and system proposing the program. For the final assignment, the 2010 CIP definitions will be used.

SECTION 2: PROGRAM PLANNING ASSESSMENT *(To be Used for BOR Review Only)*

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

Connecticut's community colleges are part of the Connecticut State College and University (CSCU) system and share a "mission to make excellent higher education and lifelong learning affordable and accessible to all Connecticut citizens" and to "support the economic growth of the state and its citizens through programs and partnerships that supply business and industry with a skilled, well-trained work force." The creation of a Biotechnology Certificate would contribute to the college's ability to fulfill this mission by providing the scientific background and hands-on skill required by laboratory setting and the biotechnology industry, and by providing a viable option for students with existing degrees in related fields. This Certificate would also contribute to the college's ability to meet its mission by providing an additional option to help students achieve their "professional and career potentials". It is a means to help accomplish one of the goals of the college's Strategic Plans (2011-2016) to "Optimize Curriculum" by offering a certificate that can complement the existing A.S. degree program and provide students with a more tailored option that can meet employer needs.

The proposed Biotechnology Certificate would build on the recently approved revisions to the Biotechnology Associate's Degree, developed under the Health & Life Sciences Career Initiative (HLSCI). This The Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant program awarded $12 million to a consortium of CSCU institutions, including MxCC, to develop academic programming and instructional content in support of health and life science career pathways. 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 proposed Certificate would establish a stackable program with both the Biotechnology A.S. and through it with other higher degrees. In addition, it would provide 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.

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

The Biotechnology Certificate will prepare students with a biology and/or chemistry background (coursework, A.S., B.S. or beyond) with the current knowledge and technical skills necessary to work as a technician in biotechnology or related companies and institutions.

The biotechnology industry is currently experiencing a resurgence in Connecticut. For example, in 2013, the State of Connecticut announced its commitment to invest $200 million in the 10-year Bioscience Innovation Fund. The Governor stated that the fund will help in "…positioning Connecticut to be a leader in the creation of 21st Century jobs".

The Jackson Laboratory has brought its business to Connecticut and is the "face" of the state's billion dollar Bioscience Connecticut initiative. They are building a new 189,000 square foot facility in Farmington which will be focused on genomics and medical research and is hoped to spawn nearly 16,000 jobs over 25 years. They also

believe that they will create momentum in the area generating new collaborations between academia, inspiring spin-off companies and attracting new biotech investors to the region.[2] In addition this attention is resulting in the creation of new and expanded small biotech firms that can expand employment potential. The result is a projected increase in related jobs, and the need for workers educated in biology, genetics, biochemistry, laboratory skills and good management practices (GMP).

At the national level, the demand for biological technicians is expected to grow on average by 14% in the coming decade, equivalent to the average growth rate of all jobs.[3] This number is considerably higher for other job titles that fall under the broad field of biotechnology like biochemists and biophysicists who have an expected growth rate of 31% in this decade and medical and clinical laboratory technologists and technicians expected to increase by 22.5%.[3] While these professions require advanced degrees, training and education at the undergraduate level can enhance their success and help students choose their profession. Chemical technicians, requiring an Associate's degree, are expected to experience the average growth rate nationally.

In the state of Connecticut employment as a biological technician is predicted to grow faster than average and has a projected 16.1% increase in job growth.[4] It has been placed on the CT DOL list of in-demand occupations which notes the fastest growing occupations in Connecticut. Associated occupations in Connecticut include chemists which have a job outlook expected to increase by 14.7%, and medical scientists (31.5%).[5] chemical technicians, requiring only an A.S. are expected to experience relatively average growth in the state (15%).[6]

Biotechnology and related companies are engaged in activities that have the potential to benefit the society at large, including: development of new/more effective vaccines, improved agricultural products, medical applications of genomic research, and the development of new manufacturing materials. While many of these advances will benefit people on a regional, national or even global level, there are local effects as well, including local distribution of vaccines, collaboration with existing and new firms to test and market products, and expanded opportunities for stable and rewarding employment.

- 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?

Students will benefit from MxCC's experience with the Biotechnology A.S. degree program, improved facilities, potential undergraduate research opportunities, experienced faculty and centralized location with easy access to towns and regions with biotechnology facilities including Farmington, Meriden, New Haven, and Branford and relatively close proximity to Fairfield county, which hosts a number of companies. Middlesex Community College (MxCC) has one of the first and longest continuously run Biotechnology A.S. programs in CT. It was revised last year to incorporate curriculum and skill sets required by advanced degrees and employers in the field. Recruitment for the revised program will be aided by the HLSCI and is expected to increase enrollment. The

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[2] HartfordBuisness.com. Lee spearheads Jackson Lab's $1B CT bioscience bet.
http://www.hartfordbusiness.com/article/20140106/PRINTEDITION/301029956. Date accessed: March 10, 2014
[3] Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2012-13 Edition, Biological Technicians,
http://www.bls.gov/ooh/Life-Physical-and-Social-Science/Biological-technicians.htm (visited November 25, 2013).
[4] Connecticut Department of Labor, Labor Market Information,
http://www1.ctdol.state.ct.us/jcc/profile.asp?strMethod=keyword&sstrOccupationCode=194021 (accessed September 9th, 2014).
[5] Connecticut Labor Market Information, Fastest Growing Occupations in Connecticut. Date accessed: December 5, 2013.
http://www1.ctdol.state.ct.us/lmi/hotnot_results.asp
[6] Connecticut Department of Labor, Labor Market Information,
http://www1.ctdol.state.ct.us/STEMs/stemoccprofile.aspx?strOccCode=19-4031.00

college has recently hired two full-time Biology faculty members that will support the program in Biology/Biotechnology and Microbiology (please see Program Administration section for more information). The college's Microbiology/Biotechnology lab recently expanded to include two additional seats. Additional equipment and financial support for student research is being sought from grants as well as from the college. Students are eligible to apply to the Summer Undergraduate Research Program at ECSU as part of the HLSCI, The college's biology labs, where many of the courses are taught, were fully renovated in 2013. Renovation of the chemistry lab facilities is scheduled for Summer 2015.

Students in this program are diverse and represent a variety of educational backgrounds and interests. Past students have included those with A.S., B.S. and even Master's Degrees, either from the US or abroad. In some cases their educational background has provided them with valuable workplace skills that make them excellent candidates for employment in the industry. Students with prior educational related backgrounds are the main candidates for this Certificate, which can be completed in a year when attending full-time. Since the program is fully stackable with the Associate's Degree there is no penalty for students who subsequently decide to switch to pursuit of the A.S.

- Please describe any transfer agreements with other institutions under the BOR 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)*

As part of the HLSCI Eastern CT State University is exploring bridges from the community colleges new and revised programs to bachelor's degrees at ECSU. MxCC's Biotechnology A.S. has been chosen as one of the programs for a bridge, and has currently begun review. MxCC is working with University of New Haven to develop an articulation agreement with their Biotechnology B.S. Of the courses included in the certificate, many will transfer within the CSCU system. For example, BIO 235 (Microbiology) is equivalent to CCSU's BMS 316 (Microbiology) and BIO 263 (Molecular Genetics) is equivalent to CCSU's BMS 306 (Genetics). BIO 263 can transfer as MCB 19503 to at UCONN (1000 level Genetics). CHE 250 (Instrumental Analysis) is considered a Chemistry Lab 2000 level at UCONN and at SCSU, CHE 440 (Instrumental Methods of Analysis). The current program has received inquiries about taking these specific courses from students at other institutions. The newly appointed Program Coordinator will seek formal articulation agreements for the Biotechnology program and its courses.
.

- Please indicate what similar programs exist in other institutions within your constituent unit [7], and how unnecessary duplication is being avoided

To our knowledge there is only one other community college offering a program in Biotechnology (Capital Community College), and there are no other Certificates in existence or in development. MxCC's central location for both students and employers would make it ideal for the additional of this Certificate.

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

The Certificate will allow those with a background in biology or chemistry to be qualified candidates for a variety of positions related to the biotechnology field, as well as chemical technicians, or, depending on their prior educational level, medical or clinical technicians and technologists, biochemists, biophysicists or related occupations. This certificate is intended as a stackable credential. As the industry continues to grow, the need for technicians is projected to grow as well (please refer to previous section entitled "Addressing Identified

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[7] Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

Needs"). This certificate will help advance the career status of a variety of individuals including: those with an associate's degrees, a bachelor degrees or higher, those looking to advance their current employment situation, high school teachers enrolled in masters degrees looking for more transferable courses in science, and those in health and science fields seeking a career change.

Cost Effectiveness and Availability of Adequate Resources
(Please provide a one-paragraph narrative on the attached MSExcel Pro-Forma Budget)

At this time please refer to the attached Biotechnology A.S. Degree program pro-forma budget. It is not anticipated that the Certificate will increase costs beyond the capacity of student enrollment to offset them For example, current section caps are anticipated to be adequate to allow for the addition of Certificate (vs. general or Biotechnology A.S.) students. Enrollment in the Biotechnology Certificate is anticipated to be lower than in the A.S. Degree program. No additional equipment and little additional supplies would be needed.

MxCC's current Biotechnology program coordinator would be assigned as the full-time faculty member responsible for overseeing the Certificate program. Since all the courses in this Certificate currently exist within the Biotechnology program, there are no additional expenditures needed to create the Certificate, and additional enrollment due to the Certificate program could increase income to the Biotechnology program in general, without substantially affecting expenditures.

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 completion of the Certificate, a student will be able to:

1. Conduct themselves as lab technicians with the basic skills and knowledge required to function effectively in a research and laboratory setting.
2. Demonstrate proficiencies in both basic and advanced principles of chemistry and biology.
3. Demonstrate knowledge of the basic principle of genetics, molecular biology, cell biology, chemistry, biochemistry, and microbiology.
4. Employ sterile technique in the handling of microbial cultures with knowledge of what is safe and what is hazardous.
5. Understand and have skills in making solutions used in the laboratory as well as how to make accurate measurements using precision instruments such as balances and micropipetters.
6. Perform the following tasks and show proficiency in techniques associated with recombinant DNA techniques, PCR, DNA sequence analysis, HPLC, gas chromatography, mass spectroscopy, IR spectroscopy, UV/VIS spectroscopy, as well as the use of the computer to collect and analyze experimental data.

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).*

Faculty Name and Title	Institution of Highest Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities
Michelle Tipton, Assistant Professor and Biotechnology Program Coordinator	Ph.D. Biology, Wesleyan University M.S. Ecology and Environmental Science, Central Connecticut State University	Researcher in Biotechnology	Program Coordinator for Biotechnology Degree 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? **None**

What percentage of the credits in the specialized program requirements will they teach? **(0%)**

What percent of credits in the specialized program requirements will be taught by adjunct faculty? **(10%)**

Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program. **Masters degree in biology or chemistry**

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 Cost Analysis Projection sheet for BOR review)*

No additional equipment or resources are anticipated to be required. The equipment and resources needed for

the Biotechnology Certificate program are currently available for use by the Biotechnology degree program at MxCC.

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. #[8]	Pre-Requisite	Cr Hrs
Certificate Core Courses			
BIO*109 Principles of Biotechnology	1, 5	Eligible for ENG*101 and MAT*137E (or higher)	3
BIO*222 Molecular Biotechniques	1, 2, 3, 4, 5, 6	*CHE*112 or higher and either BIO*121 or BIO*235,*	4
BIO*235 Microbiology or BIO*263 Molecular Genetics	1, 2, 4, 5, 6	*ENG*101 or 101E with a grade of "C" or better; CHE*111 (or higher) with a grade of "C" or better and either BIO*105 OR BIO*12*	4
CHE*220 Biochemistry or CHE*112 Principles of Organic and Biochemistry	1, 2, 3, 4, 5	*BIO*121 with a "C" or better and CHE*122 with a "C" or better.*	4
CHE*250 Instrumental Analysis	1, 2, 3, 4, 5, 6	*CHE*121, 122*	4
BIO*296 Biotechnology Internship	1, 2, 3, 4, 5, 6	Permission of Instructor	3
Total			**22**

Course Descriptions for Biotechnology Certificate Courses:

BIO*109, Principles of Biotechnology (3 credits)
This course provides a basic introduction to the field of biotechnology. Students will gain a broad understanding of the goals, products, practices, regulations, ethics, and career paths in the biotechnology industry. Students will acquire the fundamental knowledge of the biotechnology industry through the introduction of molecular biology, contemporary techniques, and applications. In addition, students will learn about current topics from lectures, as well as guest speakers from industry partners. This course is intended for students in the biotechnology program, as well as students exploring career options in the field of science. *Prerequisite: Eligible for both ENG*101 and MAT*137E (or higher).*

BIO*222, Molecular Biotechniques (4 credits/6 contact hours)
A laboratory course designed to introduce molecular biology techniques such as plasmid and chromosomal DNA isolation, restriction enzyme mapping, agarose gel electrophoresis, and manipulation of DNA fragments. Lecture: 3 hours per week. Laboratory: 3 hours per week. *Prerequisite: CHE*112 or higher and either BIO*121 or BIO*235, or permission of the instructor.*

BIO*235, Microbiology (4 credits/6 contact hours)
This is an introduction to general microbiology. The course is designed to meet the needs of pre-allied health students as well as biology or science majors. Topics include the structure, physiology, and molecular biology of microorganisms as well as the interactions between microbes and their hosts, including their role in the environment. Students also learn how microbes are studied and how they can cause disease and yet are

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

essential to human well-being. There are laboratory exercises each week that will teach the basics of aseptic techniques as well as handling, culturing, and identifying microbes. Lecture: 3 hours per week. Laboratory: 3 hours per week. *Prerequisites: ENG*101 or 101E with a grade of "C" or better; CHE*111 (or higher) with a grade of "C" or better and either BIO*105 OR BIO*121, taken within the past five years with a grade of "C" or better.* This is an 'L' course.

BIO*263, Molecular Genetics (4 credits/6 contact hours)
A study of the basic theory and application of classical and molecular genetics including human genetics, Mendelian inheritance, chromosomes, DNA structure and gene expression. The laboratory will emphasize application of genetic principles in model systems and will introduce modern molecular biology techniques such as DNA isolation, restriction enzyme analysis, agarose gel electrophoresis, recombinant DNA techniques and PCR analysis. Lecture: 3 hours per week. Laboratory: 3 hours per week. *Prerequisites: CHE*112 or BIO*121 or BIO*235, or permission of the instructor.*

CHE*112, Principles of Organic and Biochemistry (4 credits/6 contact hours)
An introduction to organic and biochemistry. Topics will include the major organic functional groups, carbohydrates, lipids, proteins, nucleic acids, as well as glycolysis, Krebs cycle, electron transport, protein synthesis, and DNA/RNA. Lecture: 3 hours per week. Laboratory: 3 hours per week. *Prerequisite: CHE*111 or CHE*121 or permission of the instructor.*

CHE*220, Biochemistry (4 credits)
This intermediate level course focuses on the details of the structure, function, and properties of biological molecules. The chemistry and metabolism of carbohydrates, lipids, proteins, and the role of enzymes and nucleic acids will be covered in detail. Concepts are discussed in the context of real world examples. This course includes laboratory work that will teach techniques such as pipetting, solution preparation, spectrophotometry, culturing, DNA manipulation, computer analysis, and gel electrophoresis. *Prerequisites: BIO*121 with a "C" or better and CHE*122 with a "C" or better.*

CHE*250, Instrumental Analysis (4 credits/6 contact hours)
This course is a theoretical and hands-on introduction to analytical instruments commonly used in chemical, biological, and environmental analyses. Students will become familiar with polarimetry, refractometry, spectrophotometry (infrared, ultraviolet, visible, and atomic absorption), and chromatography (paper, thin layer, gas-liquid, and liquid-liquid). Sample preparation, analysis, and data evaluation will be emphasized. Lecture: 3hours per week. Laboratory: 3 hours per week. *Prerequisite: CHE*121 with a grade of 'C-'or better, or permission of the instructor.*

BIO*296, Biotechnology Internship (3 credits)
Student will work a minimum of 160 hours in an industrial or research biotechnology laboratory learning new research skills and practicing skills learned in lab classes. *Prerequisite: Permission of the instructor.*

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 Higher Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities
Kimberly Thomas Associate Professor	Ph.D. Chemistry, University of Rhode Island, 2000 M.S. Chemistry, Saint Joseph College, 1994 B.S. Biology, Southern Connecticut State University, 1987	Chemistry	Responsible for teaching chemistry courses at the introductory and advanced level including instrumentation.
Michelle Tipton Assistant Professor and Biotechnology Program Coordinator	Ph.D. Biology, Wesleyan University, 2013 M.A. Ecology and Environmental Science, Central Connecticut State University B.S. Marine Biology, University of Rhode Island	Biology, Ecology, and Molecular Genetics including research in phylogenetics	Responsible for teaching introductory biology and upper level biology courses. Current coordinator duties include preparing, placing, and guiding biotechnology students into internships.
Madhavi Shah Instructor	Ph.D. Microbial Biology, Rutgers University 2013 B.S. Microbiology, Rutgers University, 2008	Genetics, biochemistry, microbiology, general biology	Coordinates and teaches microbiology labs.

Connecticut Board of Regents for Higher Education
APPLICATION FOR NEW PROGRAM APPROVAL PRO FORMA [1] BUDGET - RESOURCES AND EXPENDITURE PROJECTIONS

Institution	Middlesex Community College			*Date*	10/6/2014
Proposed Program	Biotechnology Certificate				

PROJECTED Enrollment	First Term Year 1 (2015)		First Term Year 2 (2016) = 13% growth		First Term Year 3 (2017) = 15% growth	
	Full Time (12+ cr.)	Part Time (<12 cr.)	Full Time (12+ cr.)	Part Time (<12 cr.)	Full Time (12+ cr.)	Part Time (<12 cr.)
Internal Transfers *(from other programs)*	1	2	1	2	1	2
New Students *(first time matriculating)*	2	4	2	4	2	4
Continuing *(students progressing to credential)*	0	0	0	6	0	10
Headcount Enrollment	3	6	3	12	3	16
Estimated "Credits Sold" to Students *assumes Full-Time Student = avg. of 13.5 credits Part Time Student = avg. of 7.5 credits*	41	45	41	90	41	120
Total Estimated FTE per Year (Credits Sold / 15)	6		9		11	
Assumptions:						

PROJECTED Program Revenue	Year 1 (2015-16)		Year 2 (2016-17)		Year 3 (2017-18)	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Tuition & fees*	$11,598	$15,564	$11,830	$31,751	$12,067	$43,181
Lab Fees (4 lab courses/student/year)	$1,008	$2,016	$1,028	$4,113	$1,049	$5,593
Other Rev. *(Annotate in text box below)*						
Total Annual Program Revenue	$30,186		$48,721		$61,889	

Tuition and Fees calculated using 2014-15 rates as follows. Full time: in-state, $1933/semester ($84 Lab fee where applicable); Part time: in-state, 8 credits, $1297/semester), plus 2% increase for years 2-3

PROJECTED Expenditures*	Year 1 (2015-16)		Year 2 (2016-17)		Year 3 (2017-18)	
	Number *(as applicable)*	Expenditure	Number	Expenditure	Number	Expenditure
Administration *(Chair or Coordinator)* - **EXISTING**						
Faculty *(Full-time, total for program)* - **EXISTING** plus 50% Fringe	Asst Prof/PC (Step 2)		Asst Prof/PC (Step 3)		Asst Prof/PC (Step 3)	
Faculty *(Part-time -total for program)*, *Additional Adjuncts Needed for Certificate Students*	3 WLU** (Salary + 50% Fringe)	$7,153	3 WLU** (Salary + 50% Fringe)	$7,153	6 WLU** (Salary + 50% Fringe)	$14,306
Support Staff	Lab support personnel	Included - College has an Academic Associate: Science Lab Supervisor for Entire Science Division				
Library Resources Program	estimated	Included in Parent Degree Program				
Equipment *(List as needed)*	Non-consumable supplies for new lab courses	Included in Parent Degree Program				
Other (e.g. student services)	calculated at $100 per FTE per year	$570		$870		$1,070
Estimated Indirect Cost *(e.g. student services, operations, maintenance)*	calculated at $200 per FTE per year	$1,140		$1,740		$2,140
Total ESTIMATED Expenditures		$8,863		$9,763		$17,516
NET New Revenue		$21,323		$38,959		$44,374

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

**Based on the 4C's Part-Time Lecturer Rates (the average of Level 1 and Level 2)*

ITEM
Associate in Science Degree in <u>Data Security Specialist</u> at **Gateway Community College**.

BACKGROUND
<u>Summary</u>

The Data Security Specialist Program was designed to align directly to career tracks with Yale University, Yale-New Haven Hospital, insurance industry, physicians' offices, science and drug research companies, short-term surgery practices, and health clinics. Gateway's mission enhances and works in concert with the purpose of the HL-SCI Initiative. Updating current programs and developing new programs that offer employer-requested skills opens a path for our students to improve required job skills, academic discipline, and employment opportunities.

<u>Need for the Program</u>

There are multiple requirements in healthcare, science, and drug research fields. Data security is a career that is in demand. The HIPPA (Health Insurance Portability and Accountability Act) Security Rule establishes national standards to protect individuals' electronic protected health information (e-PHI). The Security Rule requires appropriate administrative, physical and technical safeguards to ensure confidentiality, writing applications for mobile devices, and security of ePHI.

<u>Curriculum</u>

General Education Courses	Credits
ENG101 Composition	3
COM171 Fundamentals of Human Communications	3
MAT175 College Algebra and Trigonometry	3
Elective, Humanities	3
Elective, Social Science	3
Elective, Fine Arts	3
Elective, Natural Science	4
CSC101 Introduction to Computers	3
Core Discipline Courses	
CSC215 Programming with Object Oriented C++	4
CST133 Network Fundamentals 1	4
CST196 Protocol Analysis	3
CSTxx1 Network Security	3
CSTxx2 Malware Intervention	3
CSTxx3 Attacks and Counter Measures	3
CSTxx4 Cryptography Fundamentals	3
CSTxx5 Cyber Forensics	3
Elective, Restricted 1 (WD[#])	3
Elective, Restricted 2 (DB[#])	3
Elective, Restricted 3 (PL[#], NW[#], CSA296	3
Total Program Credits:	**60**

<u>Students</u>

Student success is the purpose of the creation and revision of our programs. Data security employees develop, manage, protect ePHI (protected health information), and oversee data integrity and compliance.

A data security employee plans and monitors security of computer networks, data transmission, and hardware. The research of several IT on-line career portals provides information about future growth of occupations.

- **Best Technology Job** - rates Information Security Analyst as the fourth highest growth for an occupation at 36.5 percent occupation growth by the year 2022.
- **IT Career Finder -** assembled a comparison of the decade's hottest technology careers. These careers will experience the fastest growth through 2020, pay salaries well above the national average, boost top employment, and offer a range of advancement opportunities. Security Specialist is one of the top ten careers.
- **IT Career Paths** - states computer support jobs are accepting Associates and Bachelor degrees.

Faculty

Teaching responsibilities for courses unique to the Data Security Specialist will be shared by Professor Wilfredo Rosado and Stacy Walker. The full-time faculty members involved with this proposed program are:

- Primary Instructor: Wilfredo Rosado, Assistant Professor, Rosado holds a Bachelor's degree in Electrical Engineering at Fairfield University and a Master's degree in Information Technology at Sacred Heart University.
- Secondary Instructor: Stacy Walker, Assistant Professor, holds a Bachelor's and Master's degree in Computer Information Systems at Quinnipiac University and Master's degree in Project Management at Colorado Technical University.
- Adjunct professors will be hired as required.

Allyson Kinney (PC) and Wilfredo Rosado will oversee the day-to-day operations of the proposed academic program.

Learning Resources

The majority of equipment necessary for the Associates Degree is available at the college. There will be the need for replacement of expendable supplies.

Facilities

- The majority of equipment necessary for the certificate is available at the college. There will be the need for replacement of expendable supplies such as hard disk drives, cabling, connection hardware, security tools software, and updated versions of software programs.

Fiscal Note

- The estimated enrollment per year is 20 students and a graduation number of 15 per year.
- Teaching responsibilities for courses unique to the Data Security Specialist will be shared by Professor Wilfredo Rosado, Professor Stacy Walker, and part-time instructors.

Review of Documents:
a)   Campus Review
b)   Campus Budget and Finance
c)   Campus President
d)   Academic Council
e)   System Office

Accreditation:
 N/A

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

Licensure of a New Program

December 18, 2014

RESOLVED: That the Board of Regents for Higher Education license a program titled Data Security Specialist leading to an Associate in Science (A.S.) degree at Gateway Community College for a period of three years until December 30, 2017.

A True Copy:

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

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

APPLICATION FOR NEW PROGRAM APPROVAL (Public Higher Education Institutions) - 08/25/14- 22:11

SECTION 1: GENERAL INFORMATION	
Institution: Gateway Community College	Date of Submission to BOR Office:

Most Recent NEASC Institutional Accreditation Action and Date:	

Program Characteristics	**Program Credit Distribution**
Name of Program: Data Security Specialist	# Cr in Program Core Courses: 38
Degree: Title of Award *(e.g. Master of Arts):* Associate in Science	# Cr of Electives in the Field: 9
	# Cr of Free Electives: 13
Certificate: *(specify type and level)*	# Cr Special Requirements *(include internship, etc.):* 0
Anticipated Program Initiation Date: Spring 2015	Total # Cr in the Program *(sum of all #Cr above)*: 60
Anticipated Date of First Graduation: Spring 2017	From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: 19
Modality of Program: On ground Online X Combined	
If "Combined", % of **Hybrid** courses? 70%	
% of On-ground courses? 30%	
Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, GenEd, other)*: 60	

Type of Approval Action Being Sought: Licensure OR __ Licensure and Accreditation
Suggested CIP Code No. *(optional)*   Title of CIP Code

If establishment of the new program is concurrent with discontinuation of related program(s), please list for each program:
Program Discontinued: CIP: DHE# (if available):   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: Main Campus – Downtown NH

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: Mark Kosinski	Title: Dean of Academics	Tel.: 203-285-2077 Email: mkosinski@gatewayct.edu

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[1] Final CIP assignment will be done by BOR staff in consideration of suggested number (if provided) and in consultation with academic offices at the institution and system proposing the program. For the final assignment, the 2010 CIP definitions will be used.

SECTION 2: PROGRAM PLANNING ASSESSMENT *(To be Used for BOR Review Only)*

Alignment of Program with Institutional Mission, Role and Scope

(Please provide objective and concise statements)

The mission of Gateway Community College is to respond to changing academic, occupational, technological, and cultural needs of a diverse population. To satisfy this mission, Gateway offers a range of technical associate degrees and certificate programs that prepare people who are under-employed, unemployed, or veterans for employment. The Health and Life Sciences Initiative (HL-SCI) follows the same employment mission focusing on healthcare, science, and affiliated jobs. To help fulfill this mission, we have gathered a planning team to advise and suggest strategies for new and revised programs that lead to employment. Therefore, the Data Security Specialist Program fits the mission of Gateway and the HL-SCI Initiative.

Gateway's team-based effort with the HL-SCI Initiative has expanded in two years. New programs are suggested by the planning team that is composed of area employers, Gateway faculty, and staff. The first program we developed was the Electronic Health Records and Coding. Support grew to include major revisions and new equipment purchases in the Allied Health programs and Nursing. Currently we are creating a Data Security Specialist and Mobile Application Development Program. Yale Hospital, Yale University, Quinnipiac University, clinics, emergent care facilities, and the insurance industry have employment openings for these programs.

The Health and Life Sciences Initiative is a federally mandated grant incorporating industry needs directly into training, skills, and the academic discipline necessary to promote students' success and job potential. By blending area employers and faculty, we promote greater collaboration, skill determination, prioritization of needs, and transparency between the content in Gateway's courses, programs of study, and occupational requirements. This joint venture satisfies the grant mandate and improves the value of a community college education.

We have a full-time Recruitment and Placement staff that mentors students and helps find and secure internships and possible job connections. The Data Security Specialist Program was designed to align directly to career tracks with Yale University, Yale Hospital, Saint Raphael's Hospital, physicians' offices, science and drug research companies, short-term surgery practices, and health clinics.

Gateway's mission enhances and works in concert with the purpose of the HL-SCI Initiative. Updating current programs and developing new programs that offer employer-requested skills opens a path for our students to improve required job skills, academic discipline, and employment opportunities.

Addressing Identified Needs

- How does the program address CT workforce needs and/or the wellbeing of CT society/communities?

There are multiple requirements in the new healthcare, science, and drug research fields. Data security is a career that is in demand. The HIPPA (Health Insurance Portability and Accountability Act) Security Rule establishes national standards to protect individuals' electronic protected health information (e-PHI). The Security Rule requires appropriate administrative, physical and technical safeguards to ensure the confidentiality, writing applications for mobile devices, and security of ePHI. Student success is front and center in the creation and revision of our programs. Data security employees develop, manage, protect ePHI (protected health information), and allow employers to focus on compliance and providing patient care.

A data security employee plans and monitors security of computer networks, data transmission, and hardware. The research of several IT on-line career portals help provide information about future growth of occupations.

- **Best Technology Job** - rates Information Security Analyst as the fourth highest growth for an occupation at 36.5 percent occupation growth by the year 2022.
- **IT Career Finder** - assembled a comparison of the decade's hottest technology careers. These careers will experience the fastest growth through 2020, pay salaries well above the national average, boost top employment, and offer a range of advancement opportunities. Security Specialist is one of the top ten careers.
- **IT Career Paths** - states computer support jobs are accepting Associates and Bachelor degrees.

- *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 Data Security Specialist Program will:
  - be taught in new, state-of-the-art labs. The new campus located in downtown New Haven is conducive to student congregation and learning.
  - use labs that have new computers, Smart boards with projectors, and network racks that are limited to individual classrooms.
  - add six new courses that can be utilized by this certificate and as restrictive electives for the Computer Science Network Option degree program, and it also utilizes three current courses.
  - have three courses are taught in the Computer Science Associate Program.
  - have two full time faculty members with the skills to teach courses. Professor Rosado can teach six of the courses and Professor Walker can teach three courses. Adjuncts will teach the remainder of the courses.
  - use computer networking lab (S309) that has been updated to support all the courses in this program.
  - increase students' marketability, skills, employment opportunities, and salary.

- *Please describe any transfer agreements with other institutions under the BOR 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).*
  As a result of the approval of the Data Security Specialist Program we will establish transfer agreements with:
  - Eastern Connecticut State University, B.S. Degree in Computer Science
  - Central State University, B.S. Degree in Computer Science
  - Western Connecticut State University, B.S. Degree in Computer Science
  - Charter Oak College, B.S. Degree in Data Security

- *Please indicate what similar programs exist in other institutions within your constituent unit [2], and how unnecessary duplication is being avoided.*
  1. Norwalk Community College has a Computer Security Associate's Degree. Norwalk's program is designed for individuals who seek employment as networking professionals with a minor emphasis in security management. The Data Security Specialist at Gateway offers a defense and forensics strategy, which includes cryptography, attack and counter measures, malware intervention and basic network security. Gateway's program will be aligned directly to skills and knowledge requested by employers on our planning team. Students can begin work as help desk technicians specializing in data security.
  2. Charter Oak College offers a non-credit Data Security Education Program for people with computer science degrees. Training is in specific areas for employed IT people. Gateway's Data Security Specialist degree trains people with little or no experience.
  3. Charter Oak offers a B.S. major in Data Security. Upon approval of Gateway's A.S. Degree Data Security Specialist, we will work to provide a transfer agreement with Charter Oak College.

  In order for Gateway to provide an affordable, sustainable, essential community-based program, we began program planning by gathering a team composed of area experts, Gateway faculty, and staff. The planning team met to establish essential job skills and determine how to model the new Data Security Specialist Program. Our planning team included:

Business Owners:

Russell, Chris	Goecart	Head up development and recruiting at, an ecommerce platform; and author of blog on CS careers
Garrety , Bill	Hillhouse High School	Assistant Principal, Career & Tech program
Nobile, Tanya	Knights of Columbus	Director of Application Support
Schoen-Rene, Karl	Knights of Columbus	Director of IT Security
Lancor, Lisa	SCSU	Program Coordinator for IT
Banet , Brian	Square 9 Softworks	Owner of in New Haven
Knowles, David	Stonington Police	(Det. Sgt.) , Fraud Division

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[2] Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

Thassim, Lafir	Ureach	Founder of software development company
Palinko, Rick	Veterans Affairs	Associate
Jasek , Bob	Yale	Security employee
Sharp, Russell	Yale	IT Director
Roer, Mike	Yale / Gateway	Consultant/Instructor
Cooney, Timothy	Yale Hospital	Director of Web Solutions (APP developer),
Nizami, Nassar	Yale Hospital	Chief Security Officer,
Aden, Marcus	Yale University	IT Compliance Officer,
Morrow Long, H.	Yale University	Associate Director, Information Security Office
Woods, Chris	Yale University	Serial entrepreneur, instructor

Gateway Business Department Faculty:

Rosado, Wilfredo	Assistant Professor	Computer Science/Networking
Walker, Stacy	Assistant Professor	Computer Science/Networking
Kinney, Allyson	Program Coordinator	Computer Science

Other Gateway Personnel:

Kosinski, Mark	Dean	Academic Affairs
Salay, Larry	Director	Information Technology
Carvalho, Celia	HLS	Grant Assistant
Hayes, Janet	HLS	Grant Coordinator
Roberts, Leigh	Recruitment and Placement	Coordinator
Byrd-Danso, Kellie	Director	Career Services & VA Affairs
Pratt, Fred	Recruitment and Placement Coordinator	CT Works

The planning team stressed that liberal arts courses available in an Associate's Degree are important because students gain vital capabilities such as critical thinking, creativity, adaptability, problem solving, and communication. The very nature of employment is changing. An Associate's Degree provides competence that can develop an adaptable, creative thinker.

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

The purpose of initiating a program in data security aims to fill the existing and future gaps in the job market for this area. Research into data security as a career helps to substantiate employment for students in a growing vocation and sustainable career. CyberArk is a cybersecurity firm that in September 14, 2014 raised over $80 million in an initial public offering of stock. A recent report, from the research group Center for Strategic and International Studies and antivirus firm McAfee, estimates the cost of global cybercrime at $445 billion last year. This research emphasizes the importance of health data, insurance information, drug and disease research, and secure communications between physicians, clinics, and hospitals. In an online article by the New York Times titled Pentagon to Beef Up Cyber Security Force to Counter Attacks (Bumiller, E. Pentagon Expanding Cybersecurity Force to Protect Networks Against Attacks [Internet]. New York City: New York Times. Elisabeth Bumiller: 2013 Jan 27.) Bumiller states that "the expansion would increase the Defense Department's Cyber Command by more than 4,000 people, up from the current 900." This underscores the commitment to include this program as part of HL-SCI Initiative.

The employment growth projections for data security positions from the online job source Indeed from 2010 – 2020 are:
1. 10-year growth: 22%
2. 10-year growth volume of jobs in the US: 67,000 new jobs
3. Average salary with 4 years of experience: $87,000
4. Starting salary for Help Desk technician is $25,000, average salary after four years is $46,000
5. There are 23 Help Desk jobs listed currently in Connecticut, 10 in Massachusetts, and 49 in New York
6. There are 2,532 data/cyber/IT security jobs listed currently in Connecticut.

Cost Effectiveness and Availability of Adequate Resources

(Please provide a one-paragraph narrative on the attached MS Excel Pro-Forma Budget)

- The estimated enrollment per year is 20 students and a graduation number of 15 per year.
- Teaching responsibilities for courses unique to the Data Security Specialist will be shared by Professor Wilfredo Rosado, Professor Stacy Walker, and part-time instructors.
- The majority of equipment necessary for the certificate is available at the college. There will be the need for replacement of expendable supplies such as hard disk drives, cabling, connection hardware, security tools software, and updated versions of software programs.

SECTION 3: PROGRAM QUALITY ASSESSMENT

Overall Learning Goal/Principal Learning Outcome for the Program:

The Data Security Specialist Program will prepare the student as a security specialist in I.T. data security. This program addresses the security specialist's everyday tasks of configuring, monitoring and repairing areas with security breech potential. This will include data security, Internet security, network security, email security, client and server forensics, and security for databases and database users. Recognition and intervention of malware is included in courses.

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 individuals graduating from our program will be able to:

1. Identify security vulnerabilities for multiple types of networks.
2. Understand the fundamentals of cryptography, data hiding/steganography, and forensics.
3. Identify malware, internal/external security attack and interventions.
4. Utilize the risk management model to forensically identify corporate threats and assess them in terms of their likelihood and impact.
5. Apply security hardware and software to network structures.
6. Develop team dynamics and working in groups, particularly in relation to the functioning of critical incident response teams.
7. Develop the framework for a generic security policy manual, identifying the items to be protected, parties responsible, and plan for response when a security breach is uncovered.
8. Work with and study the transmission infrastructure and client/server hardware and the software that supports the Internet.

The assessments that will be used in this degree include a variety of quizzes, exams, labs, oral presentations, and written assignments. Students will demonstrate proficiency via:

- Hands-on applications and projects
- Software simulations
- Integrated labs

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)*

Teaching responsibilities for courses unique to the Data Security Specialist will be shared by Professor Wilfredo Rosado and Stacy Walker. The full-time faculty members involved with this proposed program are:

- Primary Instructor: Wilfredo Rosado, Assistant Professor, Rosado holds a Bachelor's degree in Electrical Engineering at Fairfield University and a Master's degree in Information Technology at Sacred Heart University. Wilfredo has taught for 8 years as an adjunct and 5 years full time in the Computer Science department. He has worked in the field of networking for over 22 years.

- ▪ Secondary Instructor: Stacy Walker, Assistant Professor, holds a Master's degree in Computer Information Systems at Quinnipiac University and Master's degree in Project Management at Colorado Technical University.

- ▪ Adjunct professors will be hired as required.

Allyson Kinney (PC) and Wilfredo Rosado will oversee the day-to-day operations of the proposed academic 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 required, professors Rosado/ Walker and adjuncts will teach the courses.

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

Wilfredo Rosado and Stacy Walker will teach 30% of the courses in this program. Adjunct professors will teach 35% of the course load. The remaining 35% will be taught by the General Education professors.

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

Adjunct faculty will teach approximately 35% of the credits in this program.

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

The minimal qualifications of adjunct faculty teaching in this program will have a Master's Degree in computer science specializing in data and network security.

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 Cost Analysis Projection sheet for BOR review)*

The majority of equipment necessary for the Associates Degree is available at the college. There will be the need for replacement of expendable supplies.

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. #3	Pre/Co Requisite	Cr Hrs.	Course Number and Name	L.O. #	Cr Hrs.
General Education Courses				Other Related/Special Requirements		
ENG101 Composition			3			
COM171 Fundamentals of Human Communications			3			
MAT175 College Algebra and Trigonometry		MAT137	3			
Elective, Humanities			3			
Elective, Social Science			3			
Elective, Fine Arts			3			
Elective, Natural Science			4			
CSC101 Introduction to Computers			3			
Total:			25			
Core Discipline Courses						
CSC215 Programming with Object Oriented C++		CSC101	4			
CST133 Network Fundamentals 1		CSC101	4			
CST196 Protocol Analysis		CSC101	3			
CSTxx1 Network Security			3			
CSTxx2 Malware Intervention			3			

CSTxx3	Attacks and Counter Measures			3	
CSTxx4	Cryptography Fundamentals			3	
CSTxx5	Cyber Forensics			3	
	Elective, Restricted 1 (WD#)			3	
	Elective, Restricted 2 (DB#)			3	
	Elective, Restricted 3 (PL#, NW#, CSA296)			3	

Total:	35	Total:	0
Total Degree Credits:	60	Total Related Credits:	0

Restricted Electives: CSA*296, CSC*124, 150, 196, 207, 223, 257, 259, CST*127, 149, 152

Core Course Prerequisites		Elective Courses in the Field		
*Hybrid and/or traditional; **Fully online, and hybrid or traditional sections offered ***Fully online; # (WD) Web Design, (DB) Database, (PL) Programming Language, (NW) Networking Red indicates I still have not yet chosen course numbers from the common course list for these new courses.				

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. 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 Data Security Specialist Major entails 60 credits of Related Course requirements from a range of disciplines (22 credits of which apply to the Liberal Arts Core (LAC), or institution's GenEd program), 3 credits for an Introduction to Computers, 9 credits of coursework in computer sciences as a restrictive elective, and 26 credits of courses in programming, networking, and security.

[3] 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
Wilfredo Rosado	Sacred Heart University	Computer Science Networking and Network administration	Course preparation, student advising, Assist program coordinator, schedule courses, and maintain class/lab rooms.
Stacy Walker	Quinnipiac University	Computer Science and programming	Course preparation, student advising, Assist program coordinator, schedule courses, and maintain class/lab rooms.

Connecticut Board of Regents for Higher Education

APPLICATION FOR NEW PROGRAM APPROVAL PRO FORMA [1] BUDGET - RESOURCES AND EXPENDITURE PROJECTIONS

Institution	Gateway Community College		Date:	9/15/2014
Proposed Program	Data Security Specialist - A.S. Degree			

PROJECTED Enrollment	First Term Year 1		First Term Year 2		First Term Year 3	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Internal Transfer *(from other programs)*	5	5	5	5	5	5
New Students *(first time matriculating)*	5	10	10	12	12	15
Continuing *(students progressing to credential)*	0	0	10	12	12	15
Headcount Enrollment	10	15	25	29	29	35
Total Estimated FTE per Year						

PROJECTED Program Review	Year 1 (2013-14)		Year 2 (2014-2015)		Year 3 (2015-16)	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Tuition* *(Do not include internal transfer)*	$18,770	$37,540	$75,080	$90,096	$90,096	$112,620
Program-Specific Fees						
Other Rev. *(Annotated in text box below)*						
Total Annual Program Revenue	$56,310		$165,176		$202,716	

* Tuition is calculated using 2014-15 rates as follows. Full time: in-state, $1877 /semester ($1799 fee + $78 Lab Fee) for two semesters; Part time: in-state, 9 credits, $1432/semester ($1354 fee + $78 Lab fee) for two semesters

PROJECTED Expenditures**	Year 1		Year 2		Year 3	
	Number *(as applicable)*	Expenditure	Number	Expenditure	Number	Expenditure
Administration *(Chair or Coordinator)*	Coordinator already in place for existing programs, no added cost	$5,941		$6,119		$6,303
Faculty *(Full-time, total for program)*	re-allocation	$0		$0		$0
Faculty *(Part-time, total for program)* WLU*** *Part-time faculty *****	0	$0	0	$0	0	$0
Support Staff	No Additional	$0		$0		$0
Library Resources Program		$500		$515		$530
Equipment *(List as needed)*	Two new switches, Time domain meters, cable testers	$10,000	1 Switch, 1floor to ceiling rack	$5,000	1 Switch	$2,000
Other *(e.g. student services)*	Consumable supplies	$1,000	Consumable supplies	$1,250	Consumable supplies	$1,500
Estimated Indirect Cost *(e.g student services, operators, maintenance)*	calculated at $100 per FTE per year	$0		$0		$0
Total ESTIMATED Expenditures		$17,441		$12,884		$10,333

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

Please provide any necessary annotations: **** $1435/WLU plus 38% fringe, with annual 3% inflation adjustment* ***** Part-time faculty already teach these coures for existing programs*

[1] This PRO FORMA budget provides reasonable assurance that the program can be established and is sustainable. Some assumption and/or formulaic methodolgy may be used and annotated in the text box.

ITEM
New Associate in Science Degree for <u>Mobile Application Development</u> at **Gateway Community College**.

BACKGROUND
<u>Summary</u>
The Mobile Application Development Program was designed to align directly to career tracks with Yale University, Yale-New Haven Hospital, physicians' offices, science and drug research companies, insurance companies, short-term surgery practices, and health clinics. Gateway's mission enhances and works in concert with the purpose of the HL-SCI Initiative. Updating current programs and developing new programs that offer employer-requested skills opens a path for our students to improve required job skills, academic discipline, and employment opportunities.

<u>Need for the Program</u>
The Mobile Application Developer position was highlighted in ITCareerFinder, an online portal for IT professionals seeking to advance their careers, as the best computer career for the future. The Bureau of Labor Statistics predicts that the number of Computer Software Programmer jobs will grow by 28% (much faster than average) from 2010 to 2020 and mobile app developers will have approximately 82,000 jobs for associate degree holders during that period.

<u>Curriculum</u>

Program Core Courses	Credits
CSC 101, Introduction to Computers	3
CSC 150, Database Applications and Design-Using SQL	4
CSC 250, System Analysis & Design	3
CSC 215, Programming with Object Oriented C++	4
CSC 223, Introduction to JAVA Programming	4
CST 133 Network Fundamentals 1 or CST 180 Networking I	4
CSC 262 Programming Mobile Devices I	3
CSC 263 Programming Mobile Devices II	3
Restricted Elective	4
Restricted Elective	3-4
CSA 296 CWE – Computer Applications (Internship) or Restricted Elective	3
Total Program Core Credits	**37-39**
General Ed Courses	
ENG 101 Composition	3
COM 171 Communications	3
MAT 115 or MAT 137	3
Humanities	3
Social Science	3
Fine Arts	3
Natural Science	4
Total General Ed Courses	**22**
Total Program Credits	**60-61**

<u>Students</u>

The purpose of initiating a program in mobile application development is to fill existing and future gaps in the job market. Research into this career supports employment opportunities for students in a growing vocation and sustainable career. We are aligning our Mobile Application Development Program with direct input and

collaboration from area industry and employers. We will target employment with the following major institutions: Yale-New Haven Hospital, Yale University, Knights of Columbus, Square 9 Softworks, and Web Solutions. Our new campus in downtown New Haven better positions Gateway to partner with local area businesses. Many of these institutions provide internships in current programs often leading to employment.

We will have articulation agreements for a Bachelor's Degree in Computer Science at the University of Bridgeport and Central State University. In addition, there is a possibility of articulating with University of Hartford and University of New Haven.

Faculty

Teaching responsibilities for courses unique to the Mobile Application Specialist will be shared by Professor Stacy Walker and Wilfredo Rosado. The full-time faculty members involved with this proposed program are:

- Primary Instructor: Stacy Walker, Assistant Professor, holds a Bachelor's and Master's degree in Computer Information Systems at Quinnipiac University and Master's degree in Project Management at Colorado Technical University.
- Secondary Instructor: Wilfredo Rosado, Assistant Professor, Rosado holds a Bachelor's degree in Electrical Engineering at Fairfield University and a Master's degree in Information Technology at Sacred Heart University.
- Adjunct professors will be hired as required.

Allyson Kinney (PC) and Stacy Walker will oversee the day-to-day operations of the proposed academic program.

Learning Resources

Specialized software used to program applications for mobile devices (This software is available at no cost):

- **Google Android**
  MIT App Inventor
  http://appinventor.mit.edu/
- **Google Android SDK**
  http://developer.android.com/sdk/index.html
- **Apple iOS 6**
  iOS Software Development Kit
  https://developer.apple.com/devcenter/ios/index.action
  Note: The iOS SDK will only work on an Intel-based Mac
- **Microsoft Windows Phone SDK**
  Visual Studio 2010 Express for Windows Phone
  http://dev.windowsphone.com/en-us/downloadsdk

Facilities

No additional facility resources are necessary.

Fiscal Note

- The estimated enrollment per year is 20 students and a graduation number of 15 per year.
- Teaching responsibilities for courses unique to the Mobile Application Developer will be shared by Professor Stacy Walker, Wilfredo Rosado, and part-time instructors.
- The majority of equipment necessary for the degree is available at the college.

Review of Documents:

a)   Campus Review
b)   Campus Budget and Finance
c)   Campus President
d)   Academic Council
e)   System Office

<u>Accreditation:</u>
N/A

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

Licensure of a New Program

December 18, 2014

RESOLVED: That the Board of Regents for Higher Education license a program in Mobile
Application Development leading to an Associate in Science (A.S.) degree at Gateway
Community College for a period of three years until December 30, 2017.

A True Copy:

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

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION
*APPLICATION FOR **NEW PROGRAM APPROVAL** (Public Higher Education Institutions) - gb, CAOs 12/30/11*

SECTION 1: GENERAL INFORMATION	
Institution: Gateway Community College	Date of Submission to BOR Office:
Most Recent NEASC Institutional Accreditation Action and Date:	

Program Characteristics Name of Program: Mobile Application Development Degree: Title of Award *(e.g. Master of Arts)* Associate Degree Certificate: *(specify type and level)* Anticipated Program Initiation Date: Spring 2014 Anticipated Date of First Graduation: Fall 2017 Modality of Program: On ground Online X Combined If "Combined", % of fully online courses? 5% Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, GenEd, other)*: 59-61	**Program Credit Distribution** # Cr in Program Core Courses: 59-61 # Cr of Electives in the Field: # Cr of Free Electives: 0 # Cr Special Requirements *(include internship, etc.):* Total # Cr in the Program *(sum of all #Cr above)*: 59-61 From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: 37-39
Type of Approval Action Being Sought: Licensure OR Licensure and Accreditation Suggested CIP Code No. *(optional)* Title of CIP Code CIP Year: 2000 or 2010	
If establishment of the new program is concurrent with discontinuation of related program(s), please list for each program: Program Discontinued: CIP: DHE# (if available): 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:	

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: Mark Kosinsky	Title: Dean of Academics	Tel.: 203-285-2077 e-mail: mkosinski@gatewayct.edu

BOR REVIEW STATUS *(For Office Use Only - please leave blank)*
BOR Sequence Number (to be assigned): Approved 2010 CIP Code No. [1]   Title of CIP Code Log of BOR Steps Towards Program Approval:
Nature and Resolution number for BOR Approval: Date of Approval: Conditions for Approval (if any)

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[1] Final CIP assignment will be done by BOR staff in consideration of suggested number (if provided) and in consultation with administrative offices at the institution and system proposing the program. For the final assignment, the 2010 CIP definitions will be used.

SECTION 2: PROGRAM PLANNING ASSESSMENT *(To be used for BOR Review Only)*

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

The mission of Gateway Community College is to respond to changing academic, occupational, technological, and cultural needs of a diverse population. To satisfy this mission, Gateway offers a range of technical associate degrees and certificate programs that prepare people who are under-employed, unemployed, or veterans for employment. The Health and Life Sciences Initiative (HL-SCI) follows the same employment mission focusing on healthcare, science, and affiliated jobs. To help fulfill this mission, we have gathered a planning team to advise and suggest strategies for new and revised programs that lead to employment. The Mobile Application Development Program fits the mission of Gateway and the HL-SCI Initiative.

Gateway's team-based effort with the HL-SCI Initiative has expanded in two years. New programs are suggested by the planning team that is composed of area employers, Gateway faculty, and staff. The first program we developed was the Electronic Health Records and Coding. Support grew to include major revisions and new equipment purchases in the Allied Health programs and Nursing. Currently we are creating a Data Security Specialist and Mobile Application Development Program. Yale Hospital, Yale University, Quinnipiac University, clinics, emergent care facilities, and the insurance industry have employment openings for these programs.

The Health and Life Sciences Initiative is a federally mandated grant incorporating industry needs directly into training, skills, and the academic discipline necessary to promote students' success and job potential. By blending area employers and faculty, we promote greater collaboration, skill determination, prioritization of needs, and transparency between the content in Gateway's courses, programs of study, and occupational requirements. This joint venture satisfies the grant mandate and improves the value of a community college education.

We have a full-time Recruitment and Placement staff that mentors students and helps find and secure internships and possible job connections. The Mobile Application Development Program was designed to align directly to career tracks with Yale University, Yale Hospital, Saint Raphael's Hospital, physicians' offices, science and drug research companies, short-term surgery practices, and health clinics.

Gateway's mission enhances and works in concert with the purpose of the HL-SCI Initiative. Updating current programs and developing new programs that offer employer-requested skills opens a path for our students to improve required job skills, academic discipline, and employment opportunities.

Addressing Identified Needs

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

  ITCareerFinder, an on-line portal for helping IT professionals advance their careers, assembled a comparison of the decade's hottest technology careers. These careers will experience the fastest growth through 2020, pay salaries well above the national average, boost top employment, and offer a range of advancement opportunities. The Mobile Application Developer position was highlighted as the best computer career for the future. The Bureau of Labor Statistics predicts that the number of Computer Software Programmer jobs will grow by 28% (much faster than average) from 2010 to 2020 and mobile app developers will have approximately 82,000 jobs for associate degree holders during that period.

- *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?*
  - Provides advancement and evolution of knowledge.
  - Expands educational opportunities and choices for minority and educationally disadvantaged students at institutions of higher education, thus impacting and supporting our community.
  - Strengthens and delivers a high quality and unique educational programs.

- Furthers education in mobile computing and game programming. According to the Entertainment Software Association (http://www.theesa.com/facts/index.asp), the area of portable computing devices is growing at an exponential rate in America.

- *Please describe any transfer agreements with other institutions under the BOR 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)*

  As a result of the approval of the Mobile Application Development Program we will establish transfer agreements with:
  - Eastern Connecticut State University, B.S. Degree in Computer Science
  - Central State University, B.S. Degree in Computer Science
  - Western Connecticut State University, B.S. Degree in Computer Science
  - University of Bridgeport, B.S. Degree in Computer Science

  We will have articulation agreements for a Bachelor's Degree in Computer Science at the University of Bridgeport and Central State University. In addition, there is a possibility of articulating with University of Hartford and University of New Haven.

- *Please indicate what similar programs exist in other institutions within your constituent unit [2], and how unnecessary duplication is being avoided.*

  - Norwalk Community College has a Smartphone APP Developer Certificate. Gateway's Mobile Application Development Program offers a broader approach to mobile development. We are not restricting the platforms to only phones. In addition, our planning team emphasized that they wanted students with a minimum of an Associate's Degree in order to be considered for employment.

  This list of three online education sites and colleges offer courses. Our planning team stressed that there is important interaction in person that is required for this program.
  - FullSail.edu provides online courses in APP Development
  - IBM at MAAS360.com provides online APP development courses
  - UAB Collat, School of Business (uab.edu) provides an online degree in APP Development

  In order for Gateway to provide an affordable, sustainable, essential community-based program, we began program planning by gathering a team composed of area experts, Gateway faculty, and staff. The planning team met to establish essential job skills and determine how to model the new Mobile application Development Program. Our planning team included:

Business Owners:

Russell, Chris	Goecart	Head up development and recruiting at, an ecommerce platform; and author of blog on CS careers
Garrety , Bill	Hillhouse High School	Assistant Principal, Career & Tech program
Nobile, Tanya	Knights of Columbus	Director of Application Support
Schoen-Rene, Karl	Knights of Columbus	Director of IT Security
Lancor, Lisa	SCSU	Program Coordinator for IT
Banet , Brian	Square 9 Softworks	Owner of in New Haven
Knowles, David	Stonington Police	(Det. Sgt.) , Fraud Division
Thassim, Lafir	Ureach	Founder of software development company
Palinko, Rick	Veterans Affairs	Associate
Jasek , Bob	Yale	Security employee
Sharp, Russell	Yale	IT Director

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[2] Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

Roer, Mike	Yale / Gateway	Consultant/Instructor
Cooney, Timothy	Yale Hospital	Director of Web Solutions (APP developer),
Nizami, Nassar	Yale Hospital	Chief Security Officer,
Aden, Marcus	Yale University	IT Compliance Officer,
Morrow Long, H.	Yale University	Associate Director, Information Security Office
Woods, Chris	Yale University	Serial entrepreneur, instructor

Gateway Business Department Faculty:

Rosado, Wilfredo	Assistant Professor	Computer Science/Networking
Walker, Stacy	Assistant Professor	Computer Science/Networking
Kinney, Allyson	Program Coordinator	Computer Science

Other Gateway Personnel:

Kosinski, Mark	Dean	Academic Affairs
Salay, Larry	Director	Information Technology
Carvalho, Celia	HLS	Grant Assistant
Hayes, Janet	HLS	Grant Coordinator
Roberts, Leigh	Recruitment and Placement	Coordinator
Byrd-Danso, Kellie	Director	Career Services & VA Affairs
Pratt, Fred	Recruitment and Placement Coordinator	CT Works

The planning team stressed that liberal arts courses available in an Associate's Degree are important because students gain vital capabilities such as critical thinking, creativity, adaptability, problem solving, and communication. The very nature of employment is changing. An Associate's Degree provides competence that can develop an adaptable, creative thinker.

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

The purpose of initiating a program in mobile application development aims to fill the existing and future gaps in the job market for this area. Research into this career helps to substantiate employment for students in a growing vocation and sustainable career. We are aligning our Mobile Application Development Program with the industry and area employers through direct input, skill requests, and from employees and employers. We will target employment with the following major institutions: Yale Hospital, Yale University, Knights of Columbus, Square 9 Softworks, and Web Solutions. Our new campus in downtown New Haven better positions Gateway to partner with local area businesses. Many of these institutions provide internships in current programs often leading to employment.

The employment growth projections from the online job source Indeed from 2010 – 2020 are:
1. 10-year growth: 28%
2. 10-year growth volume of jobs in the US: 82,000 new jobs
3. Average salary with 4 years of experience: $87,000
4. Starting salary for Help Desk technician is $25,000, average salary after four years is $46,000
5. There are 23 Help Desk jobs listed currently in Connecticut, 10 in Massachusetts, and 49 in New York
6. There are 3,448 mobile/app development jobs listed currently in Connecticut.

Cost Effectiveness and Availability of Adequate Resources
(Please provide a one-paragraph narrative on the attached MSExcel Resource and Cost Projection Analysis)

- The estimated enrollment per year is 20 students and a graduation number of 15 per year.
- Teaching responsibilities for courses unique to the Mobile Application Developer will be shared by Professor Stacy Walker, Wilfredo Rosado, and part-time instructors.
- The majority of equipment necessary for the degree is available at the college.

SECTION 3: PROGRAM QUALITY ASSESSMENT

Overall Learning Goal/Principal Learning Outcome for the Program:

The real, mobile, game, and business worlds are converging. Mobile augmented reality applications make the user experience more entertaining, engaging and immersive. The overall learning goal of this program is to gain an understanding of fundamental object oriented programming concepts and principles, development for mobile platforms, and create cross-platform applications that can be used in health care, research, pharmacies, and more.

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. Plan, design, code, test, and debug solutions to programming problems using a variety of programming languages

2. Gain an understanding of fundamental object oriented programming concepts and principles, including encapsulation, inheritance, and polymorphism. Exams and lab exercises will promote comprehension and retention.

3. Demonstrate an understanding of object-oriented programming principles through exams and lab exercises

4. Compare and contrast mobile platforms, their tools, and the development process

5. Install software development kits for each mobile platform

6. Demonstrate understanding of the development cycle for mobile devices including building, testing, and deployment

7. Create apps for Apple iOS, Google Android, and Microsoft Windows

8. Create cross-platform web applications for mobile devices

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)*

Teaching responsibilities for courses unique to the Mobile Application Specialist will be shared by Professor Stacy Walker and Wilfredo Rosado. The full-time faculty members involved with this proposed program are:

- Primary Instructor: Stacy Walker, Assistant Professor, holds a Master's degree in Computer Information Systems at Quinnipiac University and Master's degree in Project Management at Colorado Technical University.
- Secondary Instructor: Wilfredo Rosado, Assistant Professor, Rosado holds a Bachelor's degree in Electrical Engineering at Fairfield University and a Master's degree in Information Technology at Sacred Heart University. Wilfredo has taught for 8 years as an adjunct and 5 years full time in the Computer Science department.
- Adjunct professors will be hired as required.

Allyson Kinney (PC) and Stacy Walker will oversee the day-to-day operations of the proposed academic 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?
There will be no need to hire a new full-time faculty member.

What percentage of the credits in the program will they teach?
Stacy Walker and Wilfredo Rosado will teach 36% of the credits in this program.

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

Adjunct faculty will teach approximately 64% of the credits in this program.

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

The minimal qualifications of adjunct faculty teaching in this program will be a Master's Degree in computer science and experience in Mobile Application Development.

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 Cost Analysis Projection sheet for BOR review)*

Specialized software used to program applications for mobile devices (This software is available at no cost):

- **Google Android**
  MIT App Inventor
  http://appinventor.mit.edu/

- **Google Android SDK**
  http://developer.android.com/sdk/index.html

- **Apple iOS 6**
  iOS Software Development Kit
  https://developer.apple.com/devcenter/ios/index.action
  Note: The iOS SDK will only work on an Intel-based Mac

- **Microsoft Windows Phone SDK**
  Visual Studio 2010 Express for Windows Phone
  http://dev.windowsphone.com/en-us/downloadsdk

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. # [3]	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				**Other Related/Special Requirements**		
CSC101, Introduction to Computers		None	3			
CSC150, Database Applications and Design- Using SQL		None	4			
CSC250, System Analysis & Design		CSC101 or CSA 105	3			
CSC215, Programming with Object Oriented C++		CSC 101 or CSA 105	4			
CSC223, Introduction to JAVA Programming		CSC 101 or CSA 105	4			
CST 133 Network Fundamentals 1 or CST 180 Networking I			4			
CSC262 Programming Mobile Devices I			3			
CSC263 Programming Mobile Devices II		CSC 262	3			
Restricted Elective		CSC 101	3-4			
Restricted Elective		CSC 101	3-4			
CSA 296 CWE – Computer Applications (Internship) or Restricted Elective		24 Earned Credits in the Computer Science Program for CSA 296	3			
Total Program Core Credits			**37-39**			
General Ed Courses						
Eng101 Composition			3			
Com 171 Communications			3			
MAT 115 or MAT 137			3			
Humanities			3			
Social Science			3			
Fine Arts			3			
Natural Science			4			
Total General Ed Courses			**22**	**Total Related Credits**		**0**
				Total Credits		**59-61**
Core Course Prerequisites				**Elective Courses in the Field**		
⁺Hybrid and/or traditional; ⁺⁺Fully online, and hybrid or traditional sections offered						

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

+++Fully online;				
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. 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.")*

Mobile application development is a specialized field where concepts of web development, interface design and computer programming merge. Using current and emerging technologies, students will develop skills in website and native app design, learn relevant programming languages for application development on a variety of smart-devices and learn the policies and procedures for submitting apps for distribution. The program works to develop skills through practical application of current and emerging standards and technologies across multiple mobile devices.

Due to the inability to predict platform dominance, our program will offer a cross-platform development environment that allows for the creation of device specific software applications for a broad range of mobile devices. We will also teach students the need for responsive design that allows for optimal viewing across a wide range of devices.

To that end, the Computer Science team has worked diligently to make the program well-balanced and technically strong. It is designed with 59-61 total credits of which 37-39 are technical credits, 22 are General Ed Courses. Courses cover multiple aspects of Internet and mobile-related technologies, including programming languages and web markup, server-side technologies and tools, mobile web development, responsive design and application optimization for mobile devices. Although the degree is designed and intended as a career focused, terminal degree, opportunities for transfer into baccalaureate programs are possible.

- Total program credits = 59-61

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
Wilfredo Rosado	Sacred Heart University	Computer Science Networking	Course preparation, student advising, Assist program coordinator, schedule courses, and maintain class/lab rooms.
Stacy Walker	Quinnipiac University	Computer Science	Course preparation, student advising, Assist program coordinator, schedule courses, and maintain class/lab rooms.

Connecticut Board of Regents for Higher Education

APPLICATION FOR NEW PROGRAM APPROVAL PRO FORMA [1] BUDGET - RESOURCES AND EXPENDITURE PROJECTIONS

Institution	Gateway Community College				Date:	9/20/2014
Proposed Program	Mobile Application Development - A.S. Degree					

PROJECTED Enrollment	First Term Year 1		First Term Year 2		First Term Year 3	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Internal Transfer *(from other programs)*	5	5	5	5	5	5
New Students *(first time matriculating)*	6	10	10	12	12	15
Continuing *(students progressing to credential)*	0	0	10	12	12	15
Headcount Enrollment	11	15	25	29	29	35
Total Estimated FTE per Year						

PROJECTED Program Review	Year 1 (2013-14)		Year 2 (2014-2015)		Year 3 (2015-16)	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Tuition* *(Do not include internal transfer)*	$22,524	$37,540	$75,080	$90,096	$90,096	$112,620
Program-Specific Fees						
Other Rev. *(Annotated in text box below)*						
Total Annual Program Revenue	$60,064		$165,176		$202,716	

* Tuition is calculated using 2014-15 rates as follows. Full time: in-state, $1877 /semester ($1799 fee + $78 Lab Fee) for two semesters; Part time: in-state, 9 credits, $1432/semester ($1354 fee + $78 Lab fee) for two semesters

PROJECTED Expenditures**	Year 1		Year 2		Year 3	
	Number *(as applicable)*	Expenditure	Number	Expenditure	Number	Expenditure
Administration *(Chair or Coordinator)*	Coordinator already in place for existing programs, no added cost	$5,941		$6,119		$6,303
Faculty *(Full-time, total for program)*	re-allocation	$0		$0		$0
Faculty *(Part-time, total for program)* WLU*** *Part-time faculty *****	0	$0	0	$0	0	$0
Support Staff	No Additional	$0		$0		$0
Library Resources Program		$500		$515		$530
Equipment *(List as needed)*						
Other *(e.g. student services)*	Software is free online	$0	Software is free online	$0	Software is free online	$0
Estimated Indirect Cost *(e.g student services, operators, maintenance)*	calculated at $100 per FTE per year	$0		$0		$0
Total ESTIMATED Expenditures		$6,441		$6,634		$6,833

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

Please provide any necessary annotations:
*** $1435/WLU plus 38% fringe, with annual 3% inflation adjustment
**** Part-time faculty already teach these coures for existing programs

[1] This PRO FORMA budget provides reasonable assurance that the program can be established and is sustainable. Some assumption and/or formulaic methodolgy may be used and annotated in the text box.

ITEM
New program approval for QVCC's COT approved Engineering Science/STEM certificate

BACKGROUND

Summary
The principle objective of this "gateway" credential is to leverage the efficacy of the College of Technology (COT) seamless pathways and increase the pipeline of students in STEM disciplines.

The two principle objectives of this "gateway" credential are to: a) leverage the efficacy of the College of Technology (COT) seamless pathways and increase the pipeline of students in STEM disciplines, and b) leverage our industry partnerships and connect these STEM students to technical companies sooner in their academic pathways.

Need for the Program
Since the fall of 2010, QVCC enrollment in COT majors has increased by approximately 60%. This new certificate will integrate an engineering explorations course to expose the students to the vast opportunities available to them as they hone their mathematics. This approach will connect them to the field even before they matriculate to the more advanced engineering courses later in the degree(s).

Curriculum

Course Number and Name	L.O. # 3	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				**General Education Core**		
EGR111-Introduction to Engineering		MAT137		3		
MAT186-Precalculus		MAT137		4		
MAT254-Calculus I		MAT186		4		
MAT256-Calculus II		MAT254		4		
ENG101-Composition		BSA, ENG093		3		
Core Course Prerequisites				**Elective Courses in the Field or General Education**		
Total Other Credits Required to Issue Credential *(e.g. GenEd/Liberal Arts Core/Liberal Ed Program)*			0			
Total Credits Required			18			

Students

PROJECTED Enrollment	First Term Year 1		First Term Year 2	
	Full Time	Part Time	Full Time	Part Time
Internal Transfers *(from other programs)*	5	5	10	10
New Students *(first time matriculating)*	5	10	10	15
Continuing *(students progressing to credential)*	0	0	10	15
Headcount Enrollment	10	15	30	40
Total Estimated FTE per Year	15		43	

Faculty

Faculty Name and Title	**Institution of Highest Degree**	**Area of Specialization/Pertinent Experience**
Mark Vesligaj, Professor and COT PC	Carnegie Mellon University	Engineering
Kudzai Zvoma, Assistant Professor	Syracuse University	Mathematics
Jakob Spjut, Instructor	University of California at Berkeley	Engineering
Joy Mark, Professor	University of Connecticut	Mathematics
Joachim Bullacher, Assistant Professor	University of Heidelberg	Mathematics
Jonathan Andersen, Associate Professor	Southern Connecticut State University	English

Learning Resources

As of Fall 2013 census date, QVCC has 153 COT students in degree programs. Going forward, the implementation of this new certificate should not add additional faculty or administrative cost.

Facilities

No additional laboratory or classroom equipment will be purchased to accommodate this certificate.

Fiscal Note

PROJECTED Program Revenue	Year 1		Year 2	
	Full Time	Part Time	Full Time	Part Time
Tuition *(Do not include internal transfers)*	$9,965	$11,400	$28,440	$31,530
Program-Specific Fees	$0	$0	$0	$0
Other Rev. *(Annotate in text box below)*	$0		$0	
Total Annual Program Revenue	$21,365		$59,970	

Review of Documents:
  a)   Campus Review
  b)   Campus Budget and Finance
  c)   Campus President
  d)   Academic Council
  e)   System Office

Accreditation:

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

a New Certificate Program

December 18, 2014

RESOLVED: That the Board of Regents for Higher Education license and accredit a program in College of Technology's Engineering Science/STEM leading to a Certificate at Quinebaug Valley Community College.

A True Copy:

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

SECTION 1: GENERAL INFORMATION	
Institution: Quinebaug Valley Community College (QVCC)	Date of Submission to BOR Office: December 11, 2013 (Original Concept Paper Submission)

Most Recent NEASC Institutional Accreditation Action and Date: 10-year accreditation, April 2012	

Program Characteristics	**Program Credit Distribution**
Name of Program: College of Technology's **Engineering Science / STEM** Certificate	# Cr in Program Core Courses: 18
	# Cr of Electives in the Field: 0
Degree: Title of Award *(e.g. Master of Arts)*: N/A	# Cr of Free Electives: 0
Certificate: *(specify type and level):* Pathway Certificate	# Cr Special Requirements *(include internship, etc.):* 0, but paid internships are possible
Anticipated Program Initiation Date: Fall, 2014	
Anticipated Date of First Graduation: Spring, 2015	Total # Cr in the Program *(sum of all #Cr above)*: 18
Modality of Program: X On ground Online Combined If "Combined", % of fully online courses?	From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: 18
Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, Gen Ed, other)*: 18	

Type of Approval Action Being Sought: Licensure OR   Licensure and Accreditation
Suggested CIP Code No. *(optional)* L-???   Title of CIP Code

If establishment of the new program is concurrent with discontinuation of related program(s), please list for each program:
Program Discontinued: CIP: DHE# (if available):
Phase Out Period   Date of Program Termination

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

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:	Title: Interim Dean of Academic Affairs: Jayne Battye	Tel.: 860 932 4050

BOR REVIEW STATUS *(For Office Use Only - please leave blank)*
BOR Sequence Number (to be assigned):
Approved 2010 CIP Code No. [1]   Title of CIP Code
Log of BOR Steps Towards Program Approval:
Nature and Resolution number for BOR Approval: Date of Approval:
Conditions for Approval (if any)

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[1] Final CIP assignment will be done by BOR staff in consideration of suggested number (if provided) and in consultation with administrative offices at the institution and system proposing the program. For the final assignment, the 2010 CIP definitions will be used.

SECTION 2: PROGRAM PLANNING ASSESSMENT *(To be Used for BOR Review Only)*

Alignment of Program with Institutional Mission, Role and Scope

(Please provide objective and concise statements)

The principle objective of this "gateway" credential is to leverage the efficacy of the College of Technology (COT) seamless pathways and increase the pipeline of students in STEM disciplines. The method to achieve this is two-fold. **PART A** refers to the typical rollout of this new credential at our college (and other COT institutions that adopt the curriculum). **PART B** refers to a novel approach of launching this new credential in a Dual Enrollment pilot at QVCC's Willimantic Center with three partner high schools. Both parts (A and B) have been shared with the College of Technology, the Eastern Advanced Manufacturing Alliance, the Eastern Connecticut Workforce Investment Board, the state of Connecticut Technical High School System, and area high schools; all have enthusiastically endorsed the vision and program.

PART A SUMMARY:

The College of Technology (COT) continues to increase enrollment in Engineering and Technology programs despite a downturn / leveling of statewide college enrollment / demographics. This COT is legislatively mandated and fosters collaboration between all Connecticut community colleges, state universities, UCONN, and three private universities. The COT has seamless transfer articulations between all member institutions in Engineering and Technology. This new gateway credential will fit well into the COT model and expand on its effectiveness by enabling students to seamlessly transfer to any state university and major in Science, Technology, or Mathematics (if student decides that Engineering not for him / her). If the student maintains an interest in Engineering, then he / she can continue onto the associate's degree in Engineering Science and then onto a bachelor's degree in Engineering at an appropriate ABET accredited university via the COT pathways. By extending the scope of transfer options to the student, we will increase the awareness in other STEM majors, and we leverage the proven best practices of the COT to drive enrollment in these critical academic areas. Furthermore, the COT has just had its $3 million National Science Foundation Advanced Technology Education grand renewed which gives COT students access to incredible opportunities.

QVCC is a microcosm of the COT. Since the fall of 2010, QVCC enrollment in COT majors has increased by approximately 60% while over that same time period total QVCC enrollment has decreased by approximately 9%; this according to QVCC institutional research annual census data. Furthermore, despite having the best-in-state Engineering Science graduation rate from 2005 – 2011 (defined as the # graduates divided by # declared majors), QVCC has not realized the same COT success at our Willimantic Center as we have at our main campus. This has been cited in our recent NEASC review as well as in the QVCC COT five-year self-study.   The Willimantic Center annually provides approximately 25% of QVCC's total student enrollment and approximately all (if not the vast majority) of QVCC's student diversity. However, currently less than 5% of COT students are from our Willimantic Center. This new certificate will greatly mitigate the disparity in COT majors and as a subsequent benefit, more women and underrepresented population students will be part of that enrollment surge in STEM.

The structure of the curriculum in the Engineering Science / STEM certificate is based on persistence data in COT programs at QVCC. The bulk of the coursework is in higher and more theoretical Mathematics (through Calculus II) and couples English Composition and Introduction to Engineering as the complementary classes. Nationally and throughout Connecticut engineering universities, the four-year graduation rate of declared freshman engineering majors is under 50%. According to QVCC institutional research success in Calculus II is one of the best predictors of persistence in Engineering Science. Of 138 inactive Engineering Science majors since 2005, less than 6% of them successfully completed Calculus II with a grade of C or better. This new certificate will integrate an engineering explorations course to expose the students to the vast opportunities available to them as they hone their mathematics. This approach will connect them to the field even before they matriculate to the more advanced engineering courses later in the degree(s).

PART B SUMMARY:

The Willimantic Center of QVCC embarked on an ambition proof-of-concept Dual Enrollment mini-pilot last summer. Dual Enrollment varies dramatically across the country and accordingly yields different student outcomes. Please note that this

mini-pilot was not a spinoff of Connecticut's existing College Career Pathways (CCP). Existing CCP programming, has served the community college and high school system's well. CCP courses are taught at the high school but are limited in the number of offerings. In this program's model of Dual Enrollment, however, a direct correlation has been demonstrated between the authenticity of dual enrollment courses and students' increased understanding of what it means to be a college student according to Edwards, Hughes & Weisberg's *Different Approaches to Dual Enrollment Understanding Program Features and Their Implications*, 2011. The Willimantic Center mini-pilot (and the proposed pilot for Fall 2014) defines Dual Enrollment with the following elements:

1. High school students are adequately assessed to ensure preparedness
2. High school students take coursework on college grounds
3. High school students are instructed by college faculty (majority full-time college faculty)
4. High school students earn college credit and high school credit for coursework

The mini-pilot over the summer was called Radical Foundations and contained two cohorts of students; one entered a college-level Precalculus course, while the other cohort registered for a developmental Elementary Algebra course. The program was designed with two philosophies in mind: better assessment and better access. Standard college placement tests provide information about students' knowledge at a single point in time, but because they are computerized tests and do not allow for insight into a student's problem solving techniques and strategies, they are often inaccurate. Secondly, innovative programming should include opportunities for students that are underperforming as well as students who are high academic achievers. With these philosophies in mind, the QVCC Mathematics faculty developed a written exam and grading rubric for students that included both the final answer for each problem, but also the student's work and thought process leading to that final answer. It was hypothesized at the onset of the mini-pilot that many students who place into remedial math could be successful in higher-level coursework provided that they were assessed correctly and given the opportunity at the right time. In reviewing the student data at the end of the summer of both cohorts, this proved to be true.

Students were assessed at the beginning, middle, and end of the semester, and a Mathematics faculty member from UConn's NEAG School of Education reviewed the data. Eleven students were enrolled in the Precalculus cohort. Of the eleven students identified, nine were from area high schools and two were matriculated college students. Eighty-one percent of the students completed the course with an A/A- average. There was only one recorded student failure, and another received a grade of incomplete. The results are well above both college and national averages for students enrolled in a four credit Precalculus course. The Elementary Algebra cohort began with 15 students. Nine of these students were recent graduates of Windham HS attending QVCC in the fall semester, and six who were going to enter their senior year of high school in the fall. Overall, 66% of all students received a passing grade; in comparison, 89% of the high school graduates received a passing grade, making them eligible for college level math. The 66% pass rate into Intermediate Algebra is well above the system average, especially for an intensive five-week summer course.

Addressing Identified Needs

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

Connecticut needs to deliver a talented and skilled STEM workforce to meet the growing technical skill demands of our states' diverse industries and to serve our economy. In eastern Connecticut we have long standing relationships with these industries to meet their educational and training needs. The formation of the Quinebaug Manufacturing Institute (QMI), a 501(c)(3) consisting of area manufacturer's and QVCC faculty and staff whose mission is to promote, develop, and offer manufacturing awareness and outreach in eastern Connecticut resulted from the need to replenish an aging manufacturing workforce and feed the expansion of area companies. QMI has evolved into the Eastern Advanced Manufacturing Alliance (EAMA) and today consists of thirty companies with thousands of employees.   As these companies have grown, and workforce skills have changed, the technical COT programming at the college has evolved; this proposal serves as yet another example of adapting to our region and states' needs. According to the *Connecticut Survey of Manufacturing Workforce*, 2011, and the *US Bureau of Economic Analysis*, 2008, eastern Connecticut manufacturer's account for 12% of

manufacturing locations in the state and contributes between $2 and $3 billion annually to the state's economy. Further justification for a QVCC Willimantic Center location for a STEM Dual Enrollment pilot with this certificate comes from *CERC's Regional Profile for Tolland, Windham, and New London Counties*, 2011. It states that Windham County has the greatest percentage of its economic workforce focused on manufacturing, more than twice the other counties; in fact one out of every four jobs in the Windham County is in manufacturing.

In summary, Eastern Connecticut manufacturers are a significant part of the economic engine of the state. However, there is a shortage of qualified and technically skilled workers both to replenishes the aging incumbent workforce and fill the expanding vacancies in area companies. The demand for a larger pipeline across the STEM spectrum that serves both the theoretical and the applied learner is apparent in Connecticut. According to *BlumShapiro's Survey of Connecticut Manufacturers*, 2011, 46% of manufacturer's in Connecticut are having trouble finding qualified workers. Furthermore, the top-three most important business sectors for sustained economic growth in Connecticut are manufacturing, technology, and bio-science (all STEM). Lastly the recently published *Regional Plan for Sustainable Development-Eastern Connecticut*, 2013, recommends aligning educational institutions with their industry partners and specifically, connecting STEM opportunities to students before they reach college age.

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?

Please indicate what similar programs exist in other institutions within your constituent unit [2], and how unnecessary duplication is being avoided

QVCC formally adopted the COT programs of Engineering Science and Technology Studies in 2004. Since then we have been a leader in the College of Technology. Specifically, from 2005 through 2011* QVCC COT programs:

- o Achieved 100% successful industry placement or university transfer (100% STEM majors) for our COT graduates.

    - 76% Engineering

    - 12% Mathematics

    - 6% Technology

    - 6% Science

- o Achieved the highest graduation completion rate for Engineering Science majors in the state of Connecticut (four times the average of the other eleven community colleges).

- o Graduated the second highest number of Engineering Science students in the state of Connecticut.

- o Developed the first and only paid summer internship program in the state of Connecticut for Engineering Science and Technology Studies COT students (72% successful placement).

- o Recognized by the Regional Center for Next Generation Manufacturing for our strong industry partnerships and successful manufacturing programs featured for President Obama's advanced manufacturing initiative (White House's Office of Science and Technology Policy). QVCC and Asnuntuck Community College were the only two COT community colleges highlighted.

- o Recognized multiple times as a lead institution with lead faculty for the COT's Regional Center for Next Generation Manufacturing.

- o Been a featured college for COT's National Science Foundation (NSF) grant.

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[2] Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

- Designed and offered technical summer programs for high school students in our current manufacturing laboratory: Manufacturing Pipeline-2008, Manufacturing Workshop-2011.

- Utilized our light industrial laboratory for reverse engineering and additive manufacturing student projects for both state and national companies / entities including NASA's Johnson Space Center in Houston, TX.

- Selected and participated in the first faculty externship program with other lead faculty from Connecticut and Massachusetts and worked over the summer at advanced manufacturing companies. The subsequent project was a collaborative effort to write standard curriculum for the state that resulted in the Lean Manufacturing and Supply Chain Management certificate programs.

Please note that no other institution within our constituent unit has a similar offering to this. Both PART A and PART B of this New Program Approval document are completely novel.

With regards to employment prospects for graduates of this program, while it is possible that graduates of this new Engineering Science / STEM certificate would be employable, it is more likely that the certificate completion will transition the student into a STEM degree program at a state community college or university. Furthermore, it is anticipated that through our partnership with the Eastern Advanced Manufacturing Alliance (EAMA), graduates of this certificate will be placed in a paid summer internship over the summer, thus connecting student and industry. We have a long-established paid summer internship program for our COT degree students and this will expand on that successful model.

With regards to eventual employment*, the placement data for our current COT programs is great. We have successfully placed the majority of our graduates in industry and in eastern Connecticut. Those with QVCC COT degrees have annual salaries of $44,000 and those who seamlessly transferred to a COT four-year institution and earn a bachelor's degree after QVCC have annual salaries of $65,000. Additionally, those companies that participate in our paid summer internship program are the beneficiaries of most of these graduates (63% of QVCC COT graduates are employed at internship-participating companies). A partial list of QVCC COT graduate hiring companies are:

- Ashcroft, Inc.

- Electric Boat

- Foster Corporation

- Iron Mountain Digital

- Putnam Plastics

- Rogers Corporation

- Sensata Technologies

- Spirol Corporation

- Web Industries

- Westminster Tool, LLC

- Whitcraft Aerospace, LLC

* bullet points extracted from QVCC's *Proposal for an Advanced Manufacturing Center*, December 2011, in response to House Bill 6801. All student enrollment and graduation data for that proposal was provided by the Connecticut Community College's Office of Planning, Research, and Assessment database.

Cost Effectiveness and Availability of Adequate Resources

(Please provide a one-paragraph narrative on the attached MSExcel Pro-Forma Budget)

As of Fall 2013 census date, QVCC has 153 COT students in degree programs. Going forward, the implementation of this new certificate should not add additional faculty or administrative cost. Instead, the enrollment in COT programs from this new pipeline should increase. If we can match COT enrollment growth trends at our Danielson campus at our Willimantic Center, the projection of Engineering Science / STEM certificate enrollment is anticipated to be at least fifty students. We should have that many at our Danielson campus as well. Scaling this across the twelve COT community colleges, that number will be appreciably larger.

The bigger implication rest on the ability to pilot the Dual Enrollment part of this new credential. With a successful pilot, the STEM pipeline for the state will be increased dramatically and the efficacy of the Dual Enrollment model can be leveraged for other academic areas across the college and across the state of Connecticut's higher education system.

SECTION 3: PROGRAM QUALITY ASSESSMENT

Learning Outcomes - L.O. Upon successful completion of the Engineering Science / STEM Certificate, graduates will be able to:

1. Demonstrate an awareness of engineering and STEM academic pathways and career opportunities by participating in industry tours, projects, and guest lecturers.
2. Analyze engineering principles and concepts both through mathematical theory and real-world applications.
3. Demonstrate a good understanding of mathematical concepts and techniques with regards to STEM by developing and applying the scientific method to classroom projects.
4. Develop an ability to research and approach problem solving analytically by utilizing real-world case studies in the classroom.
5. Demonstrate an ability to think through a problem in a logical manner and effectively communicate solution approach through project submittals and formal presentations.
6. Develop an ability to carry analyses through a conclusion and present findings in an organized manner by utilizing technical memo and executive summary writing formats.
7. Demonstrate effective communication skills and an ability to work efficiently in teams through problem-based learning projects and project / portfolio development.

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)*

Jayne Batty-Interim Academic Dean (General program-PART A), Bob Fernandez-Director of QVCC Willimantic Center (Dual Enrollment program-PART B)

Faculty *(Please complete the faculty template provided below to include current full-time members of the faculty who will be teaching in this program and, as applicable, any anticipated new positions/hires during the first three years of the program and their qualifications)*

How many new full-time faculty members, if any, will need to be hired for this program? 0
What percentage of the credits in the program will they teach? N/A
What percent of credits in the program will be taught by adjunct faculty? 0 – 17% (potentially one course, English 101)
Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program: Master's degree

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 Cost Analysis Projection sheet for BOR review)*

None.

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. # [3]	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				**General Education Core**		
EGR111-Introduction to Engineering		MAT137	3			
MAT186-Precalculus		MAT137	4			
MAT254-Calculus I		MAT186	4			
MAT256-Calculus II		MAT254	4			
ENG101-Composition		BSA, ENG093	3			
Core Course Prerequisites				**Elective Courses in the Field or General Education**		
Total Other Credits Required to Issue Credential *(e.g. GenEd/Liberal Arts Core/Liberal Ed Program)*						0
Total Credits Required						18

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. Example:* The associate of applied science in health care management entails 18 general education credits, 18 credits in the medical and health field, 15 credits in the business department, and 12 credits in general education and/or program required electives. Students must take a minimum of 24 credits of coursework for the major at the institution and must maintain a GPA of 2.5.

For seamless transfer through the College of Technology, students must complete the certificate with a minimum GPA of 3.0.

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[3] 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
Mark Vesligaj, Professor and COT PC	Carnegie Mellon University	Engineering	Advising, Mentoring
Kudzai Zvoma, Assistant Professor	Syracuse University	Mathematics	Assessment, Advising, Mentoring
Jakob Spjut, Instructor	University of California at Berkeley	Engineering	None
Joy Mark, Professor	University of Connecticut	Mathematics	None
Joachim Bullacher, Assistant Professor	University of Heidelberg	Mathematics	None
Jonathan Andersen, Associate Professor	Southern Connecticut State University	English	None

CT Board of Regents for Higher Education
Modification of an Accredited Program <u>PRO FORMA</u> [1] BUDGET   1/20/12

Institution	Quinebaug Valley Community College		*Date*		10/1/2014
Proposed Program	Engr Science / STEM Certificate				

PROJECTED Enrollment	First Term Year 1		First Term Year 2			
	Full Time	Part Time	Full Time	Part Time		
Internal Transfers *(from other programs)*	5	5	10	10		
New Students *(first time matriculating)*	5	10	10	15		
Continuing *(students progressing to credential)*	0	0	10	15		
Headcount Enrollment	10	15	30	40		
Total Estimated FTE per Year	15		43			

PROJECTED Program Revenue	Year 1		Year 2			
	Full Time	Part Time	Full Time	Part Time		
Tuition *(Do not include internal transfers)*	$9,965	$11,400	$28,440	$31,530		
Program-Specific Fees	$0	$0	$0	$0		
Other Rev. *(Annotate in text box below)*	$0		$0			
Total Annual Program Revenue	$21,365		$59,970			

PROJECTED Expenditures*BELOW	Year 1		Year 2			
	Number *(as applicable)*	Expenditure	Number	Expenditure		
Administration *(Chair or Coordinator)*	n/a	$0	n/a	$0		
Faculty *(Full-time, total for program)*	n/a	$0	n/a	$0		
Faculty *(Part-time -total for program)*	n/a	$0	n/a	$0		
Support Staff	n/a	$0	n/a	$0		
Library Resources Program	n/a	$0	n/a	$0		
Equipment *(List as needed)*	n/a	$0	n/a	$0		
Other (e.g. student services)	n/a	$0	n/a	$0		
Estimated Indirect Cost *(e.g. student services, operations, maintanance)*	n/a	$0	n/a	$0		
Total ESTIMATED Expenditures		$0		$0		

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

Please provide any necessary annotations:

The coursework and expenditures associated with this new certificate are already encumbered in the parent associate's degree (COT-Engineering Science). Therefore, there is no additional cost burden associated with this new program.

[1] This PRO FORMA budget provides reasonable assurance that the program can be established and is sustainable. Some assumptions and/or formulaic methodology may be used and annotated in the text box.

ITEM
New program approval for QVCC's COT approved Technology Studies/STEM certificate

BACKGROUND
Summary
The principle objective of this "gateway" credential is to leverage the efficacy of the College of Technology (COT) seamless pathways and increase the pipeline of students in STEM disciplines.

The two principle objectives of this "gateway" credential are to: a) leverage the efficacy of the College of Technology (COT) seamless pathways and increase the pipeline of students in STEM disciplines, and b) leverage our industry partnerships and connect these STEM students to technical companies sooner in their academic pathways.

Need for the Program
Since the fall of 2010, QVCC enrollment in COT majors has increased by approximately 60%. This new certificate will integrate an STEM careers explorations course to expose the students to the vast opportunities available to them as they hone their mathematical problem solving skills. This approach will connect them to the field of study even before they matriculate to the more advanced technical courses later in the degree(s).

Curriculum

Course Number and Name	L.O. # 3	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				**General Education Core**		
IS115-Investigation in STEM Careers		MAT095		3		
MAT137-Intermediate Algebra		BSA, MAT095		3		
MAT186-Precalculus		MAT137		4		
MAT167-Principles of Statistics		MAT137		3		
ENG101-Composition Students		BSA, ENG093		3		

PROJECTED Enrollment	First Term Year 1		First Term Year 2	
	Full Time	Part Time	Full Time	Part Time
Internal Transfers *(from other programs)*	5	5	12	12
New Students *(first time matriculating)*	7	12	12	17
Continuing *(students progressing to credential)*	0	0	0	17

Headcount Enrollment	12	17	24	46
Total Estimated FTE per Year	18		39	

Faculty

Faculty Name and Title	Institution of Highest Degree	Area of Specialization/Pertinent Experience	Other A Teachin
Mark Vesligaj, Professor and COT PC	Carnegie Mellon University	Engineering	Advising
Kudzai Zvoma, Assistant Professor	Syracuse University	Mathematics	Assessm Mentorin
Jakob Spjut, Instructor	University of California at Berkeley	Engineering	None
Joy Mark, Professor	University of Connecticut	Mathematics	None
Joachim Bullacher, Assistant Professor	University of Heidelberg	Mathematics	None
Jonathan Andersen, Associate Professor	Southern Connecticut State University	English	None

Learning Resources
No additional resources are required

Facilities
No additional laboratory or classroom equipment will be purchased to accommodate this certificate.

Fiscal Note

PROJECTED Program Revenue	Year 1		Year 2	
	Full Time	Part Time	Full Time	Part Time
Tuition *(Do not include internal transfers)*	$13,951	$15,564	$23,916	$30,855
Program-Specific Fees	$0	$0	$0	$0
Other Rev. *(Annotate in text box below)*	$0		$0	
Total Annual Program Revenue	$29,515		$54,771	

Review of Documents:
  a)   Campus Review
  b)   Campus Budget and Finance
  c)   Campus President
  d)   Academic Council
  e)   System Office

Accreditation:

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

a New Certificate Program

December 18, 2014

RESOLVED: That the Board of Regents for Higher Education license and accredit a program in College of Technology's Technology Studies/STEM leading to a Certificate at Quinebaug Valley Community College.

A True Copy:

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

SECTION 1: GENERAL INFORMATION	
Institution: Quinebaug Valley Community College (QVCC)	Date of Submission to BOR Office: December 11, 2013

Most Recent NEASC Institutional Accreditation Action and Date: 10-year accreditation, April 2012	

Program Characteristics	**Program Credit Distribution**
Name of Program: College of Technology's **Technology Studies / STEM** Certificate	# Cr in Program Core Courses: 16
	# Cr of Electives in the Field: 0
Degree: Title of Award *(e.g. Master of Arts)*: N/A	# Cr of Free Electives: 0
Certificate: *(specify type and level):* Pathway Certificate	# Cr Special Requirements *(include internship, etc.):* 0, but paid internships are possible
Anticipated Program Initiation Date: Fall, 2014	
Anticipated Date of First Graduation: Spring, 2015	Total # Cr in the Program *(sum of all #Cr above)*: 16
Modality of Program: X On ground Online Combined	From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: 16
If "Combined", % of fully online courses?	
Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, Gen Ed, other)*: 16	

Type of Approval Action Being Sought: Licensure OR Licensure and Accreditation Suggested CIP Code No. *(optional)* L-??? Title of CIP Code	

If establishment of the new program is concurrent with discontinuation of related program(s), please list for each program: Program Discontinued: CIP: DHE# (if available): Phase Out Period Date of Program Termination	

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

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:	Title: Interim Dean of Academic Affairs: Jayne Battye	Tel.: 860 932 4050

BOR REVIEW STATUS *(For Office Use Only - please leave blank)*	
BOR Sequence Number (to be assigned): Approved 2010 CIP Code No. [1] Title of CIP Code Log of BOR Steps Towards Program Approval:	
Nature and Resolution number for BOR Approval: Date of Approval: Conditions for Approval (if any)	

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[1] Final CIP assignment will be done by BOR staff in consideration of suggested number (if provided) and in consultation with administrative offices at the institution and system proposing the program. For the final assignment, the 2010 CIP definitions will be used.

SECTION 2: PROGRAM PLANNING ASSESSMENT *(To be Used for BOR Review Only)*

Alignment of Program with Institutional Mission, Role and Scope

(Please provide objective and concise statements)

The majority of the remaining new program narrative mirrors the New Program Approval document for the similar Engineering Science / STEM certificate. The purpose for this second certificate is to fill the need for applied learners and applied careers. For every theoretical engineer or scientist at a company there are typically multiple technicians to service the hands-on and applied workload that comes with innovation; this certificate addresses that need. The principle objective of this "gateway" credential is to leverage the efficacy of the College of Technology (COT) seamless pathways and increase the pipeline of students in STEM disciplines. The method to achieve this is two-fold. **PART A** refers to the typical rollout of this new credential at our college (and other COT institutions that adopt the curriculum). **PART B** refers to a novel approach of launching this new credential in a Dual Enrollment pilot at QVCC's Willimantic Center with three partner high schools. Both parts (A and B) have been shared with the College of Technology, the Eastern Advanced Manufacturing Alliance, the Eastern Connecticut Workforce Investment Board, the state of Connecticut Technical High School System, and area high schools; all have enthusiastically endorsed the vision and program.

PART A SUMMARY:

The College of Technology (COT) continues to increase enrollment in Engineering and Technology programs despite a downturn / leveling of statewide college enrollment / demographics. This COT is legislatively mandated and fosters collaboration between all Connecticut community colleges, state universities, UCONN, and three private universities. The COT has seamless transfer articulations between all member institutions in Engineering and Technology. This new gateway credential will fit well into the COT model and expand on its effectiveness by enabling students to seamlessly transfer to any state university and major in Science, Engineering, or Mathematics (if student decides that Technology is not for him / her). If the student maintains an interest in Technology, then he / she can continue onto the associate's degree in Technology Studies and then onto a bachelor's degree in Industrial Technology at an appropriate ABET accredited university via the COT pathways. By extending the scope of transfer options to the student, we will increase the awareness in other STEM majors, and we leverage the proven best practices of the COT to drive enrollment in these critical academic areas. Furthermore, the COT has just had its $3 million National Science Foundation Advanced Technology Education grand renewed which gives COT students access to incredible opportunities.

QVCC is a microcosm of the COT. Since the fall of 2010, QVCC enrollment in COT majors has increased by approximately 60% while over that same time period total QVCC enrollment has decreased by approximately 9%; this according to QVCC institutional research annual census data. Furthermore, despite having the best-in-state Engineering Science graduation rate from 2005 – 2011 (defined as the # graduates divided by # declared majors), QVCC has not realized the same COT success at our Willimantic Center as we have at our main campus. This has been cited in our recent NEASC review as well as in the QVCC COT five-year self-study.   The Willimantic Center annually provides approximately 25% of QVCC's total student enrollment and approximately all (if not the vast majority) of QVCC's student diversity. However, currently less than 5% of COT students are from our Willimantic Center. This new certificate will greatly mitigate the disparity in COT majors and as a subsequent benefit, more women and underrepresented population students will be part of that enrollment surge in STEM.

The structure of the curriculum in the Technology Studies / STEM certificate is similar to the sister certificate in Engineering Science / STEM. The bulk of the coursework is in applied Mathematics (Intermediate Algebra, Precalculus, and Statistics) and couples English Composition and Investigation in STEM Careers as the complementary classes. This new certificate will integrate an STEM careers explorations course to expose the students to the vast opportunities available to them as they hone their mathematical problem solving skills. This approach will connect them to the field of study even before they matriculate to the more advanced technical courses later in the degree(s).

PART B SUMMARY:

The Willimantic Center of QVCC embarked on an ambition proof-of-concept Dual Enrollment mini-pilot last summer. Dual

Enrollment varies dramatically across the country and accordingly yields different student outcomes. Please note that this mini-pilot was not a spinoff of Connecticut's existing College Career Pathways (CCP). Existing CCP programming, has served the community college and high school system's well. CCP courses are taught at the high school but are limited in the number of offerings. In this program's model of Dual Enrollment, however, a direct correlation has been demonstrated between the authenticity of dual enrollment courses and students' increased understanding of what it means to be a college student according to Edwards, Hughes & Weisberg's *Different Approaches to Dual Enrollment Understanding Program Features and Their Implications*, 2011. The Willimantic Center mini-pilot (and the proposed pilot for Fall 2014) defines Dual Enrollment with the following elements:

1. High school students are adequately assessed to ensure preparedness
2. High school students take coursework on college grounds
3. High school students are instructed by college faculty (majority full-time college faculty)
4. High school students earn college credit and high school credit for coursework

The mini-pilot over the summer was called Radical Foundations and contained two cohorts of students; one entered a college-level Precalculus course, while the other cohort registered for a developmental Elementary Algebra course. The program was designed with two philosophies in mind: better assessment and better access. Standard college placement tests provide information about students' knowledge at a single point in time, but because they are computerized tests and do not allow for insight into a student's problem solving techniques and strategies, they are often inaccurate. Secondly, innovative programming should include opportunities for students that are underperforming as well as students who are high academic achievers. With these philosophies in mind, the QVCC Mathematics faculty developed a written exam and grading rubric for students that included both the final answer for each problem, but also the student's work and thought process leading to that final answer. It was hypothesized at the onset of the mini-pilot that many students who place into remedial math could be successful in higher-level coursework provided that they were assessed correctly and given the opportunity at the right time. In reviewing the student data at the end of the summer of both cohorts, this proved to be true.

Students were assessed at the beginning, middle, and end of the semester, and a Mathematics faculty member from UConn's NEAG School of Education reviewed the data. Eleven students were enrolled in the Precalculus cohort. Of the eleven students identified, nine were from area high schools and two were matriculated college students. Eighty-one percent of the students completed the course with an A/A- average. There was only one recorded student failure, and another received a grade of incomplete. The results are well above both college and national averages for students enrolled in a four credit Precalculus course. The Elementary Algebra cohort began with 15 students. Nine of these students were recent graduates of Windham HS attending QVCC in the fall semester, and six who were going to enter their senior year of high school in the fall. Overall, 66% of all students received a passing grade; in comparison, 89% of the high school graduates received a passing grade, making them eligible for college level math. The 66% pass rate into Intermediate Algebra is well above the system average, especially for an intensive five-week summer course.

Addressing Identified Needs

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

Connecticut needs to deliver a talented and skilled STEM workforce to meet the growing technical skill demands of our states' diverse industries and to serve our economy. In eastern Connecticut we have long standing relationships with these industries to meet their educational and training needs. The formation of the Quinebaug Manufacturing Institute (QMI), a 501(c)(3) consisting of area manufacturer's and QVCC faculty and staff whose mission is to promote, develop, and offer manufacturing awareness and outreach in eastern Connecticut resulted from the need to replenish an aging manufacturing workforce and feed the expansion of area companies. QMI has evolved into the Eastern Advanced Manufacturing Alliance (EAMA) and today consists of thirty companies with thousands of employees. As these companies have grown, and workforce skills have changed, the technical COT programming at the college has evolved; this proposal serves as yet another example of adapting to our region and states' needs. According to the *Connecticut Survey of Manufacturing Workforce*, 2011, and the *US Bureau of Economic Analysis*, 2008, eastern Connecticut manufacturer's account for 12% of

manufacturing locations in the state and contributes between $2 and $3 billion annually to the state's economy. Further justification for a QVCC Willimantic Center location for a STEM Dual Enrollment pilot with this certificate comes from *CERC's Regional Profile for Tolland, Windham, and New London Counties*, 2011. It states that Windham County has the greatest percentage of its economic workforce focused on manufacturing, more than twice the other counties; in fact one out of every four jobs in the Windham County is in manufacturing.

In summary, Eastern Connecticut manufacturers are a significant part of the economic engine of the state. However, there is a shortage of qualified and technically skilled workers both to replenishes the aging incumbent workforce and fill the expanding vacancies in area companies. The demand for a larger pipeline across the STEM spectrum that serves both the theoretical and the applied learner is apparent in Connecticut. According to *BlumShapiro's Survey of Connecticut Manufacturers*, 2011, 46% of manufacturer's in Connecticut are having trouble finding qualified workers. Furthermore, the top-three most important business sectors for sustained economic growth in Connecticut are manufacturing, technology, and bio-science (all STEM). Lastly the recently published *Regional Plan for Sustainable Development-Eastern Connecticut*, 2013, recommends aligning educational institutions with their industry partners and specifically, connecting STEM opportunities to students before they reach college age.

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?
Please indicate what similar programs exist in other institutions within your constituent unit ², and how unnecessary duplication is being avoided

QVCC formally adopted the COT programs of Engineering Science and Technology Studies in 2004. Since then we have been a leader in the College of Technology. Specifically, from 2005 through 2011* QVCC COT programs:

- o Achieved 100% successful industry placement or university transfer (100% STEM majors) for our COT graduates.

  - 76% Engineering

  - 12% Mathematics

  - 6% Technology

  - 6% Science

- o Achieved the highest graduation completion rate for Engineering Science majors in the state of Connecticut (four times the average of the other eleven community colleges).

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- o Been a featured college for COT's National Science Foundation (NSF) grant.

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² Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

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- Whitcraft Aerospace, LLC

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

*APPLICATION FOR **NEW PROGRAM APPROVAL** (Public Higher Education Institutions) - 01/20/12*

* bullet points extracted from QVCC's Proposal for an Advanced Manufacturing Center, December 2011, in response to House Bill 6801. All student enrollment and graduation data for that proposal was provided by the Connecticut Community College's Office of Planning, Research, and Assessment database.

Cost Effectiveness and Availability of Adequate Resources

(Please provide a one-paragraph narrative on the attached MSExcel Pro-Forma Budget)

As of Fall 2013 census date, QVCC has 153 COT students in degree programs. Going forward, the implementation of this new certificate should not add additional faculty or administrative cost. Instead, the enrollment in COT programs from this new pipeline should increase. If we can match COT enrollment growth trends at our Danielson campus at our Willimantic Center, the projection of Technology Studies / STEM certificate enrollment is anticipated to be at least fifty students. We should have that many at our Danielson campus as well. Scaling this across the twelve COT community colleges, that number will be appreciably larger.

The bigger implication rests on the ability to pilot the Dual Enrollment part of this new credential. With a successful pilot, the STEM pipeline for the state will be increased dramatically and the efficacy of the Dual Enrollment model can be leveraged for other academic areas across the college and across the state of Connecticut's higher education system.

SECTION 3: PROGRAM QUALITY ASSESSMENT

Learning Outcomes - L.O. Upon successful completion of the Technology Studies / STEM Certificate, graduates will be able to:

1. Demonstrate an awareness of technology and STEM academic pathways and career opportunities by participating in industry tours, projects, and guest lecturers.
2. Demonstrate a good understanding of technology principles and concepts by utilizing relevant equipment, software, and theory in the classroom.
3. Develop a good understanding of mathematical concepts and techniques with regards to STEM by applying algebra, trigonometry, and statistics to real-world applications.
4. Demonstrate an ability to research and approach problem solving algebraically and with statistics through classroom projects and with industry partners.
5. Demonstrate an ability to think through a problem in a logical manner and effectively communicate solution approach through project submittals and formal presentations.
6. Develop an ability to carry analyses through a conclusion and present findings in an organized manner by utilizing technical memo and executive summary writing formats.
7. Demonstrate effective communication skills and an ability to work efficiently in teams through problem-based learning projects and project / portfolio development.

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)*

Jayne Batty-Interim Academic Dean (General program-PART A), Bob Fernandez-Director of QVCC Willimantic Center (Dual Enrollment program-PART B)

Faculty *(Please complete the faculty template provided below to include current full-time members of the faculty who will be teaching in this program and, as applicable, any anticipated new positions/hires during the first three years of the program and their qualifications)*

How many new full-time faculty members, if any, will need to be hired for this program? 0
What percentage of the credits in the program will they teach? N/A
What percent of credits in the program will be taught by adjunct faculty? 0 – 17% (potentially one course, English 101)
Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program: Master's degree

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 Cost Analysis Projection sheet for BOR review)*

None.

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. # [3]	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				**General Education Core**		
IS115-Investigation in STEM Careers		MAT095	3			
MAT137-Intermediate Algebra		BSA, MAT095	3			
MAT186-Precalculus		MAT137	4			
MAT167-Principles of Statistics		MAT137	3			
ENG101-Composition		BSA, ENG093	3			
Core Course Prerequisites				**Elective Courses in the Field or General Education**		
Total Other Credits Required to Issue Credential *(e.g. GenEd/Liberal Arts Core/Liberal Ed Program)*						0
Total Credits Required						16

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. Example: T*he associate of applied science in health care management entails 18 general education credits, 18 credits in the medical and health field, 15 credits in the business department, and 12 credits in general education and/or program required electives. Students must take a minimum of 24 credits of coursework for the major at the institution and must maintain a GPA of 2.5.

For seamless transfer through the College of Technology, students must complete the certificate with a minimum GPA of 3.0.

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[3] 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
Mark Vesligaj, Professor and COT PC	Carnegie Mellon University	Engineering	Advising, Mentoring
Kudzai Zvoma, Assistant Professor	Syracuse University	Mathematics	Assessment, Advising, Mentoring
Jakob Spjut, Instructor	University of California at Berkeley	Engineering	None
Joy Mark, Professor	University of Connecticut	Mathematics	None
Joachim Bullacher, Assistant Professor	University of Heidelberg	Mathematics	None
Jonathan Andersen, Associate Professor	Southern Connecticut State University	English	None

CT Board of Regents for Higher Education
Modification of an Accredited Program <u>PRO FORMA</u> [1] BUDGET 1/20/12

Institution	Quinebaug Valley Community College	*Date*		10/1/2014
Proposed Program	Tech Science / STEM Certificate			

PROJECTED Enrollment	First Term Year 1		First Term Year 2			
	Full Time	Part Time	Full Time	Part Time		
Internal Transfers *(from other programs)*	5	5	12	12		
New Students *(first time matriculating)*	7	12	12	17		
Continuing *(students progressing to credential)*	0	0	0	17		
Headcount Enrollment	12	17	24	46		
Total Estimated FTE per Year	18		39			

PROJECTED Program Revenue	Year 1		Year 2			
	Full Time	Part Time	Full Time	Part Time		
Tuition *(Do not include internal transfers)*	$13,951	$15,564	$23,916	$30,855		
Program-Specific Fees	$0	$0	$0	$0		
Other Rev. *(Annotate in text box below)*	$0		$0			
Total Annual Program Revenue	$29,515		$54,771			

PROJECTED Expenditures*BELOW	Year 1		Year 2			
	Number *(as applicable)*	Expenditure	Number	Expenditure		
Administration *(Chair or Coordinator)*	n/a	$0	n/a	$0		
Faculty *(Full-time, total for program)*	n/a	$0	n/a	$0		
Faculty *(Part-time -total for program)*	n/a	$0	n/a	$0		
Support Staff	n/a	$0	n/a	$0		
Library Resources Program	n/a	$0	n/a	$0		
Equipment *(List as needed)*	n/a	$0	n/a	$0		
Other (e.g. student services)	n/a	$0	n/a	$0		
Estimated Indirect Cost *(e.g. student services, operations, maintanance)*	n/a	$0	n/a	$0		
Total ESTIMATED Expenditures		$0		$0		

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

Please provide any necessary annotations:

The coursework and expenditures associated with this new certificate are already encumbered in the parent associate's degree (COT-Technology Studies). Therefore, there is no additional cost burden associated with this new program.

[1] This PRO FORMA budget provides reasonable assurance that the program can be established and is sustainable. Some assumptions and/or formulaic methodology may be used and annotated in the text box.

November 6, 2014

Dr. Merle Harris, Chair
Academic and Student Affairs Committee
Connecticut State Colleges and Universities
39 Woodland Street
Hartford, CT 06105

Dear Dr. Harris,

Quinebaug Valley Community College recently developed an Associate Degree in Health Care Science to meet the needs of students wanting to pursue a career in health care and/or science other than medical administration, medical assisting, or phlebotomy. Many students begin their higher education journey at the College with the goal of transferring to a four-year university to enroll in programs such as physical therapy, public health, medical laboratory science, pre-med, and pre-physician assistant or to earn a baccalaureate degree in biology, biochemistry, or chemistry.

The College's transfer degrees – General Studies and Liberal Arts and Sciences – do not serve this population adequately. Likewise, the Health Career Pathways certificate (28 credits) does not meet the needs of pre-nursing students who must have earned at least 43 credits to transfer to a nursing program. Not surprisingly, pre-nursing is the fastest growing segment of QVCC's programs, and an increasing number of students want to transfer to Windham Hospital School of Radiology and Hartford Hospital School of Radiology. Both radiology programs require students to earn an associate degree prior to applying. Currently the only option is General Studies, and that degree is not specific enough for these students to take the science courses they need to begin a radiology program.

In addition, local high school guidance counselors and a number of superintendents have asked the College to develop a degree in Allied Health, and numerous health care facilities in QVCC's service area voice the need for qualified professionals at all levels.

The Health Care Science degree consists of the beginning science courses (general biology, anatomy and physiology, chemistry, microbiology, physics) required for all bachelor's degrees, as well as the general education core (English composition, English literature, pre-calculus, statistics). Also included are elective courses that students can choose specific to their transfer institution.

QVCC's program aligns beautifully with Eastern Connecticut State University's new bachelor's degree in health care science. With the new TAP initiative, students will be able to transfer to ECSU as well as the other state universities seamlessly. Conversations also have begun with Quinnipiac University regarding an articulation agreement specifically for the University's health care programs.

MAIN CAMPUS ■ 742 Upper Maple Street • Danielson, CT 06239 • (860) 932-4000 • Fax (860) 932-4300
WILLIMANTIC CENTER ■ 729 Main Street • Willimantic, CT 06226 • (860) 336-0900• Fax (860) 336-0960

www.QVCC.edu

An Affirmative Action/Equal Opportunity Employer

Although developed as a transfer degree, the A.S. in Health Care Science will enable graduates who choose not to continue their education to qualify for entry-level positions in such allied health fields as clinical laboratory assistant and medical office receptionist.

The A.S. in Health Care Science also fits perfectly with three goals in QVCC's new Strategic Plan:

Goal #1: *Engage QVCC students in a robust academic environment that supports them in achieving their individual goals.* This proposed degree will enable more students to reach their personal goals.

Goal #2: *Strengthen and expand courses, programs, and other services to meet the needs of our community.* This proposed degree not only will increase the transfer degree options but also will respond to input from QVCC stakeholders.

Goal #4: *Expand QVCC's presence in the community through outreach, advocacy, and partnerships.* This proposed degree will be marketed to local high school students as a viable transfer degree. (Articulation agreements between QVCC and four-year institutions will begin as soon as the program receives approval.)

Thank you for the opportunity to provide information about the evolution of this exciting new academic program at QVCC. Should you have any questions, feel free to contact me or Cheri Goretti, Medical Assisting and Allied Health Coordinator (cgoretti@qvcc.edu; 860.932.4087).

Sincerely,

Carle Drummer, Ph.D.
President

cc: Dr. Michael Gargano, Provost
       Jayne Battye, Interim Dean of Academic Affairs

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

a New Program

December 18, 2014

RESOLVED: That the Board of Regents for Higher Education license a program in Health Care
Science leading to an Associate of Science (A.S.) degree at Quinebaug Valley
Community College for a period of three years until December 30, 2017.

A True Copy:

_____

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

SECTION 1: GENERAL INFORMATION	
Institution: Quinebaug Valley Community College	Date of Submission to BOR Office: 10/8/14

Most Recent NEASC Institutional Accreditation Action and Date: October 2011	

Program Characteristics Name of Program: Health Care Science Degree: Title of Award *(e.g. Master of Arts)* **Associate of Science** Certificate: *(specify type and level)* Anticipated Program Initiation Date: Spring 2015 Anticipated Date of First Graduation: Spring 2017 Modality of Program: On ground Online X Combined If "Combined", % of fully online courses? 10% Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, GenEd, other)*: 60-63	**Program Credit Distribution** # Cr in Program Core Courses: 30 # Cr of Electives in the Field: 6-8 # Cr of Free Electives: 0 # Cr in General Education (include internship, etc.): 24 <u>Total # Cr in the Program</u> *(sum of all #Cr above)*: 60-**63** From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: **60-63**

Type of Approval Action Being Sought: Licensure OR Licensure and Accreditation Suggested CIP Code No. *(optional)* Title of CIP Code CIP Year: 2000 or 2010	

If establishment of the new program is concurrent with discontinuation of related program(s), please list for each program: Program Discontinued: none CIP: DHE# (if available): 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: Main Campus	

Other Program Accreditation:
   •   If seeking specialized/professional/other accreditation, name of agency and intended year of review: N/A
   •   If program prepares graduates eligibility to state/professional license, please identify: N/A
(As applicable, the documentation in this request should addresses the standards of the identified accrediting body or licensing agency)		

Institutional Contact for this Proposal: Jayne Battye	Title: Interim Dean of Academics	Tel.: 860-932-4057 e-mail: JBattye@qvcc.commnet.edu

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[1] Final CIP assignment will be done by BOR staff in consideration of suggested number (if provided) and in consultation with administrative offices at the institution and system proposing the program. For the final assignment, the 2010 CIP definitions will be used.

SECTION 2: PROGRAM PLANNING ASSESSMENT *(To be Used for BOR Review Only)*

Alignment of Program with Institutional Mission, Role and Scope

(Please provide objective and concise statements)

Program Mission: The health care science degree program endeavors to carry out the Quinebaug Valley Community College mission to provide innovative education, social, and cultural opportunities in a welcoming and supportive environment. The purpose of the health care program is to provide students with a general education core, complemented with focused courses in the science, health, and mathematics necessary for admission into health care career programs.

   Specifically, the program goals of the associate of science health care degree are to:

*Provide students all of the pre-requisite courses necessary to enter into a health care science degree program at a receiving institution. Since there is a trend in receiving institutions requiring a full degree as an admission requirement, this program will allow students to enter nursing and radiology technician schools without having to take additional courses in the general studies or liberal arts and sciences degrees.

* Allow student to gain the skills to meet the challenges of today's health care system.

* Expand opportunities for existing QVCC and state community college students.

Addressing Identified Needs

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

According to the Economic Digest from the CT DOL and CT DOECD, it is projected that the largest sector to add the most jobs over the next 10 years is the health care industry, with a projected 40,000 new jobs by 2022. QVCC already has a medical assisting degree along with certificates in phlebotomy, medical office skills, medical coding, and patient care technician, which helps meet some of the needs of Northeast CT but with the increase in higher level health care professionals combined with an increase in students who are interested in pursuing these types of careers, the degree in Health Care Science was developed.

Students pursuing nursing or radiology technology degrees need an associate degree to apply to many programs. Specifically Hartford and Windham Hospital's Schools of Radiological Technology is now requiring applicants to have at least an associate degree. Historically, no degree program at QVCC has enabled students to focus on enough science and math courses to enter a health care career program at another college without taking extra classes and costing the students additional money and time. This program will allow the pre-nursing or pre-radiology technician to focus on science, math and health care courses in addition to the general education requirements necessary for admission to a bachelors program as a first semester junior. This will enable students to complete an associate degree and 2 years later complete a bachelor degree in a healthcare field. Diligent students in our service area will be able to complete a BS degree and bring much needed health care personnel to the Northeastern region of Connecticut.

Besides the nursing and radiology technician focus, QVCC has seen an increase in traditional aged students' goals of transferring to a four year institution to continue on in biology, biotechnology studies, chemistry, health information technology, pre-med, pre-dental, and/or pre-physician assistant program. The health care science degree will be the perfect transfer degree for those students.

In addition, this program will align with ESCU's Health and Life Sciences Program and provide additional transfer degree tracks for students working towards a career in health care. This program will also be beneficial for students wishing to transfer to any of the CT CSU's. Please see Transfer Institutions Table for detailed information of the opportunities for

students in this program.

Lastly, this transfer program will align nicely with the project going forward with College Careers Pathway/ High School partnerships in which the local high schools are looking for a health career track, with a start at the community college level, and eventually have the opportunity to transfer to a four year institution to further their education in health care or a pre-medicine program.

Health Science Programs

Transfer Institution	Sample of Programs
ECSU	Health Science Public Health Biology Biochemistry
SCSU	Nursing Exercise Science Public Health Biology Chemistry
CCSU	Biomolecular Sciences Biology Chemistry Nursing
WCSU	Health Education Health Promotion Science Medical Technology Nursing Biology Chemistry
COSC	Health Information Management
UCONN	Nursing Medical Lab Science Diagnostic Sciences Allied Health Sciences Pre-Pharmacy
University of Hartford*	Health Sciences (including all of the "pre" programs Radiology Respiratory Care
Worcester State University*	Nursing Biotechnology Community Health Public Health Occupational Studies Nuclear Medicine
Fitchburg State University*	Nursing
Anna Maria College*	Nursing
Becker College	Nursing
Rhode Island College*	Nursing

	Medical Lab Technology Respiratory Therapy Medical Imaging Biotechnology Community Health and Wellness	
MCC	Radiologic Technology Surgical Technology Respiratory Care	
GCC	Radiologic Technology	
MxCC	Radiologic Technology	
TRCC	Nursing	
CCCC	Nursing	
Windham Hospital School of Radiology	Radiology Technician**	
Hartford Hospital School of Radiology	Radiology Technician**	

*These colleges were included since they are all in our service area and students from QVCC have transferred to these in the past.

**Admission requirements include a minimum of an associate degree.

- 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 utilize existing curriculum, resources and faculty. Creation of this program was initiated in response to student requests to attain all pre-requisite courses for nursing or radiology tech schools while completing an associate degree. However now with the Health and Life Science Career Initiative, this program will strengthen QVCC's partnership with ESCU.   No new courses will need to be created, but it is anticipated that this will be a popular program and require additional sections of existing courses.

- Please describe any transfer agreements with other institutions under the BOR 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)*

  Transfer agreements will be pursued upon implementation of the degree with ESCU as well as the other State Universities.
  Students in this program will be tracked and closely advised by their advisors to assist them in the transfer process to their institution of choice.

- Please indicate what similar programs exist in other institutions within your constituent unit [2], and how unnecessary duplication is being avoided

All 12 community colleges presently offer certificate programs in Allied Health. While this offering affords students the opportunity to complete prerequisite courses for nursing and radiology technician programs, the lack of an associate degree

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[2] Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

does not allow the student to enter many of the schools that now require the AS degree prior to admission.

Manchester Community College offers an Associate Science degree- General Studies with Allied Health concentration. While this program will also accommodate students pursuing admission into nursing or radiology technician schools, Manchester is quite a distance for students living in the northeastern corner of CT.

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

  Many graduates will apply to radiology technician or nursing programs, while others will transfer to a four year institution to pursue another health/medical career. However, with the general education, science and medical courses, graduates of this AS degree program could potentially gain employment in physician offices or a hospital setting as an entry level employee. Students also will be eligible for jobs as a laboratory assistant. In addition, the phlebotomy certificate is embedded into this program so if a student takes the correct elective courses, they can also graduate with their phlebotomy certificate and be eligible to take the national certification exam.

  As mentioned previously, there is projected increase in the above mentioned entry level health care jobs. If a student decides he or she does not want to transfer, or does not have the required GPA to get accepted into a specific program, they will be prepared for such a position in health care.

Cost Effectiveness and Availability of Adequate Resources
(Please provide a one-paragraph narrative on the attached MSExcel Pro-Forma Budget)

 This new degree will not cost the college in additional equipment, faculty salaries or other resources. It will allow students to obtain an associate degree where courses will provide pre-requisites for bachelor, associate degrees or certifications at receiving institutions. It is anticipated that more students will graduate from QVCC rather than just taking pre-requisite courses and transferring without graduating from QVCC. Many of these students register as pursuing a degree- such as medical assisting or general studies to qualify for FAFSA , but they do not complete the degree. This counts against QVCC as students dropping out of school. This is untrue since the student's intention has been met- to complete pre-requisite coursework. Adding this degree program will show the student's success in obtaining pre-requisite courses and obtaining an associate degree at QVCC.

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. Demonstrate knowledge and use of medical terminology.
2. Demonstrate knowledge and use of electronic health records, their management, ethical practices of confidential access and integrity of data.
3. Utilize knowledge of anatomy & physiology, chemistry, mathematics at an entry health care program level.
4. Demonstrate writing and research skills appropriate to the college level.
5. Demonstrate knowledge of medical law and ethics and their relation to health care.
6. Gain an understanding of the health care field and specific types of careers available.

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)*

Cheri Goretti, MT(ASCP), CMA(AAMA)f Medical Assisting and Allied Health Program Coordinator

Faculty *(Please complete the faculty template provided below to include current full-time members of the faculty who will be teaching in this program and, as applicable, any anticipated new positions/hires during the first three years of the program and their qualifications)*

How many new full-time faculty members, if any, will need to be hired for this program? 0

What percentage of the credits in the program will they teach? N/A

What percent of credits in the program will be taught by adjunct faculty? Approximately 20%

Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program: Masters degree in a healthcare related field or in the biological sciences.

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 Cost Analysis Projection sheet for BOR review)*

No additional laboratory or classroom equipment will be purchased to accommodate 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)

Course Number and Name	L.O. # [3]	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				**General Education Core**		
MED* 125 Medical Terminology			3	ENG* 101 Composition		3
BIO* 121 General Biology I			4	MAT*137 or 186 Intermediate Algebra or Precalculus		3/4
CHE* 121 General Chemistry I			4	PSY* 111 General Psychology 1		3
CHE* 122 General Chemistry II			4	HUM* elective		3
BIO* 211 Anatomy & Physiology 1			4	SOC* 101 Principles of Sociology		3
BIO* 212 Anatomy &Physiology 2			4	CSA*105 Intro to Software Applications		3
BIO* 235 Microbiology			4	HIS* elective		3
HLT* 170 Law & Ethics for Health Care			3	ENG* 102 Literature and Composition		3
			30			24
Core Course Prerequisites				**Elective Courses in the Field (pick 2) 6-8 credits**		
				BIO* 260 Principles of Genetics		3
				BIO* 122 General Biology II		4
				HLT* 141 Techniques of Phlebotomy		4
				MAT* 167 Principles of Statistics		3
				PHY* 121 General Physics I		4
				PHY* 122 General Physics II		4
				MED* 216 Electronic Medical Records Management		3
				HLT* 103 Investigations in Health Careers		3
				PSY* 201 Life Span Development		3
				HLT* 294 Phlebotomy Practicum		3
Total Program Core Course Credits Required to Issue Credential						30-31
Total Other Credits Required to Issue Credential *(e.g. GenEd/Liberal Arts Core/Liberal Ed Program)*						24
Total Elective Courses in the field						6-8
Total Credits Required						60-63*
*The reason for the range of credits is that students have the ability to select from 3 & 4 credit elective courses. The range of courses is extensive to better help the student tailor their transfer to a specific program.						

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

For example, Genetics may be required for one program, while Physics I & II may be required for another 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.*

The associates of science health care entails 24 laboratory science credits, 24/25 credits of general education, 6 credits in health care courses and 6-8 elective credits from a list that includes additional biology and health courses. The reason for the prescriptive social sciences (PSY 111 and SOC 101) is due to the fact that almost all medical programs curricula (nursing, pre-med, pre-PA) require these specific social sciences. Students must take a minimum of 24 credits of the curriculum at QVCC as the residency requirement and must maintain a GPA of 2.5. However, since this is a transfer degree and many of the health science programs at other institutions require an overall GPA of 2.7-3.0 and/or a science GPA of 3.0 or higher, students in this program will be closely monitored and advised accordingly as they identify the programs they intend to apply for transfer.

The program will be marketed and advertised as a transfer program. All marketing materials, information on the webpage, and program open houses, will stress the fact that this is a transfer program. Currently the Health Careers Pathways Certificate is a transfer program the college has had for over 10 years and students have never been confused that this was a program that will lead to a job upon completion.

QVCC's Associate Director of Admissions is the only admissions staff who goes to the high schools to talk about our programs. She is very knowledgeable on all of the programs, specifically which are terminal degrees and which are transfer programs. Once the program is approved, I will review the degree with her and stress the fact that this is a transfer degree for students wishing to go into other areas of health care that QVCC cannot offer.

QVCC has four full time advisors in the Student Success Office. They meet with every new student who is accepted to the college. If, upon meeting with the student to review their educational goals, an advisor feels the student has selected this program in error, they will correct the error and put the student in the program they intended.

The Allied Health Department has two full time faculty members who meet with program students after their first semester. Since MED* 125 Medical Terminology is the first course most new students take within their first year of college, it is in this course that our faculty review the programs QVCC offers and what the student's interests are, along with individual academic advising and should a student be found in the Health Care Science program in error, it will be rectified at this stage.

If a student finds during their time in the Health Care Science program that they no longer want to transfer to a 4 year institution, QVCC has 5 programs that they can move into in which many of the courses they have already taken would transfer. As mentioned above, the phlebotomy program is embedded into this degree so a student can graduate with both the degree and certificate.

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
Cheri Goretti	MA, Anna Maria College	Medical assisting and allied health, MT(ASCP), CMA(AAMA)	Medical Assisting and Allied Health Program Coordinator
Cindi Brassington	MS, University of Bridgeport	Medical assisting and allied health, CMA(AAMA)	Medical Assisting, Allied Health, Nutrition
John Lewis	MS, University of Rhode Island	MT(ASCP)	Chair, Biology Department
Melissa Philion	PhD, Medical College of Pennsylvania	Microbiology, Genetics	Microbiology, Genetics

CT Board of Regents for Higher Education
Modification of an Accredited Program <u>PRO FORMA</u> [1] BUDGET 1/20/12

Institution	QVCC	*Date* 9/30/2014
Proposed Program	Health Care Science	

PROJECTED Enrollment	First Term Year 1		First Term Year 2		First Term Year 3	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Internal Transfers *(from other programs)*	5	5	7	3	10	8
New Students *(first time matriculating)*	10	5	12	7	15	10
Continuing *(students progressing to credential)*	0	0	10	15	5	20
Headcount Enrollment	15	10	29	25	30	38
Total Estimated FTE per Year						

PROJECTED Program Revenue	Year 1		Year 2		Year 3	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Tuition *(Do not include internal transfers)*	$39,433	$5010-$5815	$88,486	$22,484-$26,092	$82,040	$31,260-$36,300
Program-Specific Fees*	$4,300	$860	$9,764	$3,872	$7,650	$5,400
Other Rev. *(Annotate in text box below)*						
Total Annual Program Revenue	$49,603-$50,408		$120,498-$124,106		$126,350-131,390	

PROJECTED Expenditures*	Year 1		Year 2		Year 3	
	Number *(as applicable)*	Expenditure	Number	Expenditure		
Administration *(Chair or Coordinator)*	existing coordinator					
Faculty *(Full-time, total for program)*						
Faculty *(Part-time -total for program)*						
Support Staff						
Library Resources Program						
Equipment *(List as needed)*						
Other (e.g. student services)						
Estimated Indirect Cost *(e.g. student services, operations, maintanance)*						
Total ESTIMATED Expenditures		$0		$0		

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

*Program Fees consists of the lab fees assigned to the biology/chemistry/physics/allied health courses. It was estimated that a full time student would take 5 lab courses each year and a part time student would take 2 each year, realizing of course , these figures are just estimates.

Part time was defined as 6-7 credits since many courses in this program are lab courses, hence the reason for the tuition range.

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[1] This PRO FORMA budget provides reasonable assurance that the program can be established and is sustainable. Some assumptions and/or formulaic methodology may be used and annotated in the text box.

BACKGROUND

Summary

Licensure and Accreditation of a program in Graphic Design leading to an Associate of Science (A.S.) Degree at Three Rivers Community College.

Need for the Program

There are a number of companies in Southeastern Connecticut that have expressed a need for employees with graphic design skills. The proposed Associates Degree in Graphic Design will prepare a student for a career in graphic design or transfer to a four-year institution.

Curriculum

All of the curriculum specific to the Graphic Design degree is already developed and is either currently being offered or ready to be offered to students once the program is approved.

Students

Students are already taking graphic design courses at TRCC and have expressed a strong interest in obtaining the Associates Degree. The demand in Connecticut for graduates with these skills has shown a steady increase from 2010-2013 ranging from 6% to 16% annually (http://www.careerinfonet.org).

Faculty

TRCC already has qualified faculty members teaching graphic design courses. The program coordinator will be Kevin Amenta, a full time faculty member, who has 20 years of Broadcast Television experience and has been a college faculty member for 9 years, the most recent 5 years as the graphic design curriculum leader for TRCC.

Learning Resources

Three Rivers Community College is equipped with a state of the art Mac computer lab exclusively designed to meet the needs of graphic design students. Other learning resources available to students include the library, language lab, writing center, bookstore, veteran's oasis center, distance learning resources and the Tutoring and Academic Success Center (TASC).

Facilities

TRCC already has a state of the art Mac Lab containing all brand new Mac computers, including up to date software programs

Fiscal Note

The program would need 6-8 video camcorders to be used in the Video/Filmmaking course as well as the software program Final Cut Pro X for a total cost of $6700.

Review of Documents:
- a)   Campus Review
- b)   Campus Budget and Finance
- c)   Campus President

d)   Academic Council
e)   System Office

Accreditation:

Office of the Dean

November 6, 2014

Dear ASA Committee Member and Regents:

Please accept this letter as an addendum to the attached proposal for an Associate of Science in Graphic Design degree. With this letter, I wish to clarify local employment needs, transfer options, and describe the "fit" of this program with Three Rivers' overall academic strategic plan.

As the proposal states, of Graphic Design service industry is primarily engaged in technical aspects of the production of visual communication in order to convey specific messages or concepts, clarify complex information, or project visual identities. These services can include the design of printed materials, packaging, advertising, signage systems, and corporate identification logos. According to the CT Department of Labor statistics, this job area is showing a 6-16% increase in the next 10 year employment projections, depending on the specific job area. Local employers include both large and small companies in the southeastern CT area, who when surveyed, indicated that they employed this type of worker, and 20% of that group indicated an immediate need.

Although this degree will prepare a graduate to work in area businesses and industries, it will also transfer directly into the BA in Graphic and Information Design at Central CT State University. 100% of the courses in this degree transfer to CSCU, while fewer transfer to ECSU and SCSU, as both of those programs are more art-based as described in the proposal.

This program is intended to provide a degree option to the approximately 20 students currently enrolled in the Graphic Arts certificate program. More importantly, this program is intended as one of a set of programs intended to become targets for strategic enrollment management of the 1,113 General Studies students currently enrolled at the College. Furthermore, we intend to investigate strategic partnerships between our existing Visual Fine Arts program and this Graphic Design program for logical synergies. Lastly, there are no additional personnel costs for this program, as it builds on the education and experience of an existing faculty member. The only expected additional costs will be equipment and IT related to course needs, and are specifically outlined in the budget of the attached proposal.

Pres. Jukoski and I look forward to an opportunity to discuss any further questions you may have at the December ASA meeting.

Sincerely,

Ann Z. Branchini, Ph.D.
Academic Dean

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

a New Program

December 18, 2014

RESOLVED: That the Board of Regents for Higher Education license a program in Graphic
Design leading to an Associate of Science (A.S.) degree at Three Rivers Community
College for a period of three years until December 30, 2017.

A True Copy:

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

SECTION 1: GENERAL INFORMATION	
Institution: Three Rivers Community College	Date of Submission to BOR Office:

Most Recent NEASC Institutional Accreditation Action and Date: March 8, 2013

Program Characteristics	**Program Credit Distribution**
Name of Program: Graphic Design	# Cr in Program Core Courses: 33
Degree: Title of Award *(e.g. Master of Arts)* **Associate of Science in Graphic Design**	# Cr of Electives in the Field: 3
	# Cr of Free Electives: 0
Certificate: *(specify type and level)*	# Cr Special Requirements *(include internship, etc.):* **3**
Anticipated Program Initiation Date: Fall 2014	<u>Total # Cr in the Program</u> *(sum of all #Cr above):* **60**
Anticipated Date of First Graduation: May 2016	From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: **54**
Modality of Program: On ground Online X Combined	
If "Combined", % of fully online courses? 50%	
Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, GenEd, other)*: 60	

Type of Approval Action Being Sought: Licensure OR X Licensure and Accreditation
Suggested CIP Code No. *(optional)* Title of CIP Code CIP Year: 2000 or 2010

If establishment of the new program is concurrent with discontinuation of related program(s), please list for each program:
Program Discontinued: CIP: DHE# (if available): Accreditation Date:
Phase Out Period Date of Program Termination

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

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

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

Institutional Contact for this Proposal: Kevin Amenta	Title: Graphic Design Program Leader	Tel.: 860-215-9402 e-mail: kamenta@trcc.commnet.edu

BOR REVIEW STATUS *(For Office Use Only - please leave blank)*
BOR Sequence Number (to be assigned):
Approved 2010 CIP Code No. [1] Title of CIP Code
Log of BOR Steps Towards Program Approval:
Nature and Resolution number for BOR Approval: Date of Approval:
Conditions for Approval (if any)

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[1] Final CIP assignment will be done by BOR staff in consideration of suggested number (if provided) and in consultation with administrative offices at the institution and system proposing the program. For the final assignment, the 2010 CIP definitions will be used.

SECTION 2: PROGRAM PLANNING ASSESSMENT *(To be Used for BOR Review Only)*

Alignment of Program with Institutional Mission, Role and Scope

(Please provide objective and concise statements)

Program Mission: The Associates Degree in Graphic Design will provide options to students transferring to 4-year institutions, as well as terminal options for more immediate workforce impact. As such, the program continues to carry out the Three Rivers Community College mission to be a college of choice with a reputation for innovation, quality, and accessibility, serving a dynamic student population as well as contributing to the economic growth of the region.

The purpose of this new Graphic Design option is to provide students with a comprehensive general education in Graphic Design concepts, Communication skills, technical skills, aesthetics, terminology and vocabulary and to provide an awareness of the practical application of acquired technical skills. Computer use will be an integral and essential part of the program. The curriculum will prepare students for immediate employment in a variety of graphic design settings.

Addressing Identified Needs

- How does the program address CT workforce needs and/or the wellbeing of CT society/communities? *(Succinctly present as much factual evidence and evaluation of stated needs as possible)* Qualified Graphic Designers are in high demand. Most companies in Southeastern Connecticut region, large to small, have demonstrated a need to employ someone with graphic design skills within their company. The certificate program prepares students to do a job while a full Associates Degree in Graphic Design will prepare a student for a career in graphic design. Many companies will hire a full time or freelance designer to create a logo, brochure or other piece of literature for their company. In this day of digital media, these same companies are realizing they need more than one person to keep up with the ever-changing media demands needed from the design world. An Associates Degree will empower graduates and keep them employed. The demand in Connecticut alone for graduates with these skills has shown a steady increase from 2010-2013 ranging from 6% to 16% annually (http://www.careerinfonet.org).

- How does the program make use of the strengths of the institution (*e.g. curriculum, faculty, resources)* and of its distinctive character and/or location? TRCC is an affordable and accessible institution with a state of the art Mac Lab containing all brand new Mac computers, including up to date software programs. This proposed 2-year degree will be available for all new and current students, as well as past students who previously completed the Graphic Design certificate program, and wish to continue to complete a 2-year degree. All of the courses specific to the Graphic Design certificate program will be applied to the Graphic Design degree. We already have qualified faculty teaching these courses, and students are already taking these courses.

- Please describe any transfer agreements with other institutions under the BOR 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)* CCSU SCSU and ECSU are the main options as transfer venues for Graphic Design students. Although less than 10% of TRCC students transfer to a University program, we have made contact with the schools and each offers very different programs for potential transfer students. The Bachelor of Arts Degree in Graphic / Information Design at Central Connecticut State University is "design" based and appears to be the best fit for a TRCC graphic design student seeking their 4-year degree. After meeting with Eleanor Thornton, chair of the graphic design department at CCSU, all TRCC courses will transfer into the CCSU program of study. Students who transfer for the Bachelor of Arts Degree in Visual Arts at Eastern Connecticut State University would have to take extra courses to be ready for that program as it is very "art" based. After speaking to Anne Dawson, chair of the Department of Visual Art, it was understood that several courses from TRCC would not transfer into the program at ECSU. Students transferring into the Studio Art program at SCSU will also have to take extra courses to be ready for the program as it is more of a studio art program. An email from graphic design faculty member Elena Grossman at Southern explained that their program is fairly distinct from the Community College curriculum. Future talks may lead to a graphic design pathway or possibly a transfer articulation agreement.

- Please indicate what similar programs exist in other institutions within your constituent unit [2], and how unnecessary duplication is being avoided Currently, there are several Graphic Design degrees available at the Connecticut Community College level including degree programs at NWCC, NCC, MCC, HCC, QVCC and TCC but none in the Southeastern part

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of the state.

- Please provide a description/analysis of employment prospects for graduates of this proposed program Sandwiched in the middle of four of the top 200 Nielsen media markets, TRCC is in prime position to generate work-ready graduates and place them in a position for success in the Northeast. Employers are looking for designers who can work with the most current, up-to-date technologies in this field. The software most associated with this ever-growing field include but are not limited to: Adobe Photoshop, Illustrator, InDesign Acrobat, Dreamweaver, the entire Microsoft Office suite and the Apple Macintosh OS operating system. All of which are offered for instruction at TRCC. The Graphic Design field has experienced a 9% growth over the past 3 years in Connecticut and projections for graphic designers are better than average as many of the services graphic designers provide can be used in any number of businesses. According to the Bureau of Labor Statistics, projected growth in the field is roughly 13% over the next 7-10 years, which amounts to approximately 37,300 new graphic designers during the next decade. As the digital age continues to grow worldwide, the demand for qualified graphic designers is slated to grow steadily to accommodate those needs. (Bureau of Labor Statistics, Occupational Employment Statistics Survey). A January 2014 poll of 25 companies in the greater Norwich, CT area returned 23 responses with 22 of the 23 companies (96%) currently using a graphic designer for work occurring in their company. Three had job openings for a graphic designer while two expressed the need to add "another employee" to their staff in the near future, to assist with all of their design needs. Potential employers for Graphic Design graduates include but are not limited to Sonalysts Studios, The Norwich Bulletin, The Hartford Courant, New London Day, Miranda Creative, Capik Creative, Quinn & Hary Marketing, Minuteman Press, Innotech, Reliance House, Norwich Public Utilities, WTIC-TV, WTNH-TV, WFSB-TV, WVIT-TV, Pratt and Whitney, Thames Valley Winnelson Co., Duncklee Cooling and Heating and many other small and/or private companies in need of qualified designers.

Cost Effectiveness and Availability of Adequate Resources

(Please provide a one-paragraph narrative on the attached MSExcel Pro-Forma Budget) Program enrollment in the years 2009-2013, into the current graphic design certificate program, averaged 19 students per semester and 38 per academic year. The projected enrollment numbers in this proposed Associates Degree indicate an average of 48 students per semester and 96 per academic year.

Pending program approval, there is a one-time expense for the software and video cameras needed for the proposed Com166/Art185 Video Filmmaking course. This requires the Final Cut Pro X software program. Once the program is adopted, the license agreement for 25 computers is $149 per computer for a total of $3750. The cost for the video cameras to be used in this course can be kept to $2950.

The final expense is to adjunct faculty members or to existing full time faculty who may end up teaching an overload of courses in order to ensure fluidity and coherence across all sections in the graphic design discipline. There are no other foreseen cost implications for getting this program off the ground.

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. Demonstrate skills, techniques, and manipulation of computer equipment, tools and software programs necessary to create appropriate graphic design.

2. Demonstrate an understanding of design principles, design concepts and problem solving.

3. Create original work, which shows an understanding of the principles of visual organization, information hierarchy, composition, typography, aesthetics, and the construction of meaningful messages. Evidence of an ability to effectively interpret, evaluate, organize and create informed and successful projects in print media, web, motion graphics and multimedia, that position themselves into the modern-day graphic design field.

4. Communicate ideas, needs and properly critique using specific graphic design vocabulary.

5. Demonstrate how to work effectively within a production group, follow a timeline and perform in a professional design environment.

6. Understand the historical foundations of visual communications and recognize contemporary design concepts/trends.

7. Demonstrate an understanding of professional practices and business skills necessary to engage in the chosen field of study.

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)*

This program will reside in the Humanities Department at TRCC. The program coordinator will be Kevin Amenta, a full time faculty member, who will take on the day-to-day operations of this new program. These responsibilities include but are not limited to hiring adjunct faculty, conducting classroom observations, developing curriculum, mentoring faculty, recruiting students, scheduling classes and selecting textbooks. Kevin Amenta brings 20 years of Broadcast Television experience as well as 9 years as a college faculty member, the previous 5 years being at TRCC as graphic design program leader. His experience ranges from writing, editing, directing and producing all the way to photography, digital design and advertisement creation. His varied experience will bring a stable environment to this 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? 0

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? 30%

Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program. Masters Degree and professional experience in area of teaching specialty.

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 Cost Analysis Projection sheet for BOR review)*

The program would need 6-8 video camcorders to be used in the COM166/ART185 Video/Filmmaking course and the software program Final Cut Pro X. The cost for these resources is included in the Resources and Cost Analysis Projection sheet.

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. # [3]	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				**Other Related/Special Requirements**		
GRA K131 Digital Photography	1,2,3,4,5		3			
GRA K140 Publications Design	1,2,3,4,5		3			
GRA K155 Advertising Design	1,2,3,4,5		3			
GRA K230 Digital Imaging I	1,2,3,4,5		3			
GRA K260 Web Design	1,2,3,4,5		3			
COM K121 Journalism	3,4,5		3			
COM K291 Publications Practice	1,2,3,4,5		3			
BMK K241 Principles of Advertising	2,3,5		3			
GRA K296 Graphic Design Internship	1,2,3,4,5,7		3			
COM 101 Intro to Mass Communication*	3,4,5,6		3			
COM 166/ART 185 Video Filmmaking*	1,2,3,4,5		3			
Core Course Prerequisites				**Elective Courses in the Field**		
COM K173 Public Speaking			3	Art Elective		3
MAT K137 Intermediate Algebra or higher			3			
IDS K105 First Year Experience			3			
ENG K101 Composition			3			
ENG K102 Literature & Composition			3			
History Elective			3			
Social Science Elective			3			
Natural Science Elective			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.)*

The Associate of Science in Graphic Design consists of a total of a total of 60 credits. 24 credits come from general education courses, 33 credits are from program core courses and 3 credits are electives. Furthermore, completion of a Graphic Design internship, which already includes a capstone paper and portfolio, is required to graduate. There are no special admission requirements into this program.

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[3] 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
Kevin Amenta	M.S. - Quinnipiac University	Interactive Communications, Electronic Media / 20 years in Broadcast Television as a Director, Producer, Editor, Writer.	Graphic Design Program Leader at Three Rivers Community College – Full Time
Michael Stutz	M.A. University of South Carolina.	Public Speaking, Communications	Assistant Professor of Communications at Three Rivers Community College - Full Time
Group of seasoned adjunct faculty members available to teach select classes.			

* Course Descriptions for New courses (as requested at the top of page 5)

COM166/ART185 Course Description: A creative workshop in which students will work with digital media to make their own movies. Students work with video camcorders and editing software. Students will learn scripting, shooting, editing and audio production techniques. Students will also research and write on various topics related to digital video and filmmaking.

COM101 Course Description: This course is a survey of the American mass media and communication. Lectures and discussions will focus on the various print and electronic mass media industries, and the impact of mass communication on our society. The course is designed as an introductory course for those students who plan to major in graphic design and communication and for those who want to be informed about the development of the influence of modern mass media.

Connecticut Board of Regents for Higher Education
APPLICATION FOR NEW PROGRAM APPROVAL <u>PRO FORMA</u> [1] BUDGET - RESOURCES AND EXPENDITURE PROJECTIONS

Institution　Three Rivers Community College　　　　　　　　　　*Date: 5-5-14*

Proposed Program　Associate of Science in Graphic Design

PROJECTED Enrollment	First Term Year 1		First Term Year 2		First Term Year 3	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Internal Transfers *(from other programs)*	1	2	2	4	3	6
New Students *(first time matriculating)*	4	26	5	36	6	44
Continuing *(students progressing to credential)*	2	15	3	18	4	20
Headcount Enrollment	7	43	10	58	13	70
Total Estimated FTE per Year						

PROJECTED Program Revenue	Year 1		Year 2		Year 3	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Tuition *(Do not include internal transfers)*	$20,592	$35,178	$27,456	$46,332	$24,320	$54,912
Program-Specific Fees	$2,604	$5,084	$3,472	$6,696	$4,340	$7,936
Other Rev. *(Annotate in text box below)*						
Total Annual Program Revenue	$63,458		$83,956		$91,508	

PROJECTED Expenditures*	Year 1		Year 2		Year 3	
	Number *(as applicable)*	Expenditure	Number	Expenditure	Number	Expenditure
Administration *(Chair or Coordinator)*	1	$50,758	1	$52,281	1	$53,849
Faculty *(Full-time, total for program)*	0		0		0	
Faculty *(Part-time -total for program)*	2	$19,008	2	$19,008	2	$19,008
Support Staff						
Library Resources Program						
Equipment *(List as needed)*	10 video cameras**, Final Cut Pro X software program**	$6,700				
Other (e.g. student services)						
Estimated Indirect Cost *(e.g. student services, operations, maintanance)*						
Total ESTIMATED Expenditures		$76,466		$71,289		$72,857

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

[1] This PRO FORMA budget provides reasonable assurance that the program can be established and is sustainable. Some assumptions and/or formulaic methodology may be used and annotated in the text box.

Connecticut Board of Regents for Higher Education
APPLICATION FOR NEW PROGRAM APPROVAL <u>PRO FORMA</u> [1] BUDGET - RESOURCES AND EXPENDITURE PROJECTIONS

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."

Please provide any necessary annotations:

10 video cameras**, Final Cut Pro X software program**

This is a one time $6700 expense in the first cycle.

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[1] This PRO FORMA budget provides reasonable assurance that the program can be established and is sustainable. Some assumptions and/or formulaic methodology may be used and annotated in the text box.

November 4, 2014

Board of Regents for Higher Education
Mike Gargano, Provost
39 Woodland Street
Hartford, CT 061050

Re: **Advanced Manufacturing Machine Technology Certificate Initiative**

Dear Mr. Gargano,

EDAC Technologies is pleased to support the Advanced Manufacturing Machine Technology Certificate Initiative. This Program, in partnership with Tunxis Community College, has strategic importance to EDAC. Our forecasted business growth, driven by strong customer demand, requires the continued development of manufacturing resources and skillsets. This program will provide the vehicle to address that demand as well as supporting economic growth in Connecticut.

As a result of the combined efforts of the Tunxis and EDAC teams, the Advanced Manufacturing Certificate Program will start in January 2015. It will include classroom instruction and hands-on shop floor training at EDAC's Corporate Headquarters in Cheshire, CT. After the initial six months of accelerated classroom training, EDAC will offer six-month paid internships to selected students, followed by two-year company sponsored apprenticeships. During this period students can choose from a number of specialty areas and work at EDAC's Farmington, Cheshire or Newington sites. All graduates of the apprenticeship program will be qualified for entry-level manufacturing positions, with starting salaries in the range of $40,000 a year.

EDAC's support for this program includes development costs and floor space allocation for a modern collegiate classroom environment. In addition, EDAC will allocate manufacturing floor space for the primary purpose of providing real time manufacturing training in concert with the classroom curriculum. Utilities and other related indirect costs will also be covered by EDAC.

It is expected that recurring six month classroom sessions will commence in January and July. The goal being, to fill and maintain a continuous pipeline of students, interns and apprentices to meet the growing demands of our business and the Connecticut manufacturing industry.

EDAC is pleased to be a partner in the Advanced Manufacturing Machine Technology Initiative. Should you have any questions, you may contact me at 203.806.6700.

Sincerely,

J. Mark McDonald
President and Chief Executive Officer

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

a New Program

December 18, 2014

RESOLVED: That the Board of Regents for Higher Education license and accredit a program in Accelerated Advanced Manufacturing Machining leading to a Certificate at Tunxis Community College.

A True Copy:

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

SECTION 1: GENERAL INFORMATION	
Institution: Tunxis Community College	Date of Submission to BOR Office: 11-5-14
Most Recent NEASC Institutional Accreditation Action and Date: 10-year accreditation, April 2012	

Program Characteristics	Program Credit Distribution

Name of Program: ~~Machine Technology~~
            Accelerated Advanced Manufacturing Machining
 	
Degree: Title of Award *(e.g. Master of Arts)*
Certificate: *(specify type and level)* **34 Credit Certificate**
Anticipated Program Initiation Date: January 2015
Anticipated Date of First Graduation: August 2015
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)*: 34
	# Cr in Program Core Courses: 34
	# Cr of Electives in the Field: 0
	# Cr of Free Electives: 0
	# Cr Special Requirements *(include internship, etc.):* **0**
	<u>Total # Cr in the Program</u> *(sum of all #Cr above)*: **34**
	From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: **24**

Type of Approval Action Being Sought: Licensure OR   X Licensure and Accreditation Suggested CIP Code No. *(optional)*   Title of CIP Code   CIP Year: 2000   or 2010 X
If establishment of the new program is concurrent with discontinuation of related program(s), please list for each program: Program Discontinued: CIP: DHE# (if available):   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: Business & Technology Dept.
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: Michael Rooke	Title: Dean of Academic Affairs	Tel.: 860-773-1514 e-mail: mrooke@tunxis.edu

BOR REVIEW STATUS *(For Office Use Only - please leave blank)*
BOR Sequence Number (to be assigned): Approved 2010 CIP Code No. [1]   Title of CIP Code Log of BOR Steps Towards Program Approval:
Nature and Resolution number for BOR Approval: Date of Approval: Conditions for Approval (if any)

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[1] Final CIP assignment will be done by BOR staff in consideration of suggested number (if provided) and in consultation with administrative offices at the institution and system proposing the program. For the final assignment, the 2010 CIP definitions will be used.

SECTION 2: PROGRAM PLANNING ASSESSMENT *(To be Used for BOR Review Only)*

Alignment of Program with Institutional Mission, Role and Scope

(Please provide objective and concise statements)

As part of the Connecticut State Colleges & Universities (ConnSCU) system, the twelve Connecticut Community Colleges share a mission to make excellent higher education and lifelong learning affordable and accessible.

Tunxis Community College offers its students a quality, yet affordable, education in an accessible and supportive environment, fostering the skills necessary to succeed in an increasingly complex world. Tunxis Community College will be a vibrant educational and cultural center responsive to current as well as emerging student and community needs.

This program clearly responds to the certificate, job skills training programs and providing businesses with a skilled, well-trained and educated workforce aspects of the Connecticut community college mission. The program clearly fosters the skills necessary for students to succeed and is responsive to emerging community needs given the anticipated labor market demand for graduates.

Addressing Identified Needs

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

According to the Connecticut Department of Labor, Computer-Controlled Machine Tool Operators are an "In Demand Growth" occupation that will experience a 16.6% growth rate with an anticipated 425 openings by 2022. Machinists, another career path available to graduates of this program, is also an "In Demand Growth" occupation with a 9.7% growth rate with an anticipated 862 openings by 2022. A number of area companies project an even higher need due to an aging workforce.

- 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 institution remains committed to supporting the workforce needs of its surrounding region, which historically has a significant manufacturing industry. In recent years, the local industry has approached us and asked us to help them provide a much needed trained workforce of manufacturing machine operators. The college itself does not have the equipment to provide this highly specialized training; however with EDAC Inc. providing the equipment at their Cheshire location, we are able to offer this program. We have a very nimble Business & Industry Office that has been able to recruit qualified instructors with the skills needed. Several companies in the area are interested in having their employees trained, and hiring graduates from the program.

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

This program is a short-term training certificate, although almost all credits earned can also be applied toward the earning of an associate's degree in Technology Studies, which transfers to CCSU, Univ. Hartford and Univ. New Haven's applied engineering programs.

- Please indicate what similar programs exist in other institutions within your constituent unit [2], and how unnecessary duplication is being avoided Program is adopted from the following colleges:
Asnuntuck Community College, Housatonic Community College, Naugatuck Valley Community College and Quinebaug

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[2] Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

Valley Community College all have manufacturing centers and this curriculum is adopted from those centers' curriculum. There is no duplication as there is a critical need for more programs such as this, particularly in the central CT area west of Hartford.

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

  The EDAC Company has agreed to hire a significant number of the graduates from this program and other local manufacturers plan to recruit future employees from among the graduates. EDAC want to run a second cohort through this program later in 2015, such is the need for qualified graduates.

Cost Effectiveness and Availability of Adequate Resources

(Please provide a one-paragraph narrative on the attached MSExcel Resource and Cost Projection Analysis) See attached.

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. Demonstrate a knowledge and understanding of the application of various geometric and trigonometric functions
2. Demonstrate a knowledge and understanding of advanced blueprint reading skills
3. Demonstrate a knowledge and understanding of the safe use of manufacturing equipment
4. Demonstrate a knowledge and understanding of quality control methods and procedures
5. Demonstrate an advanced knowledge and understanding and be able to run manufacturing machinery including drill presses, saws, grinders, lathes, and milling machines
6. Set up and operate CNC equipment, evaluate the quality of completed parts determine the source of any quality error found

Program Administration *(Describe qualifications and assigned FTE load of administrator/faculty member responsible for the day-to-day operations of the proposed academic program. Identify individual for this role by name or provide time frame for prospective hiring)*

The program will be jointly administered through our Lead Instructor and the Director of Business and Industry Services at the College, Victor Mitchell, who is a fulltime employee of the College. He will exhibit overall coordination of the program offsite for the College as well as acting as liaison with the company, EDAC, where the training will take place. He will be involved with the selection of students and compliance with BOR, EDAC, and Tunxis Community College policies and objectives. Mitchell will not teach any classes in manufacturing.

The Lead Instructor, Joseph Gosselin, will present both the 2 and 3 credit Blue Print Reading classes, MF M124 and MF M125. In addition, he will teach the non-credit class in Metrology. He will also exhibit overall coordination with the hands on component. Gosselin will begin with the program approximately 12/26/14.

Faculty *(Please complete the faculty template provided below to include current full-time members of the faculty who will be teaching in this program and, as applicable, any anticipated new positions/hires during the first three years of the program and their qualifications)*

How many new full-time faculty members, if any, will need to be hired for this program? 0

What percentage of the credits in the program will they teach? 0

What percent of credits in the program will be taught by adjunct faculty? 100

Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program. A masters degree where possible, or a bachelors degree in manufacturing engineering plus at least seven years of manufacturing experience.

Only part-time faculty will be hired to teach in this program. The minimum qualification will be a content expert in the specific manufacturing field, i.e.; an expert in using a lathe for the class titled MFG 154 Lathe I & MFG 155 Milling I. This will be the plan for all the skill specific areas.

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 Cost Analysis Projection sheet for BOR review)*

A computer lab will be placed at the training location. This will assist students in not only gaining an understanding of Computer Aided Design, CNC skills, research, but, will provide the platform for additional on-line manufacturing training. The EDAC company is supplying all specialized equipment for the program, including all machinery for the Manufacturing Lab. This will consists of a variety of measuring devices, lathes, Bridgeport's, cutting saws, CNC machines and other required manufacturing equipment.

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. # [3]	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				**Other Related/Special Requirements**		
CAD 133 Introduction to CAD		None	3			
MFG 124 Blueprint Reading I	1,2	None	2			
MFG 151 Manufacturing Machinery – Drill Press and Saw	3	None	1			
MFG 152 Manufacturing Machinery – Grinding	5	None	2			
MFG 153 Manufacturing Machinery – Benchwork	5	None	2			
MFG 154 Manufacturing Machinery – Lathe I	5	None	2			
MFG 155 Manufacturing Machinery – Milling I	5	None	2			
MFG 156 Manufacturing Machinery – CNC I	1,5,6	MFG 151	2			
MFG 254 Manufacturing Machinery – Lathe II	5	MFG 154	3			
MFG 255 Manufacturing Machinery – Milling II	5	MFG 155	3			
MFG 256 Manufacturing Machinery – CNC II	5,6	MFG 156	3			
MFG 125 Blueprint Reading II	1,2	MFG 124	3			
MFG 105 Manufacturing Math	1	MFG 155 & 156	3			
QUA 114 Principles of Quality Control	3,4	MFG 155 & 156	3			
Core Course Prerequisites				**Elective Courses in the Field**		
None				None		
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.*

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

Connecticut Board of Regents for Higher Education
APPLICATION FOR NEW PROGRAM APPROVAL <u>PRO FORMA</u> [1] BUDGET - RESOURCES AND EXPENDITURE PROJECTIONS

Institution		Tunxis Community College		*Date*		11/1/2014
		~~Machine Technology Certificate~~				
		Accelerated Advanced Manufacturing				
Proposed Program		Machining				

PROJECTED Enrollment	First Term Year 1		First Term Year 2		First Term Year 3	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Internal Transfers *(from other programs)*	1	0	2	0	2	0
New Students *(first time matriculating)*	20	0	20	0	20	0
Continuing *(students progressing to credential)*	0	0	0	0	0	0
Headcount Enrollment	21	0	22	0	22	0
Total Estimated FTE per Year	21		22		22	

PROJECTED Program Revenue	Year 1		Year 2		Year 3	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Tuition *(Do not include internal transfers)*	$108,528	$0	$113,696	$0	$113,696	$0
Program-Specific Fees	$54,264	$0	$56,848	$0	$56,848	$0
Other Rev. *(Annotate in text box below)*						
Total Annual Program Revenue	$162,792		$170,544		$170,544	

PROJECTED Expenditures*	Year 1		Year 2		Year 3	
	Number *(as applicable)*	Expenditure	Number	Expenditure	Number	Expenditure
Administration *(Chair or Coordinator)*	0	$0	0	$0	0	$0
Faculty *(Full-time, total for program)*	0	$0	0	$0	0	$0
Faculty *(Part-time -total for program)*	5	$53,856	5	$56,549	5	$58,164
Support Staff	0	$0	0	$0	0	$0
Library Resources Program	0	$0	0	$0	0	$0
Equipment *(List as needed)*	24	$24,000	0	$0	0	$0
Other (e.g. student services)	0	$0	0	$0	0	$0
Estimated Indirect Cost *(e.g. student services, operations, maintanance)*	0	$0	0	$0	0	$0
Total ESTIMATED Expenditures		$77,856		$56,549		$58,164

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

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."

Please provide any necessary annotations:

Program will be taught at the EDAC company facilities that they are providing to this program at not cost to the college.   The estimate is approx. $24,000 per year in-kind contribution. The college will provide 24 used PCs for use by students, along with some maintenance costs to support this equipment. The only real expenditure for

Gateway Community College
Interdisciplinary Peace Studies & Conflict Resolution Certificate
Executive Summary

Item
New stand-alone certificate proposal, 'Interdisciplinary Peace Studies & Conflict Resolution Certificate' for 15 credits at Gateway Community College.

BACKGROUND
Summary

The Interdisciplinary Peace, Collaboration, and Conflict Certificate (IPCC) is a community-based program, featuring the strategic goals of student retention, engagement, and civic action. Specifically, the program offers students relevant knowledge and skills related to understanding community conflict and strategies that promote emotional health, cooperation and nonviolence. An interdisciplinary program, IPCC engages students in both traditional classroom learning and service learning through a community internship coordinated through the IPCC Advisory Board, a cohort of community organizations in the greater New Haven community. The dynamic interdisciplinary nature of this program, coupled with a capstone service learning internship, supports and fosters student persistence and success, as well as preparing them for the workplace.

The interdisciplinary framework confers a special measure of knowledge and skill-building:

1. The interdisciplinary design embraces collaboration among domains such as philosophy, social science, psychology, and sociology.
2. The program calls for greater social relevance and problem orientation, focusing on conflict and social violence, topics that are particularly suited to interdisciplinary treatment.
3. While intellectual discovery is a goal, the certificate is more focused on exploring skills and strategies for reducing conflict and the risk of social violence.
4. Service learning/Internship capstone course features a twofold goal: a. identifying the causes of community tension and conflict, and b. devising strategies, mechanisms, and policies to reduce or lower tension and risk of conflict.

Need for the Program
The U.S. Department of Labor has issued a report (SCANS) defining many of the skills that employers have identified as necessary for employment (Job Search Guide). The list includes skills such as listening, creative thinking, decision making, problem solving, reasoning, self-management social abilities, integrity, honesty, seeing things in the mind's eyes, exercises leadership, negotiates to arrive at decisions, works with cultural diversity; and monitors, reflects and corrects performance. Furthermore, these skills are also desired in employers in many of the occupations listed in The U.S. Department of Labor Occupational Outlook Handbook 2014. Occupations include social and human service, pre-school and middle school teachers and counselors, medical assistants, health care professionals, paralegals, social and community service and financial managers, engineers and many more. Most importantly, employers look for specific documentation that new employees can do the job and possess the above skills. The *PSCR Certificate* will give students the accredited credential that will demonstrate the learned knowledge and skills.

The Connecticut State Labor Market Index http://www1.ctdol.state.ct.us/lmi/index.asp has shown that Connecticut occupations with the largest employment at all levels include social and human service, pre-school and middle school teachers, medical assistants, nurses, health care professionals, police, child, family and social workers, paralegals, financial managers and many more. Gateway students would benefit from the knowledge, skills and credential they would gain from completing the PSCR Certificate, the experiential opportunities for students to interact with employers, and the immediate opportunities to try out possible related career paths leading them to seek out continued study at Connecticut institutions of higher learning.

Curriculum
Required Courses

Course #	Course Name	Credits
HUM* 125	Introduction to Peace & Conflict Studies	3
PHL* 111	Ethics	3
Electives*	Restricted Interdisciplinary	3
HSE* 212	Mediation	3
IDS* 295	Service Learning Internship	3

Total Credits   15

*Restricted Electives

ANT* 105	Introduction to Cultural Anthropology	3
CJS* 101	Introduction to Criminal Justice	3
CJS* 102	Introduction to Corrections	3
ENG* 202	Technical Writing	3
ECE* 176	Health Safety Nutrition*	3
HIS* 253	History of Human Rights	3
HUM* 130	Philosophy and Practice of Yoga	3
NTR* 201	Community Nutrition Education*	3
LGL* 198	Introduction to Paralegal	3
PSY* 105	Group Dynamics	3

Students

We are currently working on an agreement with Gateway's Human Services Program which will allow students to complete a Human Services Degree and a PSCR Certificate by completing the PSCR Service Learning Internship thereby avoiding duplication and expanding their credentials.

The PSCR Certificate is one more important link to higher education that Gateway can provide to its service area. Students who plan to transfer will be prepared to go directly into pre-law programs, criminal justice, social work, and many more. The Service Learning Internship will also allow transfer and Liberal Arts Degree students access to internships.

Faculty

Carol Brutza, professor of peace studies and language literacy at Gateway Community College and Theresa J. Jeffries, professor of sociology, philosophy, and ethics at Gateway Community College will oversee this certificate. Most of the courses in the certificate are already existing and can be taught by full or part-time faculty as well.

Learning Resources
No additional resources are needed.

Accreditation
No specialized accreditation will be sought.

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

Licensure of a New Program

December 18, 2014

RESOLVED: That the Board of Regents for Higher Education license and accreditation of a program in Interdisciplinary Peace, Collaboration, and Conflict leading to a Certificate at Gateway Community College.

A True Copy:

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

SECTION 1: GENERAL INFORMATION [1] [2]	
Institution: Gateway Community College	Date of Submission to BOR Office:

Most Recent NEASC Institutional Accreditation Action and Date:

Program Characteristics Name of Program: **Interdisciplinary Peace, Collaboration, and Conflict Certificate** Degree: Title of Award *(e.g. Master of Arts)* Certificate: *(specify type and level)* Anticipated Program Initiation Date: **Spring 2015** Anticipated Date of First Graduation: **Spring 2015** Modality of Program: On ground Online x Combined If "Combined", % of fully online courses? 10% Total # Cr the Institution Requires to Award the Credential *(i.e. include program credits, GenEd, other)*: **15**	**Program Credit Distribution** # Cr in Program Core Courses: 12 # Cr of Electives in the Field: # Cr of Free Electives: **3-one restricted elective** # Cr Special Requirements *(include internship, etc.):* 3 <u>Total # Cr in the Program</u> *(sum of all #Cr above)*: **15** From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: **3**

Type of Approval Action Being Sought: Licensure OR x Licensure and Accreditation Suggested CIP Code No. *(optional)*   Title of CIP Code

If establishment of the new program is concurrent with discontinuation of related program(s), please list for each program: Program Discontinued: CIP: DHE# (if available): Phase Out Period   Date of Program Termination

Institution's Unit *(e.g. School of Business)* and Location *(e.g. main campus)* Offering the Program: Social Science, Main Campus Downtown New Haven

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: Mark Kosinski	Title: Academic Dean	Tel.: 203 285 2077 e-mail: mkosinski@gatewayct.edu

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

BOR Sequence Number (to be assigned): Approved 2010 CIP Code No.   Title of CIP Code Log of BOR Steps Towards Program Approval: Nature and Resolution number for BOR Approval: Date of Approval: Conditions for Approval (if any)

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[1] Final CIP assignment will be done by BOR staff in consideration of suggested number (if provided) and in consultation with administrative offices at the institution and system proposing the program. For the final assignment, the 2010 CIP definitions will be used.

SECTION 2: PROGRAM PLANNING ASSESSMENT *(To be used in BOR Review Only)*

Alignment of Program with Institutional Mission, Role and Scope

(Please provide objective and concise statements)

The **Interdisciplinary Peace, Collaboration and Conflict Certificate (IPCC)** is a community-based program, featuring the strategic goals of student retention, engagement, and civic action. Specifically, the program offers students relevant knowledge and skills related to understanding community conflict and strategies that promote emotional health, cooperation and nonviolence. An interdisciplinary program, IPCC engages students in both traditional classroom learning and service learning through a community internship coordinated through the IPCC Advisory Board, a cohort of community organizations in the greater New Haven community. The dynamic interdisciplinary nature of this program, coupled with a capstone service learning internship, supports and fosters student persistence and success, as well as preparing them for the workplace.

The interdisciplinary framework confers a special measure of knowledge and skill-building:

1. The interdisciplinary design embraces collaboration among domains such as philosophy, social science, psychology, and sociology.
2. The program calls for greater social relevance and problem orientation, focusing on conflict and social violence, topics that are particularly suited to interdisciplinary treatment.
3. While intellectual discovery is a goal, the certificate is more focused on exploring skills and strategies for reducing conflict and the risk of social violence.
4. Service learning/Internship capstone course features a twofold goal: a. identifying the causes of community tension and conflict, and b. devising strategies, mechanisms, and policies to reduce or lower tension and risk of conflict.

Connection to Educational Planning and Graduation

The U.S. Department of Labor has issued a report (SCANS) defining the skills that employers have identified as necessary for employment. (Job Search Guide). The list includes skills such as listening, creative thinking, decision making, problem solving, reasoning, self- management social abilities, integrity, honesty, seeing things in the mind's eyes, exercises leadership, negotiates to arrive at decisions, works with cultural diversity; and monitors, reflects and corrects performance. Furthermore, these skills are also desired in employers in many of the occupations listed in The U.S. Department of Labor Occupational Outlook Handbook 2014. Occupations include social and human service, pre-school and middle school teachers and counselors, medical assistants, health care professionals, paralegals, social and community service and financial managers, engineers and many more. Most importantly, employers look for specific documentation that new employees can do the job and possess the above skills. The *IPCC Certificate* will give students the accredited credential that will demonstrate the learned knowledge and skills.

The Connecticut State Labor Market Index http://www1.ctdol.state.ct.us/lmi/index.asp has shown that Connecticut occupations with the largest employment at all levels include social and human service, pre-school and middle school teachers, medical assistants, nurses, health care professionals, police, child, family and social workers, paralegals, financial managers and many more.

A labor market trend analysis based on *Monster.com*, an internet site that tracks job patters and career opportunities, in February 2013 showed that healthcare is still the highest growth field in our region. Because Gateway offers expanding credit and noncredit programs in nursing, allied health, health care professionals, case care managers, social workers, community health care workers, and patient navigators, these Gateway students could benefit from the knowledge, skills and credential they would gain from completing the PSCR Certificate, as well as the experiential opportunities for students to interact with employers, and the immediate opportunities to try out possible related career paths leading them to seek out continued study at Connecticut institutions of higher learning.

Employability Survey

Our preliminary research surveyed local employers for what skills relate to their decision making process when hiring new employees. An **Employability Survey** was disseminated to members of the New Haven Community Based Violence Prevention Collaborative in January 2014 reached more than 70 stakeholders, policy makers, funders, educators, and community nonprofits groups. Over 90% of these respondents indicated that the skills learned through the *IPCC Certificate* curriculum would be most relevant to employability in their agencies. Those with hiring responsibilities, indicated they would be willing to hire candidates who had completed the *IPCC Certificate* at their respective workplaces. This means that students would be able to secure employment with the PSCR Certificate alone, with an associate's degree plus the Certificate, and an undergraduate degree with a Certificate.

We also conducted several phone interviews of several key business leaders who reiterated that collaborative conflict resolution and problem solving skills were essential to productivity at the workplace, and they would look more closely at a candidate who met job criteria and had documentation such as an *IPCC Certificate* from Gateway. One former Gateway graduate and now director of a large national organization in New Haven said that creativity and initiative toward solving workplace conflicts was a crucial skill she looks for in candidates as well as resolving conflict in teams and group work.

Interns
More than half of the organizations surveyed replied that it would be very important to recruit service learning interns from the *IPCC Certificate* program. The others replied that their organizations did not have intern positions available.

Student Demand Survey
The **Student Demand Survey** was completed by Gateway students enrolled in four courses in the first weeks of the spring 2014 semester. Of the 75 surveyed, 59% answered positively to all three questions. They would be very interested in enrolling in *the IPCC Certificate* program, if offered at Gateway, and they would look into graduating with both a Gateway degree and an *IPCC Certificate*. Those who answered question 2 negatively felt that they would not enroll in the Certificate program because it would not fit into their schedules, it would not be applicable to their degree, or they were about to graduate or transfer from Gateway.

Student comments include strong personal interest in peace studies, the ease in which the Certificate could fulfill degree electives, the opportunities to gain practical service learning experience, and the possibility of having a "higher percentage of getting a job."

- **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 Certificate integrates three existing courses taught by full time faculty and adds two new courses (Mediation and Service Learning Internship). This arrangement does not tax already existing resources and allows for very moderate expansion of newly required courses. Students can obtain an IPCC Certificate as well as a degree in chosen fields.

Human Services
Currently, we are working on an agreement with Gateway's Human Services Program in the Social Science Department, which will allow students to complete a Human Services Degree and an IPCC Certificate by completing the IPCC Service Learning Internship thereby avoiding duplication and expanding their credentials.

General Studies

Currently, Gateway Community College enrolls over 3000 students in General Studies, A.S. degree. Obtaining an IPCC Certificate would allow a pool of these General Studies students to graduate from Gateway with the opportunity to learn and practice new skills demanded by our workforce community. The Service Learning Internship will give General Studies degree students, who otherwise have no access to internships, an opportunity to work in the community and gain valuable practical experience.

The IPCC also provides opportunities in continuing education for local workforce.   Gateway's location has enabled strong partnerships with local nonprofit leaders, public school educators, employers, and community residents who are committed to making peace education and nonviolence high priorities in the community and state.

Transfer

The IPCC Certificate is one more important link to higher education that Gateway can provide to its service area. Students who plan to transfer will be prepared to go directly into pre-law programs, criminal justice, social work, public health business, education, and health sciences, nursing, and many more. Again, the Service Learning Internship will give transfer and Liberal Arts Degree students access to internships. All IPCC courses will eventually be vetted for TAP; PHL* 111 has already been completed.

For example, a graduate of Gateway in Business Administration and a member of the PSCR Advisory Board, Malik Sitou, is currently completing his business and anthropology minor degree at SCSU, has returned to Gateway to complete two of the IPCC required courses, and hopes to be one of the first to receive the IPCC Certificate. He plans on a career at the United Nations.

- **Please describe any transfer agreements with other institutions under the BOR 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)**

Currently**,** *Hum 125 Introduction to Peace and Conflict Studies*- is an accepted **equivalency** course at Central CT State University.

We have applied to SCSU, UCONN, WCSU, and ECSU for *Hum 125, PHL 111 Ethics and HSE 212 Mediation (elective credit in the Human Services degree)* courses to be accepted as equivalencies. They are currently accepted as **electives.**

Fairfield University Sacred Heart Universities accept Gateway's *PHL111 Ethics* as meeting specific **requirements** for prerequisites in their Occupational Physical Therapy and Allied Health Programs.

We have applied to SCSU, UCONN, WCSU, and ECSU for *Hum 125, PHL 111 Ethics and HSE 212 Mediation* courses to be accepted as equivalencies. They are currently accepted as **electives.**

Central Ct. State University, minor in Peace Studies, and Eastern Ct State University, minor in Peace and Human Rights, will accept up to 9 credits from the PSCR Certificate.

Strong Local Community Focus and Commitment

The IPCC Certificate responds to community based needs. Our faculty and staff are involved in many local and statewide organizations that focus on the fields of peace education and collaborative conflict resolution. In recent years, the New Haven Community-based Violence Prevention Collaborative of over 70 members has worked tirelessly to coordinate services and educational opportunities to reduce and eliminate violence, mostly

focusing on teens. The IPCC Certificate is a direct response to initiatives put forth from this group. The IPCC Certificate is a direct response to initiatives put forth from this group and documented in tis recent report: *The New Haven Community Violence Prevention Group, A City-Wide Community Collaboration. Selected Strategies to Prevent Gun Violence in New Haven, October 2014.*

On April 30, 2014 Gateway hosted a meeting for members of the PSCR Advisory Board. Our planning and advisory board teams include area employers, faculty, students, the Academic Dean and Student Services:

- Brenda Cavanaugh, Executive Director, Community Mediation Center, Hamden
- Jonah Cohen, Professor Social Science, General Studies Coordinator, Gateway Community College
- Ann Harrison, Continuing Education Coordinator/Project Manager, Gateway Community College
- Sue Logston, Chair Social Sciences, Early Childhood Education Gateway Community College
- Gloribel Lopez, Associate Director, NeighborWorks New Horizon, New Haven
- Georgina Lucas, Deputy Director, Robert Wood Johnson Foundation clinical Scholars, Yale School of Medicine
- Reverend William Mathis, J.D., M.Div.
  Program Manager, Project Longevity, New Haven
- Seila Mosquera-Bruno, Director NeighborWorks New Horizon, New Haven
- Caprice Taylor Mendez, Director, New Haven Promise, National Youth Policy Consultant,
- Hannah Moeckel-Rieke, Professor English and Global Studies Norwalk Community College
- Jim Pandaru, Peace Council, New Haven
- Rev. John Scott III, Professor Business and Paralegal Studies
- Mary Lee Morrison Ph.D., educator, Pax Educare, Ct. adjunct faculty CSCU
- Erin Sabato, Program Director, Schweitzer Institute, Quinnipiac University, faculty
- Malik Sitou, Alumni and continuing student , Gateway Community College, SCSU
- David J. Smith, MS, JD, National Educational Consultant and Peace Building Trainer,
- Barbara Tinney, MSW, Executive Director of New Haven Family Alliance
- Christine Straw, DST Innovation Lab Coordinator, Earth Institute, Columbia University
- Janeth Veloza, Gateway Community College, Gateway Community College Alumni
- Shirley West, Youth and Education Services, New Haven Family Alliance
- Leon Yacher, Professor Geography, Southern Connecticut State University

Supporting Organizations

The following community organizations have representatives on the PSCR Advisory Board:

- New Haven Police Department
- New Haven City Peace Commission
- National Peace Academy
- New Haven Family Alliance
- New Haven Community-based Violence Prevention Collaborative (100 members)
- NeighborWorks New Horizons
- Literacy Volunteers of Greater New Haven
- Community Mediation

- **Please indicate what similar programs exist in other institutions within your constituent unit [3], and how unnecessary duplication is being avoided**

Gateway, Norwalk and Manchester enroll over 125 students per semester into its *Hum 125 Introduction to Peace and Conflict Studies* course per semester

Norwalk Community College is exploring a similar IPCC Certificate program.

This interdisciplinary certificate is not offered in the Connecticut Community Colleges, although Norwalk and Manchester CCs enroll over 125 students each semester in HUM* 125, Introduction to Peace & Conflict Studies.

Cost Effectiveness and Availability of Adequate Resources

(Please provide a short narrative that generally considers projections of program enrollment and graduation, revenues and expenses, existing and needed resources, including faculty and administrative cost, and any major cost implications)

We anticipate that in the first year we will have 14 new students. By the second year we expect that to double to 28. We expect to draw about 4 part time students in the first year and double that in the second. By the third year, we anticipate our enrollments to be approximately 25 new and continuing students.

Two full time professors will teach in the courses required in the Certificate. We anticipate hiring only 1 adjunct faculty for the first year and 1 each semester as the program grows. There are no administrative costs associated with the Certificate. However, we are actively seeking donors and grants to build a Peace Studies Center at Gateway, in which the Certificate would be one of many educational opportunities offered in the field of peace and conflict for the community and state.

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. Recognize the value of creative, collaborative and innovative approaches to problem solving and acknowledging differing points of view
2. Respond critically to ethical issues, while applying standards of scholarship
3. Apply a multi-scalar perspective to peace issues including:
   a. Nonviolence
   b. Human rights
   c. Economic well-being
   d. Truth and Justice
4. Apply a multi-scalar perspective to peace practices including:
   a. Alternative Dispute Resolution and Mediation
   b. Reconciliation
   c. Peace building and Peace making, Peace keeping
5. Clearly communicate peace and conflict concepts in both oral and written forms. Respond promptly to rhetorical situations, utilize and evaluate sources, construct logical arguments, apply language conventions and formulate effective writing strategies.

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[2] Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

6. Effectively use relevant technologies to solve problems, complete projects, make informed decisions.
7. Access, evaluate, and identify information appropriate to needs and audience, synthesize information and evaluate ethical and social issues associated with the use of information technologies.

The assessments that will be used in this Certificate include a variety of summative and formative assessments including reflection journals, essay tests, collaborative projects, oral presentations, interviews, surveys, and e-portfolios.

Catalog Descriptions

The **Interdisciplinary Peace, Collaboration, and Conflict Certificate** of 15 total credits includes 12 Certificate specific credits of HUM 125 Introduction to Peace Studies, PHL 111 Ethics, HSE 212 Mediation, IDSS 295 Service Learning Internship and a 3 credit restricted elective. The Service Learning Internship is a three-credit course that includes a 60 hour internship component, a capstone project, and a completed e-portfolio demonstrating employment skills and capabilities. The Internship provides students with practical on-the-job experience in major nonprofit organizations, businesses, schools, and hospitals.

HUM 125 Introduction to Peace and Conflict Studies 3 S.H.
Presents an interdisciplinary study of the concepts of positive and negative peace, nonviolence, human rights, justice, truth and reconciliation, peacebuilding, peace makers and peace keeping as they relate to economic, sociological, psychological, historical, political, technological, cultural, ideological, geographical, and environmental factors.

PHL 111 Ethics 3 S.H.
Provides an overview of the formation and expression of Western philosophical thinking. Explores some of the views and concepts supporting ethical values in the contemporary social, political, and economic environment. Considers ethical problems as they relate to current ideologies.

HSE 212 Mediation 3 S.H.
Designed to introduce mediation philosophies, approaches, applications, and skills for all types of third-party conflict interventions. It provides students with opportunities to effectively use nonviolent communication strategies, evaluate and critique conflict situations and generate alternative dispute solutions in a variety of environments, including businesses, nonprofit organizations, primary and secondary schools, public health education, and hospitals. At the completion of the course, opportunities will be provided for students to observe, volunteer, co-mediate, and participate in specialized trainings at mediation centers around the state.

IDS 295 Service Learning Internship 3 S.H.
Designed to provide students a professional employment environment where they can apply skills, such as conflict resolution, resolving ethical conflicts, and the use of mediation developed through the IPCC Certificate coursework. Witness skills being applied by seasoned professionals in various nonprofit and profit organizations. Students focus on career paths and possible continued study at institutions of higher learning. Will provide opportunities for extended training, research projects and presentations for workshops and conferences. All Interdisciplinary Peace, Collaboration, and Conflict Certificate courses must be completed prior to enrolling in the internship. Requires 60 hours with a minimum of 6 hours a week at placements and/or extended trainings.

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)*

Carol Brutza, Professor of peace and language literacy at Gateway Community College.

Theresa J. Jeffries, Professor of sociology, philosophy, and ethics at Gateway Community College.

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?

What percent of credits in the program will be taught by adjunct faculty? 1 section

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

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 Cost Analysis Projection sheet for BOR review)*   None Needed

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)

Curriculum
Required Courses

Course #	Course Name	Credits
HUM* 125	Introduction to Peace & Conflict Studies	3
PHL* 111	Ethics	3
Electives*	Restricted Elective	3
HSE* 212	Mediation	3
IDS* 295	Service Learning Internship	3
Total Credits		15

*Restricted Electives (proposed)

ANT 105	Introduction to Cultural Anthropology	3
CJS 101	Introduction to Criminal Justice	3
CJS 102	Introduction to Corrections	3
ENG 202	Technical Writing	3
ECE 176	Health Safety Nutrition*	3
HIS 253	History of Human Rights	3
HUM 130	Philosophy and Practice of Yoga	3
NTR 201	Community Nutrition Education*	3
LGL 198	Introduction to Paralegal	3
PSY 105	Group Dynamics	3

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
Carol Brutza	MA. New York University Advanced Graduate Certificates , Columbia University	Peace Education, Collaborative Conflict Resolution, Mediation Literacy	Peace, Communication, TESOL Teacher Training, Anthropology
Theresa Jeffries	M.A. Columbia School of Social Work ABD University of Minnesota	Sociology, Human Services, Ethics, Philosophy, Mediation, Internships	Sociology, Ethics
Adjunct			
Erin Peck Sabato	MA. University of Peace	Media, Women Studies,	

Connecticut Board of Regents for Higher Education
APPLICATION FOR NEW PROGRAM APPROVAL <u>PRO FORMA</u> [1] BUDGET - RESOURCES AND EXPENDITURE PROJECTIONS

Institution: Gateway Community College

8-Aug-14

Proposed Program: Interdisciplinary Peace and Conflict Studies Certificate

PROJECTED Enrollment	First Term Year 1		First Term Year 2		First Term Year 3	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Internal Transfers *(from other programs)*	7	6	8	8	8	12
New Students *(first time matriculating)*	4	5	6	9	10	15
Continuing *(students progressing to credential)*	0	0	7	10	10	10
Headcount Enrollment	11	11	21	27	28	37
Total Estimated FTE per Year	20					

PROJECTED Program Revenue	Year 1		Year 2		Year 3	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Tuition *(Do not include internal transfers)*	$15,016	$18,770	$48,802	$71,326	$75,080	$93,850
Program-Specific Fees	$0					
Other Rev. *(Annotate in text box below)*						
Total Annual Program Revenue	$33,786		$120,128		$168,930	

PROJECTED Expenditures*	Year 1		Year 2		Year 3	
	Number *(as applicable)*	Expenditure	Number	Expenditure	Number	Expenditure
Administration *(Chair or Coordinator)*	Existing Chair					
Faculty *(Full-time, total for program)*						
Faculty *(Part-time -total for program)*						
Support Staff						
Library Resources Program						
Equipment *(List as needed)*						
Other (e.g. student services)						
Estimated Indirect Cost *(e.g. student services, operations, maintanance)*						
Total ESTIMATED Expenditures		$0		$0		$0

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

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."
We plan to apply for grants to help support Service Learning Experiences, bring in guest speakers to hold related workshops such as *Theater of the Oppresssed*, *Workplace Conflict*, and *Online Resumes using e-portfolios.*

[1] This PRO FORMA budget provides reasonable assurance that the program can be established and is sustainable. Some assumptions and/or formulaic methodology may be used and annotated in the text box.

Transfer and Articulation Program
Progress Report, Fall 2014

Brief Background

In Summer 2012, the Transfer and Articulation Steering Committee and Disciplinary Subcommittees from all 17 campuses met and developed the TAP Framework.

That fall, faculty at all 17 colleges and universities voted on the framework; 15 voted for the framework, and 2 voted against. Later in the term, the BOR approved the framework for implementation.

During that academic year, four initial work groups were formed to create transfer pathways for Biology, Business/Management, Communication, and Psychology. Their work stalled without clear guidelines or active leadership.

For the fall 2014, TAP Co-Managers were appointed (Candace Barrington, Professor, CCSU, and Ken Klucznik, Professor, MCC) to manage the next stages of implementation.

Standardized terminology

Pathway: The set of courses for each four-year degree that constitute the 60-61 credits of the community college transfer degree.

Framework 30: The 30-31 credit portion of the pathway that meets the competencies detailed in the TAP framework developed by the TAP Steering Committee in 2012; whenever possible, this portion of the degree should remain unencumbered.

Pathway 30: The additional 30 credits remaining beyond the Framework 30 in the community college pathway degree; this section will include additional general education courses, program courses and, when applicable to the four-year program, open electives; this will be one package applicable to all five four-year schools.

University 60: The 60 credits of course work that remain to be completed at the four-year school. These 60 credits are likely to differ among the five universities.

Common Package: The 30-32 credits designated by each four-year campus to receive the Framework 30 completed at any community college.

Each pathway work group has been charged with developing a common lower-division pre-major **Pathway** comprising **Framework 30 + Pathway 30**.

Milestones since 22 August 2014

- Updated TAP Implementation Plan 2014-15 & 2015-16
- Created Worksheets to guide work groups and provide a more uniform process
- Designed pathway templates to be used for the approval process
- Identified membership for eleven Round 1 and Round 2 pathway work groups:

Biology	Business/Management
Communication	Media
Psychology	English
Chemistry	History
Political Science	Mathematics
Sociology	

- FIRC coordinated
    - Community College certification of courses fulfilling the Framework 30 competencies
    - Creation of common packages for receiving Framework 30 into each CSU general education program
- Populated the TAP Blackboard/Learn site with documents and information needed by workgroups
- Convened and oriented 11 pathway work groups at a TAP Summit, 17 October; over 100 faculty from 17 campuses attended
- Developed a Checklist that will accompany each pathway's templates through the approval and review process
- Provided guidance for work groups as they developed pathways
- Identified membership for five Round 3 pathway work groups:

Accounting	Social Work
Computer Science	Criminology
Marketing	

    Currently, Accounting and Marketing pathways are coordinating with Business/Management pathway.
- Scheduled a second Summit to convene and orient Round 3 work groups on 5 December 2014.
- Round 4 will be convened in Fall 2015:

Art	Elementary Education
Finance	Exercise Science
Theater/Drama	Physical Education

Review and Approval Process

Once the work group develops a pathway, the review and approval process will begin. Coordinating this process will be the primary charge of the TAP Co-Managers.

- Discipline workgroup (e.g. biology) submits its pathway to TAP Co-Managers.
- Co-Managers review and forward the pathway to the Framework and Implementation Review Committee (FIRC).
- Pathway submitted to the faculty committees at each college and university.
- Pathway submitted to the Council of Chief Academic Officers and TAP Coordinating Council for review and approval.
- Pathway submitted to the Academic and Student Affairs Committee for approval.
- Board of Regents approval.

All pathway designs are slated for completion by the end of the 2015-16 academic year. By the fall of 2016, between 20 and 25 transfer degree pathways will be ready for CSCU students.

TAP Hallmarks

1. The Pathways will allow
   - transfer students with an associate degree to enroll at a CSU campus with junior class standing and no excess credits.
   - those transfer students to complete, on average, 60 additional credits at the university to earn a baccalaureate degree.
2. The TAP process provides a model for faculty collaboration across the seventeen campuses.
   - The process has been fundamentally driven by faculty and followed the shared governance review and approval processes.
   - All content has been produced by faculty.
   - Faculty co-managers provide the necessary coordination.
3. TAP has set a system-wide precedent for developing system-wide, compatible standards for
   - the quality of instruction and the credentials of faculty with primary responsibility for general education courses at the CC's and CSU's
   - the general education course curriculum, content, and student-learning outcomes
   - the competencies for the general education courses at the CC's and CSU's

Challenges needing to be addressed

- Community Colleges' ability to provide the full menu of general education courses for all pathway programs
- Community Colleges' ability to provide the general education courses each semester to keep students on track for graduation as well as to provide reasonable access to program courses in a timely manner
- Status of existing 2 + 2 transfer agreements
- Possibility of future 2 + 2 transfer agreements
- Relationship of COT and Nursing programs to TAP
- Present and future continuity in teaching faculty leadership as TAP Co-Managers
- System office leadership that respects the review and approval process
- Consistent cooperation from chief academic officers at local campuses

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

College of Technology Transfer Agreements

December 18, 2014

RESOLVED: That the Board of Regents for Higher Education approves the continued implementation of the College of Technology transfer agreements between twelve community colleges and Central Connecticut State University. The programs in this agreement represent the ideal of seamless and transparent transfer for students and are exempt from meeting the specific requirements of the Board's Transfer and Articulation Policy.

A True Copy:

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

College of Technology Pathways

Engineering Science Curriculum – A.S. Degree		Technology Studies Curriculum - A.S. Degree	
Course	*Credits*	*Course*	*Credits*
General Education		*General Education*	
ENG 101 Composition	3	ENG 101 Composition	3
ENG 110 Intro to Literature **or** ENG 102 Literature & Composition	3	ENG 202 Technical Writing	3
History Elective	3	COM 173 Public Speaking	3
Behavioral or Social Science Elective	3	History Elective **or** Economics Elective	3
ART or Humanities Elective	3	Psychology Elective **or** Sociology Elective	3
ART or Humanities Elective	3	Fine Arts Elective	3
		Philosophy Elective	3
Science and Math		Geography Elective **or** Political Science Elective **or** History Elective	3
CHE 121 General Chemistry I w/ Lab	4	Economics Elective	3
PHY 221 Calculus-Based Physics I	4		
PHY 222 Calculus-Based Physics II	4	*Science and Math*	
MAT 254 Calculus I	4	MAT 167 Principles of Statistics (3cr) **or** MAT 168 Elementary Statistics and Probability I (4cr)	3 or 4
MAT 256 Calculus II	4	MAT 186 Pre-Calculus	4
MAT 268 Calculus III –Multivariable	4	PHY 121 General Physics I **or** PHY 110 Introductory Physics	4
MAT 285 Differential Equations	3 or 4	CHE 121 General Chemistry I w/ Lab **or** CHE 111 Concepts of Chemistry	4
Engineering Science		*Technology Core*	
EGR 111 Introduction to Engineering	3	CAD Elective	3
EGR 211 Engineering Statics	3	DIRECTED ELECTIVES	6
EGR 212 Engineering Dynamics **or** EGR 230 C+++	3		
EGR 214 Thermodynamics (3cr) **or** EGR 215 Thermodynamics (4cr) **or** General Chemistry II w/ Lab (4cr) **or** Directed Discipline Engineering Course	3 or 4	*Specialization Electives*	
		Technical Electives	15
Major-Specific Electives			
EGR/TECH Electives	6-8		
Total	**63-67**	**Total**	**66-67**

College of Technology Programs	Community Colleges											
	ACC	CCC	GCC	HCC	MCC	MXCC	NVCC	NCCC	NCC	QVCC	TRCC	TXCC
Engineering Science	x	x	x	x	x	x	x	x	x	x	x	x
Options												
Technology Studies	x	x	x	x	x	x	x	x	x	x	x	x
Lean Manufacturing and Supply Chain Management	x				x					x	x	
Manufacturing Electro-Mechanical Maintenance	x											
Manufacturing Electronics & Controls Technology	x											
Manufacturing Welding Technology	x											
Electrical Option				x							x	x
Industrial Technology				x	x			x				
Technology & Engineering Education					x						x	
Technology Management					x							
Computer-Aided Design					x					x	x	
Computer Engineering Technology						x						
Electronic Power Technology Pathway								x				
Plastics Technology										x		
Environmental										x		
Biomolecular										x	x	x
Engineering Technology		x			x			x		x	x	x
Manufacturing Engineering Technology					x							
Manufacturing Machine Technology	x					x						
Electronics Option					x							
Certificates												
Supply Chain Management	x									x	x	
Lean Manufacturing	x				x						x	x
Manufacturing Machine Technology	x			x			x			x		
Manufacturing Electro-Mechanical Maintenance Technology	x											
Manufacturing Electronics Fundamentals	x											
Manufacturing Electronics Systems & Controllers	x											
Manufacturing Welding Technology Applications	x											
Manufacturing Welding Technology Fundamentals	x											
Electrical				x								x
Advanced Manufacturing Welding Technology	x											
Computer-Aided Design (CAD)				x							x	
Technology Management					x							
Plastics Technology										x		

Transfer Pathway and Degree Program

Template 1

Central Connecticut State University

Complete two-year degree with articulation to four-year degree

COLLEGE OF TECHNOLOGY -Technology Studies

Transfers into CCSU Mechanical Engineering Technology

[Students must be in good standing with an overall GPA of 2.0, have earned a minimum of 15 semester hours at the college and met the "L" course and "D" course requirements.]

Community Colleges*:		Credits	CCSU	Credits
General Education Requirements				
Framework30**				
Competency:				
Section A				
Written I	ENG 101 Composition	3	ENG 110 English Composition	3
Written II	ENG 202 Technical Writing	3	ENGR 290 Engineering Technical Writing and Presentation	3
Scientific Reasoning	PHY 121 General Physics I	4	PHYS 121 General Physics I	4
Scientific Knowledge	CHE* 121 General Chemistry I	4	CHEM 161/162 General Chemistry w/lab	4
Quantitative	MAT 186 Pre-Calculus	4	MATH 119 Precalc w Trigonometry	4
Historical Knowledge	History Elective or Economics Elective	3	HIST 1XX	
Social Knowledge	Psychology Elective or Sociology Elective	3	ANTH/SOC/PSY (see Study Area III) http://web.ccsu.edu/catalog/generaled/studyarea3.asp	3
Aesthetic Dimensions	Fine Arts Elective	3	ENG (Lit)/ ART/MUS/PHIL (Study Area I) http://web.ccsu.edu/catalog/generaled/studyarea1.asp	3
Section B				
Oral Communication	COM 173 Public Speaking	3	COMM 140 Public Speaking	3
Social Phenomenon	Philosophy Elective	3	PHIL 144 Moral Issues OR ENG (Lit)/ ART/MUS/PHIL (Study Area I) http://web.ccsu.edu/catalog/generaled/studyarea1.asp -of 3 total course in program one must be LIT	3
Framework30 Credits (30-31):				
Additional General Education Courses				
	MAT 168 Elementary Statistics and Probability I	4	STAT 101 Elementary Statistics	3
	Geography Elective or Political Science Elective or History Elective	3	HIST/GEOG/PS/ECON Study Area II http://web.ccsu.edu/catalog/generaled/studyarea2.asp	3
	Economics Elective	3	HIST/GEOG/PS/ECON Study Area	3

			II http://web.ccsu.edu/catalog/generaled/studyarea2.asp	
General Education Credits:		43		43
TECHNOLOGY				
CAD 110 or CAD 219		3	MFG 121 Technical Drafting and CAD	3
DIRECTED ELECTIVES		6	DIRECTED ELECTIVES	6
TECHNOLOGY Course Credits:		9		9
Major Program Courses/Specialization Electives				
Directed Elective		15	Directed Electives✝	15
Total Credits at the Community College		67	**Total Credits for the 4-Year Degree**	122-130

✝CCSU offers multiple options for students who complete the TECH STUDIES program at the CC's including Engineering Technology, Biomolecular Sciences, Technology Management, and Education programs. See individual program sheets for complete details.

Template 2

Credits remaining in the four-year degree

COT- TECH STUDIES: - B.S. MECHANICAL ENGINEERING TECHNOLOGY

[List here any additional requirements for admission to the program, such as prerequisites, GPA and minimum grades in specific courses]

Central Connecticut State University	
Remaining General Education Courses	
Course	**Credits**
ENG (Lit)/ ART/MUS/PHIL (Study Area I) http://web.ccsu.edu/catalog/generaled/studyarea1.asp -of 3 total course in program one must be LIT	3
PHYS 122 General Physics II	4
MATH 135 Applied Engr Calc I or MATH 152 Calculus I	4
MATH 136 Applied Engr Calc II or MATH 221 Calculus II	4
General Education Credits	**15**
Remaining Major Program Courses	
Course	**Credits**
ENGR 150 Introduction to Engineering	3
ET 251 Applied Engineering Mechanics I - Statics	3
ET 252 Applied Engineering Mechanics II – Dynamics	3
ET 354 Applied Fluid Mechanics	3
ET 357 Strength of Materials	3
ET 361 Engineering Technology Laboratory	3
ET 399 Engineering Economy	3
ETM 260 Computer Aided Design and Integrated Manufacturing	3
ETM 340 Geometric Dimensioning and Tolerancing	3
ETM 356 Material Analysis	3
ETM 358 Applied Thermodynamics	3
ETM 367 Machine Design	3
ETM 462 Manufacturing Process Planning and Estimating	3
ETM 464 CAD Solid Modeling and Design	3
ETM 466 Design for Manufacture	3
ETM 467 CAE Applied Finite Element Analysis	3
ETM 497 Engineering Technology Senior Project Research	2
ETM 498 Engineering Technology Senior Project (Capstone)	2
Directed Electives	4
MAJOR PROGRAM CREDITS	**57**
RELATED REQUIREMENTS	
MM 216 Manufacturing Processes	3
CET 236 Circuit Analysis	3
MM 324 Fluid Power Systems	3
ENGR 240 Spreadsheet and Engineering Problem Solving tools –or- CS 213 Applications of Computing	3
RELATED REQUIREMENT CREDITS	**12**
Total Credits Remaining for the 4-Year Degree	63
PROGRAM TOTAL	**130**

ITEM
The Board of Regents for Higher Education replaces its' a policy regarding "Sexual Misconduct, Sexual Assault and Intimate Partner Violence Policy" by adopting the "Sexual Misconduct Reporting, Support Services and Processes Policy" which shall be applicable to each of the Connecticut State Colleges and Universities.

BACKGROUND
Although the Board approved the Sexual Misconduct, Sexual Assault and Intimate Partner Violence Policy in March 2013, it was understood that the Connecticut State Legislature and federal sources were developing additional requirements. The resolution underlying the adoption of the policy included a provision that the policy would be reviewed and revised in the fall of 2014 so that it would remain consistent with the law. Consequently, the attached re-titled policy is an updated version of the policy reviewed and approved by the Board in March 2014.

ANALYSIS
In accordance with the new provisions and greater clarity of the issues and their impact upon the colleges and universities, this policy has been re-titled so that it reflects its purpose of outlining not only the statement of the board policy, but also describe the services and processes to which the institutions must adhere. Revisions to the policy clarify that reported victims are encouraged to report and that employees must report disclosures of sexual misconduct. Terms and usage are more central to the operation of the document, and certain definitions have been revised and expanded, i.e. consent, stalking and sexual harassment. Stalking and dating violence are included under the provisions of sexual misconduct. The section regarding confidentiality has also been revised so that readers will understand who can keep reports confidential and who cannot. This revised policy also specifically addresses employees who may report sexual misconduct.

RECOMMENDATION
That the Board of Regents for Higher Education to rescind the policy regarding "Sexual Misconduct, Sexual Assault, and Sexual Intimate Partner Violence" by adopting the Sexual Misconduct reporting, Support Services and Processes Policy.

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

Policy Regarding

Sexual Misconduct Reporting, Support Services and Processes Policy

December 18, 2014

WHEREAS,   The Board of Regents in accord with the Connecticut State Colleges and Universities comprised of seventeen institution and a System Office, is committed to insuring that each member of every BOR governed college or university community has the opportunity to participate fully in the process of education and development; and

WHEREAS,   The BOR and CSCU strive to maintain a safe and welcoming environment free from acts of sexual misconduct and relationship violence. It is the intent of the BOR and each of its colleges or universities to provide safety, privacy and support to victims of sexual misconduct and relationship violence; and

WHERAS,   The Board of Regents for Higher Education adopted policy regarding "Sexual Misconduct, Sexual Assault and Intimate Partner Violence Policy" on March 13, 2014; and

WHEREAS,   Public Act 14-11 An Act Concerning Sexual Assault, Stalking and Intimate Partner Violence on Campus and the federal Campus Sexual Assault Violence Elimination Act imposed new requirements on colleges and universities to address sexual violence on campuses; and

WHEREAS,   The Board of Regents consistent with the goal providing safe environments at all of its campuses for all who frequent them, has reviewed its policy regarding "Sexual Misconduct, Sexual Assault and Intimate Partner Violence Policy" and revised the policy so that it is consistent with the law; therefore be it

RESOLVED,   That the Board of Regents formally rescinds the "Sexual Misconduct, Sexual Assault and Intimate Partner Violence Policy" dated March 13, 2014 and adopts the "Sexual Misconduct Reporting, Support Services and Processes Policy" in substitution.

A True Copy:

_____

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

Board of Regents for Higher Education
Connecticut State Colleges and Universities
Policy Regarding

Sexual Misconduct Reporting, Support Services and Processes Policy

Statement of Policy
The Board of Regents for Higher Education (BOR) in conjunction with the Connecticut State Colleges and Universities (CSCU) is committed to insuring that each member of every BOR governed college and university community has the opportunity to participate fully in the process of education and development. The BOR and CSCU strive to maintain a safe and welcoming environment free from acts of sexual misconduct and intimate partner violence. It is the intent of the BOR and each of its colleges or universities to provide safety, privacy and support to victims of sexual misconduct and intimate partner violence.

The BOR strongly encourages victims to report any instance of sexual misconduct, including sexual harassment, sexual assault, sexual exploitation, stalking and intimate partner violence, as an effective means of taking action by reporting such acts to the appropriate officials and pursuing criminal or disciplinary remedies, or both. The only way that action can be taken against anyone who violates another in such a manner is through reporting. Each and every BOR governed college and university shall provide those who report sexual misconduct with many supportive options, including referral to agencies that provide medical attention, counseling, legal services, advocacy, referrals and general information regarding sexual misconduct. Each and every BOR governed college and university will preserve the confidentiality of those who report sexual misconduct to the fullest extent possible and allowed by law. All BOR and CSCU employees, victim support persons and community victim advocates being consulted will make any limits of confidentiality clear before any disclosure of facts takes place. Other than confidential resources as defined above, in addition to employees who qualify as Campus Security Authorities under the Jeanne Clery Act, all BOR and CSCU employees are required to immediately communicate to the institution's designated recipient any disclosure or report of sexual misconduct regardless of the age of the reported victim.

Sexual intimacy is permissible only if it is agreed to by all participants and all activity is affirmatively consensual at all times. Sexual misconduct, as defined herein, is a violation of BOR policies and, in addition, may subject an accused student or employee to criminal penalties. The BOR and each of its governed colleges and universities are committed to providing an environment free of personal offenses. Sexual relationships of any kind between staff, faculty and students are discouraged pursuant to BOR policy.

The Board of Regents for Higher Education hereby directs the Connecticut State Colleges and Universities to implement the Policy stated above pursuant to the following provisions:

Terms and Usage
<u>**Consent**</u> is the equal approval, given freely, willingly, and knowingly of each participant to desired sexual involvement. Consent is an affirmative, conscious decision – indicated clearly by words or actions – to engage in mutually accepted sexual contact. Consent cannot be assumed because there is no physical resistance or other negative response. A person who initially consents

to sexual activity shall be deemed not to have consented to any such activity which occurs after that consent is withdrawn. A lack of consent may result from mental incapacity (e.g., ingestion of alcohol or drugs which significantly impair awareness or judgment) or physical incapacity (e.g., the person is unconscious or otherwise unable to communicate consent). The existence of a dating relationship between the persons involved, or the fact of past sexual relations between them, should never by itself be assumed to be an indicator of consent."

Sexual misconduct includes engaging in any of the following behaviors:

(a) **Sexual harassment**, which can include any unwelcome sexual advance or request for sexual favors, or any conduct of a sexual nature when submission to such conduct is made either explicitly or implicitly a term or condition of an individual's education or employment; submission to or rejection of such conduct by an individual is used as a basis for academic or employment decisions affecting the individual; or such conduct has the purpose or effect of substantially interfering with an individual's academic or work performance or creating an intimidating, hostile or offensive educational or employment environment. Examples of conduct which may constitute sexual harassment include but are not limited to:

- sexual flirtation, touching, advances or propositions
- verbal abuse of a sexual nature
- pressure to engage in sexual activity
- graphic or suggestive comments about an individual's dress or appearance
- use of sexually degrading words to describe an individual
- display of sexually suggestive objects, pictures or photographs
- sexual jokes
- stereotypic comments based upon gender
- threats, demands or suggestions that retention of one's educational status is contingent upon toleration of or acquiescence in sexual advances.

Retaliation is prohibited and occurs when a person is subjected to an adverse employment or educational action because he or she made a complaint under this policy or assisted or participated in any manner in an investigation.

(b) *Sexual assault* shall include but is not limited to a sexual act directed against another person without the consent (as defined herein) of the other person or when that person is not capable of giving such consent.

Sexual assault is further defined in sections 53a-70, 53a-70a, 53a-70b, 53a-71, 53a-72a, 53a-72b and 53a-73a of the Connecticut General Statutes.

(c) *Sexual exploitation* occurs when a person takes non-consensual or abusive sexual advantage of another for anyone's advantage or benefit other than the person being exploited, and that behavior does not otherwise constitute one of the preceding sexual misconduct offenses. Examples of behavior that could rise to the level of sexual exploitation include:

- Prostituting another person;
- Non-consensual visual (e.g., video, photograph) or audio-recording of sexual activity;
- Non-consensual distribution of photos, other images, or information of an individual's sexual activity, intimate body parts, or nakedness, with the intent to or having the effect of embarrassing an individual who is the subject of such images or information;
- Going beyond the bounds of consent (for example, an individual who allows friends to hide in the closet to watch him or her having consensual sex);
- Engaging in non-consensual voyeurism;
- Knowingly transmitting an STI, such as HIV to another without disclosing your STI status;
- Exposing one's genitals in non-consensual circumstances, or inducing another to expose his or her genitals; or
- Possessing, distributing, viewing or forcing others to view illegal pornography.

Sexual exploitation is further defined as a crime in Connecticut State Law.

(d) ***Intimate partner, domestic and/or dating violence means*** any physical or sexual harm against an individual by a current or former spouse of or person in a dating or cohabiting relationship with such individual that results from any action by such spouse or such person that may be classified as a sexual assault under section 53a-70, 53a-70a, 53a-70b, 53a-71, 53a-72a, 53a-72b or 53a-73a of the general statutes, stalking under section 53a-181c, 53a-181d or 53a-181e of the general statutes, or domestic or family violence as designated under section 46b-38h of the general statutes. This includes any physical or sexual harm against an individual by a current or former spouse or by a partner in a dating relationship that results from (1) sexual assault (2) sexual assault in a spousal or cohabiting relationship; (3) domestic violence; (4) sexual harassment (5) sexual exploitation, as such terms are defined in this policy.

Offenses that are designated as "domestic violence" are against family or household members or persons in dating or cohabiting relationships and include assaults, sexual assaults, stalking, and violations of protective or restraining orders issued by a Court. Intimate partner violence may also include physical abuse, threat of abuse, and emotional abuse.

- Physical abuse includes, but is not limited to, slapping, pulling hair or punching.
- Threat of abuse includes but is not limited to, threatening to hit, harm or use a weapon on another (whether victim or acquaintance, friend or family member of the victim) or other forms of verbal threat.
- Emotional abuse includes but is not limited to, damage to one's property, driving recklessly to scare someone, name calling, threatening to hurt one's family members or pets and humiliating another person.
- Cohabitation occurs when two individuals dwell together in the same place as if married.
- The determination of whether a "dating relationship" existed is to be based upon the following factors: the reporting victim's statement as to whether such a relationship existed, the length of the relationship, the type of the relationship and the frequency of the interaction between the persons reported to be involved in the relationship.

(e) _**Stalking**_, which is defined as repeatedly contacting another person when contacting person knows or should know that the contact is unwanted by the other person; and the contact causes the other person reasonable apprehension of imminent physical harm or the contacting person knows or should know that the contact causes substantial impairment of the other person's ability to perform the activities of daily life.

As used in this definition, the term "contacting" includes, but is not limited to, communicating with (including internet communication via e-mail, instant message, on-line community or any other internet communication) or remaining in the physical presence of the other person.

Confidentiality

When a BOR governed college or university receives a report of sexual misconduct all reasonable steps will be taken by the appropriate CSCU officials to preserve the privacy of the reported victim while promptly investigating and responding to the report. While the institution will strive to maintain the confidentiality of personally identifiable student information reported, which information is subject to privacy requirements of the Family Education Rights Privacy Act (FERPA), the institution also must fulfill its duty to protect the campus community.

Confidential resources are defined as follows: For the Universities, entities with statutory privilege, which include campus based counseling center, health center and pastoral counseling staff members whose official responsibilities include providing mental health counseling to members of the University community as well as off campus counseling and psychological services, health services providers, member(s) of the clergy, and the local Sexual Assault Crisis Center and Domestic Violence Center. For the Colleges, confidential resources are limited to entities with statutory privilege, such as off campus counseling and psychological services, health services providers, member(s) of the clergy, and the local Sexual Assault Crisis Center and Domestic Violence Center. The personnel of these centers and agencies are bound by state statutes and professional ethics from disclosing information about reports without written releases.

Information provided to a confidential resource by a victim of a sexual misconduct or the person reported to have been the victim of sexual misconduct cannot be disclosed legally to any other person without consent, except under very limited circumstances, such as an imminent threat of danger to self or others or if the reported victim is a minor. Therefore, for those who wish to obtain the fullest legal protections and disclose in full confidentiality, she/he must speak with a confidential resource. Each BOR governed college and university will provide a list of such confidential resources in the College or University's geographic region to victims of sexual misconduct as well as publish these resources on-line and in various publications.

Where it is deemed necessary for the institution to take steps to protect the safety of the reported victim and/or other members of the campus community, the institution will seek to act in a manner so as not to compromise the privacy or confidentiality of the reported victim of sexual misconduct to the extent reasonably possible.

Mandated Reporting by College and University Employees

Other than confidential resources as defined above, in addition to employees who qualify as Campus Security Authorities under the Jeanne Clery Act, all employees are required to immediately communicate to the institution's designated recipient any disclosure or report of sexual misconduct regardless of the age of the reported victim. A disclosure is the receipt of any communication of an incident of sexual misconduct not accompanied by a request for an investigation or adjudication by the institution. A report of sexual misconduct, on the other hand, is the receipt of a communication of an incident of sexual misconduct accompanied by a request for an investigation or adjudication by the institution. Upon receiving a disclosure or a report of sexual misconduct, employees are expected to supportively, compassionately and professionally offer academic and other accommodations and to provide a referral for support and other services.

Further, in accordance with Connecticut State law, with the exception of student employees, any paid administrator, faculty, staff, athletic director, athletic coach or athletic trainer who, in the ordinary course of their employment, has a reasonable cause to suspect or believe that a person under the age of 18 years has been abused or neglected, has been placed in imminent harm or has had a non-accidental injury is required by law and Board policy to report the incident within twelve hours to their immediate supervisor and to the Department of Children and Families.

Rights of Those Who Report
Those who report any type of sexual misconduct to any BOR governed college or university employee will be informed in a timely manner of all their rights and options, including the necessary steps and potential outcomes of each option. When choosing a reporting resource the following information should be considered:

- All reports of sexual misconduct will be treated seriously and with dignity by the institution.
- Referrals to off-campus counseling and medical services that are available immediately and confidential, whether or not those who report feel ready to make any decisions about reporting to police, a college or university employee or the campus's Title IX Coordinator.
- Those who have been the victim of sexual misconduct have the right to take both criminal and civil legal action against the individual allegedly responsible.
- Those who seek confidentiality may contact a clergy member(s), a University counseling center psychologist, a University health center care provider, the Sexual Assault Crisis Center of Connecticut and/or the Connecticut Coalition Against Domestic Violence − all of whom are bound by state statutes and professional ethics to maintain confidentiality without written releases.

Options for Changing Academic, Housing, Transportation and Working Arrangements
The colleges and universities will provide assistance to those involved in a report of sexual misconduct, including but not limited to, reasonably available options for changing academic, campus transportation, housing or working situations as well as honoring lawful protective or temporary restraining orders. Each and every BOR governed college and university shall create and provide information specific to its campus detailing the procedures to follow after the commission of such violence, including people or agencies to contact for reporting purposes or to request assistance, and information on the importance of preserving physical evidence.

Support Services Contact Information

It is BOR policy that whenever a college or university Title IX Coordinator or other employee receives a report that a student, faculty or staff member has been subjected to sexual misconduct, the Title IX Coordinator or other employee shall immediately provide the student, faculty or staff member with contact information for and, if requested, professional assistance in accessing and using any appropriate campus resources, or local advocacy, counseling, health, and mental health services. All CSCU campuses shall develop and distribute contact information for this purpose as well as provide such information on-line.

Right to Notify Law Enforcement & Seek Protective and Other Orders
Those who report being subjected to sexual misconduct shall be provided written information about her/his right to:

(1)   notify law enforcement and receive assistance from campus authorities in making the notification; and,

(2)   obtain a protective order, apply for a temporary restraining order or seek enforcement of an existing order. Such orders include:

> ➢   standing criminal protective orders;
> ➢   protective orders issued in cases of stalking, harassment, sexual assault, or risk of injury to or impairing the morals of a child;
> ➢   temporary restraining orders or protective orders prohibiting the harassment of a witness;
> ➢   family violence protective orders.

Employee Conduct Procedures
Employees who are reported to have engaged in sexual misconduct are subject to discipline in accordance with the procedures applicable to the employee's classification of employment.

Student Conduct Procedures
The **Student Code of Conduct** provides the procedures for the investigation, definitions of terms, and resolution of complaints regarding student conduct, including those involving sexual misconduct, as defined herein**.**

The Title IX Coordinator can assist in explaining the student conduct process. The Student Code of Conduct provides an equal, fair, and timely process (informal administrative resolution or a formal adjudication) for reported victims and accused students.

Reported victims of sexual misconduct shall have the opportunity to request that disciplinary proceedings begin promptly; that such disciplinary proceedings shall be conducted by an official trained annually in issues relating to sexual misconduct and shall use the preponderance of the evidence (more likely than not) standard in making a determination concerning the alleged sexual misconduct.

Both the reported victim of sexual misconduct and the accused student are entitled to be accompanied to any meeting or proceeding relating to the allegation of sexual misconduct by an

advisor or support person of their choice, provided the involvement of such advisor or support person does not result in the postponement or delay of such meeting as scheduled and provided such an advisor or support person may not directly address the Hearing Body, question witnesses or otherwise actively participate in the hearing process or other meeting pertaining to a report of sexual misconduct and each student shall have the opportunity to present evidence and witnesses on her/his behalf during any disciplinary proceeding.

Both the reported victim and accused student are entitled to be provided at the same time written notice of the results of any disciplinary proceeding, normally within one (1) business day after the conclusion of such proceeding, which notice shall include the following: the name of the accused student, the violation committed, if any, and any sanction imposed upon the accused student. Sanctions may range from a warning to expulsion, depending upon the behavior and its severity of the violation(s). The reported victim shall have the same right to request a review of the decision of any disciplinary proceeding in the same manner and on the same basis as shall the accused student; however, in such cases, if a review by any reported victim is granted, among the other actions that may be taken, the sanction of the disciplinary proceeding may also be increased. The reported victim and the accused student are entitled to be simultaneously provided written notice of any change in the results of any disciplinary proceeding prior to the time when the results become final as well as to be notified when such results become final.

In accordance with the Family Educational Rights and Privacy Act (FERPA), the accused student and the reported victim have the right to keep their identities confidential.

Dissemination of this Policy
Upon adoption by the Board all CSCU institutions shall, upon receipt, immediately post and maintain this policy at all times in an easily accessible manner on each institution's website. This policy shall thereafter be annually provided to all Title IX Coordinators, campus law enforcement officers and security personnel, and other campus personnel. Further, this policy shall be presented at student orientation and at student awareness and prevention trainings, and made broadly available at each campus. The policy shall be expanded upon by each institution to provide resources and contact information specific to their institution and geographic area as set forth above.

ITEM
The Board of Regents for Higher Education amends the "CSCU Student Code of Conduct" to update the Hearing Process for Sexual Misconduct, Sexual Intimate Partner and Domestic Violence Cases.

BACKGROUND
On March 13, 2014, the Board of Regents approved a comprehensive Student Code of Conduct ("Code"). Included in the Code was the process for conducting hearing on cases of sexual misconduct. Since that time, federal and state laws impacting sexual assault, stalking, intimate partner and domestic violence on campuses have been amended. These changes in law necessitate revisions to the Code with respect to the hearing procedures for reports of sexual misconduct, stalking and intimate partner and domestic violence. However, instead of revision the entire Code, only that limited portion affected is proposed for approval by the Board.

ANALYSIS
The Student Code of Conduct was the product of an aggressive and thorough process in which all three pre-existing Student Codes of Conduct were amalgamated into one document. All institutions now follow the same Code. As a result, the explanation and description of prohibited conduct is consistent throughout the Connecticut State Colleges and Universities (CSCU) so that behavior which is unacceptable on any one campus is unacceptable at all campuses.

One of the procedures that is consistent for all campuses is Section 1, Part E Hearing Procedures for Sexual Misconduct, Sexual Intimate Partner, Domestic Violence & Stalking. Because of the recent changes in the law, the procedures had to be revised. The most significant revision is to allow students to be "accompanied by an advisor or support person of their choice". By incorporating this language, students are able to bring attorneys to their hearings. This provision is a requirement.

Because of the way the Code is constructed it is possible to remove and replace Section I. Part E of the Code without making any other change to the Code. This should enable the institutions to quickly implement this change since it is an isolated substitution of a section of the Code.

RECOMMENDATION
That the Board of Regents for Higher Education amend the "CSCU Student Code of Conduct" by striking the current Section I ,Part E and adopting and substituting the revised hearing procedures.

RESOLUTION

concerning

Amendment of the CSCU Student Code of Conduct

December 18, 2014

WHEREAS,   The Board of Regents for Higher Education on March 13, 2014 adopted the Student Code of Conduct; and

WHEREAS,   Section I, Part E of the Student Code of Conduct provided for the Hearing Procedures for Sexual Misconduct, Sexual Intimate Partner and Domestic Violence cases

WHEREAS,   Due the requirements of the federal Campus Sexual Assault Violence Elimination Act, and Public Act 14-11 An Act Concerning Sexual Assault, Stalking and Intimate Partner Violence on Campus, the procedures currently described in the Student Code of Conduct Section I, Part E are not consistent with the law; therefore be it

RESOLVED,   That the Board of Regents strikes Section I, Part E "CSCU Student Code of Conduct" and adopts the Revised Hearing Procedures for Sexual Misconduct, Sexual Intimate Partner, Domestic Violence & Stalking Reports and incorporates this provision in the Student Code of Conduct as Section I, Part E.

A True Copy:

_____

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

PART E: **HEARING PROCEDURES FOR SEXUAL MISCONDUCT, SEXUAL INTIMATE PARTNER, DOMESTIC VIOLENCE & STALKING REPORTS**

In addition to disciplinary procedures applicable to State University students in Section II, Community College students in Section III, or Charter Oak State College Students in Section IV, for any hearing conducted involving allegations of sexual misconduct, including sexual harassment, sexual assault, sexual exploitation, stalking and intimate partner violence the reported victim and the accused student shall each have the following rights:

1. At any meeting or proceeding, both the reported victim and accused student may be accompanied by an advisor or support person of the student's choice provided the advisor or support person does not cause a scheduled meeting or hearing to be delayed or postponed and provided an advisor or support person may not directly address the Hearing Body, question witnesses, or otherwise actively participate in the hearing process (or other proceeding or pertaining to a report of sexual misconduct);

2. The reported victim of sexual misconduct is entitled to request that disciplinary proceedings begin promptly;

3. Any hearing regarding an accusation of sexual misconduct shall (i) be conducted by a Hearing Body annually trained in issues relating to sexual misconduct (ii) use the preponderance of evidence (more likely than not) standard and (iii) each student shall have the opportunity to present evidence and witnesses on their behalf during any disciplinary proceeding;

4. In accordance with the Family Educational Rights and Privacy Act (FERPA), the accused student and the reported victim have the right to keep their identities confidential;

5. Any reported victim shall be provided written notice of the decision of the Hearing Body at the same time as the accused student, normally within one (1) business day after the conclusion of the Hearing. In accordance with the Family Educational Rights and Privacy Act (FERPA) the notice to any reported victim of sexual misconduct shall contain only the following: the name of the accused student, the violation committed, if any, and any sanction imposed against the accused student.

6. The reported victim shall have the same right to request a review of the decision of the Hearing Body in the same manner and on the same basis as shall the accused student; however, in such cases, if a review by any reported victim is granted, among the other actions that may be taken as set forth above, the sanction of the hearing may also be increased. Notwithstanding the foregoing, in any hearing pertaining to sexual misconduct both the reported victim and the accused student are entitled to be simultaneously provided notice of any change in the results of the hearing prior to the time when the results become final as well as to be notified when such results become final.

STAFF REPORT   **ACADEMIC & STUDENT AFFAIRS COMMITTEE**

ITEM
The Board of Regents for Higher Education adopts a policy concerning Family Education Rights and Privacy Act ("FERPA") and Directory Information Policy

BACKGROUND
As it has become increasing apparent that to work as a system that benefits students, some basic student information needs to be shared among the institutions. However, it is also increasingly important to protect student privacy. This policy attempts to do both within the confines of FERPA.

ANALYSIS
Currently the community colleges follow the FERPA policy and directory information policy outlined by Community College Board of Trustees Policy Manual 5.7. The State Universities, on the other hand, have independently determined what they each list as directory information. Some of the institutions automatically provide directory information to the public, others not so. The purpose of the policy is to gain consistency with how the information is treated and to allow greater leeway to school officials in gaining access to information for student benefit.

The proposed Policy clearly states that the disclosure of any student information, including directory information is at the discretion of the institution. This has been emphasized in an attempt to preserve student privacy. On the other hand, the policy has classifications of information that is considered directory depending on the requestor. For instance, other officials of other BOR governed institutions may be granted access to additional student information, such as a telephone number, while that same information would not be shared with a member of the general public.

RECOMMENDATION
That the Board of Regents for Higher Education adopt the "Family Educational Rights and Privacy Act (FERPA) Notice and Directory Information Policy."

CT BOARD OF REGENTS FOR HIGHER EDUCATION

RESOLUTION

concerning

Family Educational Rights and Privacy Act (FERPA) Notice and

Directory Information Policy

December 18, 2014

WHEREAS,   The Board of Regents in accord with the Connecticut State Colleges and Universities comprised of seventeen institution and a System Office, is committed to protecting the privacy of its students, and disclosing student information only as consented to or otherwise acceptable under the family Educational Rights and Privacy Act (FERPA); and

WHEREAS,   the Code of Federal Regulations Title 34 Section 99.1 requires that each education agency or institution provide students with notice of the rights under FERPA including the right to inspect and review records; amend records believed to be inaccurate; consent to the disclosure of records; and instruct on procedures to file complaints; and the ability to opt out of directory information; and

WHEREAS,   The Code of Federal Regulations Title 34 Section 99.31 describes conditions under which consent is not required to disclose information and those conditions include but are not limited to school officials and directory information; and

WHEREAS,   CSCU in working systematically needs to access directory information within its system, but not with the public at large; therefore be it

WHEREAS,   The Board of Trustees of the Community Colleges had approved Policy 5.7 Notification of Rights under the Family Educational Rights and Privacy Act (FERPA) amended 2010 and each of the State Universities maintained their own procedures with respect to managing directory information and notice requirements; therefore be it

RESOLVED,   That the Board of Regents rescinds the Community College Board of Trustees Policy 5.7 and supplants the State Universities internal procedures; be it

RESOLVED,   That the Board of Regents approves and adopts the Family Education Rights and Privacy Act Notice and Directory Information Policy.

A True Copy:

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

Family Educational Rights and Privacy Act (FERPA) Notice and

Directory Information Policy

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

1. **The right to inspect and review the student's education records within 45 days of the day the College or University receives a request for access**. Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The College or University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College or University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. **The right to request amendment of an education record that the student believes is inaccurate.** Students may ask an appropriate College or University official to amend a record that they believe is inaccurate. However, FERPA is not intended to provide a process to question substantive judgments that are correctly recorded. Consequently, FERPA amendment requests do not allow a student to contest a grade in a course because the student believes that a higher grade should have been assigned.

To request amendment of an education record, the student should write to the official, clearly identifying the part of the record he or she wants changed and specifying why he/she believes it is inaccurate. The institution will notify the student of the decision. If the institution decides not to amend the record as requested by the student, a College or University official will advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. **The right to provide written consent before the College or University discloses personally identifiable information (PII) from the student's education records, except to the extent that FERPA authorizes disclosure without consent.** FERPA permits disclosure without a student's prior written consent under the FERPA exception for disclosure to school officials who have a legitimate educational interest. A "school official" is a person employed by a College or University in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person serving on the Board of Regents; an employee of the Board of Regents System Office; or, a student serving on an official committee, such as a disciplinary or grievance committee. A school official also may include a volunteer or contractor outside of the College or University who performs an institutional service or function for which the College or University would otherwise use its own employees and who is under the direct control of the College or University with respect to the use and maintenance of PII from education records, such as an attorney, auditor, or collection agent or a student volunteering to assist another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the College or University.

Upon request, the College or University also discloses education records to officials of another school in which a student seeks or intends to enroll without the prior consent of, or notice to, the student.

FERPA also permits disclosure of education records without consent in connection with, but not limited to:

- To comply with a judicial order or a lawfully issued subpoena;
- To appropriate parties in a health or safety emergency;
- In connection with a student's request for or receipt of financial aid, as necessary to determine the eligibility, amount or conditions of the financial aid, or to enforce the terms and conditions of the aid;
- To certain officials of the U.S. Department of Education, the Comptroller General, to state and local educational authorities, in connection with certain state or federally supported education programs;
- To accrediting organizations to carry out their functions;
- To organizations conducting certain studies for or on behalf of the College or University;
- The results of an institutional disciplinary proceeding against the alleged perpetrator of a crime of violence to the alleged victim of that crime with respect to that crime.
- Directory information as defined in the policy of the Board of Regents.

4. **The right to refuse to permit the College or University to release Directory Information** about the student, except to school officials with a legitimate educational interest and others as indicated in paragraph 3 above. To do so, a student exercising this right must notify the University's or College's Registrar, in writing. Once filed, this notification becomes a permanent part of the student's record until the student instructs the University or College, in writing, to remove it. A student may exercise his or her right to opt out of Directory Information, prohibiting disclosure of the student's information without the student's consent as noted in section 3, except however, that pursuant to the Solomon Amendment, military recruiters must be provided the same access to student information as is provided to nonmilitary recruiters.

5. **The right to file a complaint with the U.S. Department of Education concerning alleged failures by Colleges to comply with the requirements of FERPA**. The name and address of the Office that administers FERPA is:

<div align="center">

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-4605

</div>

Directory Information Policy

Acknowledging that Directory Information is FERPA protected information that may be disclosed at the discretion of a College or University, it is the policy of the Board of Regents for Higher Education for the Connecticut State Colleges and Universities that disclosure of Directory Information is within the sole discretion of the College or University. Colleges and Universities may disclose Directory Information without the prior consent of the student only as provided herein.

The Board of Regents for Higher Education has designated the following as Directory Information:

For purposes of access by <u>school officials of the Colleges and Universities</u> governed by the Board of Regents for Higher Education, the following is designated as Directory Information:

Student name
Permanent mailing address
Month and day of birth
Photographs
Student identification number, User ID, or other unique identifier
Email address
Telephone number
University or College previously attended or currently attending
Dates of attendance
Full vs. part-time student status
Awards and honors
Class standing/year
Major, minor, concentration and/or program of study
Degree(s)/Certificate(s) candidacy
Degree(s)/Certificate(s) earned
Previous Institutions attended
Graduation expected/completion dates

For purposes of access by <u>military recruiters only,</u> the following is designated as Directory Information (Student Recruiting Information):

Student's name
Permanent mailing address
Telephone number
Age
Place of birth
Class standing/year
Major and/or program of study
Degrees received
Most recent educational institution attended

For purposes of <u>participation in any recognized activity or sports,</u> the following is designated as Directory Information:

Student's name
City and State of Residence
Dates of attendance
Class standing/Year
Recognized activity or sport
Team performance statistics
Team position
Photos and videos
Awards
Height and weight of athlete

For purposes of disclosure to/access by the <u>general public,</u> the following is designated as
Directory Information:

Student's name
Permanent mailing address
Photographs
Dates of attendance
Major, minor, concentration and/or program of study
Degree/Certificate candidacy
Degree(s)/Certificate(s) earned
Awards
Full vs. Part-time status
Anticipated graduation date
Graduation date
CCC Only - Student identification number, User ID, or other unique identifier

M E M O R A N D U M

TO: Dr. Gregory W. Gray
President, Connecticut Board of Regents for Higher Education

FROM: Jack Miller
President, CCSU

DATE: November 11, 2014

SUBJECT: Plan to Add Higher Education Track to Ed.D. in Educational Leadership (Below Threshold)

Central Connecticut State University plans to add a Higher Education track to our Ed.D. in Educational Leadership. This new track will entail replacing four three-credit courses in the existing core curriculum with four new three-credit courses. As this modification affects only 12 credits, it does not require approval by the Board of Regents as a Program Modification.

The proposed track does not impact faculty. A recently hired tenure-track faculty member with extensive related expertise will lead this program track and teach the new courses. Current and future students in the k-12 leadership track will continue to be served and will not be affected by this change. This modification will not affect departmental, school, or institutional accreditations. Beyond delivering four new courses, there will be no additional operating expenses for the new track; expenses for marketing the program will be covered by the School of Graduate Studies. The faculty have reviewed and approved the proposed curriculum, which we are prepared to offer in fall 2015.

The program modification will allow departmental faculty to attract additional students to CCSU's well-regarded doctoral program in educational leadership. Specifically, the planned program track will attract leaders working in higher education seeking further education and career advancement via the completion of the doctoral degree.

I have attached details regarding the curriculum for the new track. Twelve proposed credit hours (four courses) will be substituted for an equal amount of credits hours/courses within the current program. New courses will cover a variety of higher educational leadership topics, including higher education law, which will be addressed within the Administration and Ethics course and the Organizational Theory course (particularly as they pertain to institutional control).

Thank you for your support of this new track, which will enhance CCSU's existing offerings and meet a need in the higher education community in our region. Please let me know if you have any questions about this change in our Ed.D. Program.

/cm
cc: M. McClay

November 2014

Allowable 12 credit substitution:

Current EDL/EDT courses that would be substituted out of the
program for the Higher Education track (Note: Ed Leadership
students would continue to take these courses:
EDL 701 (3 cr)
EDL 702 (3 cr)
EDL 705 (3 cr)
EDT 700 (3 cr)

Proposed courses to be completed by Higher Education track (see proposed descriptions
below:
EDL 730 Budgeting and Resource Management (3 credits)
EDL 731 Administration and Ethics (3 credits)
EDL 732 Curriculum Planning and Development (3 credits)
EDL 733 Organizational Theory and Governance (3 credits)

Retained by both programs:
12 credits of modified core
6 credits of shared core: EDF 700 (3 credits) & EDL 705 (3 credits)
15 credit specialization
16 credit inquiry seminar sequence
<u>14 credit dissertation</u>
63 total credits

Substituted course descriptions:

EDT 700 (3 credits) Topics in Leadership for Technology in Schools
Technology applications to enhance professional practice, increase organizational
learning, and enhance productivity. Participants document their progress in meeting
TSSA standards, and develop and carry out individualized learning plans. Variable
credit to a total of 3 credits applied to the doctoral program.

EDL 701 Leading Organizational Change I: Theory (3 credits)

Theoretical foundations of change emphasizing organizational culture and
development, chaos theory, models of systemic change and critical theory. Leaders
develop capacity to critically assess their organizations for the purposes of guiding
and sustaining meaningful change.

EDL 702 Leading Organizational Change II: Program Development &

Evaluation (3 credits) Theoretical foundations and practical applications of

strategies aimed at organizational development and ongoing systematic evaluation. Application of strategies of group learning and data-driven decision-making to the assessment of organizational outcomes.

EDL 705 Leadership to Promote Effective Teaching & Learning (3 credits) Focus on new research on human learning and teaching. This course will explore the leadership implications of this research for the design and support of formal instructional environments aimed at helping all individuals achieve their full potential. Variable credit to a total of 6 credits applied to the doctoral program.

Proposed new course descriptions:

EDL 730 Budgeting and Resource Management (3 credits) Covers the budgeting theory in Higher Education. Public vs. private sources of funding. Endowment and investing policies and strategies. Strategic Planning theory and the use of strategic planning in resource decision-making

EDL 731 Administration and Ethics (3 credits) Philosophy of administration; principles of management and applications in colleges and universities. The political economy and bureaucratic politics of educational organizations. Institutional control and the development of ethics in decision and policy-making.

EDL 732 Curriculum Planning and Development (3 credits) Types of curricula (vocational, professional, general education, liberal arts) and supporting philosophies; approaches to curriculum planning and assessment; patterns of interdisciplinary studies; sources of curricular reforms. Staffing and provision of resources.

EDL 733 Organizational Theory and Governance (3 credits) Application of organizational theory and research to post-secondary education organizations and administration; use of research in administrative practice , including organizational structure, resource dependence, strategy, institutional theory, organizational culture, socialization, leadership and decision making.

/cm
cc: M. McClay

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

Institution: Southern CT State University	Date of Submission to BOR Office: November 4, 2014

Most Recent NEASC Institutional Accreditation Action and Date: June 2021

Characteristics of Below-Threshold Offering	**Credit Distribution of the Offering**
Name of Offering: Language, Literature, and Writing	# Cr in Core Courses: 12
Type of Offering *(e.g. Grad Certificate, Minor, Option)* **Minor**	# Cr of Electives: 6
Anticipated Initiation Date: Spring 2015	# Cr of Other:
Anticipated Date of First Completion *(if applicable)* :	# Cr Special Requirements *(e.g. internship):*
Modality of Program: X On ground Online Combined	Total # Cr the Institution Requires to Award the Credential
If "Combined", % of fully online courses?	18

Suggested CIP Code No. *(if applicable)*   Title of CIP Code   CIP Year: 2000   or 2010

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

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

The minor in Language, Literature, and Writing is designed for students who seek an integrated series of English courses that represent the broad spectrum of the English Language Arts. It comprises studies in literature, literary analysis, rhetorical strategies, grammar, and writing (including academic prose and creative writing).

Learning Objectives:

i.   introduce students to core skills in three areas: textual analysis, formal structures of language, and rhetorical strategies of expressive and argumentative writing.
ii.   offer sustained engagement with these core skills through upper level literature and writing courses.
iii. integrate language, literature, and writing for inter-disciplinary application.

Core Courses:

ENG 307 (Intro to Literary Analysis)

ENG 309 (Rhetorical Strategies in Writing and Communication) or ENG 200 (Intermediate Composition)

ENG 372 (Young Adult Literature)

ENG 312 (English Grammar Systems)

Elective Courses:

Any two 300- or 400-level ENG or LIT literature courses in English
OR
An ENG 202 or 203 creative writing course AND a 300- or 400-level ENG or LIT literature course in English

This innovative minor is designed to provide students with a firm foundation in literary analysis, language studies, and composition, a combination that will equip Elementary Education majors and others interested in literacy developments with the knowledge and skills to promote the English Language Arts. No current English minor requires students to take courses in such a range of subject areas, and no current minor allows students to take ENG 312 (English Grammar Systems) for credit. Although the courses were selected with the specific needs of Elementary Education majors in mind, the minor will be equally suitable for any students who would like to explore a broader range of language, literature and writing courses.

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[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.**

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)*
All courses in the minor are currently being offered on a regular basis by the English Department. English faculty would offer advising to students interested in the minor.

Institutional Contact for this Proposal: Bette Bergeron	Title: Provost	Tel.: 203-392-5350 e-mail: bergeronb2@southernct.edu

BOR REVIEW STATUS *(For Office Use Only - please leave blank)*
BOR Sequence Number (to be assigned):   Approved 2010 CIP Code No. *(if applicable)* [2]   Title of CIP Code   Log of BOR Steps:
Date for Inclusion in BOR-ASA Meeting Package: Comments

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[2] If needed, CIP assignment will be done by BOR staff in consideration of suggested number and in consultation with academic offices at the institution and system proposing the program. For the final assignment, the 2010 CIP definitions will be used.

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION
BELOW-THRESHOLD NEW ACADEMIC OFFERING INFORMATION REPORT FORM - 01/20/12

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. #	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Core Courses				Other Requirements		
Prerequisites						
				Total Other Credits Required to Issue Credential		

Other Details

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.
2.
3.

CSCU System Accreditation Schedule

Asnuntuck Community College	NEASC 5th Year Report	NEASC 10th Year Report	NAYEC
	Fall 2010	Fall 2015	Spring 2018

Capital Community College	NEASC 5th Year Report	NEASC 10th Year Report	SBEN	CAAHEP	CAHIIM	JRCERT	CAEPEMSP	ACEN	NAEYC
	2011	2016	2015	2015	2016	2016	2016	2019	2020

Charter Oak College	NEASC 5th Year Report	NEASC 10th Year Report	CAHIM	ECE/ARC
		Fall 2016	TBA (Health Information Management)	Spring 2015

Gateway Community College	NEASC 10th Year Report	ACEND	NATEF	NAEYC	JRCERT-R	JRCERT-N	JRCERT-T	ACEN	SBEN
	Spring 2016	July 2016	2019 Summer	Spring 2017	2019	2019	2019	2017	2015

Housatonic Community College	NEASC 5th Year Report	NEASC 10th Year Report	ACOTE	NAEYC
	Spring 2017	Spring 2022	Spring 2015	Spring 2016

Manchester Community College	NEASC 5th Year Report	NEASC 10th Year Report	CODA	ACOTE	JCRETE	COARC	CAAHEP	ABA
	Spring 2017	Spring 2022	2014-2015	2022-23	2016-17	2021-22	2018-19	Interim 2016 Reappointment 2019

Middlesex Community College	NEASC 5th Year Report	NEASC 10th Year Report	JCRETE	NAEYC	AVMA	COA	Coa-OMP
	Fall 2018	Fall 2022	Fall 2018	Spring 2020	February 2015	Spring 2017	Fall 2014

Naugatuck Valley CC	NEASC 5th Year Report	NEASC 10th Year Report	ABET	CAPTE	CoARC	JRCERT	NATEF	NLNAC/ACEN	PLANET
	Fall 2017	Fall 2022	2016	2024	2021	2018	2014	2017	2016

Northwestern CT CC	NEASC 5th Year Report	NEASC 10th Year Report	CAAHEP	ACEN	NAEYC	AVMA
	Spring 2018	Spring 2023	2019	Fall 2017	2020	2-16

Norwalk CC	NEASC 5th Year Report	NEASC 10th Year Report	CAPTE	NAEYC	ACEN	COARC	CAAHEP
		Fall 2014	Fall 2015	July 2019	Fall 2014	July 2021	Fall 2022

Quinnebaug Valley CC	NEASC 5th Year Report	NEASC 10th Year Report	NAEYC	AAMA
	Fall 2016	Fall 2021	Fall 2019	Fall 2020

Three Rivers CC	NEASC 5th Year Report	NEASC 10th Year Report	ABET	ACEN	NAEYC	ABA
	Fall 2017	Fall 2022	Fall 2021	Spring 2018	Fall 2020	Spring 2023

Tunxis CC	NEASC 5th Year Report	NEASC 10th Year Report	ACPSB	CAPTE	NAEYC	CODA
	Fall 2016	Fall 2021	Spring 2016	Fall 2020	Spring 2019	Fall 2015

Central Connecticut	NEASC 5th Year Report	NEASC 10th Year Report	NASM	NCATE	ABET	AACN	ATMAE	ACCE	AACSB
		Fall 2018	2017-18	2015	2015-16 (Engineering) 2019-20 (Computer Science)	2016	2021	2017-18	2018

Eastern Connecticut	NEASC 5th Year Report	NEASC 10th Year Report	CSWE
	Fall 2015	Fall 2020	June 2021

Southern Connecticut	NEASC 5th Year Report	NEASC 10th Year Report	ABET	AAMFT	ASHA	CAAHEP	CAACREP	NCAT
	Fall 2016	Fall 2021	2016	2015	2018	2019	2019	2014

Western Connecticut	NEASC 5th Year Report	NEASC 10th Year Report	AACSB	ACS	CAEP	CCNE	CEPH	CSWE	NASAD	NASM	NAST
	Fall 2018	Fall 2023	Fall 2017	Fall 2016	Spring 2019	Spring 2018	Fall 2015	Spring 2021	2015-16	2018-19	Fall 2014

Notes
AACSB = Association to Advance Collegiate Schools of Business
AAMFT=American Association for Marriage & Family Therapy
ABA=American Bar Association
ABET=Accreditation Board for Engineering and Technology
ACBSP=Accreditation Council for Business Schools and Programs
ACEN=Accreditation Commission for Education in Nursing
ACOTE=Accreditation Council for Occupational Therapy Education
ACS = American Chemical Society
ASHA=American Speech-Language Hearing Association
AVMA=American Veterinary Medical Association
CAAHEP=Commission on Accreditation of Allied Health Programs
CAACREP=Council for Accreditation of Counseling & Related Educational Programs
CAEP = Council for the Accreditation of Educator Preparation
CAPTE=Commission on Accreditation in Physical Therapy Education
CCNE = Commission on Nursing Education
CEPH = Council on Education for Public Health

COA=Commission on Opticianry Accreditation
COARC=Committee on Accreditation for Respiratory Care
Coa-OMP=Commission on Accreditation of Ophthalmic Medical Programs
CODA=Commission on Dental Accreditation
CSWE = Council for Social Work Education
JRCRTE=Joint Review Committee on Education in Radiologic Technology
NAAC=National Association of Addiction Counselors
NASAD = National Association of Schools of Art and Design
NASM = National Association of Schools of Music
NAST = National Association of Schools of Theatre
NAEYC=National Association for the Education of Young Children
NATEF=National Automotive Technicians Education Foundation
NEASC=New England Association of Colleges and Schools
NCATE=National Council for Accreditation of Teacher Education
PLANET-Professional Landcare Network
SBEN=CT State Board of Examiners for Nursing

Connecticut Health & Life Sciences Initiative (HL-SCI)

The CT Health and Life Science Initiative (HL-SCI) was funded in 2012 by a $12.1 million USDOL Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grant.

Grant Overview:

In Connecticut, the health and life sciences represent an area of significant strategic growth supported by both public and private investment. Approximately 200,000 people in the state work in health and life science industries, with at least another 11,000 additional jobs expected in the next eight (8) years (EMSI Analyst Industry Cluster Report on Biomedical Industries; HL-SCI Technical Proposal, Page 5). The Health and Life Sciences Career Initiative (HL-SCI) prepares workers to take on these new jobs with a particular focus on recruitment of veterans, TAA-eligible workers (those displaced by foreign trade), dislocated, unemployed and under-employed workers. Through a consortium of five community colleges (Norwalk, Capital, Gateway, Manchester and Middlesex), new programs are being developed and existing programs are being revised with input from industry to ensure that the skills needed to succeed in these new jobs are being taught at the colleges (program listing attached). New online/hybrid courses are also being developed to enhance learning, make needed courses more accessible and speed completion. Online "boosters," self-paced tutorials, are also being developed and embedded in HL-SCI courses to assist students in mastering key concepts.

Charter Oak State College is providing expertise in prior learning assessments to ensure that students get credit for military service and other prior learning. As administrator of the Connecticut Credit Assessment Program (CCAP), Charter Oak is also reviewing community college non-credit courses, workplace programs and not-for-profits to determine whether such programs are eligible for credit.

The initiative also includes a commitment to stacked and latticed credentials to maximize options for students. Toward that end, Eastern Connecticut State University is part of the consortium to ensure that we build bridges for our students from community colleges to four-year programs.

Each of the consortium colleges has a full-time Recruitment and Placement Coordinator who serves as a career pathway advisor, tracking students from their initial contact through their coursework and making sure that students make effective course selection that will help them move successfully through their program and preparing them for internships and jobs. In addition, we have strengthened the relationship between community colleges and workforce investment boards (WIBs) by providing Recruitment and Placement Coordinators at each WIB. Finally, each consortium college has a part-time Veteran's Associate to focus special attention on recruiting veterans and addressing their unique needs as students.

HL-SCI Program Contacts:

Lesley Mara
Senior Project Director
Lmara@commnet.edu
860.723.0167

Erica Smith
Assistant Research Specialist
esmith@commnet.edu
860.723.0060

Update (April 1, 2014 – November 1, 2014):

Tremendous progress has been made toward implementation of all core deliverables:

1. New/revised health and life sciences programs: The grant calls for 49 new and revised health and life sciences programs. As of November 1, 2014, the consortium has exceeded that target with 14 new and 44 revised programs;
2. Online//hybrid courses: The consortium has developed forty-five (45) courses toward the grant goal of sixty (60);
3. Boosters: The consortium developed a platform and process for creating and deploying boosters in HL-SCI courses (37 are in courses as of 9/30/14 and deployment is ongoing);
4. Employer Engagement Strategy: The consortium is creating an inventory of employers, beginning with employer information-sharing across consortium members. Meetings are underway at each college with program coordinators, faculty and staff to determine gaps in employers and needs for internships/placements. A consolidated plan of action is being finalized to obtain needed internships for new programs and to make best use of resources for outreach to employers by colleges, grant staff and WIBs. This plan will also include networking events for faculty/employers, as well as capacity-building opportunities/training for colleges. Partnerships are also being forged with professional associations (e.g., CT Health Information Management Association);
5. Eastern conducted second Summer Undergraduate Research Program with 2 tracks, more community involvement and other significant improvements;
6. Eastern developed strategy for assessing bridging opportunities for AS students into Eastern's 4-year programs (and the other 4-year universities to the greatest extent possible), as well as identifying AS program gaps that prevent such bridging so that community college programs can be revised to allow for smoother transition, cost savings for students and quicker degree completion;
7. COSC conducted meetings with colleges to streamline review of non-credit programs for possible credit recognition, as well as outreach to community-based organizations--these efforts have resulted in already exceeding the deliverable goal of 324 credits recognized and we expect at least 36 new programs to result in credit recognition for students (e.g., CCC CNA program resulted in 4 credits, review of 11 HIT credentials resulted in 208 credits recognized);
8. COSC has conducted PLA training sessions for grant staff, American Job Center staff, college faculty and staff, veterans/veteran organizations and is now beginning a "Train the Trainer" outreach to build college capacity with regard to educating students about PLA opportunities. COSC has also produced brochures and materials to complement online tools and video production is underway to provide short videos for target audiences that can be shared broadly.
9. Third Party Evaluation: A third party evaluator is on board, an Evaluation Plan has been developed and reviewed by grant staff and the Grant Management Team and is being finalized. Focus groups and student interviews have begun at Capital and Gateway to begin to gather needed data.
10. A Genomics Workforce Consortium is being developed with The Jackson Laboratory. Details are being finalized, but it will include curriculum review/development, professional development, student internships and symposia.

November 19, 2014

Dear Dr. Gray:

Colleges and universities encourage faculty and staff to obtain grants and contracts because sponsored programs can assist the institution to enhance its curriculum, strengthen the quality of instruction, support research and promote service to the community. Research is a defining characteristic that contributes to campus performance by providing faculty development and creating an undergraduate and/or graduate experience that combines theory with practical experience thereby improving the quality of education as well as enhancing enrollment in our institutions. Our Faculty Development Initiative of Transform 2020 echoes the importance of promoting faculty grants for research in pedagogy, teaching and learning, and student success in attracting and retaining highly qualified faculty to the CSCU institutions.

The Office of Sponsored Programs (OSP) was created at the Board of Regents in July 2014. The mission of the OSP is multi-faceted and includes identifying funding opportunities to support the colleges and universities in building capacity including program development and equipment to advance the educational, pedagogy, research and economic/workforce development missions; identifying and obtaining additional resources to support multi-institution initiatives; maximizing and leveraging resources for the greatest impact; enhancing the system's capacity to respond to grant solicitations and receive funding awards; assuring that funded projects maintain compliance and meet goals and objectives, deliverables and timelines; and developing a resource library of materials and templates to assist colleges and universities to plan and implement grants successfully. OSP will develop and maintain partnerships with all CSCU institutions as well as with federal agencies, national associations and foundations, business, industry, the workforce investment system, other state agencies, community organizations and other partners. The Office of Sponsored Programs is developing policies, processes and procedures to prepare and submit proposals and budgets which align with System goals and ensure that required resources are in place to support system grants. A resource library will be created to share sample proposals, contracts and MOUs, budgets and budget narratives, evaluation plans, reporting templates, indirect cost calculations, job descriptions, federal circulars, as well as best practices and FAQs. Workshops on grant-writing, grants management, allowable costs and other grant-related topics will be offered to the CSCU system.

Identified grant opportunities not well-suited for system-wide initiatives will be shared immediately with the colleges and universities to pursue as individual institutions for consideration as they deem appropriate. The Office of Sponsored Programs will not manage the grants that CSCU colleges and universities apply for and receive, but will inventory those awards to provide system-wide reports to the Board of Regents, legislators and others as appropriate. The Office of Sponsored Programs will strive to add value and resources whenever possible to CSCU colleges and universities pursuing and managing grants.

As an initial endeavor, the Office of Sponsored Programs conducted an inventory of grants in September through October 2014 to comprise a baseline for the CSCU system. The inventory includes information collected from all 17 CSCU institutions. Each institution was asked to complete a spreadsheet including the following information for each grant:

- Name of Initiative
- Grantor
- CFDA #
- Identify receipt of funding as direct or as a pass through
- Single Institution or Consortium
- Federal, State, Private or Other funder
- Status—proposal in process, submitted or awarded
- Total amount of grant award
- Start and end dates
- Renewable/not renewable
- Project Director of Principal Investigator
- Brief Project description

This initial inventory is a snapshot of active grants, not including financial aid grants, as of September 30, 2014. Data was compiled to eliminate duplication for multi-institution awards. The inventory does not include grants that were listed on the inventory without funding amounts or grants that faculty may have obtained individually without institutional assistance. The funding totals also do not include leverage, match or in-kind contributions from the campuses and other partners.

The breadth of grants throughout the CSCU system is broad, including projects funded from numerous federal agencies (including the U.S. Dept. of Education, U.S. Dept. of Labor, the National Science Foundation, the U.S. Dept. of Health and Human Services, National Institutes of Health, National Endowment for the Humanities, National Aeronautics and Space Administration and the National Oceanic and Atmospheric Administration; as well as projects funded by the State of Connecticut (including CTDOL/Office of Workforce Competitiveness, Department of Social Services, Department of Education, Clean Energy Finance and Investment Authority and CT Office of Higher Education). Other grantors are made up of foundations (including Hartford Foundation for Public Giving, Barnes Foundation, Chase Family Foundation) and other private organizations (including chambers of commerce, Aetna, Greater Hartford Arts Council, Neighborhood Assistance Act, New England Board of

University-based education and research continue to hold a central place in the international competition for national prosperity. Countries and regions throughout the world struggle with the challenge of finding the right combination of instructional formats and research programs that will produce the most competitive labor force and intellectual and technical expertise…it is the educational engine in its instructional and research modes that allow modern societies to compete successfully in the global economy. In America, as well as elsewhere in the world, research universities hold a place of honor and prestige, setting standards of academic and educational performance.

Over more than a decade, the Center for Measuring University Performance (the MUP Center) has published an annual report on the Top American research Universities that categorizes American institutions using reliable measures of performance. Within the US marketplace, the notion of a high quality research university includes a number of different elements in addition to production of research results, and the institutional competition for resources and talented people encourages universities to develop profiles that serve as indicators of institutional prestige and significance." [1]

Higher Education, Pratt & Whitney, Travelers and United Health Care and other businesses[1]). Funded projects include support of numerous education programs, as well as equipment, at the institutions including the arts, dental assisting, early childhood education, criminal justice, geology, history, life sciences, manufacturing, nursing, nuclear science, rehabilitation counseling, teacher education, STEM education, early college awareness, student success and student retention.

This exercise was an important first step in determining a grants performance baseline. Our next steps will be to annualize the grants information to determine performance benchmarks regarding the number and type of grants, as well as total award dollars, and ultimately capturing institutional and system level contribution. System level information will be provided to the Board of Regents at the December 2014 meeting and each December thereafter.

Respectfully submitted,

Shelly Jewell, Director
Office of Sponsored Programs

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[1] Diane D. Craig and John V. Lombardi, "Measuring Research Performance: National and International Perspectives," *The Top American Research Universities, 2012 Annual Report,* The Center for Measuring University Performance, Arizona State University, Tempe, AZ, University of Massachusetts, Amherst, MA