

Request for Authorization to Establish a Master of Science in Network Technology at East Carolina University

East Carolina University requests authorization to establish a M.S. in Network Technology degree program (CIP 11.1099).

Program Description

East Carolina University's Department of Technology Systems currently offers an M.S. in Technology Systems which includes multiple concentrations. The M.S. in Network Technology degree program acknowledges developments in the field and institutional strengths through the consolidation of three of seven existing concentrations: digital communications technology; computer networking management; and information security. The program emphasizes advanced applications in computer networking such as network infrastructure management, networked systems design, network security, and technical problem solving in technology-driven organizations. Students will complete fifteen hours of core courses that include statistical applications, technology project management, information security management, and legal and ethical issues in information technology. Students complete twelve hours of coursework in one of the following concentration areas: computer networking management; digital communication technology; information security; or web technologies. Students in the non-thesis track will complete six additional hours of electives courses while students in the thesis or practicum tracks a research or practicum project for three credit hours.

Mission Relevance

The degree program in Network Technology fits well with the overall mission and Strategic Action Plan (2010-2013) of East Carolina University, particularly the mission to prepare students to compete and succeed in the global economy and the strategic goal to create a knowledgeable, skilled, and adaptable labor force and population in Eastern North Carolina.

Student Demand

The existing concentrations that will be consolidated in the Network Technology degree program enjoy healthy enrollments; of the roughly 180 graduate degree seeking students in the Technology System program, approximately 60% are in the concentration areas that will comprise the new degree program. The program is expected to continue to draw students from a pool of technology professionals employed in local, regional, statewide and national organizations.

Societal Demand and Opportunities for Program Graduates

According to Bureau of Labor Statistics projections, employment in computer related occupations is expected to increase during 2006-2016 between two and three times faster than most occupations. Notable areas of growth identified by BLS and served by this program include

- Network systems and data communications analysts, 53% (140,000 jobs)
- Database administrators, 29% (34,000 jobs)
- Computer systems analysts, 29% (146,000 jobs)
- Network and computer system administrators, 27% (83,000 jobs)

Resource Implications

The proposed program already exists as concentrations within the M.S. in Technology Systems. Therefore, program needs are met by existing resources and by the faculty who currently teach the courses to be consolidated in the M.S. in Network Technology.

Collaborative Opportunities

East Carolina University considers NC A&T's Information Technology program, which shares programmatic roots in electronics technology, to be the program in the system most similar to the M.S. in Network Technology. As such, program leaders have met and identified three key areas of potential collaboration; sharing resources, sharing courses, and research. Technology and faculty resources are complementary and can be shared across programs. Faculty from both institutions have substantial expertise in delivering lab-based distance education programs and may serve on student committees. Students at both institutions have the opportunity to transfer a percentage of required coursework from another institution, which will allow students to explore the course offerings across the two programs. While no current research collaborations exist between the two institutions, this is an area of high interest that will enhance both programs' capabilities and potential for success. In addition to possibilities with NC A&T, program faculty are exploring international collaborations through East Carolina University's Global Academic Initiatives project.

Outcome of Consultation with Disciplinary Experts

The proposal was reviewed by more than twenty-eight faculty and graduate program administrators from eleven UNC campuses. Reviewers overwhelmingly found the proposal to be acceptable and consistently noted the high demand for skilled professionals in network technology as well as the considerable existing resources that will contribute to the program. Some reviewers noted that the faculty in place are sufficient for current enrollment levels but additional faculty may be needed to address any future enrollment growth. Reviewers also acknowledged the early efforts of collaboration with NC A&T and encouraged the exploration of additional collaborations in the future.

Recommendation

It is recommended that the Board of Governors approve East Carolina University's request to establish a M.S. in Network Technology degree program (CIP 11.1099).