

BOARD OF HIGHER EDUCATION
REQUEST FOR COMMITTEE AND BOARD ACTION

COMMITTEE: Academic Affairs

NO: AAC 15-13

COMMITTEE DATE: December 2, 2014

BOARD DATE: December 9, 2014

**APPLICATION OF BUNKER HILL COMMUNITY COLLEGE TO AWARD THE
CERTIFICATE IN PARAMEDIC STUDIES AND THE ASSOCIATE IN SCIENCE IN
PARAMEDIC STUDIES**

MOVED: The Board of Higher Education hereby approves the application of **Bunker Hill Community College** to award the **Certificate in Paramedic Studies and the Associate in Science in Paramedic Studies**.

Upon graduating the first class for this program, the College shall submit to the Board a status report addressing its success in reaching program goals as stated in the application and in the areas of enrollment, curriculum, faculty, resources, and program effectiveness.

Authority: Massachusetts General Laws Chapter 15A, Section 9(b)

Contact: Winifred M. Hagan, Ed.D.
Assistant Commissioner for Academic and Educator Policy

BOARD OF HIGHER EDUCATION

December 2014

Bunker Hill Community College Certificate in Paramedic Studies and Associates in Science in Paramedic Studies

INTENT AND MISSION

The proposed Paramedic Studies Certificate and Associate in Science in Paramedic Studies Program is aligned with Bunker Hill Community College (BHCC) priorities by being designed to create pathways and partnerships to promote student success. The proposed program meets this goal by preparing students in acquiring the skills to obtain employment in either the public or private sector upon successful completion of the program. The Certificate in Paramedic Studies has also been designed and aligned to identify and close workforce gaps by meeting current and future needs of employers in the delivery of Advanced Pre-Hospital Emergency Medical Care.

The intent of the proposed program is to train currently certified and practicing Basic Emergency Medical Technicians to become professionally competent, entry-level Paramedics. It is intended that students will acquire the skills and knowledge necessary to work in a pre-hospital environment under the supervision of a physician.

The proposed program has obtained all necessary governance approvals on campus and was approved by the Bunker Hill Community College Board of Trustees on June 23, 2014. The required letter of intent was circulated on June 26, 2014. No comments were received.

NEED AND DEMAND

National and State Labor Market Outlook

BHCC reports that well trained Paramedics are in high demand throughout the Greater Boston Area and the Commonwealth of Massachusetts. Cataldo Ambulance Service based in Somerville hires about one hundred fifty EMTs per year and five Paramedics per month or fifty to sixty Paramedics per year. Fallon Ambulance based in Quincy hires about twenty five Paramedics per year. Armstrong Ambulance Service based in Arlington, hired over twenty Paramedics last year. Contributing to these high numbers of new hires is the high turnover. It is expected that EMT's turnover every two years and Paramedics turnover every three years.

Student Demand

BHCC expects that the shortage of nationally accredited Paramedic programs in Massachusetts (there are only two) has created a strong market demand. A majority of public safety & municipal agencies hire only those who are certified at the Paramedic level.

OVERVIEW OF PROPOSED PROGRAM

It is planned that The Dean of Science, Engineering and Health Programs will have responsibility for administration of the Paramedic degree and certificate programs and the Department Chair of Emergency Medical Studies/Program Director will have oversight of the program. It is expected that the Program Director will be responsible for preparing the Self Study for initial program certification from the Committee on Accreditation of Education Programs for the Emergenc Medical Services Profession (CoAEMSP). The Program Director will also be responsible for program implementation, duties associated with accreditation and instructional duties.

Duplication

There are only two other similar programs in Massachusetts that are currently accredited. The PRO EMS Center for Medics/Mount Auburn Consortium for Paramedic Education, in Cambridge, Massachusetts and a para-medicine program at Springfield College in Springfield, Massachusetts

ACADEMIC AND RELATED MATTERS

Admission

Admission to the Paramedic Certificate and AS program requires current certification as a Massachusetts National Registry of Emergency Medical Technician-Basic¹ with at least one year of experience. Requiring a student to be currently certified and practicing as an EMT-B prior to being eligible to attend a Paramedic program functions as a gateway to advancement. Once a student has attained the acumen necessary to function as an EMT-B, the transition to learning advanced patient assessment and management of critical patients is more accessible for the student who has a foundation in essential basic patient assessment and management.

Program Enrollment Projection

	# of Students Year 1	# of Students Year 2	# of Students Year 3	# of Students Year 4*
New Full Time				
Continuing Full Time				
New Part Time	20	20	40	40
Continuing Part Time				
Totals	20	20	40	40

¹ Certification as an Emergency Medical Technician-Basic (EMT-B) consists of completing a 150 hour course consisting of lecture and practical skill stations involving a myriad of both medical & traumatic emergencies. Upon successful completion, a student will received a Certificate with seven (7) earned credits and will be eligible to take the Massachusetts/National EMT Certification examination.

Curriculum (Attachment A)

The major courses in the proposed curriculum for the certificate program are the same as those proposed for the degree program. The Associate degree includes additional courses that fulfill the general education requirements necessary for

Clinical and Field Practicum

Clinical affiliations and agreements with area hospitals will allow students to apply the knowledge and skills they have obtained in the classroom, by providing care to patients. Field Affiliation agreements with private and municipal ambulance services in the local area will provide students with opportunities to apply the knowledge and skills acquired in the classroom and clinical practicum by providing care to patients in pre-hospital situations.

RESOURCES AND BUDGET

Fiscal (Attachment B)

BHCC plans to commit the required resources to implement an accredited² Paramedic Studies program, including the hiring of a full-time program director, adjunct faculty and any specific supplies necessary to conduct the Program.

Faculty and Administration (Attachment C)

BHCC plans that a full time faculty position will serve as program director for the proposed program and qualifications will include a nationally registered or Massachusetts certified paramedic with a minimum baccalaureate degree and five years of experience. Additionally, it is expected that eight part time faculty members with Emergency Medical Technician-Paramedic certification and a minimum of two years experience will serve as seminar and clinical instructors.

Facilities, Library and Information Technologies

A grant from the U.S. Department of Labor's Trade Adjustment Assistance Community College Career and Training program to the Northeast Resiliency Consortium provides the proposed program with instructional facilities, laboratories, equipment and supplies.

Affiliations and Partnerships

The BHCC Paramedic Studies Advisory Committee is comprised of individuals from private and public advanced pre-hospital providers, registered nurses, physicians and governmental officials. Their role is to provide feedback concerning the program's curriculum and resources relative to the demands and expectations of the labor market. The advisory also provides guidance regarding the effectiveness of the program's curriculum and assistance in locating opportunities for student practicum and employment.

² Committee on Accreditation of the Educational Programs for the Emergency Medical Profession(CoAEMSP)

Advisors assist in securing material resources for the program and help to gain and maintain the support and involvement of the community.

PROGRAM EFFECTIVENESS

Goal	Measurable Objective	Strategy for Achievement	Timetable
Number of students receiving passing grade and eligible to take the NREMT-P written and practical examination	Each student is assessed for identified paramedic terminal competency for skills through attendance, skills demonstration, quizzes, exams, and final grade	Comparison of number of students that receive passing grade for the Program and are eligible to take the NREMT-P written and practical examination.	End of Program
Number of students that sit for and pass the NREMT- P written and practical examination	List of students who passed examination the NREMT-P written and practical examination	Comparison of number of students that passed the NREMT-P examination vs. those students who took the examination.	Three (3) months after completion of the of Program
Effectiveness of curriculum	Student evaluation Retention rate Medical Director's evaluation	Feedback from students Improved retention Pass rate/Semester Evaluation by Medical Director.	End of each semester
Use of Paramedic training to obtain employment	Six (6) month analysis to ascertain how many students are currently employed as a Paramedic.	Development of a data base to track use of Paramedic training for student employment.	Six (6) months after completion of Program
Training equipment	All equipment must be in good working condition	Instructor Coordinator will test all equipment and supplies prior to commencement of each semester and either replace or repair defective equipment.	One (1) month prior to the commencement of classes
Medical Library	BHCC maintains a health and medical reference section. BHCC is a member of NOBLE. Students have access to all consortium materials	Program Director will review selections for current and updated materials	Annually
Audio-visual and software materials	Program has complete sets of audio-visual equipment pertinent to paramedic instruction	Program Director will review selections relevancy to provide for a variety of presentation modalities.	Annually
Computer Resources	BHCC Academic Computing Center (ACC) has in excess of 250 personal computers. All students may use the center's resources	Instructor Coordinator of the Program will provide students with information on location of the AAC and use of computers.	First Semester
Text book	Reviewed for appropriate reading level	Program Director will review & compare texts	Annually

	and content		
Faculty evaluation	Dean's evaluation of teaching methods Student's evaluation Student retention Success rate	Assessment of faculty to assess s teaching effectiveness. Feedback from students. Improved retention rate Pass rate/Semester. Percentage of students who pass the NREMT-P written and practical examinations	Each semester
Student's ability to function as a competent entry-level paramedic	NREMT-P pass rate Graduate survey Job placement rate	Review outcomes to assess effectiveness of Program	Annually

EXTERNAL REVIEW AND INSTITUTIONAL RESPONSE

The proposed program was externally reviewed by Nancy Brubaker, Para-medic, Program Director and Professor for Paramedic Education at New Hampshire Technical Institute in Concord, New Hampshire and Keith Wilding, MA.T., EMT, Senior Paramedic at Fallon Ambulance Service and Lead Instructor for the Paramedic Emergency Medicine degree program at New Hampshire Technical Institute in Concord, New Hampshire.

The review team found the proposed program to be consistent with the academic mission of BHCC and to address an area of significant public need. The reviewers noted that the proposed program has a coherent design that covers national and state requirements. The reviewers also found the curriculum content to have depth and breadth with an appropriate sequencing of courses in a sensible progression. There was concern that the initial clinical experience may be premature in coming before cardiology and pharmacology course work and offered concurrently with didactic coursework.

BHCC responded in appreciation for the detailed review and suggestions. BHCC offered that there are two methodologies in conducting a paramedic program. The decision to sequence four clinical rotations concurrently with each learning module is believed by BHCC to provide students with the greatest opportunity to apply newly learned concepts and skills. BHCC also responded that this methodology allows students to gradually assimilate into the clinical environment, building on knowledge, experience and confidence throughout the program.

STAFF ANALYSIS AND RECOMMENDATION

Staff thoroughly reviewed all documentation submitted by **Bunker Hill Community College** and external reviewers. Staff recommendation is for approval of the proposed **Certificate in Paramedic Studies and the Associate in Science in Paramedic Studies** program.

ATTACHMENT A: CURRICULUM OUTLINE

Certificate in Paramedic Studies

Required (Core) Courses in the Major (Total # courses required = 9		
<i>Course Number</i>	<i>Course Title</i>	<i>Credit Hours</i>
EMS205	Principles of Paramedicine I	10
EMS206	Principles of Paramedicine II	4
EMS207	Principles of Paramedicine III	4
EMS208	Principles of Paramedicine IV	10
EMS214	Paramedic Clinical Rotation I	3
EMS215	Paramedic Clinical Rotation II	1
EMS216	Paramedic Clinical Rotation III	1
EMS217	Paramedic Clinical Rotation IV	3
EMS218	Paramedic Field Internship	3
	Sub Total Required Credits	39
Elective Courses (Total # courses required = 2) (attach list of choices if needed)		
	Arts and Humanities, including Literature and Foreign Languages	0
	College Writing ENG111: College Writing I, (3 credits)	3
	Mathematics and the Natural and Physical Sciences BIO108: Human Biology & Lab (4 credits)	4
		0
	Sub Total General Education Credits	7
Curriculum Summary		
	Total number of courses required for the degree	11
	Total credit hours required for degree	46

Associate in Science in Paramedic Studies

Required (Core) Courses in the Major (Total # courses required = 9)		
Course Number	Course Title	Credit Hours
EMS205	Principles of Paramedicine I	10
EMS206	Principles of Paramedicine II	4
EMS207	Principles of Paramedicine III	4
EMS208	Principles of Paramedicine IV	10
EMS214	Paramedic Clinical Rotation I	3
EMS215	Paramedic Clinical Rotation II	1
EMS216	Paramedic Clinical Rotation III	1
EMS217	Paramedic Clinical Rotation IV	3
EMS218	Paramedic Field Internship	3
Sub Total Required Credits		39
Elective Courses (Total # courses required = 2) (attach list of choices if needed)		
<u>World View</u> Area 3	Macroeconomics I, Macroeconomics II, World Regional Geography, Western Civilization from the Renaissance, World Civilization to 1500, World Civilization from 1500, US History: Colonization through Civil War, US History: Reconstruction to the present, Introduction to Mass Media, World Religions, Religions of the Middle East. (3 credits each)	3
<u>Humanities</u> Area 6	Film as Art, American Cinema, Honors Seminar, American Culture, All Literature Courses, Music Appreciation I, Music Appreciation II, Rock & Roll History, Acting I, Drawing I, Art History I, Art History II, Painting I, Watercolor I, Printmaking I, Introduction to Digital Photography, All 102 Level Language Courses. (3 credits each)	3
Sub Total Elective Credits		6
Distribution of General Education Requirements		# of Gen Ed Credits
Attach List of General Education Offerings (Course Numbers, Titles, and Credits)		
Arts and Humanities, including Literature and Foreign Languages		0
College Writing ENG111: College Writing I, (3 credits); ENG112: College Writing II (3 credits)		6
Mathematics and the Natural and Physical Sciences MAT181: Statistics (3 credits) BIO108: Human Biology & Lab (4 credits)		7
Social Sciences PSY101: Principles of Psychology (3 credits)		3
Sub Total General Education Credits		16
Curriculum Summary		
Total number of courses required for the degree		16
Total credit hours required for degree		61

ATTACHMENT B: BUDGET

One Time/ Start Up Costs	Cost Categories	Annual Expenses			
		Year 1	Year 2	Year 3	Year 4
	Full Time Faculty (Salary & Fringe)	\$75,040.96	\$77,667.35	\$80,385.70	\$83,199.20
	Part Time/Adjunct Faculty (Salary & Fringe)	\$ 22,500.00	\$22,500.00	\$22,500.00	\$22,500.00
	Staff	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
	General Administrative Costs	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00
	Instructional Materials, Library Acquisitions	\$ 6,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00
	Facilities/Space/Equipment	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
	Field & Clinical Resources	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
	Marketing	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00
	Other (Specify) Clinical Coordinator Field Coordinator	\$ 10,500.00 \$ 10,500.00	\$10,500.00 \$10,500.00	\$10,500.00 \$10,500.00	\$ 10,500.00 \$ 10,500.00
X	Tables, Chairs, IT equipment	\$ 20,000.00	\$ 0.00	\$ 0.00	\$ 0.00
	TOTALS	\$128,540.96	\$108,167.35	\$110,885.70	\$113,699.20

One Time/Start-Up Support	Revenue Sources	Annual Income			
		Year 1	Year 2	Year 3	Year 4
X	Grants: U.S. Department of Labor's Trade Adjustment Assistance Community College Career and Training (TAACCCT) program to the Northeast Resiliency Consortium (NRC).	\$251,225.75	\$ 10,000.00	\$ 10,000.00	\$ 0.00
	Tuition	\$109,980.00	\$219,960.00	\$219,960.00	\$219,960.00
	Fees	\$ 65,660.00	\$131,320.00	\$131,320.00	\$131,320.00
	Departmental				
	Reallocated Funds				
	Other (specify)				
	TOTALS	\$426,865.75	\$461,280.00	\$461,280.00	\$451,280.00

ATTACHMENT C: FACULTY FORM

Summary of Faculty Who Will Teach in Proposed Program							
Name of faculty member (Name, Degree and Field, Title)	Check if Tenured	Courses Taught Put (C) to indicate core course. Put (OL) next to any course currently taught online.	Number of sections	Department of Emergency Medical Studies	Full- or Part-time in Program	FT/ PT in other department or program (Please specify)	Sites where individual will teach program courses
Cardellicchio, Nicholas J. J.D., Paramedic Assistant Professor	<input type="checkbox"/>	• Principles of Paramedicine I (C)	1	Day	Full-Time	No	• Chelsea Campus
Cardellicchio, Nicholas J. J.D., Paramedic Assistant Professor	<input type="checkbox"/>	• Principles of Paramedicine II (C)	1	Day	Full-Time	No	• Chelsea Campus
Cardellicchio, Nicholas J. J.D., Paramedic Assistant Professor	<input type="checkbox"/>	• Principles of Paramedicine III (C)	1	Day	Full-Time	No	• Chelsea Campus
Cardellicchio, Nicholas J. J.D., Paramedic Assistant Professor	<input type="checkbox"/>	• Principles of Paramedicine IV (C)	1	Day	Full-Time	No	• Chelsea Campus
Clinical Hospital Preceptors (TBD)	<input type="checkbox"/>	• Paramedic Clinical Rotation I (C)	1	Day	Part-Time	No	• Off Campus
Clinical Hospital Preceptors (TBD)	<input type="checkbox"/>	• Paramedic Clinical Rotation II (C)	1	Day	Part-Time	N	• Off Campus
Clinical Hospital Preceptors (TBD)	<input type="checkbox"/>	• Paramedic Clinical Rotation III (C)	1	Day	Part-Time	No	• Off Campus
Clinical Hospital Preceptors (TBD)	<input type="checkbox"/>	• Paramedic Clinical Rotation IV (C)	1	Day/Evening	Part-Time	No	• Off Campus
Pre-Hospital Paramedic Field Preceptors (TBD)	<input type="checkbox"/>	• Paramedic Field Internship (C)	1	Day/Evening	Part-Time	No	• Off Campus