

APPENDIX K

Request for Authorization to Establish a Bachelor of Science Degree in Appropriate Technology at Appalachian State University

Introduction

Appalachian State University notified General Administration of its intent to plan a Bachelor of Science Degree in Appropriate Technology (15.0505) on January 5, 2006. The university now requests approval to establish the program in August 2006.

Program Description

Appalachian State University is proposing to offer a degree program in the interdisciplinary field of Appropriate Technology. This degree option is a revision of the current Appropriate Technology concentration in the Department of Technology in the College of Fine and Applied Arts, and it focuses on technologies that are small-scale, ecologically and socially benign, and often powered by renewable energy. The proposed program is also characterized by creative and sound engineering that encompasses the technical, social, environmental, political, and economic aspects of a technological solution to societal problems.

The proposed Appropriate Technology degree coursework draws upon physical and social sciences, engineering, architecture and technology. Students can gain knowledge in a variety of areas including energy conversion systems, waste and water management, community and shelter design, technology assessment, small-scale production systems, and technology transfer. Students will also develop knowledge and skill in technological areas including drafting and design, wood and metal working, computers, architecture, construction, graphic arts, renewable energy technologies, energy efficient solar building, and design and construction.

Graduates will be prepared to pursue numerous careers after completing the proposed degree program. These career areas include working in energy management, working for utility companies or government research labs, manufacturing and selling appropriate technology products, and working in solid waste and recycling industry.

Program Need

Nationally, there has been an increased interest in solutions to the resource depletion and environmental degradation that face America. The development of Appropriate Technology as a degree program should continue to expand opportunities for a growing pool of students who have selected to pursue the concentration and who take Appropriate Technology from other majors. The Appropriate Technology program as a concentration had 36 participants in 2004; there are about 11 students who graduate each year with a concentration in Appropriate Technology. By year four, 53 students are projected to be enrolled in the proposed degree program in Appropriate Technology.

Resources

Since the proposed degree concentration already exists, no faculty, courses, facilities, or library resources are needed, at this time. New needs, as a result of program expansion, will be handled with enrollment growth funds.

Recommendation

It is recommended that the Board of Governors approve Appalachian State University's request to establish the Bachelor of Science in Appropriate Technology, effective August 2006.