

APPENDIX L

Request for Authorization to Establish a Master of Science Degree in Computer Science and Information Technology at Winston-Salem State University

Introduction

Winston-Salem State University notified the UNC Office of the President of its intent to plan a Master of Science degree in Computer Science and Information Technology (CIP# 11.0101) on July 25, 2001. The university requests authorization to establish the program in August 2002.

Program Description

The proposed Master of Science in Computer Science and Information Technology will teach students about computers, computational methods, accessing and sharing information, and designing tools and applications to address information needs. The curriculum will address computer architecture, software engineering, Internet systems, computational science, the tools required to manipulate and manage information in a variety of application areas, the environmental needs and skills for knowledge development, and communication and leadership skills required to disseminate knowledge. Students will choose a concentration in computer science or information technology and will select 12-15 hours in a specific area of computer science or information technology.

Program Need

The *North Carolina Information Technologies Industry Competitiveness Study* for 2000 stated that the biggest challenge facing the information technologies industry is "finding qualified workers." According to the WSSU-commissioned and independent *Triad Area Needs Assessment for Graduate Programs* (2001), typical applications in the Piedmont Triad that require information technology skills include: software design, Internet management, networking, database management, geographical information systems, scientific visualization and imaging, and high performance computing associated with biotechnology and other scientific disciplines. Local governments and chambers of commerce are committed to recruiting technology-based industries to the Triad region. The master's degree will build on a successful WSSU BS degree program in computer science. WSSU estimates that 10 full-time and 20 part-time students will be enrolled by the fourth year of the program.

Resources

As a UNC focused-growth institution, WSSU received a grant from the UNC Office of the President to accelerate development of this degree program. New faculty positions will be funded from existing university appropriations, enrollment increase funding, and external resources such as grants and contracts. WSSU will construct a new Computer Science building in 2002-03.

Recommendation

It is recommended that the Board of Governors approve the request to establish a Master of Science degree in Computer Science and Information Technology at Winston-Salem State University effective August 1, 2002.