



Master of Science in Cyber Security and Privacy

<https://mscyber.cs.ucf.edu/>

Program Description

The Master's Degree in Cyber Security and Privacy (MS-Cyber) program will provide high-quality cybersecurity graduate education, advance cyber security and privacy research, and address the issues of state, national and international cybersecurity. It provides students with an in-depth education geared toward meeting the cybersecurity workforce needs of business and industry in Florida and throughout the United States.

This MS program is offered jointly by College of Engineering and Computer Science (CECS) (Department of Computer Science), College of Business, School of Modeling & Simulation and Training (SMST), College of Sciences (Department of Psychology), College of Community Innovation and Education (Department of Criminal Justice).

Admissions Requirements

Prospective applicants are expected to have a solid background in computer science and/or information technology. A BS degree in Computer Science, Computer Engineering, Information Technology, or equivalent is desirable but not required. Applicants from other BS programs need to have either related working experiences or have taken the following core knowledge undergraduate courses in UCF or other universities:

- COP 3502: Computer Science I
- CIS 3360: Security in Computing
- CNT 3004: Computer Network Concepts (or CNT4704: Analysis of Computer Networks)

Applicants need to submit (GRE is not required):

- An earned bachelor's degree from an accredited university with the official transcript, with minimum GPA of 3.0
- A personal statement (essay) and a Résumé
- One letter of recommendation

Application Due Dates

- The application and processing fee must be submitted by the appropriate deadline. Applications will not be reviewed until all materials are received.

| | Fall Deadline | Spring Deadline |
|--|--------------------------|----------------------------|
| U.S. Applicants <i>Students not needing an F or J visa</i> | July 1 | December 1 |
| International Applicants | January 15 | July 1 |



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Technical Track Program Curriculum

The program requires 30 credit hours, of which at least half of the course work must be at 6000 level. The program has *Technical Track* and *Interdisciplinary Track*.

Required Courses (9 credit hours)

- CAP 5150 – Foundations of Computer Security and Privacy
- CDA 5209/5220 – Foundations of Secure Execution Environment
- CIS 6614 – Advanced Software Systems Security (Capstone Course)

Restricted Elective Courses (21 credit hours)

Minimum 1 course from cybersecurity/privacy:

- CAP 5250 – Internet of Things Security and Privacy
- CIS 5730 – Blockchains and Smart Distributed Contracts
- CDA 6221 – Advanced Topics in Secure Execution Environment
- CNT 5410L – Cyber Operations Lab
- CAP 6135 – Malware and Software Vulnerability Analysis
- CIS 6395 – Incident Response Technologies

Minimum 1 from Networking:

- CNT 5008 – Computer Communication Networks Architecture
- CNT 6707 – Advanced Computer Networks
- CNT 5805 – Network Science

Minimum 1 from Data Analytics:

- COP 5711 – Parallel and Distributed Database Systems
- COP 6731 – Advanced Database Systems
- CAP 5610 – Machine Learning
- CAP 5636 – Advanced Artificial Intelligence
- CAP 6640 – Computer Understanding of Natural Language

Other Electives:

- COP 5611 – Operating System Design Principles
- CDA 5106 – Advanced Computer Architecture
- COT 5405 – Design and Analysis of Algorithms
- COT 6410 – Computational Complexity
- CEN 5016 – Software Engineering

Thesis Option or Course Option (6 credit hours)

Thesis Option: 3 credit-hour MS thesis class per semester for two semesters

Course Option: any two elective courses from both the Technical track and the Interdisciplinary track

MS-Cyber Program Contact:

Dr. Cliff Zou, Professor

MS-Cyber Graduate Program Coordinator
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