CYBERSECURITY (ONLINE FORMAT), MS

Contact

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Description

The global electrical power grid, financial services, and other critical infrastructure are inextricably dependent on robust cybersecurity to ensure security trust, and system assurance. The explosion in the Internet of Things domain is increasing connectedness amongst devices and the need for securing the resulting data is paramount in today's world. Syracuse University's M.S. in Cybersecurity program is designed to address this national and global need.

Syracuse University has been designated by the National Security Agency and Department of Homeland Security as a Center of Academic Excellence in Information Assurance Research (CAE-R) since 2009.

Admission

A bachelor's degree in Computer Science, Computer Engineering, or a related field from an STEM field with a strong mathematics background from an accredited institution, with an average GPA of 3.0 or better is required. Core competency in Discrete Mathematics, Calculus, Data Structures, Computer Organization, and knowledge of programming languages (C, C++, Java, etc.) is preferred.

- For international students: TOEFL computer-based score of 223 (Internet-based score 85; paper-based score 563) or better;
- grade point average (GPA) of 3.0/4.0 or better.

Learn More About the Online Cybersecurity Program
https://onlinegrad.syracuse.edu/form-cybersecurity/

Student Learning Outcomes

Students graduating from this program will be able to:

1. identify and analyze vulnerabilities in systems
2. assess the risks faced by systems
3. develop countermeasures to remedy risks
4. develop systems that are secure
5. deliver software components or systems that have verifiable assurance properties

Requirements

Students are required to complete 30 credit hours of courses, consisting of 12 credits of core, 12 credits of technical cybersecurity electives, and 6 credits in CIS/CSE courses at 600 level or higher, as described below:

12-Credit Core

Code	Title	Credits
CSE 643	Computer Security	3
CIS 623	Assured Programming with Formal Methods	3
CIS 657	Principles of Operating Systems	3
CIS 675	Design and Analysis of Algorithms	3

Technical Electives (12 Credits)

Students will take 12 credits of technical cybersecurity electives:

These credits must be chosen from the list of Approved Technical Cybersecurity Electives maintained by the Cybersecurity Committee.

6 Additional Credits

6 additional credits drawn from the list of technical cybersecurity electives, the list of nontechnical cybersecurity electives, or from any CIS/CSE courses at the 600-level or higher. At most 3 credits of nontechnical cybersecurity electives permitted.

Final Examinations

Candidates are required to complete the final examinations in all core courses with an average grade of B- or better.

Degree Awarded

Master of Science in Cybersecurity

Transfer Credit

Up to 9 credits may be transferred from other schools, upon evaluation of details by the program director or department chair.

Satisfactory Progress

A GPA of 3.0 must be maintained throughout the program or else matriculation may be terminated.