



CONNECTICUT STATE
COLLEGES & UNIVERSITIES

BOARD OF REGENTS FOR HIGHER EDUCATION

BOR ACADEMIC AND STUDENT AFFAIRS COMMITTEE

AGENDA

Friday June 1, 2012, 9:30 a.m. to 11:30 a.m. -- 39 Woodland St., Hartford, CT 06105

1. Approval of Minutes*

ACTION ITEMS

2. Academic Program Approvals*

a) New Programs

Licensure and Accreditation

- Smartphone App Development leading to an undergraduate certificate (Norwalk Community College)
- Digital Journalism leading to an undergraduate certificate (Norwalk Community College)
- Film and Television Production leading to an undergraduate certificate (Norwalk Community College)
- Veterinary Technology leading to an Associate of Science (A.S.) degree (Middlesex Community College)

b) Program Modifications

- Addition of a Professional Science Masters track in the program in Chemistry leading to a Master of Science (M.S.) degree (Southern Connecticut State University)
- Modification of programs in Comparative Literature, French, German, Italian, and Spanish leading to the Master of Arts (M.A.) degree and Doctor of Philosophy (Ph.D.) degree to be consolidated into a single program in Languages, Literatures and Cultures (University of Connecticut)
- Addition of location to offer a program in Education with Teaching Certificate leading to the Master of Arts (M.A.) degree at the Avery Point campus (University of Connecticut)

c) Non-Substantive Changes

- Approval of a new program in Energy and Environmental Law leading to a Post-Baccalaureate Certificate (12 credits) (University of Connecticut, Law School)

d) Terminations

- Drug and Alcohol Recovery Counselor leading to an Associate of Science (A.S.) degree (Tunxis Community College)
- Criminal Justice: Drug and Alcohol Treatment Option leading to an Associate of Science (A.S.) degree (Tunxis Community College)

3. Program Inventory Cleanup (B. Hosch)

4. Information Items

- Campus Climate Report *

5. Discussion Items

- a) Planning assessment criteria for program approval (B. Hosch)
- 1) conformance with institution's role and mission,
 - 2) need for the program,
 - 3) unnecessary duplication of existing programs,

- 4) cost effectiveness, and
- 5) availability of adequate resources

(Regulations for Licensure and Accreditation of Institutions and Programs of Higher Learning, 10a-34-4(e)

- b) Program review parameters discussed with presidents (E. Nuñez)
- c) Legislative Update

6. Adjourn

* Information Attached

Revised 5/29/2012

ITEM

Licensure and accreditation of a program in Smartphone App Development leading to an undergraduate certificate (16 credits) at Norwalk Community College

RECOMMENDED MOTION FOR FULL BOARD

RESOLVED, That the Board of Regents for Higher Education license and accredit a program in Smartphone App Development leading to an undergraduate certificate at Norwalk Community College for a period of time concurrent with institutional accreditation.

Special note: staff recommend approval by the BOR Academic and Student Affairs Committee be contingent upon a favorable recommendation from the Advisory Committee on Accreditation on June 7, 2012.

BACKGROUND

Norwalk Community College is seeking licensure and accreditation of a program of Smartphone App Development leading to an undergraduate certificate. The program consists of existing courses in computer science and two courses in programming mobile devices.

The program is intended for students who wish to develop skills to program mobile devices for the rapidly expanding market in mobile device applications.

Staff review of the proposed program indicates it will meet the standards for planning and quality set forth in the Connecticut Regulations for Licensure and Accreditation of Institutions and Programs of Higher Learning. A recommendation from the Advisory Committee on Accreditation is expected on June 7, 2012.

5/08/12 – ConnSCU Academic Council

6/01/12 – BOR-Academic and Student Affairs Committee

PLANNING ASSESSMENTConformance with Institutional Mission

An undergraduate certificate in the area of smartphone app development is consistent with the institution's mission and current offerings and will be housed in an existing department.

Unnecessary Program Duplication

The proposed program does not unnecessarily duplicate other programs in Connecticut. Similar programs in programming exist but do not have a focus on mobile applications.

Need

Labor market projections from the Department of Labor do not provide information about computer programmers with credentials below an associate's degree.

The institution observes that mobile device programming is the fastest growing segment of the IT application development space. Programming jobs are already dramatically growing in demand as of this writing and the demand for mobile device programmers is 3 to 4 times that of general programmers. A job search on Dice.com – the leading job board for tech jobs indicates that within 40 miles of Norwalk, the following results suggest demand for the skills developed by this program:

- Java: 1866 jobs listed – 29.4% increase from 1/5/10
- .NET: 911 jobs listed – 29.0% increase
- Web: 1864 jobs listed – 44.8% increase
- C#: 956 jobs listed – 31.5% increase
- Mobile Devices: 150 jobs listed – 121% increase

Cost Effectiveness

The institution projects revenue to equal direct costs in year one and for revenue to exceed direct costs in years 2 and 3 by \$2,530 each year.

Availability of Adequate Resources

The institution maintains equipment needs are primarily testing device needs. As the devices evolve, program faculty will need to procure devices to ensure curricular integrity. No new full-time or adjunct faculty will need to be hired.

QUALITY ASSESSMENT

Purpose and Objectives

The objective of the program is to provide students with skills needed to gain entry level or higher employment as well as course work and experience that would improve on existing skills or the development of new skills. In addition, appropriate educational experiences that provide the written, verbal and interpersonal skills necessary to function as a team member in an IT environment opportunities to work in partnership with business and industry in responding to the employment and training needs in the field of information technology will be offered.

Mobile device programming is the fastest growing segment of the IT application development space. Programming jobs are already dramatically growing in demand and the demand for mobile device programmers is three (3) to four (4) times that of general programmers.

In partnership with area IT companies and area businesses that depend on IT workers, the College is pursuing a multi-pronged approach to solving the IT worker shortage, and specifically the shortage of Smartphone App Developers, that includes offering leading-edge courses as well as infusing technology into its own educational practices and curricula.

Learning Outcomes

Students who complete the Smartphone App Development Certificate program will be able to:

1. Plan, design, code, test, and debug solutions to programming problems using a variety of programming languages on multiple platforms. Assessments will include examinations, written assignments and programming exercises.
2. Create computer programs that incorporate the object-oriented principles of encapsulation, inheritance, and polymorphism.
3. Design and implement computer programs that utilize a graphical user interface.
4. Create smartphone apps utilizing the appropriate integrated development environments on multiple platforms.
5. Create advanced smartphone apps for a target platform using the appropriate tools and language.

Administration

The Program will be coordinated by the current Chair and Professor of Computer Science.

Admission

There are no additional requirements for admission beyond admission to the College.

Enrollment Projections

The College expects only part-time students to enroll in the program projecting five (5) new students to enroll in the program each year of operation.

Projected Enrollment	FY 2012-13		FY 2013-14		FY 2014-15	
	FT	PT	FT	PT	FT	PT
Internal Transfers	0	0	0	0	0	0
New Students	0	5	0	5	0	5
Continuing Students	0	0	0	5	0	5
TOTAL ENROLLMENT (est.)	0	5	0	10	0	10

Comments from Other Institutions

No comments were received in response to the State-wide circulation of the program proposal.

Curriculum

Course	Credits
Core Course Prerequisite	
MAT 136 Intermediate Algebra OR	
Placement in MAT 172 College Algebra	4
<u>Program Core Courses:</u>	
CSC 108 Introduction to Programming	4
CSC 226 Object Oriented Programming Using Java OR	4
CSC 245 Introduction to C#	4
CSC 262 Programming Mobile Devices I	4
CSC 263 Programming Mobile Devices II	4
TOTAL CREDITS (Excluding Core Course Prerequisites)	16

Resource SupportFaculty

No additional faculty will be required for the program. The faculty members identified to teach in the program possess the appropriate credentials and teaching experience to teach in the program.

Library and Learning Resources

No additional library or learning resources will be required for the program.

Facilities and Equipment

Existing facilities are sufficient to operate the program with the exception of the need to acquire testing devices.

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

SECTION 1: GENERAL INFORMATION

Institution: NCC	Date of Submission to BOR Office: 4/27/2012
Most Recent NEASC Institutional Accreditation Action and Date: 5 year report approved 2012	
Program Characteristics Name of Program: Smartphone App Development Certificate Degree: Title of Award (e.g. Master of Arts) NA Certificate: (specify type and level) Certificate Anticipated Program Initiation Date: 9/2012 Anticipated Date of First Graduation: 12/2012 Modality of Program: On ground X Online X Combined If "Combined", % of fully online courses? 0-50% Total # Cr the Institution Requires to Award the Credential (i.e. include program credits, GenEd, other): 16	Program Credit Distribution # Cr in Program Core Courses: 0 # Cr of Electives in the Field: 16 # Cr of Free Electives: 0 # Cr Special Requirements (include internship, etc.): 0 <u>Total # Cr in the Program</u> (sum of all #Cr above): 16 From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: 16
Type of Approval Action Being Sought: Licensure OR X Licensure and Accreditation 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: Computer Science Department, Main Campus	
Other Program Accreditation: <ul style="list-style-type: none"> • 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: Thomas J. Duffy	Title: Chair, Computer Science Tel.: 203-857-6892 e-mail: tduffy@ncc.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)	

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.

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

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 proposed Smartphone App Development Certificate supports NCC's mission. Programmatic goals relate to the mission in the following manner:

- (a) provide students with skills needed to gain entry level or higher employment;
- (b) provide students with appropriate educational experiences that would give them the written, verbal, and interpersonal skills necessary to function as a team member in an IT environment;
- (c) provide students with course work and experience that would improve on existing skills or develop new ones; and,
- (d) work in partnership with business and industry in responding to the employment and training needs in the field of information technology.

As an institution, Norwalk Community College has not only articulated an objective of becoming the premier institution for information technology in our service area but has taken active steps towards that goal. This certificate program is one element in NCC's strategy to achieve that goal. In partnership with area IT companies and area businesses that depend on IT workers, NCC is pursuing a multi-pronged approach to solving the IT worker shortage, and specifically the shortage of Smartphone App Developers, that includes offering leading-edge courses, and infusing technology into its own educational practices and curricula.

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)*

Mobile device programming is the fastest growing segment of the IT application development space. Programming jobs are already dramatically growing in demand as of this writing and the demand for mobile device programmers is 3 to 4 times that of general programmers. A job search was performed on Dice.com – the leading job board for tech jobs:

Criteria:

- 40 mile radius from Norwalk
- Jobs posted within 30 days
- keyword match

Results:

Java: 1866 jobs listed – 29.4% increase from 1/5/10

.NET: 911 jobs listed – 29.0% increase

Web: 1864 jobs listed – 44.8% increase

C#: 956 jobs listed – 31.5% increase

Mobile Devices: 150 jobs listed – 121% increase

- 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? As evidenced above, NCC's location is excellent with regards to employment opportunities. Its close proximity to Stamford and Greenwich ensures a large pool of available opportunities. Trends show that small device app developers will soon be in short supply.

Thomas J. Duffy, the proposed Program Coordinator, is an acknowledged expert in the field. He has written a book, *Programming With Mobile Applications*, ISBN: 978-1-133-62813-2, published by Cengage.

NCC possesses an outstanding Center for Information Technology which includes many laboratory classrooms, tech classrooms, and an open lab for students and the community. Its facilities are state-of-the-art.

- 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)* There are no other institutions implementing anything like this program. The encompassing AS degree articulates on a course-

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

by-course- basis with all of the CSU institutions.

- Please indicate what similar programs exist in other institutions within your constituent unit ², and how unnecessary duplication is being avoided No program like this exists anywhere in CT.
- Please provide a description/analysis of employment prospects for graduates of this proposed program See above.

Cost Effectiveness and Availability of Adequate Resources

(Please provide a one-paragraph narrative on the attached MExcel Pro-Forma Budget) Since this is a certificate program, part-time students were only considered. 6 credit-hours was used for tuition figures as that is the average per semester. The only program-specific expenditures are 3 contact hours of release time for the coordinator per year and any equipment needs that develop. Equipment needs are primarily testing device needs. As the devices evolve, program faculty will need to procure devices to ensure curricular integrity. The remainder of any expenditures are already accounted for in the encompassing AS degree.

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

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

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. The student will plan, design, code, test, and debug solutions to programming problems using a variety of programming languages on multiple platforms. Assessments will include examinations, written assignments, and programming exercises. (CSC 108, OOP Elective, CSC 262, CSC 263)
2. The student will create computer programs that incorporate the object-oriented principles of encapsulation, inheritance, and polymorphism. (OOP Elective, CSC 262, CSC 263)
3. The student will design and implement computer programs that utilize a graphical user interface. (OOP Elective, CSC 262, CSC 263)
4. The student will create smartphone apps utilizing the appropriate integrated development environments on multiple platforms. (CSC 262, CSC 263)
5. The student will create advanced smartphone apps for a target platform using the appropriate tools and language. (CSC 263)
- 6.
- 7.

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

Program Coordinator: Thomas J. Duffy, Full-time professor and Chair, Computer Science. 3 contact hours release time per year. <http://www.ncc.commnet.edu/cs/faculty.asp>

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 need to be hired. 3 current.

What percentage of the credits in the program will they teach? 75-100%

What percent of credits in the program will be taught by adjunct faculty? 0-25%

Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program Master's degree or higher in Computer Science or related field. 5 years experience programming in an object-oriented language.

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)

Equipment needs are primarily testing device needs. As the devices evolve, program faculty will need to procure devices to ensure curricular integrity.

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

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		
CSC 108 Introduction to Programming	1	MAT 136	4			
CSC 226 Object Oriented Programming Using Java OR	1,2,3	CSC 108				
CSC 245 Introduction to C#		CSC 108	4			
CSC 262 Programming Mobile Devices I	1-4	CSC 108	4			
CSC 263 Programming Mobile Devices II	1-5	CSC 262	4			
Core Course Prerequisites				Elective Courses in the Field		
MAT 136 Intermediate Algebra OR			4			
Placement in MAT 172 College Algebra						
Total Other Credits Required to Issue Credential (e.g. GenEd/Liberal Arts Core/Liberal Ed Program)						
<p>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.")</p> <p>The student must complete 16 credits in the certificate including an introductory programming course, an object-oriented programming course, and 2 courses specific to programming mobile devices.</p>						

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

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

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)

[illegible]

Connecticut Board of Regents for Higher Education

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

Institution	Norwalk Community College	Date	4/27/2012
Proposed Program	Smartphone App Developer 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)						
New Students (first time matriculating)		5		5		5
Continuing (students progressing to credential)				5		5
Headcount Enrollment	0	5	0	10	0	10
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)		\$3,990		\$7,980		\$7,980
Program-Specific Fees						
Other Rev. (Annotate in text box below)	\$390		\$780		\$780	
Total Annual Program Revenue	\$4,380		\$8,760		\$8,760	

PROJECTED Expenditures*	Year 1		Year 2		Year 3	
	Number (as applicable)	Expenditure	Number	Expenditure	Number	Expenditure
Administration (Chair or Coordinator)	1	\$4,230	1	\$4,230	1	\$4,230
Faculty (Full-time, total for program)						
Faculty (Part-time -total for program)						
Support Staff						
Library Resources Program						
Equipment (List as needed)				\$1,000		\$1,000
Other (e.g. student services)						
Estimated Indirect Cost (e.g. student services, operations, maintenance)						
Total ESTIMATED Expenditures		\$4,230		\$5,230		\$5,230

* 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:

Other Revenue: \$78 lab fee per course

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 PRO FORMA ¹ BUDGET - RESOURCES AND EXPENDITURE PROJECTIONS

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

Licensure and accreditation of a program in Digital Journalism leading to an undergraduate certificate (18 credits) at Norwalk Community College

RECOMMENDED MOTION FOR FULL BOARD

RESOLVED, That the Board of Regents for Higher Education license and accredit a program in Digital Journalism leading to an undergraduate certificate (18 credits) at Norwalk Community College for a period of time concurrent with institutional accreditation.

Special note: staff recommend approval by the BOR Academic and Student Affairs Committee be contingent upon a favorable recommendation from the Advisory Committee on Accreditation on June 7, 2012.

BACKGROUND

Norwalk Community College is seeking licensure and accreditation of a program of Digital Journalism leading to an undergraduate Certificate. The program consists primarily of existing courses in journalism, multimedia, and graphic design in digital media.

The program is intended for media professionals who need to update their skills as well for students graduating with degrees in related fields who would like to demonstrate to potential employers that they have skills in online journalism and digital media in addition to whatever else they have studied. The program will be housed in the Communication Arts Department and rely heavily on existing resources.

Staff review of the proposed program indicates it will meet the standards for planning and quality set forth in the Connecticut Regulations for Licensure and Accreditation of Institutions and Programs of Higher Learning. A recommendation from the Advisory Committee on Accreditation is expected on June 7, 2012.

5/08/12 – ConnSCU Academic Council

6/01/12 – BOR-Academic and Student Affairs Committee

PLANNING ASSESSMENTConformance with Institutional Mission

An undergraduate certificate in the area of digital journalism is consistent with the institution's mission and current offerings and will be housed in an existing department.

Unnecessary Program Duplication

The proposed program does not unnecessarily duplicate other programs in Connecticut. Similar programs do not exist in the southern region of the state. Programs in comparable fields include undergraduate certificate programs in multimedia, multimedia technology, and web design at Manchester Community College and Middlesex Community College but none of these has a focus on journalism. Associate's degree programs exist in Multimedia Studies at Manchester, Multimedia at Middlesex, Digital Arts Technology at Naugatuck Valley, and New Media Communication at Tunxis; as with the certificate programs, these extant programs do not focus on journalism. For the past five years, the total number of completion among all of these programs combined has ranged between 63 in 2006-07 and 47 in 2010-11.

Need

Labor market projections from the Department of Labor suggest little or no change or decline in the labor market for journalism. The median annual wage for positions in the state ranges from \$28,350 to \$42,360.

The institution observes, however, that the industry is undergoing reorganization to adapt to the changes wrought by digital technology; it is also clear that any new hires in the industry must have skills in managing websites, producing multimedia news stories, and using social media in getting their stories into the world. The College maintains that certificate program offers training in these areas and prepares students to meet the trends in digital media "convergence," citing that listings at Journalismjobs.com affirm that digital/multimedia skills are essential in the current labor market.

Cost Effectiveness

The institution projects no additional costs and increases in revenue attributable to two additional part-time students each year: \$6,966 in year one, \$11,610 in year two, and the same amount in year 3.

Availability of Adequate Resources

The institution maintains that the program will use existing resources and does not require additional resources. No new expenditures are planned to open new course sections.

QUALITY ASSESSMENT

Purpose and Objectives

The objective of the program is to provide a sequence of courses that is designed to help prepare students for the rapidly transforming world of mass media communications. This program fits the College's mission to offer training to the region's workforce.

Traditional news media, including newspapers and broadcast news stations, have been undergoing reorganization to adapt to the changes wrought by digital technology. New hires in the industry must have skills in managing websites, producing multimedia news stories and using social media in getting their stories into the world. This certificate program offers training in these areas and prepares students to meet the trends in digital media "convergence."

Learning Outcomes

Students who complete the Digital Journalism Certificate program will be able to:

1. Report and write multimedia news stories
2. Create video component to news stories
3. Design and maintain a news Web "blog"
4. Present and design information in digital format
5. Apply trends in social media to news reporting
6. Reflect critically on the impact of digital technology on the news media
7. Demonstrate awareness of ethical issues in the evolving digital media environment

Administration

The Program Coordinator for Communication Arts will oversee the proposed program.

Admission

There are no additional requirements for admission beyond admission to the College.

Enrollment Projections

The College projects three (3) new students to enroll in the program each year of operation.

Projected Enrollment	2012-13		2013-14		2014-15	
	FT	PT	FT	PT	FT	PT
Internal Transfers	0	0	2	0	2	0
New Students	2	1	2	1	2	1
		2	2	3	2	3
Continuing Students	1					
TOTAL ENROLLMENT (est.)	3	3	6	4	6	4

Comments from Other Institutions

No comments were received in response to the State-wide circulation of the program proposal.

Curriculum

Course	Title	Credits
ENG 101	Core Course Prerequisite - Composition	3
COM 121	Journalism	3
COM 215	Media Writing	3
COM 141	TV Production I	3
COM 221	Digital Journalism	3
GRA 151	Graphic Design I	3
GRA 241	Digital Page Design I: Adobe InDesign) OR	3
GRA 231	Digital Imaging (Adobe Photoshop)	
TOTAL CREDITS (Excluding Core Course Prerequisites)		18

Resource SupportFaculty

No additional faculty will be required for the program. The faculty members identified to teach in the program possess the appropriate credentials and teaching experience to teach in the program.

Library and Learning Resources

No additional library or learning resources will be required for the program.

Facilities and Equipment

Existing facilities are sufficient to operate the program.

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

SECTION 1: GENERAL INFORMATION

Institution: Norwalk Community College	Date of Submission to BOR Office:
Most Recent NEASC Institutional Accreditation Action and Date:	
Program Characteristics Name of Program: Communication Arts Program Degree: Title of Award (e.g. Master of Arts) Digital Journalism Certificate Certificate: (specify type and level) Undergraduate certificate Anticipated Program Initiation Date: Spring 2012 Anticipated Date of First Graduation: Spring 2013 Modality of Program: xx 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): 18 credits	Program Credit Distribution # Cr in Program Core Courses: 18 # 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): 18 From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: 18
Type of Approval Action Being Sought: Licensure OR Licensure and Accreditation Suggested CIP Code No. (optional) 09.0499 Title of CIP Code Title: Journalism, Other.	
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: NCC main campus, Norwalk	
Other Program Accreditation: <ul style="list-style-type: none"> 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: Lori Soderlind	Title: Communication Arts Program Coordinator Tel.: 203-857-7279 e-mail: Lsoderlind@ncc.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)	

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.

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

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

Alignment of Program with Institutional Mission, Role and Scope

The Digital Journalism Certificate Program creates a sequence of courses from NCC's existing course offerings that is designed to help prepare students for the rapidly transforming world of mass media communications. This program fits the college's mission to offer training to the region's workforce—we expect this program to serve media professionals who need to update their skills. It is also intended to offer additional credentials to NCC students graduating with degrees in related fields, who would like to demonstrate to potential employers that they have skills in online journalism and digital media in addition to whatever else they have studied (e.g., a graphic design student will have demonstrable skills in online communications and may be able to find work producing content for a Web site.)

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)* It is well documented that traditional news media, including newspapers and broadcast news stations, have been undergoing reorganization to adapt to the changes wrought by digital technology; it is also clear that any new hires in the industry must have skills in managing websites, producing multimedia news stories, and using social media in getting their stories into the world. This certificate program offers training in these areas and prepares students to meet the trends in digital media "convergence." A quick check of the listings at Journalismjobs.com will affirm that digital/multimedia skills are essential in today's market.
- 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? All courses, faculty and other resources required for the certificate program already exist at NCC. They have been packaged in a sequence that allows more current students and returning students (seeking to upgrade skills) access to the specific coursework they need to enhance their skills and education.
- 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 this is not a degree program, transfer agreements do not apply.
- Please indicate what similar programs exist in other institutions within your constituent unit ², and how unnecessary duplication is being avoided.
There are no similar existing programs. Tunxis Community College offers an Associate's degree in New Media Communication that is not geared toward journalism; broadcast, technical and graphic communication certificates are offered in the community college system but none address the specific field of journalism and its evolving practices. NCC's proposed certificate program is meeting a perceived demand in the community (based on consulting with NCC's communication arts advisory board and area media professionals as well as job and career statistics).
- Please provide a description/analysis of employment prospects for graduates of this proposed program

As this program is largely intended to update the skills of existing media professionals, it is understood to be almost entirely designed to improve employment prospects for professionals in and new entrants to the journalism field. A survey of state Department of Labor materials on job prospects in a variety of media related fields typically turns up statements such as: "Print media continue to face strong pressure from online publications. Strong competition is expected for salaried editing jobs because many people want to work in the media industry." **The people who will succeed in getting the available jobs will be the people trained in digital journalism, multimedia journalism, and social media.**

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

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

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

Cost Effectiveness and Availability of Adequate Resources

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

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

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. Report and write multimedia news stories
2. Create video component to news stories
3. Design and maintain a news Web "blog"
4. Present and design information in digital format
5. Apply trends in social media to news reporting
6. Reflect critically on the impact of digital technology on the news media
7. Demonstrate awareness of ethical issues in the evolving digital media environment

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)

Prof. Lori Soderlind is currently the Program Coordinator for Communication Arts. She will continue in this capacity to oversee the existing program with no major adjustment to her responsibilities. The addition of a digital journalism certificate is expected to increase the program's overall enrollment slightly but will not expand the general scope of Prof. Soderlind's responsibilities.

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? **Possibly 1/6 of the classes will be taught by an adjunct, though this may not be necessary.**

Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program **Master's degree in journalism or equivalent experience in the profession.**

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 resources are required to administer the certificate program. The college already has MAC computers and access to online resources; the Communication Arts program has digital cameras and recorders.

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

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		
COM 121 Journalism	#1, 6	ENG 101 eligibility	3			
COM 215 Media Writing	#1, 3, 5	ENG101; COM 121	3			
COM 141 TV Production 1	#1, 2		3			
COM 221 Digital Journalism	#3, 4, 5, 6	COM 121	3			
GRA 151 Graphic Design 1	#4		3			
GRA 241 Digital Page Design (Adobe Indesign) OR	#1, 4	GRA 151 OR	3			
GRA 231 Digital Imaging (Adobe Photoshop)	#1, 4	GRA 151	3			
Core Course Prerequisites				Elective Courses in the Field		
ENG 101 (composition)						
Total Other Credits Required to Issue Credential (e.g. GenEd/Liberal Arts Core/Liberal Ed Program)						
<p>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.")</p>						

The Digital Journalism Certificate Program entails a total of 18 credits in journalism and multimedia courses. Students must have completed English 101 in order to complete the certificate program. The certificate is designed to be awarded to degree students who have completed additional coursework to enhance their academic credentials and to prove proficiency in digital journalism for members of the workforce seeking retraining.

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

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

[illegible]

Connecticut Board of Regents for Higher Education

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

Norwalk Community College
Digital Journalism Certificate Program

Apr-12

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)	0		2		2	
New Students (first time matriculating)	2	1	2	1	2	1
Continuing (students progressing to credential)	1	2	2	3	2	3
Headcount Enrollment	3	3	6	4	6	4
Total Estimated FTE per Year	4		6		6	

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)	4644	\$2,322	\$6,192	\$5,418	\$6,192	\$5,418
Program-Specific Fees						
Other Rev. (Annotate in text box below)						
Total Annual Program Revenue	\$6,966		\$11,610		\$11,610	

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

Please provide any necessary annotations: No costs are anticipated for this program because all courses, faculty and program administration are already in place. This program simply sets a sequence of classes that students can take to be formally trained in a specific type of journalism. Our primary rationale in creating this certificate program is to provide job skills training for journalists in the region who need to adapt to a changing professional landscape. The certificate will also allow students with a primarily graphic or web design focus to complete a sequence of journalism courses to broaden their skillset and employability.

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 PRO FORMA ¹ BUDGET - RESOURCES AND EXPENDITURE PROJECTIONS

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

Licensure and accreditation of a program in Film and Television Production leading to an undergraduate certificate (18 credits) at Norwalk Community College

RECOMMENDED MOTION FOR FULL BOARD

RESOLVED, That the Board of Regents for Higher Education license and accredit a program in Film and Television Production leading to an undergraduate certificate (18 credits) at Norwalk Community College for a period of time concurrent with institutional accreditation.

Special note: staff recommend approval by the BOR Academic and Student Affairs Committee be contingent upon a favorable recommendation from the Advisory Committee on Accreditation on June 7, 2012.

BACKGROUND

Norwalk Community College is seeking licensure and accreditation of a program of Film and Television Production leading to an undergraduate Certificate. The program is intended to train students in the most current recording, editing and broadcasting technology.

The program is designed to retrain video professionals in the region's workforce to meet the growth in film and television production positions in Fairfield County as well as to provide additional skills and education for the College's students with majors other than film and television production. The program will be housed in the Communication Arts Department and rely heavily on existing resources.

Staff review of the proposed program indicates it will meet the standards for planning and quality set forth in the Connecticut Regulations for Licensure and Accreditation of Institutions and Programs of Higher Learning. A recommendation from the Advisory Committee on Accreditation is expected on June 7, 2012.

5/08/12 – ConnSCU Academic Council

6/01/12 – BOR-Academic and Student Affairs Committee

PLANNING ASSESSMENTConformance with Institutional Mission

An undergraduate certificate in the area of film and television production is consistent with the institution's mission and current offerings.

Unnecessary Program Duplication

The proposed program does not unnecessarily duplicate other programs in Connecticut. Similar programs do not exist in the southern region of the state. Programs in comparable fields include undergraduate certificate program at Manchester Community College, and associate's degree programs at Asnuntuck Community College, Lincoln College of New England, Manchester Community College and Middlesex Community College. For the past five years, the total number of completion among all of these programs combined has ranged between 24 and 33 each year.

Need

Labor market projections from the Department of Labor suggest average growth in the labor market for broadcast and sound technicians, with annual growth of 37 positions in related fields 2008-2018. The median annual wage for positions in the state ranges from \$28,270 to \$46,770.

The institution maintains that there is job growth in film and television production in Fairfield County, but the "film" industry (and television) is now working almost entirely in digital production, so that people trained in this field even five years ago may already have outdated skills.

Cost Effectiveness

The institution projects no additional costs and increases in revenue attributable to two additional part-time students each year: \$1,548 in year one, \$3,096 in year two, and \$4,764 in year 3.

Availability of Adequate Resources

The institution maintains that the program will use existing resources to train and educate students for jobs in the film and television industry and does not require additional resources. Current TV and Film Production classes currently run with open seats, an adjunct would be hired to run additional sections if enrollment warrants.

QUALITY ASSESSMENT

Purpose and Objectives

The objective of the program is to provide in the current era of digital technology a sequence of courses designed to retrain video professionals in the region's workforce to meet the growth in film and television production positions in Fairfield County as well as to provide additional skills and education for the College's students with majors other than film and television production. Since the "film" industry (and television) is now working almost entirely in digital production, professionals trained in this field as recently as five (5) years ago may already have outdated skills.

According to the Connecticut Department of Labor, employment of broadcast and sound engineering technicians is expected to grow as businesses, schools, and radio and television stations demand new equipment to improve their audio and video capabilities. In film editing, growth is most promising for those with experience on sets, which the program plans to provide through robust internships.

Learning Outcomes

Students who complete the Film and TV Production Certificate program will be able to:

1. Produce stories in a visual context – assessed in final projects
2. Direct and broadcast productions in a studio setting – assessed in final projects
3. Create documentaries and short nonfiction segments for a news broadcast – assessed in final projects
4. Edit long-form digital video productions in Avid software – assessed in final projects
5. Demonstrate proficiency in a professional film or television production setting – assessed in reflection on internship experience

Administration

The Program Coordinator for Communication Arts will oversee the proposed program.

Admission

There are no additional requirements for admission beyond admission to the College.

Enrollment Projections

The College projects two (2) to six (6) new students to enroll on a part-time basis in the program each year of operation.

Projected Enrollment	FY 2012-13		FY 2013-14		FY 2014-15	
	FT	PT	FT	PT	FT	PT
Internal Transfers	10	0	11	0	12	0
New Students	0	2	0	4	0	6
Continuing Students	0	0	11	0	0	0
TOTAL ENROLLMENT	10	2	11	4	12	6

Curriculum

Course	Title	Credits
Core Prerequisite		
ENG 101	Composition	3
Program Core		
COM 140	Film and TV Production I	3
COM 143	Film and TV Production II	3
COM 243	Film and TV Production III	3
COM 244	Film and TV Production IV	3
COM 295	Internship I	3
Total		18

Resource SupportFaculty

No additional faculty will be required for the program. The faculty members identified to teach in the program possess the appropriate credentials and teaching experience to teach in the program.

Library and Learning Resources

No additional library or learning resources will be required for the program.

Facilities and Equipment

Existing facilities are sufficient to operate the program.

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

SECTION 1: GENERAL INFORMATION

Institution: Norwalk Community College	Date of Submission to BOR Office:		
Most Recent NEASC Institutional Accreditation Action and Date:			
Program Characteristics Name of Program: Communication Arts Program Degree: Title of Award (e.g. Master of Arts) Film and Television Production Certificate Certificate: (specify type and level) Undergraduate certificate Anticipated Program Initiation Date: Spring 2012 Anticipated Date of First Graduation: Spring 2013 Modality of Program: xx 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): 18 credits	Program Credit Distribution # Cr in Program Core Courses: 18 # 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): 18 From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: 18		
Type of Approval Action Being Sought: Licensure OR Licensure and Accreditation Suggested CIP Code No. (optional) 10.0202 Title of CIP Code Radio and Television Broadcasting Technology/Technician			
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: NCC main campus, Norwalk			
Other Program Accreditation: <ul style="list-style-type: none"> • 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: Lori Soderlind	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> Title: Communication Arts Program Coordinator </td> <td style="width: 50%; border: none;"> Tel.: 203-857-7279 e-mail: Lsoderlind@ncc.commnet.edu </td> </tr> </table>	Title: Communication Arts Program Coordinator	Tel.: 203-857-7279 e-mail: Lsoderlind@ncc.commnet.edu
Title: Communication Arts Program Coordinator	Tel.: 203-857-7279 e-mail: Lsoderlind@ncc.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)	

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.

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

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

Alignment of Program with Institutional Mission, Role and Scope

The Film and Television Production Certificate Program creates a sequence of courses from NCC's existing course offerings that is designed to retrain video professionals in the era of digital technology as well as to provide additional skills and education for NCC students with majors outside of film and television production. This program fits the college's mission to offer training to the region's workforce—there is job growth in film and television production in Fairfield County, but the “film” industry (and television) is now working almost entirely in digital production, so that people trained in this field even five years ago may already have outdated skills.

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)*

This sequence of TV and Film production classes trains students in the most current recording, editing and broadcasting technology. According to the state Department of Labor: “Employment of broadcast and sound engineering technicians is expected to grow 10 percent from 2010 to 2020, about as fast as the average for all occupations. Growth is expected as businesses, schools, and radio and television stations demand new equipment to improve their audio and video capabilities.” In film editing, growth is projected but at a slower rate, with the best chance of employment going to those with experience on sets—which we hope to provide through robust internships. Department of Labor statistics also confirm that jobs in these industries are available to high school graduates who have also received technical training, and that an associate's degree is preferable. NCC offers an associate's in this field; the certificate program may help train students who are unable to complete the associate's degree. It will also offer technical training to people who do not have the correct degree or training to find work in this field.

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? **All courses, faculty and other resources required for the certificate program already exist at NCC. They have been packaged in a sequence that allows more current students and returning students (seeking to upgrade skills) access to the specific coursework they need to enhance their skills and education.**

- 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 this is not a degree program, transfer agreements do not apply.

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

While Asnuntuck and Manchester community colleges offer broadcast degrees, there is no existing community college associate's program outside of NCC that specializes in film and television production, and NCC's new certificate in this field would be the first of its type. NCC's proposed certificate program is meeting a perceived demand in the community (based on consulting with NCC's communication arts advisory board and area media professionals as well as job and career statistics).

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

This evidence is presented in the first bullet point above, where state Department of Labor statistics are cited. Furthermore, the recent relocation of NBC units to Stamford and the production of films at the Connecticut Film Center both have brought jobs to the community NCC serves.

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

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

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

Cost Effectiveness and Availability of Adequate Resources

(Please provide a one-paragraph narrative on the attached MSExcel Pro-Forma Budget) This certificate utilizes existing resources at NCC to help train and educate students for jobs in the film and television industry. It does not require additional resources; should enrollment require adding a second section of TV and Film Production classes that currently run with open seats, we would then hire an adjunct to cover the additional sections.

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

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. Produce stories in a visual context – assessed in final projects
2. Direct and broadcast productions in a studio setting – assessed in final projects
3. Create documentaries and short nonfiction segments for a news broadcast – assessed in final projects
4. Edit long-form digital video productions in Avid software – assessed in final projects
5. Demonstrate proficiency in a professional film or television production setting – assessed in reflection on internship experience

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

Prof. Lori Soderlind is currently the Program Coordinator for Communication Arts. She will continue in this capacity to oversee the existing program with no major adjustment to her responsibilities. The addition of a Film and Television Production Certificate is expected to increase the program's overall enrollment slightly but will not expand the general scope of Prof. Soderlind's responsibilities.

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? **0**

What percent of credits in the program will be taught by adjunct faculty? **Possibly 1/6 of the classes will be taught by an adjunct instructor**

Describe the minimal qualifications of adjunct faculty, if any, who will teach in the program **Master's degree in television and film production or equivalent experience in the profession.**

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 resources are required to administer the certificate program. The college already has cameras, computers, digital editing software, and a fully equipped broadcast studio.

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

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		
COM 140 Film and TV Production 1	#1, 2	ENG 101 eligibility	3			
COM 143 Film and TV Production 2	#1, 2	COM 140	3			
COM 243 Film and TV Production 3	#1, 2, 3		3			
COM 244 Film and TV Production 4	#1, 4	COM 140	3			
COM 295 Internship 1	#5		3			
Core Course Prerequisites				Elective Courses in the Field		
ENG 101 (composition)			3			
Total Other Credits Required to Issue Credential (e.g. GenEd/Liberal Arts Core/Liberal Ed Program)						
<p>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.")</p>						

The Film and Television Production Certificate Program entails a total of 15 credits in film and TV production courses, including an internship, and 3 credits in English Composition. The certificate is designed to be awarded to degree students in college majors outside of the film and television production area who have completed additional coursework to enhance their academic credentials; it is also intended to provide training and proficiency in digital film and TV production for members of the workforce seeking retraining.

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

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

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)

[illegible]

Connecticut Board of Regents for Higher Education

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

Norwalk Community College
Film and Television Production Certificate
Program

Apr-12

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)	10		11		12	
New Students (first time matriculating)		2		4		6
Continuing (students progressing to credential)						
Headcount Enrollment	10	2	11	4	12	6
Total Estimated FTE per Year	11		13		15	

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)		\$1,548		\$3,096		\$4,764
Program-Specific Fees						
Other Rev. (Annotate in text box below)						
Total Annual Program Revenue	\$1,548		\$3,096		\$4,764	

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

Please provide any necessary annotations: No costs are anticipated for this program because all courses, faculty and program administration are already in place. This program simply sets a sequence of classes that students can take to be formally trained digital film and television production.. Our primary reason for offering this certificate program is to retrain professionals in the field who have not fully adjusted to the new all-digital format of film and TV production, and to offer job training in the region to those interested in pursuing a growing number of jobs in Fairfield County in this area.

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

Licensure and accreditation of a program in Veterinary Technology leading to an Associate of Science (A.S.) degree at Middlesex Community College

RECOMMENDED MOTION FOR FULL BOARD

RESOLVED, That the Board of Regents for Higher Education license and a program in Veterinary Technology leading to an Associate of Science (A.S.) degree at Middlesex Community College for a period of time concurrent with institutional accreditation.

Special note: staff recommend approval by the BOR Academic and Student Affairs Committee be contingent upon a favorable recommendation from the Advisory Committee on Accreditation on June 7, 2012.

BACKGROUND

Middlesex Community College is seeking licensure and accreditation of a program of veterinary technology leading to an Associate of Science (A.S.) degree.

The Associate Degree program in Veterinary Technology prepares students for immediate employment in veterinary offices, biological research facilities, stables, dairies, drug and feed manufacturing companies and in the animal production industry. The program was developed in with Pieper-Olson Veterinary Hospital, and the program will be offered in collaboration with this facility.

Staff review of the proposed program indicates it will meet the standards for planning and quality set forth in the Connecticut Regulations for Licensure and Accreditation of Institutions and Programs of Higher Learning. A recommendation from the Advisory Committee on Accreditation is expected on June 7, 2012.

5/08/12 – ConnSCU Academic Council

6/01/12 – BOR-Academic and Student Affairs Committee

PLANNING ASSESSMENT

Conformance with institutional mission

The program conforms with the institution's mission. Middlesex Community college offers a range of associate's degrees in liberal arts, professional, and medical fields. This would be the first veterinary science or animal science credential offered with the institution.

Unnecessary program duplication

The proposed program does not unnecessarily duplicate other programs in the state. One other associate's degree program is offered in the state at Northwestern Connecticut Community College in Winstead; about 9-12 students typically complete this program each year, although 20 completions were registered in 2010-11. Post University offers an equine veterinary assistant certificate (15-30 credits) and Naugatuck Valley Community College offers a Veterinary Assistant Certificate (15-30 credits), but no students have completed these programs. A bachelor's level program in Veterinary Technology at Quinnipiac University is phasing out.

Need

Labor market statistics suggest a need for the program. The U.S. Dept. of Labor estimated 1,200 veterinary technologists and technicians were employed in Connecticut in 2008, with an annual growth of 41 positions. Minimum education level is an associate's degree, and growth prospects are characterized as faster than average. The median annual wage in 2010 was \$36,530, about \$4,000 below the median wage in the state. In addition the college was approached by Connecticut Valley Veterinary Hospital to offer the program.

Cost Effectiveness

The institution maintains that the program is cost effective. The program could be cost effective if project enrollment targets are hit and maintained. The institution projects 22 full-time and 2 part-time new students each year, with projected revenue of \$93,836 in year one of operation, and \$106,370 in direct costs. Projected revenue exceeds projected expenses by \$18,088 in year two and \$39,768 in year three. Budgets assume a retention rate of 87.5%, higher than recent retention rates of full-time first-time students of 53.8% for those entering in fall 2009 and 55.9% of those entering in fall 2010. Retention rates of entering transfer students may be higher than those of first-time students but figures are not currently available.

Availability of Adequate Resources

The institution maintains that available resources are adequate to deliver the program. Delivery of the program will require a memorandum of understanding between the College and CVVH to delivery clinical portions of the curriculum. A program director will have to be hired to run the program.

QUALITY ASSESSMENT

Purpose and Objectives

The objective of the program is to provide the classroom, laboratory and field experience that will prepare students to be competent for entry-level job opportunities, or career advancement at their current employers. The program is offered in collaboration between Middlesex Community College and Pieper-Olson Veterinary Hospital. General education courses are held at the College's main campus, while those courses requiring specialized laboratories, equipment, and hands-on practical experience are held at Pieper-Olson Veterinary Hospital in Middletown.

The program will prepare graduates to sit for the Veterinary Technician National Examination, an independent assessment of knowledge in seven (7) core competencies: pharmacy and pharmacology; surgical prep and assisting; dentistry; laboratory procedures; animal care and nursing; diagnostic imaging; and, anesthesia and analgesia. Presently, Veterinary Technician is not a licensed occupation in the State of Connecticut, but this program will prepare graduates for licensure in other states.

The State of Connecticut Department of Labor lists "Veterinary Technologists and Technicians" as the fastest-growing occupation that requires an Associate's Degree or vocational training. These positions demand a statewide average annual wage of over \$37,000. The U.S. Department of Labor predicts "employment of veterinary technologists and technicians is expected to grow 52 percent from 2010 to 2020, much faster than the average for all occupations.

Learning Outcomes

Students who complete the Veterinary Technology Associate in Science degree program will be able to demonstrate competency in the following essential skill areas as identified by the American Veterinary Medical Association's Committee on Veterinary Technician Education and Activities:

1. Office and hospital procedures, client relations, and communication
 - a. Participate in facility management utilizing traditional and electronic media and appropriate veterinary medical terminology and abbreviations.
 - b. Communicate in a professional manner in all formats - written, oral, non-verbal, and electronic.
 - c. Follow and uphold applicable laws and the veterinary technology profession's ethical codes to provide high quality care to patients.
2. Pharmacy and pharmacology
 - a. Safely and effectively administer prescribed drugs to patients.
 - b. Accurately dispense and explain prescribed drugs to clients.
3. Animal care and nursing
 - a. Demonstrate and perform patient assessment techniques in a variety of animal species.
 - b. Understand and demonstrate husbandry, nutrition, therapeutic and dentistry techniques appropriate to various animal species.

- c. Safely and effectively handle common laboratory animals used in animal research.
4. Anesthesia, Analgesia, and Surgical Nursing
 - a. Safely and effectively manage patients in all phases of anesthetic procedures.
 - b. Safely and effectively select, utilize and maintain anesthetic delivery and monitoring instruments and equipment.
 - c. Understand and integrate all aspects of patient management for common surgical procedures in a variety of animal species.
 - d. Understand and provide the appropriate instruments, supplies and environment to maintain asepsis during surgical procedures.
5. Veterinary laboratory procedures
 - a. Properly package, handle and store specimens for laboratory analysis.
 - b. Properly carry out analysis of laboratory specimens.
6. Diagnostic imaging
 - a. Safely and effectively produce diagnostic radiographic and non-radiographic images.
7. Dentistry
 - a. Perform routine dental prophylaxis (manual and machine)
 - b. Perform routine dental radiographic imaging techniques

Administration

The College is recruiting an Interim Program Coordinator for the 2012-13 academic year and expects to conduct a formal search to have a tenure-track faculty member/program coordinator on board beginning with the Fall 2013 semester. The full-time Assistant Professor and Program Coordinator is expected to possess the degree of Doctor of Veterinary Medicine and will be responsible for teaching nine (9) credits per semester, plus three (3) credits of release time per semester for program administration and oversight of the required Externship component, plus additional responsibilities as required by the collective bargaining agreement.

Admission

Veterinary Technology is a selective admission program. In addition to meeting admission requirements to the College, applicants must be in overall good health and be capable of lifting a minimum of 55 lbs. (25kg). Accepted students will be required to submit records of a recent physical examination as well as a rabies vaccination certificate. Further, program applicants must demonstrate competency in mathematics and computing skills, and successfully completed a total of eleven (11) college credits:

- Competency in Intermediate Algebra: MAT* 137 or equivalent or higher with a C or better OR placement test/SAT/ACT scores which would place the student in a mathematics course higher than MAT* 137;
- Competency in Basic Computing Skills: CSC* 101 or equivalent OR “pass” on a computer proficiency exam;

- BIO* 121 General Biology (4 credits) with a C or better taken within five (5) years prior to program admission;
- CHE* 111 Concepts of Chemistry (4 credits) with a C or better taken within five (5) years prior to program admission; and,
- ENG* 101 Composition (3 credits) with a C or better.

Enrollment Projections

The College projects twenty-four (24) new students to enroll in the program each year of operation. Students will be advised that the program is designed for full-time study.

Headcount Enrollment Projections

Projected Enrollment	FY 2012-13		FY 2013-14		FY 2014-15	
	FT	PT	FT	PT	FT	PT
Internal Transfers	0	0	0	0	0	0
Newly Admitted Students	22	2	22	2	22	2
Continuing Students	0	0	18	3	20	8
TOTAL ENROLLMENT (est.)	22	2	40	5	42	10

Comments from Other Institutions

No comments were received in response to the State-wide circulation of the program proposal.

Curriculum

Course	Title	Credits
MED* 125	Medical Terminology	3
VET* 100	Introduction to Animal Care	2
VET* 101	Introduction to Veterinary Terminology	3
VET* 102	Vet Office Management & Communication	3
VET* 201	Vet Anatomy & Physiology I with Lab	4
VET* 151	Small Animal Veterinary Technology with Lab	4
VET* 152	Large Animal Veterinary Technology with Lab	4
VET* 202	Vet Anatomy & Physiology II with Lab	4
VET* 250	Principles of Pharmacology for Vet Tech	3
VET* 205	Veterinary Laboratory Procedures	3
VET* 212	Principles of Imaging with Lab	1
VET* 230	Vet Anesthesia and Surgical Nursing w/Lab	4
	Fine Arts Elective	3
	Social Science Elective	3
BIO* 235	Microbiology	4
BIO* 238	Parasitology	3
VET* 220	Animal Pathology	3
VET* 240	Periodontology & Oral Radiology	2
VET* 285	Vet Tech Externship	2
TOTAL CREDITS (Including Admission prerequisites)		69

RESOURCE SUPPORT

Faculty

The College plans to hire two (2) full-time faculty members for the Program: an Assistant Professor/Program and a full-time Instructor. Courses may be also be taught by either full-time or adjunct faculty who possess appropriate credentials and teaching experience to teach in the Program.

Library and Learning Resources

Existing equipment, materials and Perkins funds will be used to support this program. A new budget line-item for consumable supplies and accreditation fees will be created. In addition, the Library collection will be augmented by the procurement of print and digital resources in this field, through the existing Library acquisitions budget.

Facilities and Equipment

Existing facilities are sufficient to operate the program. Student and faculty will have access to specialized facilities, such as a veterinary surgical suite, diagnostic imaging equipment, hematology and parasitology analysis devices, etc., through a contractual arrangement with Pieper-Olson Veterinary Hospital located two (2) miles from the College's main campus.

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: 5/1/12, rev 5/9/12
Most Recent NEASC Institutional Accreditation Action and Date: March 21, 2003 – continued accreditation		
Program Characteristics Name of Program: Veterinary Technology Degree: Title of Award (e.g. Master of Arts) Associate in Science Certificate: (specify type and level) Anticipated Program Initiation Date: Fall 2012 Anticipated Date of First Graduation: May 2014 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): 69, including program admission prerequisites		Program Credit Distribution # Cr in Program Core Courses: 61 # Cr of Electives in the Field: 0 # Cr of Free (General Ed.) Electives: 6 # Cr Special Requirements (include internship, etc.): 2 <u>Total # Cr in the Program</u> (sum of all #Cr above): 69 From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: 21
Type of Approval Action Being Sought: Licensure OR X Licensure and Accreditation Suggested CIP Code No. (optional) 51.0808 Year: 2000 or 2010 X Title of CIP Code: Veterinary/Animal Health Technology/Technician and Veterinary Assistant		
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: Middlesex Community College Main Campus. Program-specific laboratory courses will be conducted at Pieper-Olson Veterinary Hospital, 730 Randolph Road, Middletown, CT (two miles from the MxCC Main Campus) under special contract.		
Other Program Accreditation: <ul style="list-style-type: none"> • <i>If seeking specialized/professional/other accreditation, name of agency and intended year of review:</i> The College is seeking initial accreditation from the American Veterinary Medical Association Committee on Veterinary Technician Education and Activities. A site team visit and formal review will be conducted during the 2013-14 academic year (tentative). • <i>If program prepares graduates eligibility to state/professional license, please identify:</i> The program will prepare graduates to sit for the Veterinary Technician National Examination, an independent assessment of knowledge in seven core competencies: pharmacy and pharmacology; surgical prep and assisting; dentistry; laboratory procedures; animal care and nursing; diagnostic imaging; and, anesthesia and analgesia. Presently, Veterinary Technician is not a licensed occupation in the State of Connecticut, but this program will prepare graduates for licensure in other states. 		
Institutional Contact for this Proposal: Dr. Steven Minkler		Title: Dean of Academic Affairs Tel.: 860-343-5706 e-mail: sminkler@mxcc.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)	

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.

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

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 Vision Statement of Middlesex Community College is, "Our college and our community are partners in a tradition of shaping the future through education – one person at a time." Consistent with this Vision, the College is partnering with a major regional employer to provide a unique educational and occupational training experience that combines high-quality classroom based instruction with access to a state-of-the-art veterinary medical facility in which students will learn the essential skills necessary for success as Veterinary Technicians. The college, as an Associate Degree-granting institution, aims to address a significant employment need as documented by the State of Connecticut Department of Labor, while also satisfying student demand for a program of this kind.

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 U.S. Department of Labor (2012):

A growing pet population will require more veterinary technologists and technicians. In addition, many people consider their pets to be part of their family and are willing to pay more for pet care than in the past. Also, veterinary medicine has advanced considerably, and many of the veterinary services offered today are now comparable to health services for humans.

As veterinarians perform more specialized tasks, clinics and animal hospitals are increasingly using veterinary technologists and technicians to provide more general care and to do more laboratory work. Furthermore, as the number of veterinary services grows, veterinarians will continue to prefer higher skilled veterinary technologists and technicians over veterinary assistants for more complex work.

Continued support for public health, food and animal safety, and national disease control programs, as well as biomedical research on human health problems, also will contribute to demand for veterinary technologists.

The State of Connecticut Department of Labor lists "Veterinary Technologists and Technicians" as the fastest-growing occupation that requires an Associate's Degree or vocational training. The DOL estimates an average of 71 positions opening statewide between now and the year 2018. These positions demand a statewide average annual wage of over \$37,000. The U.S. Department of Labor predicts "employment of veterinary technologists and technicians is expected to grow 52 percent from 2010 to 2020, much faster than the average for all occupations. Job opportunities are expected to be excellent, particularly in rural areas. ...In addition, a growing number of technicians counsel pet owners on animal behavior and nutrition" (U.S. Department of Labor).

- *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?*

Located in central Connecticut, Middlesex Community College is uniquely positioned to add the A.S. degree in Veterinary Technology in order to address the needs of a major regional employer and students who seek entry to a rapidly growing occupational field. Through a unique partnership with Pieper-Olson Veterinary Hospital, all of the program-specific laboratory courses will be held at a state-of-the-art veterinary medical practice. Of particular note, students will take a three-course cluster in Semester 3 in which they will perform lab work in the hospital under the supervision of a faculty member and veterinary professionals in actual clinical facilities (e.g., surgery, radiography, hematology) with actual animal patients – thus, providing them with an experience that is both clinical and similar to the first part of an externship placement. Learning and practicing within a working veterinary office will greatly enhance the hands-on experience gained by students, as well as teaching them how to manage office operations such as patient records, business practices, and client communication.

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

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

Although this new program will require hiring new full-time and adjunct faculty, it will be housed in the Division of Science, Allied Health, and Engineering along with specialty clinical degree programs such as Biotechnology, Ophthalmic Design & Dispensing, and Radiologic Technology. Through these programs, the Division already enjoys positive relationships with community agencies, medical offices, hospitals, and employers. Of special note, the College and Middlesex Hospital jointly operate the nationally accredited Radiologic Technology program. This partnership is being used as a “template” to design the Veterinary Technology program’s contractual arrangements between the College and Pieper-Olson.

- *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 designed as an occupational program for immediate employment upon graduation.

- *Special Note: Request for Credit Load Waiver*

As an occupational program with anticipated national professional accreditation, the College is seeking a waiver from the Board of Regents’ 64-credit maximum for Associate Degree programs. This program consists of 69 credits, including 11 credits of program admission requirements. Condensing this program to a total of 64 credits would jeopardize the College’s ability to provide students with sufficient didactic instruction, laboratory skills, and pre-professional experiences necessary to seek national accreditation. In comparison, Northwestern Connecticut Community College’s A.S. Veterinary Technology program, which is nationally accredited, consists of 79 credits (11 credits of prerequisites plus 68 credits in program requirements).

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

Northwestern Connecticut Community College (NCCC) presently has the only degree program in Veterinary Technology, at any level, in the State of Connecticut. It is operating at full capacity given the size of the college’s facilities and faculty.

For several years, Middlesex has offered its students the opportunity to transfer to NCCC’s Vet Tech program after completing program prerequisites in Middletown. While a number of students have taken advantage of this partnership, the distance between the colleges is some 45 miles – a two-hour round-trip commute. This distance has effectively closed off the NCCC Veterinary Technology program to students with unreliable transportation, and to those who live even further away from NCCC in the southeastern corner of the state. Adding the A.S. Veterinary Technology degree program at Middlesex will add capacity to the ConnSCU System while helping address growing demand for this program among students and potential employers.

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

The State of Connecticut Department of Labor lists “Veterinary Technologists and Technicians” as the fastest-growing occupation that requires an Associate’s Degree or vocational training. The DOL estimates an average of 71 positions opening statewide between now and the year 2018. These positions demand a statewide average annual wage of over \$37,000.

Cost Effectiveness and Availability of Adequate Resources

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

The college anticipates enrolling each newly admitted class with a full cohort of 24 students. The college also expects minimal attrition thanks to a selective admissions process and clearly stated expectations. Students will be advised that enrolling in the program on a full-time basis will help ensure timely completion of all graduation requirements, due to the rigor and pace of this program, and the “fall/spring” pattern of course offerings.

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

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

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

As a completely new program to Middlesex, Vet Tech will be phased in so that only entering freshman will be enrolled in Year One. As such, total enrollment in Year One is limited to the first group of 24 students. The program will be in financial deficit in its first year, but will recover in subsequent years as additional cohorts are admitted to the program and total headcount enrollment rises from 24 to 45 to 52.

The Pro-Forma budget assumes a full cohort each year, minimal attrition, the hiring of a full-time Program Coordinator (Year One) and full-time faculty member (Year Two), and reasonable expenses for supplies, accreditation fees, and off-site facility usage. The Program Coordinator position will be filled by reallocating an existing vacant faculty position.

The college will enter a contractual arrangement with a local veterinary hospital to serve as a "host site" for the program in a state-of-the-art facility which is well beyond the college's capacity to build. The college will pay a nominal fee to the hospital for "room use" for classroom space. The college and the hospital will also pursue grant funding and some allocation of Perkins vocational education dollars toward assisting with the purchase of additional equipment, when (and if) required.

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

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. Office and hospital procedures, client relations, and communication
2. Pharmacy and pharmacology
3. Animal care and nursing
4. Anesthesia, Analgesia, and Surgical Nursing
5. Veterinary laboratory procedures
6. Diagnostic imaging
7. Dentistry

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)*

A full-time Assistant Professor & Program Coordinator will be responsible for teaching 9 credits per semester, and will be given 3 credits of release time per semester for program administration and oversight of the required Externship component. The college is recruiting an Interim Program Coordinator for the 2012-13 academic year, and expects to conduct a formal search to have a tenure-track faculty member/program coordinator on board beginning with the Fall 2013 semester. Under the former Community College Board of Trustees Minimum Qualifications schedule, the Assistant Professor & Program Coordinator should hold the degree of Doctor of Veterinary Medicine.

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?

Two: one Assistant Professor & Program Coordinator (Interim, 2012-13; Tenure-Track as of Fall 2013) and one Full-Time Faculty member (anticipated start Fall 2014).

What percentage of the credits in the program will they teach? 42% (29 out of 69)

What percent of credits in the program will be taught by adjunct faculty? 23% (16 out of 69)

Note: The remaining credits in the program (24 out of 69) are in other academic disciplines. Courses may be taught by either full-time or adjunct faculty.

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

Assistant Professor/Program Coordinator: Doctor of Veterinary Medicine

Full-Time Faculty member: Master's Degree in Animal Science or a related field; preferably a Certified Veterinary Technician

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)*

Several program courses will utilize equipment and materials found in a typical college biology lab: microscopes, prepared tissue/blood microscope slides, preserved specimens, etc. The College will reallocate some existing equipment, request support from Perkins Funds to obtain instructional technology resources, and create a new budget line-item for consumable supplies and accreditation fees. Other courses will require the use of specialized facilities such as a veterinary surgical suite, diagnostic imaging equipment, hematology and parasitology analysis devices, etc. Students and faculty will have access to these types of facilities through a special contractual arrangement with Pieper-Olson Veterinary Hospital, 730 Randolph Road, Middletown, CT (two miles from the MxCC Main Campus). Doing so will give the program immediate access to costly facilities and equipment that are not contemplated in the College's budget at this time. In addition, the Library collection will be augmented by the procurement of print and digital resources in this field, through the existing Library acquisitions budget.

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

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

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		

PLEASE SEE THE APPENDIX WHICH CONTAINS THE PROGRAM CURRICULUM (including a map to Learning Outcomes), ADMISSIONS PREREQUISITES, SEMESTER SEQUENCING, AND COURSE DESCRIPTIONS

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 Degree program in Veterinary Technology prepares students for immediate employment in veterinary offices, biological research facilities, stables, dairies, drug and feed manufacturing companies, and in the animal production industry. The objective of the program is to provide the classroom, laboratory, and field experience that will prepare students to be competent for entry-level job opportunities, or career advancement at their current employers. Graduates are eligible to sit for the Veterinary Technology National Exam. The program is offered in collaboration between Middlesex Community College and Pieper-Olson Veterinary Hospital. General education courses are held at the College's main campus, while those courses requiring specialized laboratories, equipment, and hands-on practical experience are held at Pieper-Olson Veterinary Hospital, 730 Randolph Road, in Middletown.

Veterinary Technology is a selective admissions program. Enrollment is restricted due to a limited number of laboratory seats, clinical facilities, and externship locations. Program applicants must have completed a total of 11 credits in biology, chemistry, and English; provide evidence of competency (through standardized test scores and/or additional coursework) in Intermediate Algebra and Basic Computing Skills; and, provide evidence of a recent physical examination and rabies vaccination certificate. All admissions prerequisites help to fulfill the college's General Education requirements.

In addition to the 11 credits of prerequisites, the program consists of 10 credits of additional liberal arts courses; 11 credits of classroom-based, program-specific courses; 35 credits of intensive, laboratory-based clinical application courses; and, a 2-credit Externship experience which is selected in close consultation between each student and the Program Coordinator.

Students must earn grades of "C" or better in all VET* designated courses. All VET* and BIO* courses must be completed within five years of admission to the Veterinary Technology program.

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

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

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)

[illegible]

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION
APPLICATION FOR NEW PROGRAM APPROVAL (Public Higher Education Institutions) - 01/20/12
Appendix: Program Curriculum, Map to Learning Objectives, and New Course Descriptions

Middlesex Community College -- Associate in Science Degree in Veterinary Technology
Effective Fall 2012 (Proposed)

PROGRAM ADMISSION REQUIREMENTS (11 credits)

Applicants must be in overall good health, and be capable of lifting a minimum of 55lb. (25kg). Accepted students will be required to submit records of a recent physical examination, and a rabies vaccination certificate.

- **Competency in Intermediate Algebra:** MAT* 137 or equivalent or higher with a C or better, OR placement test/SAT/ACT scores
- **Competency in Basic Computing Skills:** CSC* 101 or equivalent, OR “pass” on computer proficiency exam
- **BIO* 121 General Biology (4 credits)** with a C or better, taken within 5 years prior to program admission
- **CHE* 111 Concepts of Chemistry (4 credits)** with a C or better, taken within 5 years prior to program admission
- **ENG* 101 Composition (3 credits)** with a C or better

Students must earn a grade of “C” or better in all VET* designated courses. All VET* and BIO* courses must be completed within 5 years of admission to the Vet Tech program.

Semester 1, Fall (15 credits)		Credits	Prerequisite(s)	Learning Outcome(s)
MED* 125	Medical Terminology	3	Eligible for ENG* 101	1, 2
VET* 100	Introduction to Animal Care	2	Admission to Vet Tech	1, 3
VET* 101	Introduction to Veterinary Technology	3	Eligible for ENG* 101	1, 3
VET* 102	Vet Office Management & Communication	3	Admission to Vet Tech	1
VET* 201	Vet Anatomy & Physiology I with Lab	4	Admission to Vet Tech	3, 5

Semester 2, Spring (15 credits)		Credits	Prerequisite(s)	Learning Outcome(s)
VET* 151	Small Animal Veterinary Technology with Lab	4	VET* 100 and VET* 101 (both with C or better), and Rabies Vaccination	3
VET* 152	Large Animal Veterinary Technology with Lab	4		
VET* 202	Vet Anatomy & Physiology II with Lab	4	VET* 201 (C or better)	3, 5
VET* 250	Principles of Pharmacology for Vet Tech	3	MED* 125 (C or better)	2

Semester 3, Fall (14 credits)		Credits	Prerequisite(s)	Learning Outcome(s)
ALL THREE VET* COURSES MUST BE TAKEN TOGETHER				
VET* 205	Veterinary Laboratory Procedures	3	MED* 125, VET* 151, VET* 152, VET* 202 (all with C or better)	5
VET* 212	Principles of Imaging with Lab	1		6
VET* 230	Vet Anesthesia and Surgical Nursing w/Lab	4		4
	Fine Arts Elective	3		General Education
	Social Science Elective	3		General Education

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Semester 4, Spring (14 credits)		Credits (Contacts)	Prerequisite(s)	Learning Outcome(s)
BIO* 235	Microbiology	4	BIO* 121 or BIO* 122 (C or better)	General Education
BIO* 238	Parasitology	3	VET* 205 (C or better)	3, 5
VET* 220	Animal Pathology	3	VET* 205 (C or better)	3, 5
VET* 240	Periodontology & Oral Radiology	2	VET* 205, VET* 212 (C or better)	7
VET* 285	Vet Tech Externship	2	VET* 205, VET* 212, VET* 230 (all with C or better), Program Coordinator Approval	1, 2, 3, 4, 5, 6, 7

TOTAL ALL CREDITS

69

(including Admissions prereqs)

NEW COURSE DESCRIPTIONS

BIO *238 Parasitology: 3 credits

The study of the etiology of animal parasites with emphasis on the diagnosis and treatment of parasitic diseases of domestic animals. A laboratory component focuses on clinical diagnostic procedures including immunodiagnostic techniques using both living and preserved specimens. Topics include prevention, zoonotic disease transmission and control, including epidemiological concerns. *Prerequisite: VET* 205 with a grade of "C" or better.*

MED*125 Medical Terminology: 3 credits

This course is an introduction to basic medical terminology including origins of scientific terms, suffixes and prefixes which will enhance student ability to interpret and discuss scientific and clinical concepts. Concentration is on medical terminology which facilitates the student's comprehension of materials in patient records, medical reports and scientific articles. Clinical cases including diagnostic reports are utilized for discussion in this course. *Prerequisite: Eligible for ENG* 101.*

VET *100 Introduction to Animal Care: 2 credits

This course is an introduction to practical experience with various species. Basic biological concepts and normative data of the various species including common husbandry practices and diseases are discussed. Restraint and handling methodologies are discussed and practiced. *Prerequisite: Admission to Veterinary Technology Program.*

VET* 101 Introduction to Veterinary Technology: 3 credits

This course introduces the role of the Veterinary Technician to employment opportunities and professional development opportunities in the field. Covered topics include breed differentiation, nutrition, reproduction, and animal behavior. Ethics, animal welfare regulations, state and

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federal laws are reviewed, including controlled substance laws, occupational safety and health regulations and veterinary practice responsibilities. *Prerequisite: Eligible for ENG* 101.*

VET* 102 Veterinary Office Management & Communication: 3 credits

This is a business management course for Veterinary Technology students. Topics include office procedures and practices, staff management, triaging phone calls, recordkeeping, the human- animal bond, stress management, and client relations, including working with members of the public from diverse cultural, ethnic, religious, and socioeconomic backgrounds. Personnel administration and other administrative procedures common to veterinary medical practices including databases are reviewed. This is a “D” course. *Prerequisite: Admission to Veterinary Technology Program.*

VET* 151 Small Animal Veterinary Technology with Lab: 4 credits (6 contact hours)

Nursing procedures in small animals and laboratory species are discussed. Topics include physical examinations, common medical nursing techniques and emergency care. Long term nursing care of common animal conditions will be discussed including client education. The course includes vaccination protocols, nutritional support and specialized problems encountered in companion animals. Relevant clinical cases will be utilized in lecture discussions.

Prerequisites: VET 100 and VET* 101, each with a grade of “C” or better, and proof of Rabies Vaccination.*

VET *152 Large Animal Veterinary Technology with Lab: 4 credits (6 contact hours)

The course focuses on the specifics related to large animal medicine and nursing practices including techniques. Lectures include anatomy and physiology, nutrition and breeding of agricultural species. The etiology of disease, transmission, prevention and disease control are discussed. Topics include nursing care, diagnostic techniques, reproduction, husbandry, and common diseases. Laboratory sessions include restraint, physical exams, specimen collection, drug administration, and principles of husbandry. Supervised field trips are required.

Prerequisites: VET 100 and VET* 101, each with a grade of “C” or better, and proof of Rabies Vaccination.*

VET* 201 Veterinary Anatomy and Physiology I with Lab: 4 credits (6 contact hours)

Veterinary anatomy and physiology of domestic species presented as a two course series. The anatomic structures and physiologic functions of domestic animals including companion species are discussed. The first semester reviews the basic foundations of structure and function of the most common species including the integumentary, skeletal, muscular, nervous, endocrine and digestive systems in addition to cellular aspects of metabolism. Comparative aspects of other species including avian, reptilian and farm species are provided. Lecture and laboratory exercises emphasize the understanding of the organized body state and the relationship of various components including cells, tissues, organs and body systems. *Prerequisite: Admission to Veterinary Technology Program.*

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VET* 202 Veterinary Anatomy and Physiology II with Lab: 4 credits (6 contact hours)

This course is a continuation of Veterinary Anatomy and Physiology I, with discussion of the respiratory, circulatory, urinary and reproductive systems. Relevant clinical topics are utilized during this course. *Prerequisite: VET *201 with a grade of "C" or better.*

VET *205 Veterinary Laboratory Procedures: 3 credits (5 contact hours)

The theory behind clinical sample analysis utilizing clinical laboratory procedures including specimen collection, hematology, cytology, blood chemistry, urinalysis, necropsy technique, and serology. Emphasis is on manual performance of basic laboratory diagnostic procedures and discussion of the relevance of laboratory findings to the veterinary practitioner. *Prerequisites: MED* 125, VET* 151, VET* 152, and VET* 202, each with a grade of "C" or better. VET* 205 must be taken concurrently with VET* 212 and VET* 230.*

VET* 212 Principles of Imaging with Lab: 1 credit (2 contact hours)

The theory and principles of radiology and radiation safety. Topics include radiologic and imaging principles and practices and the uses in patient diagnosis. Animal restraint, positioning, special diagnostic techniques and imaging are reviewed. Ultrasonography, Computerized Axial Tomography, Magnetic Resonance Imaging and Positron Emission Tomography will be discussed. *Prerequisites: MED* 125, VET* 151, VET* 152, and VET* 202, each with a grade of "C" or better. VET* 212 must be taken concurrently with VET* 205 and VET* 230.*

VET *220 Animal Pathology: 3 credits

The course encompasses health and diseases of the major domestic animal species. Major systems are discussed with a review of anatomy and physiology. Clinical signs of organ dysfunction, pathophysiology, diagnostic tests, treatment and prevention are reviewed. The lecture topics are approached in an organ system format including integumentary, musculoskeletal, neurosensory, cardiovascular, respiratory, digestive, renal and reproductive systems. *Prerequisite: VET* 205 with a grade of "C" or better.*

VET* 230 Veterinary Anesthesia and Surgical Nursing with Lab: 4 credits (6 contact hours)

Lectures and demonstrations in general anesthetic technique, standard surgical procedure, and operating room conduct. The emphasis is on surgical technology including equipment and supply nomenclature, patient monitoring, aseptic, sterile technique, preoperative care of the patient and emergency medicine. Classifications and mechanisms of action for commonly used anesthetics, and analgesics are discussed. Topics include intravenous catheterization techniques, CPR, and oncology therapeutics. *Prerequisites: MED* 125, VET* 151, VET* 152, and VET* 202, each with a grade of "C" or better. VET* 230 must be taken concurrently with VET* 205 and VET* 212.*

VET* 240 Periodontology and Oral Radiology: 2 credits

This course is an introduction to veterinary dentistry which has become a significant part of veterinary practices. Topics include oral anatomy, terminology periodontology oral radiography endodontics, orthodontics and restorative dentistry. Tasks performed by veterinary technicians, including oral radiography will be discussed. *Prerequisites: VET* 205 and VET* 212, each with a grade of "C" or better.*

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VET* 250 Principles of Pharmacology for Vet Tech: 3 credits

The study of dose and dosage in applied pharmacology. Topics include basic mathematics, conversions, measurements, drug calculations, drug orders and fluid rate calculations. The major classes of drugs used in therapeutics, dose response characteristics, mechanisms of action, major physiological effects, toxicity and drug interactions are discussed. A review of laws applying to licensure and use of controlled substances in veterinary medicine is included. *Prerequisite: MED *125 with a grade of "C" or better.*

VET *285 Veterinary Technology Externship: 2 credits

This externship will offer a supervised experience under the direction of a licensed veterinarian, certified technician, or animal research technician. Students will refine skills learned in all previous veterinary technology courses through placement at an off-site veterinary hospital, private practice, or laboratory facility. *Prerequisites: VET *205, VET* 212, and VET* 230, each with a grade of "C" or better, and approval of the Vet Tech Program Coordinator.*

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

rev. 5/9/12

Proposed Program

A.S., VETERINARY TECHNOLOGY

PROJECTED Enrollment	First Term Year 1		First Term Year 2		First Term Year 3	
	Full Time	Part Time (9cr.)	Full Time	Part Time (9cr.)	Full Time	Part Time (9cr.)
Internal Transfers (from other programs)	0	0	0	0	0	0
New Students (first time matriculating)	22	2	22	2	22	2
Continuing (students progressing to credential)	n/a	n/a	18	3	20	8
Headcount Enrollment	22	2	40	5	42	10
Total Estimated FTE per Year	23.5		43.75		49.5	

PROJECTED Program Revenue	Year 1 (2012-13)		Year 2 (2013-14)		Year 3 (2014-15)	
	Full Time	Part Time (9cr.)	Full Time	Part Time (9cr.)	Full Time	Part Time (9cr.)
Tuition & Required Fees (Do not include internal transfers) Assumes 3% increase in years 2 and 3	\$79,156	\$5,416	\$151,451	\$17,160	\$163,629	\$32,205
Allied Health Program Fee (assumes 3% increase in years 2 and 3)	\$8,492	\$772	\$15,903	\$1,988	\$17,199	\$4,095
Other Rev. (Annotate in text box below)						
Total Annual Program Revenue	\$93,836		\$186,502		\$217,128	

PROJECTED Expenditures*	Year 1 (2012-13)		Year 2 (2013-14)		Year 3 (2014-15)	
	Number (as applicable)	Expenditure	Number	Expenditure	Number	Expenditure
Administration (Chair or Coordinator, no fringe)	1	\$58,324	1	\$60,074	1	\$61,876
Faculty (Full-time, total for program, no fringe)	0	\$0	1	\$49,136	1	\$50,610
Faculty (Part-time -total for program, includes 38% fringe)	Part-time contracts totalling 20 contact hrs	\$36,846	Part-time contracts totalling 17 contact hrs	\$32,259	Part-time contracts totalling 17 contact hrs	\$33,226
Support Staff						
Library Resources Program						
Consumable Supplies, Student Liability Insurance, Accreditation Fees (estimated)		\$10,000		\$15,000		\$18,000
Equipment (List as needed)						
Other (e.g. student services): * Room use of off-site lab facility (\$300 per course) * Clinical lab supervision (Fall semester Allied Health Fee, begins Year 2)		\$1,200		\$11,946		\$13,647
Estimated Indirect Cost (e.g. student services, operations, maintenance)						
Total ESTIMATED Expenditures	\$106,370		\$168,414		\$177,360	

* 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:

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

Modification of a program in Chemistry leading to Master of Science (M.S.) degree at Southern Connecticut State University to include a Professional Science Masters track

RECOMMENDED MOTION FOR FULL BOARD

RESOLVED, That the Board of Regents for Higher Education approve a program in Chemistry leading to Master of Science (M.S.) degree at Southern Connecticut State University to include a Professional Science Masters track for a period of time concurrent with institutional accreditation.

BACKGROUND

Southern Connecticut State University has requested to modify its existing program in Chemistry leading to the Master of Science (M.S.) degree to include a Professional Science Masters (PSM) track. This would be the second program that SCSU offers to follow the PSM model; the Board licensed a M.S. program in Applied Physics in December 2011. The PSM model integrates subject area learning with workplace skills and cross-training in a relevant business area; the proposed modification does not replace the existing program but rather provides an additional pathway to the M.S. in Chemistry. The change will increase the number of required credits from 30 to 36 and replace some Chemistry courses with required graduate-level courses in business/management.

While this action represents modification of an existing program, approval of the modification will result in administrative issuance of an additional DHE number for and accredited program to run for a period of time concurrent with institutional accreditation.

Staff review of the proposed program indicates it will meet the standards for planning and quality set forth in the Connecticut Regulations for Licensure and Accreditation of Institutions and Programs of Higher Learning.

5/08/12 – ConnSCU-Academic Council

6/01/12 – BOR-Academic and Student Affairs Committee

RATIONALE

The Professional Science Masters track in Chemistry represents a new track which will allow for a greater foundation for students not only to further their education in chemistry but also to enhance their background in the business area should they find themselves in a management type position. The primary learning objectives are for students to demonstrate increased knowledge for both chemistry and business areas.

The target population for the program is students who are employed by local companies or plan a career in industry rather than pursue a further degree (Ph.D.) in chemistry. At times in their career, these students may find themselves moving into higher positions in their companies where they have managerial or administrative responsibilities for which their training in chemistry alone does not prepare them.

Learning Outcomes

1. Each student shall demonstrate the chemical knowledge base required for students graduating with a degree that is consistent with the requirements of the chemistry department.
2. Each student shall develop the written and oral communication skills required for proper dissemination of chemical information to colleagues and the public.
 - a. poster presentations and seminar discussions.
3. Each student shall develop the analytical and critical thinking skills needed to acquire, analyze and interpret data.
4. Each student shall become aware of how chemistry affects society and the environment.
5. Each student will be able to list, describe, and differentiate between business foundational knowledge and skills.
6. Each student will be able to discuss and critique reports on the application of important business skills and functions.
7. Each student will be able to actively pursue an interest in specialized areas of business.

Additional details appear in the proposal.

Curriculum

Students complete 36 credits. These 36 credits include the 6 core courses in chemistry (18 credits) and 6 courses from the MBA program (18 credits). Students must also pass the comprehensive examination in chemistry. The main change from the current track for the M.S. in Chemistry is the replacement of electives with the 18 credits in MBA courses.

The written Comprehensive Examination for the M. S. Degree in Chemistry is offered twice a year. It may be taken twice. The exam consists of sixty (60) multiple choice questions in the six core areas: ten (10) questions each in Advanced Analytical Chemistry, Advanced Inorganic Chemistry, Advanced Organic Chemistry, Advanced Physical Chemistry, Advanced Biochemistry and Advanced Environmental Chemistry. The student chooses two (2) Core areas in EACH of the following sub-groups:

- Sub-Group #1: Organic Chemistry, Physical Chemistry, Inorganic Chemistry
- Sub-Group #2: Analytical Chemistry, Biochemistry, Environmental Chemistry

Thus, the student is answering forty (40) questions. Passing the Comprehensive Examination requires 28 correct answers out of the 40 questions, with at least four correct answers in each of the four areas. If the written exam is failed the first time, it may be taken again. If the written exam is failed the second time, a student may request an oral examination before the Chemistry Faculty under the following conditions:

- a. the student scored between 20 and 27 questions correct
- b. at least four questions correct in each of the four areas.

Failure of the Comprehensive Examination twice will lead to automatic dismissal from the program. Normally the student will take the Comprehensive Exam after completing the six required core courses.

As with any graduate program, students must maintain a GPA of at least 3.0 to remain in good standing within the program.

Admissions requirements will not change from the current program.

Course Number and Name	Credits
Chemistry	
CHE 500 — Advanced Organic Chemistry I	3
CHE 520 — Advanced Physical Chemistry I	3
CHE 532 — Advanced Inorganic Chemistry I	3
CHE 540 — Advanced Analytical Chemistry	3
CHE 550 — Advanced Biochemistry I	3
CHE 560 — Advanced Environmental Chemistry	3
Management	
MBA 500 — Management Process	3
MBA 502 — Statistical Decision Making	3
MBA 505 — Marketing Management	3
MBA 537 — Product Management	3
MBA 548 — Operations Management	3
MBA 551 — Business Ecological Sustainability	3
Total	36

RESOURCES

The University anticipates there will be no additional costs incurred for this program during its first three years because there is available capacity in currently offered graduate-level chemistry and MBA classes to absorb these additional cohorts.

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

SECTION 1: GENERAL INFORMATION

Institution: Southern Connecticut State University		Date of Submission to BOR Office:	
Most Recent NEASC Institutional Accreditation Action and Date: June 2002; (anticipated April 2012)			
Original Program Characteristics CIP Code No. Title of CIP Code CIP Year: 2000 or 2010 Name of Program: M.S. in Chemistry Degree: Title of Award (e.g. Master of Arts) M.S. in Chemistry Certificate: (specify type and level) Date Program was Initiated: 1966 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): 30 credits		Original Program Credit Distribution # Cr in Program Core Courses: 18 # Cr of Electives in the Field: 3 # Cr of Free Electives: 9 # Cr Special Requirements (include internship, etc.): 0 <u>Total # Cr in the Program</u> (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 credits	
Type of Program Modification Approval Being Sought (mark all that apply): X Licensure and Accreditation (specify whether New Certificate, Minor, Option, Concentration, or Other) New option within the M.S. in Chemistry 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 Name of Program: Professional Science Masters option Degree: Title of Award (e.g. Master of Arts) M.S. in Chemistry Certificate ¹ : (specify type and level) Program Initiation Date: Fall 2012 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): 36 credits Other:		Modified Program Credit Distribution # Cr in Program Core Courses: 36 # 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): 36 From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: 36 credits	
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:			
Other Program Accreditation: <ul style="list-style-type: none"> 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: Marianne Kennedy		Title: Interim Provost Tel.: 203-392-5350 e-mail: kennedym4@southernct.edu	

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.

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

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

BOR Sequence Number (to be assigned):

Approved 2010 CIP Code No. ² (if applicable)

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)

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.

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

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)

This proposal is for a track that would be an additional path to the M.S. degree in chemistry. It does not replace the program that is currently offered. Many students who are enrolled in our program are employed by local companies. Many of these students do not have plans to pursue a further degree (Ph.D.) in chemistry. At times in their career, these students may find themselves moving into higher positions in their companies where they have managerial or administrative responsibilities which their training in chemistry does not prepare them for. As such, many current students already take courses in business as electives for their M.S. in chemistry. The Professional Science Masters in Chemistry is a new track which will allow for a greater foundation for these types of students to not only further their education in chemistry but will also enhance their background in the business area should they find themselves in a management type position. The primary learning objectives are for students to demonstrate increased knowledge for both chemistry and business areas and are addressed later in the proposal.

As applicable, please describe:

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

A recent study³ projects that by 2018 the state of Connecticut will employ 3,000 workers with bachelor's degrees in the life and physical sciences, but 6,000 workers with a graduate degree. Another study⁴ illustrates a need for additional workers in the physical sciences. Their report indicates that total number of graduates in the physical sciences in Connecticut (1.2% nationally) is significantly lower than the Connecticut workforce in the physical sciences (2.1% nationally) indicating that without an increase in degrees in the physical sciences, Connecticut companies will continue to have to recruit from outside the state.

The Battelle report² also states that Connecticut should be focusing on increasing the talent capabilities within the physical sciences at universities within the state of Connecticut. They also said that increasing proficiency in both basic and applied research within colleges and universities would be of great benefit to both students and employers. This program would help to address those needs both by encouraging students to pursue an advanced degree in chemistry which is highly desired, and also by better preparing students who will be involved in the management side of business during their careers.

- 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?

See the attached Resource Summary for projected revenue from the program. The program itself would not add any additional costs because this new degree track uses only existing coursework from the current M. S. in Chemistry and the MBA program. Both departments are able to fit the projected number of students within their current courses. Funding for recruitment has been committed by the School of Graduate Studies.

The department already possesses the majority of equipment needed for its graduate program. Jennings Hall, Room 306 was renovated several years ago to provide a high tech classroom where all of the graduate courses are currently taught. Additionally, the room contains a cart of laptops which students can use during the day to have access to ChemDraw, a chemistry drawing package that is the standard software in the field.

³ Carnevale, A. P., Smith, N., Strohl, J. Help Wanted: Projections of Jobs and Education Requirements Through 2018. Georgetown University Center on Education and the Workforce, June, 2010.

⁴ Battelle Technology Partnership Practice. Building Upon Connecticut's Core Competencies in the Knowledge Economy, May 2005.

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

Additionally, the department has an extensive set of instrumentation including: Shimadzu LCMS-2010EV, Perkin-Elmer AutoSystemXL GCMS Turbo Gold Mass Spectrometer, Shimadzu IRAffinity-1 FTIR, Perkin-Elmer 2380 Atomic Absorption Spectrophotometer, Perkin-Elmer Lambda 20 UV/Vis Spectrometer, and most recently, a Bruker 300 MHz Avance III NMR Spectrometer. The department has also just received bond fund money to purchase a microwave reactor.

- 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 we do not have any transfer agreements with other institutions. However, we will be exploring them in the near future.

- Please indicate what similar programs exist in other institutions within your constituent unit ⁵, and how unnecessary duplication is being avoided

Within the constituent unit, no Professional Science Masters degrees in chemistry are currently offered. In fact, once approved, this would be the only PSM in Chemistry available within the state of Connecticut.

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

In proposing this program, the Chemistry Department will give its students a strong educational foundation through advanced course work in chemistry and business administration as part of earning an M. S. degree. In 2009, chemists with a B.S. degree earned on average approximately \$15,000 less per year than those with an M.S. degree.⁶ Additionally, for chemists without significant work experience, the gap is even larger. Between 2000 and 2009, the difference in starting salary for inexperienced chemists with a B.S. versus an M.S. has almost tripled (\$7,600 in 2000 versus \$22,000 in 2009). One of the major benefits for this additional track is that graduating students will be able to start at higher salaries with minimal cost to themselves.

In addition to earning higher salaries, the M.S. degree will often allow for career advancement regardless of the chosen profession that is not possible with just a B.S. degree. The majority of students in the program are part-time, coming from the local chemical industry. Companies in the area regard the acquisition of a Master's Degree in Chemistry from SCSU as an appropriate degree for advancement to senior laboratory positions or management positions. However, as most students with undergraduate degrees in the sciences do not have any formal training to prepare them for the management side of the job, this degree with 18 credits in business administration courses will prepare students for management responsibilities. Finally, the earning of an advanced degree in chemistry should help make students more employable based on the current workforce needs within the state.

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.*

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The written Comprehensive Examination for the M. S. Degree in Chemistry is offered twice a year. It may be taken twice. The exam consists of sixty (60) multiple choice questions in the six core areas: ten (10) questions each in Advanced Analytical Chemistry, Advanced Inorganic Chemistry, Advanced Organic Chemistry, Advanced Physical Chemistry, Advanced Biochemistry and Advanced Environmental

⁵ Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

⁶ Starting Salaries. <http://cen.acs.org/articles/89/i11/Starting-Salaries.html> (Accessed November 16, 2011)

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

Chemistry. The student chooses two (2) Core areas in EACH of the following sub-groups:

Sub-Group #1: Organic Chemistry, Physical Chemistry, Inorganic Chemistry

Sub-Group #2: Analytical Chemistry, Biochemistry, Environmental Chemistry

Thus, the student is answering forty (40) questions. Passing the Comprehensive Examination requires 28 correct answers out of the 40 questions, with at least four correct answers in each of the four areas. If the written exam is failed the first time, it may be taken again. If the written exam is failed the second time, a student may request an oral examination before the Chemistry Faculty under the following conditions:

- a. the student scored between 20 and 27 questions correct
- b. at least four questions correct in each of the four areas.

Failure of the Comprehensive Examination twice will lead to automatic dismissal from the program. Normally the student will take the Comprehensive Exam after completing the six required core courses.

As with any graduate program, students must maintain a GPA of at least 3.0 to remain in good standing within the program.

Admissions requirements will not change from the current program.

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

As part of the current graduate programs in chemistry and business administration, all of the necessary resources that are required for this program are in place.

Other Considerations

Previous Three Years Enrollment and Completion for the Program being Modified

ACTUAL Enrollment	First Term, Year 2008-09		First Term, Year 2009-10		First Term, Year 2010-11	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Internal Transfers						
New Students	1	6	0	2	0	3
Returning Students	0	2	0	7	0	7
ACTUAL Headcount Enrollment	1	8	0	9	0	10
ACTUAL FTE per Year	4.16		4.25		4.00	
Size of Credentialed Group for Given Year	5		1		5	

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Curriculum Details for a Program Modification <i>(to be use as appropriate for specific modification request)</i> ⁷						
Course Number and Name ⁸	L.O. #	Pre-Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				Other Related/Special Requirements		
CHE 500 — Advanced Organic Chemistry I	1, 2, 3	CHE 260, 261, 370, 371 or departmental permission	3			
CHE 520 — Advanced Physical Chemistry I	1, 2, 3	CHE 370, 371	3			
CHE 532 — Advanced Inorganic Chemistry I	1, 2, 3	CHE 435	3			
CHE 540 — Advanced Analytical Chemistry	1, 2, 3	CHE 371, 440 or departmental permission	3			
CHE 550 — Advanced Biochemistry I	1, 2, 3	Graduate standing or departmental permission	3			
CHE 560 — Advanced Environmental Chemistry	1, 2, 3, 4	CHE 370, 371	3			
MBA 500 — Management Process	2b, 5		3			
MBA 502 — Statistical Decision Making	2b, 5		3			
MBA 505 — Marketing Management	2b, 5, 6		3			
MBA 537 — Product Management	2b, 6, 7		3			
MBA 548 — Operations Management	2b, 6, 7	MBA 500, 502	3			
MBA 551 — Business Ecological Sustainability	2b, 6, 7		3			
Core Course Prerequisites				Elective Courses in the Field		
Total Other Credits Required to Issue Modified Credential						36

⁷ 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.

⁸ Make any detail annotations for individual courses as needed to understand the curricular modifications taking place

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

1. Each student shall demonstrate the chemical knowledge base required for students graduating with a degree that is consistent with the requirements of the chemistry department.
 - 1 a.) Each student will be able to visualize, identify, and describe the composition of the atom and various types of matter
 - 1 b.) Each student will be able to describe the relationship between the microscopic, macroscopic, and symbolic representations of matter and its changes.
 - 1 c.) Each student will express the role of energy in: the changes of matter, the determination of the chemical structure, and the reactivity of molecules.
 - 1 d.) Each student will be able to use quantitative calculations, and qualitative judgments to apply theoretical and mechanistic principles to chemical systems.
 - 1 e.) Each student will be able to express and formulate the proper chemical nomenclature, chemical synthesis, and chemical characteristics of inorganic and organic compounds.
2. Each student shall develop the written and oral communication skills required for proper dissemination of chemical information to colleagues and the public.
 - 2 a.) Each student will be able to prepare and produce scientific written communications using the American Chemical Society style and format.
 - 2 b.) Each student will demonstrate scientific oral communication skills through poster presentations and seminar discussions.
3. Each student shall develop the analytical and critical thinking skills needed to acquire, analyze and interpret data.
 - 3 a.) Each student will demonstrate a competency and proficiency with experimental skills involved in chemical synthesis, instrumental methods, quantitative measurements and statistical data analysis.
 - 3 b.) Each student will be able to apply critical thinking and problem solving skills in the solution of chemical problems.
 - 3 c.) Each student will be able to evaluate, examine, and apply chemical content knowledge found in chemical databases, chemical libraries, and chemical journals.
4. Each student shall become aware of how chemistry affects society and the environment.
 - 4 a.) Each student will be able to express the impact that chemistry has on society by demonstrating proper safe handling of chemical compounds and chemical waste according to governmental regulations.
5. Each student will be able to list, describe, and differentiate between business foundational knowledge and skills.
6. Each student will be able to discuss and critique reports on the application of important business skills and functions.
7. Each student will be able to actively pursue an interest in specialized areas of business.

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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)

CT Board of Regents for Higher Education

ACCREDITATION OF A LICENSED PROGRAM - **RESOURCES AND COST ESTIMATES** 1/20/12 Form

Institution

SOUTHERN CONNECTICUT STATE UNIVERSITY

Date

Licensed Program

Professional Science Masters in
Chemistry

ACTUAL Enrollment	FY 2013		FY 2014		FY 2015	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Internal Transfers						
New Students (all part time)		5		5		5
Returning Students				5		10
ACTUAL Headcount Enrollment	0	5	0	10	0	15
ACTUAL FTE per Year	1.87		3.74		5.16	
PROJECTED FTE (at Licensing)	1.87		3.74		5.16	
ACTUAL-PROJECTED	0		0		0	
Size of First Credentialed Group			Date of Award of First Credential			

Estimated Program Revenue	Year 1 - FY 2013		Year 2 - FY 2014		Year 3 - FY 2015	
Please refer to detail below	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Tuition (Do not include internal transfers)		\$34,440		\$72,300		\$113,850
Program Specific Fees						\$21,240
Other Rev. (Registration Fee)	\$550		\$1,100		\$1,650	
ACTUAL Program Revenue	\$34,990		\$73,400		\$136,740	
PROJECTED Rev. (at Licensing)	\$34,990					
Dif. ACTUAL-PROJECTED	\$0		\$73,400		\$136,740	

Estimated Expenditures*	Year 1 - FY 2013		Year 2 - FY 2014		Year 3 - FY 2015	
	Number (as applicable)	Expenditure	Number	Expenditure	Number	Expenditure
Administration (Chair or Coordinator)						
Faculty (full-time, total for program)						
Faculty (Total for program)						
Support Staff						
Library Resources Program						
Equipment (List if needed)						
Other (e.g. student services)						
Estimated Indirect Cost (e.g. student services, operations, maintenance)						
Total Annual Expenditures		\$0		\$0		\$0

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

Please provide any necessary annotations:

There will be **no** additional costs incurred for this program during its first three years, as there is available capacity in currently offered graduate level Chemistry and MBA classes to absorb these additional cohorts.

CT Board of Regents for Higher Education

ACCREDITATION OF A LICENSED PROGRAM - **RESOURCES AND COST ESTIMATES** 1/20/12 Form

Revenue Detail:

		FY 2013		FY 2014		FY 2015	
		Fall 2012	Spring 2013	Fall 2013	Spring 2014	Fall 2014	Spring 2015
Number of credits to be taken:							
Chemistry		3.00	3.00	3.00	3.00	3.00	3.00
MBA		3.00	3.00	3.00	3.00	3.00	3.00
Total Credits per Semester		6.00	6.00	6.00	6.00	6.00	6.00
Rate per Credit:							
Chemistry	\$	539	\$ 539	\$ 566	\$ 566	\$ 594	\$ 594
MBA	\$	609	\$ 609	\$ 639	\$ 639	\$ 671	\$ 671
Number of Students (all Part Time) :							
Cohort 1		5	5	5	5	5	5
Cohort 2				5	5	5	5
Cohort 3						5	5
Total Students by Year		5	5	10	10	15	15
Revenue:							
Part Time Tuition	\$	17,220	\$ 17,220	\$ 36,150	\$ 36,150	\$ 56,925	\$ 56,925
Registration Fee		275	275	550	550	825	825
	\$	17,495	\$ 17,495	\$ 36,700	\$ 36,700	\$ 57,750	\$ 57,750

ITEM

Modification of programs in Comparative Literature, French, German, Italian, and Spanish leading to the Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees at the University of Connecticut to be consolidated into a single program called Languages, Literatures and Cultures

RECOMMENDED MOTION FOR FULL BOARD

RESOLVED, That the Board of Regents for Higher Education approve a modification to programs in Comparative Literature, French, German, Italian, and Spanish leading to the Master of Arts (M.A.) degree at the University of Connecticut to be consolidated into a program in Languages, Literatures, and Cultures leading to the Master of Arts (M.A.) degree to be licensed and accredited for a period of time concurrent with institutional accreditation, and be it further

RESOLVED, That the Board of Regents for Higher Education approve a modification to programs in Comparative Literature, French, German, Italian, and Spanish leading to Doctor of Philosophy (Ph.D.) degree at the University of Connecticut to be consolidated into a program in Languages, Literatures, and Cultures leading to the Doctor of Philosophy (Ph.D.) degree to be licensed and accredited for a period of time concurrent with institutional accreditation.

BACKGROUND

The University of Connecticut has requested that the Department of Literatures, Cultures and Languages offer only one single field of study with the name – “Literatures, Cultures and Languages” (LCL) – at the MA and Ph.D. levels, beginning Fall 2012. Current degree programs in Comparative Literature, French, German, Italian and Spanish will be converted to five areas of concentration starting Fall 2012. Students will receive a M.A. or Ph. D with an area of concentration in French and Francophone Studies, Italian Literary and Cultural Studies, German Studies, Spanish Studies and Comparative Literary and Cultural Studies. A sixth area of concentration in Classics and Ancient Mediterranean Studies will be added to reflect an existing division of the department.

While this action represents modification of an existing program, approval of the modification will result in administrative issuance of an additional DHE number for and accredited program to run for a period of time concurrent with institutional accreditation.

Staff review of the proposed changes indicates the program will continue to meet the standards for quality set forth in the Connecticut Regulations for Licensure and Accreditation of Institutions and Programs of Higher Learning.

RATIONALE

This change will officially codify changes that we have been implementing in the department in the past few years. Indeed, this transformation towards integration and interdisciplinarity has existed for some time now. For example, all of the department's doctoral students no matter what their particular language field are required to take two core courses (Literary Theory and Language Pedagogy). There are also interdisciplinary seminars that are taught in English (but with the possibility for students to do readings and write papers in other national languages) to students across the department. One of the main aspects of the proposal is to generalize the offering of such interdisciplinary seminars to be team taught by faculty members. In recent years, graduate seminars taught in English but utilizing source texts in ancient languages have been taught by CAMS faculty and taken by students from a variety of programs, including (but not limited to) CLCS, Medieval Studies, Judaic Studies, English, and French. Graduate students in CLCS, Medieval Studies and Judaic Studies have pursued minor and major fields of concentration in areas supervised and taught by CAMS faculty (e.g. Hellenistic Judaism, Rabbinic Judaism, Medieval Latin). There is a need to recognize and regularize the graduate engagement of CAMS faculty on a programmatic level by establishing CAMS as an area of concentration within the greater confines of LCL.

The change will enhance the involvement in graduate education of the four existing faculty members in the section of Classics and Mediterranean Studies and enable greater support for graduate students with an interest in the ancient Mediterranean world across many programs at the university, while opening up opportunities for those who wish to pursue an ancient program of study exclusively.

This change will also provide support, currently sorely lacking, for teachers of Latin within the state of Connecticut. The state of Connecticut currently offers no stand-alone terminal M.A. program in the area of Classics or Latin. The TCPCG program at the University of Connecticut is limited to current UConn undergraduates and provides only limited coursework in Latin, while the Classics program at Yale offers an MA only as a stepping stone to the Ph.D. and does not permit candidates to apply for a two-year MA. Teachers of Latin are frequently required to obtain an MA degree in an area of concentration that does not allow them flexibility to take the needed courses or enroll as non-degree students in MA-level coursework in order to obtain and preserve their certification. The present reorganization of the program in Literatures, Cultures and Languages offers an opportunity to meet that need. Enrollment in high school Latin courses across the state of Connecticut has increased significantly in recent years.¹ To compound the need, a significant proportion of Connecticut's current Latin teachers are nearing retirement age and/or the mandatory limit on years of service.² Thus the need for graduate-level training in Latin will only increase in the near future.

RESOURCES

The program will take advantage of the existing resources in the Department of Modern and Classical Languages. Costs should remain equivalent. No additional resources are required and hence no "cost-coverage plan" will be presented in this proposal.

ITEM

Modification of a program in Education with a Teaching Certificate leading to Master of Arts (M.A.) degree at the University of Connecticut-Stamford and Tri-Campus campuses to include offering the program at the Avery Point campus

RECOMMENDED MOTION FOR FULL BOARD

RESOLVED, That the Board of Regents for Higher Education approve a modification to offer an existing program in Education with a Teaching Certificate leading to Master of Arts (M.A.) degree at the University of Connecticut-Stamford and Tri-Campus locations to also be offered at the Avery Point campus for a period of time concurrent with institutional accreditation.

BACKGROUND

The University of Connecticut has requested to offer a program in Education with a Teaching Certificate leading to a Master of Arts (M.A.) degree already in operation at the Stamford and Tri-Campus campuses (DHE# 011570 and 011571). The program requires 45 graduate credits which begins with two intensive sessions during the summer then is followed by a full year of additional work, which culminates in a Master of Arts degree and the University's recommendation for certification. The program involves fieldwork, and maintains a cohort structure.

This program (referred to locally as the Teacher Certification Program for College Graduates or TCPCG) provides preparation in the following certification areas – agricultural education, biology, chemistry, earth science, English, general science, history/social studies, mathematics, physics, Special Education, and world languages.

By offering this program on the Avery Point campus, the University expects to make the program an attractive option for individuals living and working too far to commute to the Storrs campus and to increase focus on the preparation of educators for urban, diverse settings. The University of Connecticut has sufficient resources and faculty to offer this program at the Avery Point campus.

Staff review of the proposed changes indicates the program will continue to meet the standards for quality set forth in the Connecticut Regulations for Licensure and Accreditation of Institutions and Programs of Higher Learning. While this action represents modification of an existing program, approval of the modification will result in administrative issuance of an additional DHE number for and accredited program to run for a period of time concurrent with institutional accreditation.

RATIONALE

Connecticut faces shortage of secondary education teachers, and this program proposes to target students who are Bachelor degree holders in the above mentioned fields, and who would like to become certified secondary school teachers. This program has been designed to provide a more flexible pathway to teaching certification for limited numbers of well-qualified individuals who have already completed an undergraduate degree in the proper subject area.

The program is a four-semester, 45-credit program, which begins with two intensive sessions during the summer then is followed by a full year of additional work, which culminates in a Master of Arts degree and the University's recommendation for certification. Similar to the University's Integrated Bachelor and Master (IB/M) five year program, the TCPCG program involves fieldwork, and maintains a cohort structure.

This program is currently offered at the Stamford and Tri-Campus campuses (DHE# 011570 and 011571).

Historical Context

Council for Accreditation of Teacher Education (NCATE) and the Connecticut State Department of Education, all of the certification areas offered by the IB/M and TCPCG have been fully recognized by the appropriate national specialty professional associations. It is noted that the program "has made a strong effort to revise the alignment of their assessment system with the... standards and has provided multiple opportunities for teacher candidates to demonstrate mastery and to revise teacher practices in order to meet individual standards."

The joint visiting team further stated that "[t]he courses are linked to the state's teacher education program approval standards in Connecticut, which are aligned with NCATE standards, and the unit's conceptual framework. The candidates' content knowledge, pedagogical content knowledge and skills, pedagogical and professional knowledge and skills, and professional dispositions necessary to help all students learn are supported by data from key assessments showing mastery performance of candidates." And "[f]inally, as evidenced through interviews with IB/M candidates on the main campus and the TCPCG candidates on regional campuses at Waterbury and West Hartford, the candidates articulate their ability to understand the relationship between their respective content, effective teaching, and assessments of student learning."

The strong school-based curriculum and field experience practice in the IB/M program has been nationally recognized, and featured on the NCATE's website as a national model (<http://www.ncate.org/Public/Newsroom/Features/StoriesfromtheField/tabid/742/Default.aspx>).

Curriculum

The curriculum of the TCPCG program includes five components: (1) the required core courses that all students, regardless of certification area, must take, (2) subject specific courses (e.g., methods of teaching the content area), (3) two school-based seminars, (4) three field experiences (one of which is full-time student teaching), and (5) an elective, which may include additional course work in education or in the student's certification area. The specific courses required in the TCPCG program are secondary certification areas, which include agricultural education, biology, chemistry, earth science, English, French, general science, German, history/social studies, Italian, Latin, Mathematics, Physics, and Spanish. In addition, Comprehensive Special Education is offered as a certification program, with appropriate modifications to ensure appropriate experiential and content knowledge.

TCPCG secondary education curriculum

Course Category	Course Number	Title	Credits
Core Courses	EDCI 5830	Curriculum Laboratory	3
	EDCI 5875	Multicultural Education	
	EDCI 5060	Social & Multicultural Foundations of Education	3
	EDCI 5065	Learning Theories	3
	EDCI 5070	Methods of Instruction & Evaluation	3
	EDCI 5080	Reading & Literacy in the Content Areas	3
	EPSY 5108	Instruction for Students with Special Needs in the Mainstream	3
	EDCI 5825	Enhancing Classroom Curriculum with Computers and Electronic Media	3
	Subtotal		24
Subject-Specific Courses	EDCI 5085	Subject Area Methods	3
	Subtotal		3
Seminar/Clinic Courses	EDCI 5050	TCPCG Seminar I: Student Teaching Seminar	3
	EDCI 5055	TCPCG Seminar II: Teacher as Professional	3
	Subtotal		6
Student Teaching	EDCI 5090	TCPCG Directed Student Teaching	9
	Subtotal		9
Elective Course	Subtotal		3
Total Credits			45

* One elective course is selected by the student working with his/her advisor. The course may be completed through either additional graduate-level work in the certification area or in education. Three hours of advanced undergraduate course work may be used, as per Graduate School regulations.

TCPCG program sequence in secondary education

	Summer Session I	Summer Session II	Fall	Spring
Core Courses	EDCI 5060 (3) EDCI 5065 (3) EDCI 5070 (3) EDCI 5825 (3)	EDCI 5080 (3) EPSY 5108 (3)		EDCI 5875 EDCI 5830
Subject Specific Courses		EDCI 5085 (3)		
Clinical Experience		Non-credit bearing pre-student teaching school-based clinical experience	EDCI 5090 (9)	Embedded within EDCI 5830 & EDCI 5055
Seminar			EDCI 5050 (3)	EDCI5055 (3)
Electives				1 Elective Courses (3)
Total Credits	12	9	12	12

TCPCG-comprehensive special education curriculum

Course Category	Course Number	Title	Credits
Core Courses	EDCI 5060	Social & Multicultural Foundations of Education	3
	EDCI 5065	Learning Theories	3
	EDCI 5830	Curriculum Laboratory	3
	EPSY 5108	Instruction for Students with Special Needs in the Mainstream (pre requisite)	3
	Subtotal		12
Subject-Specific Courses	EPSY 5123	Instructional Strategies & Adaptations for Students with Special Learning Needs	3
	EPSY 5116	Individual Pupil Assessment	3
	EPSY 5142	Procedures for the Education of Individuals with Disordered Behaviors	3
	EPSY 5113	Language & Literacy for Students with Cognitive Disabilities	3
	EPSY 5119	Policy, Law & Ethics in Special Education (pre requisite)	3
	Subtotal		15
	EPSY 5092	Practicum	3

Seminar/Clinic Courses	EDCI 5050	TCPCG Seminar I: Student Teaching Seminar	3
	EDCI 5055	TCPCG Seminar II: Teacher as Professional	3
	Subtotal		9
Student Teaching	EPSY 5396	TCPCG Directed Student Teaching: Special Education	9
	Subtotal		9
Total Credits			45

The sequencing of the courses and fieldwork experiences for students seeking Comprehensive Special Education certification have been designed to overlap the sequencing for other TCPCG students. Students begin with two intensive summer sessions, followed by student teaching and culminating in a capstone semester (See Table 6).

TCPCG-comprehensive special education sequence*

	Summer Session I	Summer Session II	Fall	Spring
Core Courses	EDCI 5060 (3) EDCI 5065 (3) EDCI 5825 (3) EPSY 5163 (3)	EPSY 5123 (3) EPSY 5116 (3)	EPSY 5121 (3)	
Subject Specific Courses				EPSY5142 (3)
Clinical Experience		EPSY 5092 (3)	EPSY 5396 (9)	EDCI 5830 (3)
Seminar			EDCI 5050 (3)	EDCI 5055 (3)
Electives				
Total Credits	12	9	15	9

**EPSY 5108 and EPSY 5119 are pre requisite requirements for the special education track.*

Clinical Experiences

The student clinical experience will be administered by the Director of the program and articulated through the seminar class, which is the student's point of accountability for the clinic assignment. The field work component (clinic assignment) is included as part of the grade for the seminar. Clinic placements for TCPCG begin with a non credit-bearing placement during summer session II. Special education students will complete a for credit practicum experience during the same time period. In the fall and spring semesters, both groups of students continue gaining additional school-based experiences.

In particular, students will participate in a student teaching placement (nine credits) during the fall. In the spring semester, these students will participate in a clinic-based experience, where they will collaborate with 7-12 teachers to develop an inquiry project that investigates issues or concerns identified by the school.

The Director of the program will ensure that appropriate supervision and evaluation of seminar and clinic experiences is ongoing. The Director will be responsible for developing Professional Development Centers (PDCs). Agreements will be established between the University and the local school personnel, as appropriate.

ITEM

Nonsubstantive change to offer a program in Energy and Environmental Law leading to a post-baccalaureate certificate (12 credits) at the University of Connecticut Law School

INFORMATION ITEM – NO RESOLUTION IS REQUIRED

No resolution is necessary. The Regulations for Licensure and Accreditation of Institutions and Programs of Higher Learning define new graduate certificates of 12 credits or fewer to represent a non-substantive change (10a-34-2(k)), and approval by the Board is not required, although the program is reported for informational purposes (10a-34-3(e)).

BACKGROUND

The Energy and Environmental Law certificate program will provide students with the educational opportunities—both in the classroom and through experiential learning—necessary to develop substantive knowledge in energy and environmental law, as well as to strengthen their analytical, lawyering, legal research, and writing skills.

Students pursuing a certificate will create an individualized curriculum of energy and environmental course work, as well as one of the following: an advanced writing project, a clinic, or an externship with an appropriate law firm, energy company, utility, regulatory or quasi-public agency, or public interest organization.

Staff review of the proposed program indicates the program will meet the standards for quality set forth in the Connecticut Regulations for Licensure and Accreditation of Institutions and Programs of Higher Learning.

CURRICULUM

The Certificate in Energy and Environmental Law requires completion of at least twelve credits of Certificate-related coursework. The requirements are:

Administrative Law (3 credits)

One energy law course from the following group (3 credits)

- Energy Law
- Energy and Sustainability
- Renewable Energy Law in the U.S.

One environmental law course from the following group (3 credits)

- Climate Law
- Environmental Law
- Land Use
- Natural Resources Law
- Environmental and Toxic Torts
- Globalization and the Environment

One of the following supervised activities (3credits)

1. A writing project (which meets the Law School's upper-class writing requirement) under the direction of a member of the Energy or Environmental faculty
2. Participation in an energy or environmental law clinic
3. An externship in energy or environmental law, with a significant writing component, with an appropriate law firm, energy company, utility, regulatory or quasi-public agency, or public interest organization

Energy and environmental law courses may be added to or removed from these groups on a case by case basis with the approval of the Associate Dean for Academic Affairs or her/his designee.

RESOURCES

No additional funding is anticipated since the program will use resources already extant at the School of Law

ITEM

Termination of a program in Drug and Alcohol Recover Counselor leading to an Associate of Science (A.S.) degree at Tunxis Community College and a program in Criminal Justice with an Option in Drug and Alcohol Treatment leading to an Associate of Science (A.S.) degree

RECOMMENDED MOTION FOR FULL BOARD

RESOLVED, That the Board of Regents for Higher Education terminate at the request of the institution a program in Drug and Alcohol Recover Counselor leading to an Associate of Science (A.S.) degree at Tunxis Community College and a program in Criminal Justice with an Option in Drug and Alcohol Treatment leading to an Associate of Science (A.S.) degree.

BACKGROUND

Tunxis Community College is proposing discontinuing its Drug and Alcohol Recovery Counselor program after many years of successful operation, for three primary reasons:

- Career opportunities for graduates has diminished significantly in the past few years
- Low enrollment in the internship courses, which are very time intensive core courses for the program
- The cost for the college to offer these internship courses is prohibitively high at a time when budgets remain very tight.

The Regulations for Licensure and Accreditation of Institutions and Programs of Higher Learning do not require Board approval to terminate programs (10a-34-3(d)), but the Board policy for Review of Proposals and Approval of Programs in Connecticut Public Higher Education Institutions, adopted January 19, 2012, requires that program discontinuation be authorized through Board action.

5/08/12 – ConnSCU Academic Council

6/01/12 – BOR-Academic and Student Affairs Committee

PLANNING ASSESSMENTConformance with Institutional Mission

An undergraduate certificate in the area of smartphone app development is consistent with the institution's mission and current offerings and will be housed in an existing department.

Unnecessary Program Duplication

The proposed program does not unnecessarily duplicate other programs in Connecticut. Similar programs in programming exist but do not have a focus on mobile applications.

Need

Labor market projections from the Department of Labor do not provide information about computer programmers with credentials below an associate's degree.

The institution observes that mobile device programming is the fastest growing segment of the IT application development space. Programming jobs are already dramatically growing in demand as of this writing and the demand for mobile device programmers is 3 to 4 times that of general programmers. A job search on Dice.com – the leading job board for tech jobs indicates that within 40 miles of Norwalk, the following results suggest demand for the skills developed by this program:

- Java: 1866 jobs listed – 29.4% increase from 1/5/10
- .NET: 911 jobs listed – 29.0% increase
- Web: 1864 jobs listed – 44.8% increase
- C#: 956 jobs listed – 31.5% increase
- Mobile Devices: 150 jobs listed – 121% increase

Cost Effectiveness

The institution projects revenue to equal direct costs in year one and for revenue to exceed direct costs in years 2 and 3 by \$2,530 each year.

Availability of Adequate Resources

The institution maintains equipment needs are primarily testing device needs. As the devices evolve, program faculty will need to procure devices to ensure curricular integrity. No new full-time or adjunct faculty will need to be hired.

QUALITY ASSESSMENT

Purpose and Objectives

The objective of the program is to provide students with skills needed to gain entry level or higher employment as well as course work and experience that would improve on existing skills or the development of new skills. In addition, appropriate educational experiences that provide the written, verbal and interpersonal skills necessary to function as a team member in an IT environment opportunities to work in partnership with business and industry in responding to the employment and training needs in the field of information technology will be offered.

Mobile device programming is the fastest growing segment of the IT application development space. Programming jobs are already dramatically growing in demand and the demand for mobile device programmers is three (3) to four (4) times that of general programmers.

In partnership with area IT companies and area businesses that depend on IT workers, the College is pursuing a multi-pronged approach to solving the IT worker shortage, and specifically the shortage of Smartphone App Developers, that includes offering leading-edge courses as well as infusing technology into its own educational practices and curricula.

Learning Outcomes

Students who complete the Smartphone App Development Certificate program will be able to:

1. Plan, design, code, test, and debug solutions to programming problems using a variety of programming languages on multiple platforms. Assessments will include examinations, written assignments and programming exercises.
2. Create computer programs that incorporate the object-oriented principles of encapsulation, inheritance, and polymorphism.
3. Design and implement computer programs that utilize a graphical user interface.
4. Create smartphone apps utilizing the appropriate integrated development environments on multiple platforms.
5. Create advanced smartphone apps for a target platform using the appropriate tools and language.

Administration

The Program will be coordinated by the current Chair and Professor of Computer Science.

Admission

There are no additional requirements for admission beyond admission to the College.

Enrollment Projections

The College expects only part-time students to enroll in the program projecting five (5) new students to enroll in the program each year of operation.

Projected Enrollment	FY 2012-13		FY 2013-14		FY 2014-15	
	FT	PT	FT	PT	FT	PT
Internal Transfers	0	0	0	0	0	0
New Students	0	5	0	5	0	5
Continuing Students	0	0	0	5	0	5
TOTAL ENROLLMENT (est.)	0	5	0	10	0	10

Comments from Other Institutions

No comments were received in response to the State-wide circulation of the program proposal.

Curriculum

Course	Credits
Core Course Prerequisite	
MAT 136 Intermediate Algebra OR	
Placement in MAT 172 College Algebra	4
<u>Program Core Courses:</u>	
CSC 108 Introduction to Programming	4
CSC 226 Object Oriented Programming Using Java OR	4
CSC 245 Introduction to C#	4
CSC 262 Programming Mobile Devices I	4
CSC 263 Programming Mobile Devices II	4
TOTAL CREDITS (Excluding Core Course Prerequisites)	16

Resource SupportFaculty

No additional faculty will be required for the program. The faculty members identified to teach in the program possess the appropriate credentials and teaching experience to teach in the program.

Library and Learning Resources

No additional library or learning resources will be required for the program.

Facilities and Equipment

Existing facilities are sufficient to operate the program with the exception of the need to acquire testing devices.

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: Tunxis Community College

Date of Submission to BOR Office: April 26 2012

Discontinued Program: A.S. degree in Drug & Alcohol Recovery Counselor CIP: 511501 DHE# (if available): 01745
Accreditation Date: 09/01/1978

Phase Out /Teach Out Period 2012-2016 Expected Date of Program Termination June 1 2016

Program Characteristics

Name of Program: A.S. degree in Drug & Alcohol Recovery Counselor

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

Certificate: (specify type and level)

Modality of Program: On ground Online ☒ Combined

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

Institutional Contact for this Proposal:
Michael Rooke, Ph.D.

Title:
Dean of Academic
Affairs

Tel.: 860-255-3615
e-mail: mrooke@txcc.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)

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

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

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.

Tunxis Community College is proposing discontinuing its Drug and Alcohol Recovery Counselor program after many years of successful operation, for three primary reasons.

- Career opportunities for graduates has diminished significantly in the past few years
- Low enrollment in the internship courses, which are very time intensive core courses for the program
- The cost for the college to offer these internship courses is prohibitively high at a time when budgets remain very tight

The Drug and Alcohol Recovery Counselor program at TCC is one of four community colleges that offer this AS degree. Enrollment in the first year courses provides students with an introduction to the field of drug and alcohol counseling, and these courses tend to fill up to capacity. Despite interest in these first year courses however, the average enrollment for the Internship from Academic year 1999-2000 to 2011-2012 was 9 students, and the average completion of the Internship was 7 students.

The lack of interest in completing the degree may involve various factors; however, considering that the other DARC colleges do not share the same enrollment concerns, the location of the college may be a factor. This may be due to the current requirements for employment by many facilities in the area and/or lack of opportunity for employment.

For many years, the DARC degree was sufficient to obtain employment, and once employed, DARC graduates had the opportunity to fulfill the required 6,000 supervised clinical hours in the field to become Certified Drug and Alcohol Counselors (CDAC) through the State Certification Board. Therefore, the DARC degree was a terminal degree that prepared students to enter the workforce. For the majority of students pursuing this degree, the goal was not necessarily to continue on with their education, their goal was to obtain employment and work towards Certification.

Requirements for employment have become more stringent over the last several years. A majority of the treatment facilities in the community where DARC students had previously found employment now require that employees are Licensed (which requires a Masters' degree) or Certified working towards Licensure. Therefore, employment opportunities for DARC graduates have become increasingly limited. While entry level jobs are available, oftentimes these jobs are not clinical per se, and therefore the DARC graduate is unable to use those employment hours towards Certification, which generally takes three years of full time (40 hrs weekly) employment to meet the required 6,000 hours.

Finally, the internship course each fall and spring semester has attracted insufficient students to make it economically viable, given that it costs the college 50% of the fulltime program coordinator's time to teach this one course each semester. Redirecting the instructor toward teaching a broader array of courses is much more favorable given the budget reductions that we have endured.

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.)

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

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

All students who are currently identified in Banner as matriculated in the DARC program received a letter in early April 2012 informing them that the DARC program is being phased out over the next four years. Students who are still interested in pursuing this degree have been instructed to meet with the DARC Coordinator in order to map out their academics. As of fall 2012, students will no longer be able to matriculate as DARC majors. The five core DARC courses will be offered for the last time during the academic year 2012-2013, and the two - semester Internship will be offered for the last time during the academic year 2013-2014. The DARC Coordinator will work closely with these students to assure their ability to graduate with their AS degree in DARC no later than 2016.

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: Tunxis Community College

Date of Submission to BOR Office: April 26 2012

Discontinued Program: A.S. degree in Criminal Justice - Drug & Alcohol Treatment Option CIP: 430107 DHE# (if available): 12657 Accreditation Date:

Phase Out /Teach Out Period 2012-2016 Expected Date of Program Termination June 1 2016

Program Characteristics

Name of Program: A.S. degree in Criminal Justice - Drug & Alcohol Treatment Option

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

Certificate: (specify type and level)

Modality of Program: On ground Online ☒ Combined

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

Institutional Contact for this Proposal:
Michael Rooke, Ph.D.

Title:
Dean of Academic
Affairs

Tel.: 860-255-3615
e-mail: mrooke@txcc.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)

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

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

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.

Tunxis Community College is proposing discontinuing its Drug and Alcohol Recovery Counselor program and the associated option in our A.S. degree in criminal justice after many years of successful operation, for three primary reasons.

- Career opportunities for graduates has diminished significantly in the past few years
- Low enrollment in the internship courses, which are very time intensive core courses for the program
- The cost for the college to offer these courses is prohibitively high at a time when budgets remain very tight

The Drug and Alcohol Recovery Counselor program at TCC is one of four community colleges that offer this AS degree. Enrollment in the first year courses provides students with an introduction to the field of drug and alcohol counseling, and these courses tend to fill up to capacity.

The CJ Drug and Alcohol Treatment Option was developed and approved in 2003 as a collaborative effort between the DARC and CJ Coordinator to address the Department of Corrections mandate that employees working in substance abuse programs must be Licensed or Certified by 2007. The goal of this degree option was to offer an academic program for students to fulfill this requirement. However, training and education hours were made available – often free of charge - either through the Department of Mental Health and Addictions Services or within the Department of Corrections. Additionally, out of the 300 students who are CJ majors, only eleven are matriculated in this option. Therefore, this degree option no longer addresses the needs or interest of our students and since we are proposing that we close the DARC program, we will no longer be offering the DAR* courses that would be necessary to maintain this degree option.

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.)

All students who are currently identified in Banner as Matriculated in the CJ DARC Treatment Option received a letter in early April informing them that this Option is being phased out over the next four years. Students who are still interested in pursuing this degree have been instructed to meet with the DARC Coordinator in order to map out their academics. The three required DARC courses will be offered for the last time during the academic year 2012-2013, and students have until 2016 to receive this degree option.

ITEM

Reconciliation of program inventory database for public institutions with current degree and certificate program offerings

Recommendation and Report will be forthcoming prior to the June 1 meeting.

Board of Regents 2012 Campus Climate Report On Sexual Assault and Sexual Harassment

The following summary report is based on a series of campus-level forums with students, faculty and staff of the Connecticut State Colleges and Universities, using a sampling of the 17 state colleges and universities governed by the Connecticut Board of Regents for Higher Education. The intent of the campus visits was to assess the climate on Connecticut public college and university campuses regarding the issues of sexual assault and sexual harassment.

SCOPE

All four Connecticut State University campuses were visited, as were six of the 12 community colleges, for a total of 10 of the 17 institutions governed by the Board of Regents.

OBJECTIVES

1. To assess the campus communities' perception of safety regarding issues of sexual assault and sexual harassment.
2. To assess the campus communities' knowledge of policies and procedures regarding issues of sexual assault and sexual harassment.
3. To obtain feedback from the campus communities regarding what, if anything, needs to be done in response to the issues of sexual assault and sexual harassment on campus.

METHODOLOGY

The campus forums were administered by representatives of the Board of Regents, using a structured, consistent approach and a standard set of questions. One-hour meetings took place with the following groups on each campus:

- University Senate Officers
- Student Government Officers
- Human Resources and/or Student Affairs staff
- Open forums with faculty, students and staff

RESULTS

1. It was determined that policies, protocols, and procedures are in place on the campuses of the Connecticut State Colleges and Universities System to address and respond to sexual assault and sexual harassment issues. Central to such policies is "zero tolerance" for perpetrators of sexual assault and sexual harassment.
2. Students, faculty, and staff have a general knowledge of sexual assault and sexual harassment policies and procedures. Information is routinely disseminated through print and electronic means ranging from employee orientations to residence hall sessions.
3. Policies and practices are in place to support victims of sexual assault and harassment, including appropriate confidentiality, response teams, and clear response protocols.
4. Students, faculty, and staff are in general agreement that Connecticut's State College and University campuses are safe.
5. There is also agreement that the college and university administrations have been responsive to incidents of sexual assault and harassment on their campuses.

CONCLUSIONS AND RECOMMENDATIONS

1. While policies and procedures regarding sexual assault and sexual harassment are in place on Connecticut State Colleges and Universities campuses, and various communication strategies exist to inform the campus communities of those policies and procedures, such communications can be expanded and enhanced.

The consensus is that a multiplicity of communication media and techniques should be utilized, including print, electronic media, face-to-face meetings, and other means. The use of both English and Spanish language informational materials is also recommended to ensure the broadest reach and effectiveness of communications. In addition, the possibility of using National Domestic Violence Awareness Month each October to focus attention on the issues of sexual assault and sexual harassment should be considered.

2. Additional training for all members of the campus communities is also recommended to ensure campus-wide knowledge and understanding on the following topics:
 - a. What constitutes sexual assault and sexual harassment?
 - b. What services on our campuses exist in support of the victims of sexual assault and sexual harassment?
 - c. What should someone do if (1) they are the victim of a sexual assault or sexual harassment or if (2) a member of the campus community comes to them and reports an incidence of sexual assault or sexual harassment?
3. Appropriate resources should be made available by the Board of Regents to improve communication and training regarding sexual assault and sexual harassment on the Connecticut State Colleges and Universities campuses.
4. An assessment strategy should be developed to determine the effectiveness of each campus's plans to deal with sexual assault and sexual harassment, and to share best practices across the Connecticut State Colleges and Universities.

May 2012