BOARD OF HIGHER EDUCATION

REQUEST FOR COMMITTEE AND BOARD ACTION

COMMITTEE: Assessment and Accountability **NO**.: AAC 08-24

COMMITTEE DATE: June 13, 2008

BOARD DATE: June 25, 2008

MOVED: The Board of Higher Education hereby approves the application of **Bunker Hill Community College** to award the **Associate in Science in Clinical Laboratory Science.**

Upon graduating the first class for this program, Bunker Hill Community College shall submit to the Department 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 2008

Bunker Hill Community College
Associate in Science in Clinical Laboratory Science

INTENT AND MISSION

On February 29, 2008, Bunker Hill Community College (BHCC) submitted an expedited application to offer the Associate in Science in Clinical Laboratory Science (CSL). The purpose of this degree is to train individuals to become Clinical/Medical Laboratory Technicians. The program would provide students in other medical-related programs at the College the opportunity to obtain a recognized national credential and offer career advancement options for current workers at local health care facilities.

A consortium of three local hospitals – Beth Israel Deaconess Medical Center, Children's Hospital and New England Baptist Hospital – approached the College about the urgent need for CLC trained graduates, as indicated by current and projected labor shortages. Collaboration with local area employers to offer programs that prepare students preparation for entry-level positions is consistent with the mission of community colleges to provide accessible and relevant academic programs. The hospitals and BHCC submitted a proposal to the Workforce Competitiveness Trust Fund that was funded by the Commonwealth Corporation in June 2007. The College used the grant funds to hire a consultant t to develop the curriculum. On February 25, 2008, the BHCC Board of Trustees approved the proposed program. A Letter of Intent was circulated on April 3, 2008.

NEED AND DEMAND

In its second quarter 2006 report, the Massachusetts Department of Workforce Development listed the 5.9 percent vacancy rate for Clinical/Medical Laboratory Technicians/Technologists as among the highest job vacancy rates statewide. According to the Bureau of Labor Statistics, Massachusetts has the fourth highest concentration of CLS-related positions, with the Boston/Cambridge/Quincy area cited as possessing the highest number of positions in the field. An aging workforce is expected to exacerbate the critical need for CLS trained individuals. As the only Clinical Laboratory Sciences associate degree in greater Boston area, the proposed degree would help address current and anticipated future labor shortages.

ADMISSION AND ENROLLMENT

Initially, 25 students for the proposed program will be recruited from incumbent workers at sponsoring hospitals, Beth Israel Deaconess Medical Center, Children's Hospital and New England Baptist, as part of the Workforce Grant Program. After this initial cohort, students will be recruited from a variety of target populations – former BHCC certificate completers who are working in laboratory positions, incumbent workers at health care facilities, current BHCC science majors and high school students – with an entering cohort of 15-20 students projected to be admitted each fall.

The College will admit students through a selective admissions process. Successful applicants will have a high school diploma or GED certificate. Students are recommended to have completed two years of high school Algebra, one year of Biology and one year of Chemistry with a C or higher. Students must also have completed a college-level Intermediate Algebra course and one Biology course with a C or higher prior to admission into the program, as well as demonstrating successful completion of prerequisites for college-level courses or placement into higher-level courses per placement exams. All interested students must attend an informational interview with the Program Director.

CURRICULUM (Attachment A)

The Clinical Laboratory Sciences degree program requires 62 credits to be completed over three years of part-time study, including summers: 27 credits in didactic and clinical practice coursework specific to the discipline, 20 credits in BHCC Science courses and the remaining 15 credits in general education.

After completing the program, graduates will be eligible to sit for two national certification examinations – the Medical Laboratory Technician (MLT) exam, offered by American Society of Clinical Pathology, or the Clinical Laboratory Technician (CLT) exam, offered by the National Certification Agency for Clinical Laboratory Sciences.
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RESOURCES AND BUDGET (Attachment B)

Library. The program will utilize the College's relevant library holdings, including that of the Science Department and the Nursing and Health Professions Department collections

Faculty and Administration. BHCC is committed to hiring a program director, qualified adjunct faculty and another full-time faculty member if the need arises.

Physical Resources. No additional new facilities will be required. Instructional facilities and laboratories, and most equipment and supplies are available as part of the College's existing Science curriculum. The proposed budget includes a line item for additional equipment purchases starting in year three of the program.

Clinical Resources. The College will initially use Beth Israel Deaconess Medical Center, Children's Hospital and New England Baptist Hospital as clinical affiliates and plans to add other affiliates as the program grows.

Fiscal. The budget for the proposed degree program is attached as Appendix B.

PROGRAM EFFECTIVENESS

Bunker Hill Community College submitted goals and objectives for the proposed program as follows.

Five goals have been established.

1. To prepare graduates to be competent Clinical/Medical Laboratory Technicians
2. To assist in meeting the local/regional needs for Clinical/Medical Laboratory Technicians
3. To offer Boston-area students/residents the opportunity to participate in a "learning community" atmosphere at the College that is focused on student success
4. To offer an affordable, accredited associate degree program
5. To expand cultural competency in health and increase the number of underserved populations entering jobs in health and laboratory settings

Five measurable objectives will direct the proposed program in meeting the proposed goals.

1. To prepare 80 percent of graduates to pass the American Society of Clinical Pathology and the National Certification Agency for Clinical Laboratory Sciences certifying exams within two attempts

2. To place 100 percent of the first-year cohort in sponsoring hospitals and to achieve an 80 percent job placement rate in the years after the grant period ends

3. To retain 70 percent of students from enrollment to graduation

4. To maintain affordability of the degree and to receive National Accrediting Agency for Clinical Laboratory Sciences (NACLS) accreditation

5. To foster cultural diversity and appreciation of students: 40-60 percent of students will represent populations traditionally unrepresented in higher education

These objectives will be measured by routinely collecting information and data.

EXTERNAL REVIEW AND INSTITUTIONAL RESPONSE

The program was reviewed by external reviewers, Andrea G. Gordon, M.Ed., MT, River Valley Community College; and Maddie Josephs, MS, MT, Community College of Rhode Island, on March 6, 2008. Overall, the reviewers expressed support for moving the program forward to implementation, noting the strong need for the program and the College's ability and commitment to provide the adequate support, space and laboratory resources needed for a quality program. The reviewers also raised questions about content clustering, sequencing of courses, the number of required credits, the capacity of clinical arrangements, the capacity of the College to hire additional faculty and the need to develop more detailed measurable learning outcomes. The College responded to all of the reviewers concerns.

Reviewers noted that the sequential progression and continuity of curriculum design were unclear with respect to how understanding will be built progressively in order to provide complete integration. They recommended further elaboration of content clustering and suggested that serology/immunology be a prerequisite for other courses.

In response, the College demonstrated that the courses, Introduction to Clinical Laboratory Science I and II, provide adequate skill building and content-specific understanding, including a basis in immunology that serves as a prerequisite to serology and hands-on laboratory skills application in the College laboratories. The College clarified that students will take immunology prior to immunohematology and microbiology. The College also clarified that a four-credit human biology course was not originally included in the total hours needed for the proposed program, as it is a pre-requisite for Anatomy and Physiology. Including this course would bring the total required credits to 66, which, according to the College, is within the national average.

The College reiterated that the sponsoring hospitals are committed to training the students and providing them with sufficient time and supervision needed to become certified professionals. Four to five students will be assigned to each hospital, but they will be rotating through different departments so that there will be one or two students at a time in each department. After the initial cohort period of three years, the College anticipates continued clinical placements at the original sponsoring hospitals, as well as additional local clinical partnerships, and further anticipates that the number of students per site will be reduced as a result of this expansion.

The College is committed to hiring a Program Director, who will further elaborate specific measurable learning outcomes. The College would also hire another faculty member, if needed.

STAFF ANALYSIS AND RECOMMENDATION

Board staff thoroughly reviewed all documentation submitted by Bunker Hill Community College and external reviewers. Staff recommendation is for approval of the Associate in Science in Clinical Laboratory Science.

Upon graduating the first class for this program, Bunker Hill Community 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.

APPENDIX A
Curriculum Outline

Proposed Clinical Laboratory Sciences Associate Degree

Undergraduate Program Curriculum Outline

Required (Core) Courses in the Major (Total # courses required = 8		
Course Number	Course Title	Credit Hours
CLS 101	Introduction to Clinical Laboratory Sciences I	3
CLS 102	Introduction to Clinical Laboratory Sciences II	3
CLS 201	CLS Seminar I	3
CLS 251	CLS Practicum I	4
CLS 202	CLS Seminar II	3
CLS 252	CLS Practicum II	4
CLS 203	CLS Seminar III	3
CLS 253	CLS Practicum III	4
Subtotal Required Credits		27
Elective Courses (Total # courses required = 0 ***)*** *(attach list of choices if needed)*		
Subtotal Elective Credits		0
Distribution of General Education Requirements Attach List of General Education Offerings (Course Numbers, Titles, and Credits)		# of General Education Credits
Arts and Humanities, including Literature and Foreign Languages		
ENG 111 College Writing I		3
ENG 112 College Writing II		3
World View Choice		3
Mathematics and the Natural and Physical Sciences		
BIO 203 Anatomy and Physiology I		4
BIO 204 Anatomy and Physiology II		4
CHM 110 Chemical Science I		4
CHM 111 Chemical Science II		4
BIO 205 Microbiology		4
MAT 181 Statistics		3
Social Sciences		
PSY 101 Principles of Psychology		3
Subtotal General Education Credits		35
Curriculum Summary		
Total number of courses required for the degree		18
Total credit hours required for degree		62
Prerequisite, Concentration or Other Requirements: BIO 108 Human Biology 4 credits (approved General Education course for Science and Technology)		

ATTACHMENT B
Budget

NEW ACADEMIC PROGRAM BUDGET

One-Time/ Start-Up Costs		***Annual Expenses***			
	Cost Categories	**Year 1**	**Year 2**	**Year 3**	**Year 4**
	Full-Time Faculty *(Salary and Fringe)*	60,000 *22,992*	61,800 *23,682*	63,654 *24,392*	65,563 *25,124*
	Part-Time/Adjunct Faculty *(Salary and Fringe)*	6,000* *80*	12,000* *161*	12,000* *161*	12,000 *161*
	Staff				
10,000 * Curriculum Consultant	General Administrative Costs				
	Instructional Materials, Library Acquisitions	2,000*	6,000*	6,000*	4000.
	Facilities/Space/Equipment			20,000	20,000
	Field and Clinical Resources				
	Marketing			1,000	
	Other (Specify) Accreditation Fees	600	1700	3000	1200
10,000*	**TOTALS**	91,672	105,343	130,207	128,048

One-Time/Start-Up Support		***Annual Income***			
	Revenue Sources	**Year 1**	**Year 2**	**Year 3**	**Year 4**
	Grants	60,000	63,000	65,755	
	Tuition				10,080
	Fees				43,800
	Departmental				
	Reallocated Funds				
	Other (specify)				
	TOTALS	60,000	63,000	65,755	53,880

***** Paid through Workforce Competitiveness Trust Fund grant.