

BACKGROUND

Hocking Technical College Associate of Applied Science in Alternative Energy and Fuel Cells Technology

Executive Summary/Recommendation

This program clearly meets Regent's standards for associate degree programs. There were no serious concerns raised in this review.

Request: Hocking Technical College requests approval for an Associate of Applied Science degree in Alternative Energy and Fuel Cells Technology. This program was developed to ensure Ohio will have the technically trained technicians it needs to construct, install, troubleshoot, modify and test multiple types of alternative energy products and equipment.

The College recently received a \$1.6 million Department of Labor Grant to build the facility it needs to implement their new Alternative Energy and Fuel Cells Program and also their Automotive Hybrids Program. The College was also awarded an Appalachian Regional Commission grant that will be used to purchase the equipment needed for the new facility.

Program Purpose/Mission: The College for the past couple of years has been working in partnership with the Ohio Fuel Cells Coalition and Clean Fuels Cells in Ohio, to explore the need for and the development of a new Alternative Fuel Cell facility on campus. Advances in technology and the need to find alternative sources for energy are making alternative energy more practical and economical to use. New energy sources can be harnessed from the sun, the wind, natural heat from below the earth's surface, soybeans, other food products and need to be tested for their ability to be used and produced.

The Ohio Department of Development's Third Frontier Fuel Cell Program and Governor Ted Strickland have challenged Ohio's higher education institutions to build Ohio's capacity to support and produce new 'advanced energy projects' including fuel cell technology. A recent study by Policy Matters and the Apollo Alliance indicated that as many as 22,000 new jobs could be created in Ohio by investing in alternative energy. The implementation of this new program will support further collaborative efforts between education and industry, thereby supporting Ohio's economic growth by attracting new fuel cell industries to Ohio and to this region of the state.

Students enrolled in this program will learn how to install, repair, and design alternative energy systems, fabricate and test prototypes, investigate and research alternative energy systems, apply business and economic principles to achieve and maintain a profit and the importance of implementing safety practices and procedures.

Enrollment: The College is projecting an enrollment of eighteen students in 2007-2008 with an additional five students in 2008-2009, and another five in 2009-2010. Public relations, marketing efforts, on-going College recruitment activities, and outreach by the Ohio Fuel Cells Coalition may impact this projected number.

Curriculum: The Alternative Energy and Fuel Cells curriculum has been structured to provide students with the general education and specialized technical courses needed for successful completion of this program. Students will also have the opportunity to perform some specific hands-on experiments, participate in appropriate field experiences and with local employer support participate in employer based internships.

The College utilized the *'best practices'* of Stark State College as they have been offering a Fuel Cells Training Program for the past couple of years and has a new \$5.2 million Fuel Cell Prototyping Center. Their partnership has resulted in them working together on several Alternative Energy/Fuel Cell projects.

Currently, Hocking Technical College is exploring articulation agreements with Rio Grande University/Rio Grande Community College, Ohio University and the University of Toledo.

Faculty/Resource Needs: The College plans to use current faculty and if needed will hire one full-time faculty member as student enrollment increases.

The new Alternative Energy and Fuel Cell Center will provide additional classroom space and the specialized equipment needed for students involved in this program.

Current classroom space, library resources and technical training labs are available to students until the new facility is complete.

Program Duplication: Hocking Technical College has worked collaboratively with Stark State College in the development of this program. Their partnership continues as they explore additional program opportunities and the potential of some distance learning capabilities.

Stark State College is more than three hours from Hocking Technical College and is not a viable option for students in this area of the state.

Employment Opportunities: Graduates of the program will find job opportunities as product assembler, fuel cell tester, unit installer, refueling and troubleshooter technicians and many others.