

CYBERSECURITY (M.S.)

Overview

The Cybersecurity Master's program curriculum consists of 10 courses (30 credits) that can be completed over 12 months, following a hybrid (on-campus and online) delivery model. Students who track with their entry cohort can complete the program in three semesters (fall, spring, summer). Students may select to complete a thesis through two courses instead of a capstone project and fifth elective. Classes will be offered in the evenings and during the weekends.

Prerequisites

All undergraduate majors are welcomed. Professional knowledge or experience equivalent to the following four courses is required:

1. Computer Programming with basic algorithms (in C, C++, Java, R or Python) (e.g., CISC 5004 Computer Programming C++ or CISC 5380 Programming with Python)
2. Applied Statistics and Probability or Discrete Mathematics (e.g., CISC 5420 Applied Statistics and Probability or CISC 5002 Discrete Structures).

Bridging courses are available for students who are missing one or more of the aforementioned prerequisites. With the permission of the Program Director, these courses can be taken concurrently with the cybersecurity courses. If you are required to take these courses, it will be stated in your admissions letter and the courses must be taken during the first semester.

Requirements

Course	Title	Credits
CISC 5009	Network Essentials ¹	3
CISC 5650	Cybersecurity Essentials ¹	3
CISC 5750	Information Security and Ethics	3
Five elective courses, with the option to pursue an internship		15
One selection from the following: ²		6
Master's Thesis		
CISC 6095 & CISC 6096	Master's Thesis in MSCY I and Master's Thesis in Cybersecurity II	
Capstone and Elective		
CISC 6090	Capstone Project in Cybersecurity	
One additional elective from the selection below		
Total Credits		30

¹ CISC 5009 Network Essentials and CISC 5650 Cybersecurity Essentials must be taken in the first semester.

² Capstone and thesis courses can only be taken during the second or third semester.

Electives

Courses in this group have the CYSM attribute.

Course	Title	Credits
CISC 5550	Cloud Computing	3
CISC 5660	Data Science for Cybersecurity	3

CISC 5710	Introduction to Behavioral and Physical Biometrics	3
CISC 5728	Security of e-Systems and Networks	3
CISC 5770	Intelligence in Cybersecurity	3
CISC 5850	The Social Network	3
CISC 6070	Red Teaming	3
CISC 6091	Cybersecurity Practicum	3
CISC 6600	Cloud Computing Security	3
CISC 6630	Wireless Security	3
CISC 6640	Privacy and Security in Big Data	3
CISC 6650	Forensic Computing	3
CISC 6660	Applied Cryptography	3
CISC 6680	Intrusion Detection and Network Forensics	3
CISC 6690	Cybersecurity in Business	3
CISC 6750	IOT Forensics and Security	3
CISC 6800	Malware Analytics and Software Security	3
CISC 6850	Leadership and Management in Cybersecurity	3
CISC 6860	Cybersecurity: Technology, Policy, and Law	3
CISC 6880	Blockchain Technology	3
CISC 6920	Incident Response and Risk Management	3
CISC 7050	Penetration Testing	3
CISC 8150	Special Topics in Cybersecurity	3