

Contact: Diana Gonzalez

**REQUEST FOR A NEW PROGRAM AT IOWA STATE UNIVERSITY:
MASTER OF ENGINEERING PROGRAM IN INFORMATION ASSURANCE**

Action Requested: Consider approval of the request by Iowa State University to establish a new Master of Engineering Program in Information Assurance which will be administered by the College of Electrical and Computer Engineering in the College of Engineering.

Executive Summary: The proposed program will provide an option for students who seek advanced study in information assurance but are not interested in conducting the research required for the existing Master of Science Program in Information Assurance. This proposal was reviewed by the Board Office and the Council of Provosts and is recommended for approval. No concerns were raised when it was presented to the Iowa Coordinating Council for Post-High School Education. The proposed program addresses the Board of Regents Strategic Plan priority (1.0) to “ensure high-quality educational opportunities for students.”

Background:

- ❖ **Description of proposed program.** The proposed program is a coursework only version of the Master of Science Program in Information Assurance supported by the following departments – Computer Science; Electrical and Computer Engineering; Industrial and Manufacturing Systems Engineering; Logistics, Operations and Management Information Systems; Mathematics; and Political Science. Graduates from this program will be employable in government, private, and academic sectors. The proposed program will require completion of 30 credits of graduate work without a thesis.
- ❖ **Relationship to existing programs.** Currently, ISU offers a Master of Science Program in Information Assurance which prepares highly-qualified engineers, computer science experts, and information systems professionals for information security and assurance careers. The program’s objectives include the following – (1) impart and enhance knowledge about information infrastructure security; (2) expand and develop ability to engineer complex systems; (3) instill and nurture social awareness and the ability to function in a team; (4) instill and nurture a sense of ethics; and (5) develop an understanding of strategic and policy issues. The existing program requires completion of 30 credits of graduate work, including preparation of a thesis or creative component.
- ❖ **Duplication.** There are no other institutions of higher education in Iowa that offer a Master of Engineering Program in Information Assurance.
- ❖ **Student demand.** The Department of Electrical and Computer Engineering surveyed students to determine their interest in a non-thesis graduate program. Although it was a small sample, more than 70% of the respondents indicated that they would prefer a non-thesis graduate program.
- ❖ **Projected enrollment.** The projected enrollment is 10 students in Year 1, increasing to 40 students per year by Year 7. The proposed program will be offered primarily through distance education and will appeal to place-bound students.

- ◇ Unique features. Within the Department of Electrical and Computer Engineering, information security and networking is one of the nine research focus areas that have been targeted for growth. ISU is a national leader in the area of information assurance education and research. In 1999, the National Security Agency designated seven universities, including ISU, as the first Centers of Excellence in Information Assurance under the Center of Excellence Program. The designations followed a rigorous review of criteria based on training standards established by the national Security Telecommunications and Information Systems Security Committee.
- ◇ Need for proposed program. According to the President's Commission on Critical Infrastructure, computer security is essential to the protection of the national communication infrastructure. The Commission recommended increasing education efforts in the area of computer security. According to the National Plan for Information Systems Protection released in 2000, "Defending America's cyberspace will require action by all Americans. A foundation for the many actions outlined in the plan is the understanding and awareness of the new threats posed to our information systems, and the need for action."
- ◇ Resources. The University anticipates that no new resources will be needed to establish the proposed program. The proposed program will use existing courses, faculty, and facilities for graduate education in information assurance.
- ◇ Cost. The University anticipates that the proposed program will not incur new costs.
- ◇ Link to institutional strategic plan. The proposed program addresses ISU's Strategic Plan priority "to strengthen undergraduate, graduate, and professional education to enhance student success at ISU and beyond."