

BOARD OF HIGHER EDUCATION
REQUEST FOR COMMITTEE AND BOARD ACTION

COMMITTEE: Assessment and Accountability **NO.:** AAC 06-14

COMMITTEE DATE: June 8, 2006

BOARD DATE: June 15, 2006

MOVED: The Board of Higher Education hereby approves the request of **Bunker Hill Community College** to award the **Associate in Science in Respiratory Therapy**.

One year after graduating the program's first class, 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: Aundrea Kelley, Associate Vice Chancellor for Academic Policy

BOARD OF HIGHER EDUCATION

June 2006

Bunker Hill Community College

Associate in Science in Respiratory Therapy

INTENT, MISSION AND NEED

Bunker Hill Community College (BHCC) has submitted an expedited proposal to offer an Associate in Science in Respiratory Therapy (ASRT). The proposal was developed in response to a projected statewide workforce development need and local health care institution requests for licensed respiratory therapists. BHCC was approached by representatives from Partners HealthCare System in January 2004, asserting a need for respiratory therapists. BHCC subsequently surveyed hospitals in eastern Massachusetts and confirmed a significant call for respiratory therapists. Two consultants were retained to develop the curriculum, which was approved through the College's Governance I process in the summer of 2005. The proposed program received BHCC board of trustees' approval on March 27, 2006.

Building upon the existing health professions offerings at BHCC, the proposed program intends to offer an affordable, accredited, associate degree program for career preparation for entry into the profession of respiratory therapy. Graduates will be competent, advanced-level respiratory therapists and will be eligible to take national credentialing examinations to apply for Massachusetts licensure and to seek employment as respiratory therapists.

This proposed program is consistent with BHCC's mission of offering career preparation programs for entry into allied health fields as well as the institution's mission of involvement with area businesses and industries. In planning and designing this proposed program, BHCC has collaborated with major hospitals and medical centers in Boston, including Massachusetts General Hospital, Brigham and Women's Hospital, and Spaulding Rehabilitation Hospital Network. These institutions submitted letters of support confirming the need for licensed respiratory therapists and agreeing to be primary clinical affiliates.

Demand

Local, state and national employment indicators substantiate the availability of employment opportunities in respiratory therapy. In general, due to significant expansion in the population of middle-aged and elderly individuals, there will be a rise in the incidence of cardiopulmonary disease, increasing the need for respiratory therapists in their role of disease prevention, early detection, and treatment of pulmonary disorders.

In the College's survey of hospitals, thirteen indicated a need for respiratory therapists, and nine presented data arguing that this need would persist over the next five years. The employment data for respiratory therapists, according to the *Commonwealth of Massachusetts Employment Projections 2000 to 2010*, show an increase of 28% (610) in new positions and 550 replacement openings. Nationally, employment of respiratory therapists is expected to increase by 18% to 26% through the year 2014.

A respiratory therapy program at BHCC would be the only such program at a public institution of higher education in Boston or the immediate surrounding communities. A strong demand exists for BHCC's health professions programs such that the number of applications received each year exceeds the enrollment capacity. The proposed program will provide students with an additional career alternative to those already offered at BHCC.

CURRICULUM (Attachment A)

Seventy credits will be required to complete the proposed respiratory therapy program: 42 credits in major courses and 28 credits in general education. The 42 major credits are dedicated to didactic, laboratory, and clinical practice coursework specific to the discipline. The program will utilize Massachusetts General Hospital, Brigham and Women's Hospital and Spaulding Rehabilitation Hospital Network as clinical affiliates.

The curriculum is based on nationally accepted curriculum standards outlined by the National Board for Respiratory Care (NBRC) and the Advanced Respiratory Therapist examinations. BHCC will seek national accreditation, following Board of Higher Education approval of the proposed program.

ADMISSION AND ENROLLMENT

The proposed program will admit students through a selective admissions process. Successful applicants will have a high school diploma or GED certificate; one year of high school algebra or equivalent college course with a grade of C or better, or the equivalent placement; and one year of high school biology or equivalent college course with a grade of C or better. It is anticipated that the proposed program will admit 15 students on an annual basis each fall semester. The proposed program is designed to be completed by a full-time student in 21 months, encompassing four regular semesters and the summer semester.

It is anticipated that students will start enrolling in fall 2007. The students served by this proposed program will be those in the general population of the College and similar to students served by the other health professions programs. Approximately 60% of BHCC's students are women, and 60% are persons of color. Approximately 37% of students reside in the city of Boston, and 84% live within ten miles of the College campuses.

RESOURCES AND BUDGET (Attachment B)

BHCC states that it is prepared to commit the faculty positions and budgetary allocations necessary to implement a high-quality, externally accredited respiratory therapy associate degree program and that all necessary instructional and laboratory facilities, equipment and supplies will be in place by program start.

Human Resources

BHCC intends to hire a full-time Program Director, a full-time Director of Clinical Education, a part-time Medical Director, and part-time clinical instructors. The Program Director will teach professional courses and oversee program planning and development. The Director of Clinical Education will teach professional courses and manage student clinical experiences. The Medical Director will ensure physician instructional involvement with the students and that the medical components of the curriculum meet current standards of medical practice. The clinical faculty will be responsible for providing students with clinical instruction/supervision and evaluating students' clinical competence.

An advisory committee will meet at least annually to assist the program in formulating and periodically revising appropriate goals and learning domains.

Library and Physical Resources

Due to the existing nursing and allied health professions programs currently offered at BHCC, the library has holdings relevant to the proposed respiratory therapy program. The budget for the proposed program includes funding to supplement the holdings with references, periodicals and instructional media specifically to support the proposed program.

An existing laboratory will be designated for use by the proposed respiratory therapy program to provide work stations. There is sufficient storage to house the equipment and supplies needed by the program. Equipment, such as manikins and an electrocardiography machine, is available to be shared from the other health professions programs, thereby reducing the amount of new equipment to be purchased. However, the budget does allow funding to purchase the new equipment needed by the proposed program.

PROGRAM GOALS AND OBJECTIVES

The program goals and subsequent assessment of program effectiveness will be based on the Commission on Accreditation of Allied Health Education Programs' (CAAHEP) standards and guidelines for accreditation. BHCC identified five major program goals along with measurable objectives for the proposed respiratory therapist degree program:

Goal	Measurable Objectives
1. Prepare graduates to be competent advanced-level respiratory therapists	100% of graduates will pass the CRT examination within two attempts, 100% will meet the examination requirements for Massachusetts licensure, and 50% will obtain the RRT credential within three years of graduation
2. Assist in meeting demand for respiratory therapists	70% of graduates will be employed full- or part-time in respiratory therapy or a related field and/or continuing their education and/or be in the military within 12 months of graduation
3. Offer students an additional “road to success”	Attrition from the program will be no more than 30% over a three-year average
4. Offer an affordable, accredited program	Tuition and fees will remain affordable, the curriculum will lead to the Associate in Science degree, and the program will be accredited by CAAHEP
5. Expand cultural competency in respiratory therapy	Students will have an understanding of cultural diversity and appreciation for the value diversity adds

LETTER OF INTENT

In response to the March 2006 circulation of the letter of intent, comment letters in support of the proposed Associate in Science in Respiratory Therapy were received from Massachusetts Bay Community College and from the University of Massachusetts Boston. Massachusetts Bay Community College’s letter supported BHCC’s efforts to respond to the continuing demand for respiratory therapists, especially in the Boston area. The letter from the University of Massachusetts Boston also confirmed the need for licensed respiratory therapists and commended the BHCC proposal.

EXTERNAL REVIEW

The proposal was reviewed on March 31, 2006, at Bunker Hill Community College by an external team comprising Peter W. Kennedy, Ph.D., RRT, Chair, Department of Health Sciences, Director of Respiratory Care, University of Hartford; and Joanne W. Jacobs, MA, RRT, AE-C, Director, CardioRespiratory Care Program, Community College of Rhode Island.

Reviewer Findings

The reviewers noted the consistency of the proposed program with the mission of the College, the high need for and interest in the program, a coherent and balanced curriculum, appropriate levels of planned personnel, a sound program evaluation plan, and a strong commitment of the College’s resources. The reviewers were impressed by

the tone of the campus and found the administrators and clinical directors with whom they spoke to be very well-informed and highly supportive of the proposed program. They noted that once program faculty were hired, faculty would have to determine the format for clinical instruction at the sites. The reviewers also pointed out that students would need access to practice lengthy clinical simulations on computers.

Response

BHCC responded that once hired, the Director of Clinical Education would manage student clinical experiences and that the hiring of three clinical instructors would bring the student to faculty ration to no more than 5:1, which is within the parameters of effective clinical education. BHCC noted that there are computer resources available to students to allow individual student practice time under faculty guidance.

STAFF ANALYSIS AND RECOMMENDATION

Following thorough review of all documentation provided, staff concurs with the report of the external reviewers that the design of the program will accomplish the program's goals and purposes and that it will respond to the demand for respiratory therapists in the Boston area.

Recommendation is for approval. One year after graduating the program's first class, the institution 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.

Attachment A – Curriculum Outline

Bunker Hill Community College Associate in Science Degree in Respiratory Therapy

Major Required (Core) Courses (# Total courses required = 15)		
Course Number	Course Title	Credit Hours
RTH101	Principles of Respiratory Therapy I	4
RTH111	Modalities of Respiratory Therapy I	2
RTH121	Clinical Practice in Respiratory Therapy I	2
RTH132	Respiratory Therapy Pharmacology	1
RTH102	Principles of Respiratory Therapy II	4
RTH112	Modalities of Respiratory Therapy II	2
RTH122	Clinical Practice in Respiratory Therapy II	2
RTH134	Cardiopulmonary Physiology	2
RTH201	Principles of Respiratory Therapy III	4
RTH211	Modalities of Respiratory Therapy III	3
RTH221	Clinical Practice in Respiratory Therapy III	4
RTH232	Cardiopulmonary Diseases	2
RTH202	Principles of Respiratory Therapy IV	4
RTH212	Modalities of Respiratory Therapy IV	2
RTH222	Clinical Practice in Respiratory Therapy IV	4
	Sub Total Core Credits	42
Other Required Courses in Related Subject Areas (# Total courses required = 0)		
Course Number	Course Title	Credit Hours
	Sub Total Related Credits	0
Elective Courses (# Total courses required = 0)		
Course Number	Course Title	Credit Hours
	Sub Total Elective Credits	0
Distribution of General Education Requirements		# of Credits
Attach List of General Education Offerings (Course Numbers, Titles, and Credits)		
Arts and Humanities, including Literature and Foreign Languages		
ENG111	College Writing I	3
ENG112	College Writing II	3
Mathematics and the Natural and Physical Sciences		
BIO203	Anatomy/Physiology/Lab I	4
MAT173	Contemporary Math II	3
BIO204	Anatomy/Physiology/Lab II	4
CHM110	Chemical Science I/Lab	4
BIO205	Microbiology	4
Social Sciences		
PSY101	Principles of Psychology	3
	Sub Total General Education Credits	28
Curriculum Summary		
	Total number of courses required for the degree	23
	Total credit hours required for degree	70
Prerequisite or Other Additional Requirements:		

Attachment B – Budget

<i>One Time/Start Up costs</i>		<i>Annual Expenses</i>			
		Year 1 FY08	Year 2 FY09	Year 3 FY10	Year 4 FY11
	Cost Categories				
47,856	Full-time Faculty (Salary and Fringe)	171,250	168,662	173,722	178,934
	Part-time/Adjunct Faculty (Salary and Fringe)	52,240	138,287	142,436	146,709
	Staff				
	General Administrative Costs				
	Instructional Materials, Library Acquisitions	4,000	3,000	3,000	3,000
	Facilities/Space/ Equipment	30,000	7,000	5,000	5,000
	Field and Clinical Resources				
5,000	Marketing	3,000	2,000	2,000	2,000
1,800	Other (Specify) Accreditation Fees	0	1,500	4,000	2,000
54,656	TOTALS	260,490	320,449	330,158	337,643
	Revenue Sources	Year 1	Year 2	Year 3	Year 4
	Grants				
	Tuition	13,560	21,600	21,600	21,600
	Fees	44,900	72,390	72,390	72,390
	Departmental				
	Reallocated Funds				
	Other (Specify)				
	TOTALS	58,460	93,990	93,990	93,990