

**Program Proposal  
Associate Degree in Health Science  
Major in Cardiovascular Technology  
Piedmont Technical College**

**Summary**

Piedmont Technical College requests approval to offer a program leading to the Associate in Health Science degree with a major in Cardiovascular Technology (CVT), to be implemented in Fall 2008.

The proposal was approved by the State Technical College System's Board on January 22, 2008, and submitted to the Commission for review on February 11, 2008. The proposal was reviewed by the Advisory Committee on Academic Programs on March 20, 2008, and approved unanimously without substantive comment.

The purpose of the program is to address the growing need for qualified Cardiovascular Technologists in Piedmont Technical College's service area. A 2007 American Heart Association update listed cardiovascular disease as the number one cause of death in the United States. The program will address the growing need for healthcare services, especially those related to cardiovascular awareness and treatment. Data from the U.S. Department of Labor Statistics reports there were approximately 45,000 jobs in cardiovascular technology in 2004. The field is expected to continue evolving rapidly since physicians today depend on quality diagnostic and therapeutic procedures by highly skilled cardiovascular technologists to ensure quality health care.

The institution reports that opportunities for employment in the field of cardiovascular technology in the Piedmont region are on the rise because of the significant increase in the aging population in South Carolina and the College's service area. The U.S. Census Bureau reported a 12.6% increase of persons 65 years and over in South Carolina from 2000-2005. In 2001, diseases related to the heart accounted for a large percentage of deaths in South Carolina adults 65 and older. From responses to an institutional survey, the demand for graduates for this program in the College's service area will be for 72 full-time technicians in 2008; 36 in 2009; and 32 in 2010. The survey responses also indicated that in 2007 there was an immediate need for over 75 full-time technicians.

There is no other Cardiovascular Technology program in the South Carolina Technical College System (SCTCS). There is an eighteen-month certificate program for adult echocardiography and vascular technology offered by

Sisters of Charity Providence Hospital in Columbia, South Carolina. The director of that program has submitted a letter of support to Piedmont Technical College to offer the proposed Cardiovascular Technology Program.

The design of Piedmont Technical College's program permits a student to complete all general education courses for the program at any technical college in the state. The College has plans to partner with various agencies within the state to establish clinical affiliations. After completing the general education requirements, students may attend one of Piedmont Technical College's established clinical affiliates throughout the state, thereby allowing students to complete clinical course requirements in local settings. Each clinical site will be required to meet the Joint Committee on Education in Cardiovascular Technology JRC-CVT criteria. Responses to a needs survey conducted by the institution showed that sixteen hospitals statewide expressed a willingness to commit to a clinical affiliation agreement with Piedmont Technical College's Cardiovascular Technology program.

No state agency in South Carolina certifies or licenses Cardiovascular Technologists. The proposed program design follows the standards set forth by the (JRC-CVT) in anticipation of seeking national accreditation within the first year of the program. At the present time professional accreditation is not mandated for cardiovascular educational programs because they are relatively new in healthcare education; however, there is activity leading to accreditation becoming a requirement. Individuals must be graduates of a cardiovascular technician program or hold a minimum of an associate degree in a healthcare discipline, be credentialed in the discipline, and have work experiences in the cardiovascular area in order to take the national certification examination.

A total of two new full-time faculty members (2.0 FTE) will be hired to deliver the program. There will be no new administrative or support staff required.

The Cardiovascular Technology program will require 78 credit hours of academic coursework. Implementation of the program will require 21 new courses to be added to Piedmont Technical College's catalog and 20 courses to the State Board of Technical and Comprehensive Education's (SBTCE) statewide catalog of approved courses.

Enrollment in the proposed program is estimated to begin at 24 students (19.7 FTE) in 2008-2009, the first full year of the program, increasing to 38 (47.2 FTE) in 2009-2010, and to 41 (50.3 FTE) in 2010-2011. If these projections are met, the program will meet the current CHE program productivity standards for enrollment.

Piedmont Technical College anticipates spending a total of \$2,100 over the first three years of the program's implementation to purchase books, serials and audio-visual materials to support this program in Cardiovascular Technology. The proposal states that library and learning resources services are currently able to provide a variety of materials for this program because of the electronic databases which are available to students and faculty members through PASCAL.

The program will be housed at the existing facility in the center of campus at an estimated cost of \$100,000. The building will be renovated prior to the beginning of the CVT program. The proposal projects that these accommodations will meet the physical plant needs of the program for the first three years of the program and beyond.

Total new costs are estimated by the institution at \$1,145,468. The categories for these operational costs include faculty salaries (\$355,453); supplies and materials (\$102,415); library resources (\$2,100); equipment (\$576,000); accreditation (\$9,500); and facilities, funded through Allied Health Initiatives (\$100,000). The institutional budget for the Associate in Health Science in Cardiovascular Technology shows \$100,000 from the Allied Health Initiative. At this point, it appears unlikely that these funds will be available for 2008-2009 fiscal year. CHE staff is seeking to know whether the institution can implement the program without these funds and will include this finding in the CHE mail-out materials.

Shown below are the estimated Mission Resource Requirement (MRR) costs to the State and new costs not funded by the MMR associated with the implementation of the proposed program for its first three years. Also shown are the estimated revenue projected under the MRR and the Resource Allocation Plan as well as student tuition.

Year	Estimated MRR Cost for Proposed Program	Extraordinary (Non-MRR) Costs for Proposed Program	Total Costs	State Appropriation	Tuition	Total Revenue
Year 1	\$177,556	\$0	<b>\$177,556</b>	N/A	\$61,904	<b>\$61,904</b>
Year 2	\$425,414	\$0	<b>\$425,414</b>	\$71,380	\$148,190	<b>\$219,570</b>
Year 3	\$453,654	\$0	<b>\$453,654</b>	\$171,183	\$157,881	<b>\$329,064</b>

In addition to the MRR, the institution anticipates the receipt of grant funds totaling \$525,000 from the Duke Endowment through Self Regional Healthcare over a three-year period with the largest portion awarded the first year of the program's implementation. Self Regional Healthcare has committed \$150,000 (\$50,000 annually for three years) and Piedmont Technical College Foundation will contribute \$20,000 annually for three years totaling \$60,000. Total grant funds projected are \$445,000 in year one, \$145,000 in year two, and \$145,000 in year three.

These data demonstrate that if Piedmont Technical College can meet the projected student enrollments, contain costs, and procure the additional grant funding as they are shown in the proposal, the program will be able to cover new costs with revenues it generates in the first and third years of program implementation, but not in the second year. Nevertheless, the institution has provided assurances that it possesses the resources necessary to implement the program appropriately.

In conclusion, the proposed new program proposal has been designed by the institution to respond to the growing need for cardiovascular technologists in a field that is expected to grow rapidly. Implementation of the program will help to ensure the availability of quality health care and sufficient numbers of well educated Cardiovascular Technology diagnostic personnel in the Piedmont area. Opportunities for employment in this field continue to rise in the region due to ongoing expansion in outpatient care centers and hospitals in response to the health care needs of the region's increasing population.

### **Recommendation**

The Committee on Academic Affairs and Licensing commends favorably to the Commission approval of the program leading to the Associate in Health Science degree with a major in Cardiovascular Technology at Piedmont Technical College, to be implemented in Fall 2008, provided that no other "unique cost" or special state funding be required or requested.