GRADUATE CERTIFICATE IN CYBERSECURITY

Cybersecurity is an essential discipline focused on protecting digital systems, networks, and sensitive data from unauthorized access, disruption, and emerging threats. As technology becomes more integrated into every aspect of society, the need for robust cybersecurity strategies continues to grow. This graduate certificate program provides students with a solid foundation in core cybersecurity principles, secure system and network design, and the application of machine learning to cyber defense. It equips students with both practical and marketable skills to build and defend systems against real-world attacks, while also developing critical insights into data privacy, adversarial threats, and secure AI integration. Upon completion, students will be prepared to contribute meaningfully to the protection of digital infrastructure and to meet the growing demand for cybersecurity expertise in the modern workforce.

Admissions Requirements

For *matriculated* students we will use standard prerequisites as defined in our bulletin and syllabi. For *non-matriculated* students we will let instructors determine the qualifications to attend each course.

Admission to this program requires a bachelor's degree from an accredited institution, with a major in the appropriate field(s) of study, as well as a grade point average of at least 3.0 in the last 60-semester (90 quarter) units attempted. Students must have the equivalent of CSC 415 and CSC 665.

Program Learning Outcomes

1. Design and evaluate secure systems and networks using core cybersecurity and cryptographic principles.
2. Apply machine learning techniques to detect, analyze, and mitigate modern cyber threats, including adversarial and privacy attacks.
3. Build and defend practical cybersecurity solutions through hands-on exercises and real-world projects.
4. Effectively communicate technical cybersecurity findings through reports, presentations, and collaborative work.

Graduate Certificate in Cybersecurity – 9 units

Core Courses (9 units)

Code	Title	Units
CSC 852	Introduction to Security and Data Privacy	3
CSC 853	Network Security	3
CSC 854	Machine Learning for Cybersecurity	3