

Certificates

Cyber Operations - Certificate

College of Engineering and Computer Science

Department of Computer Science

Dr. Thomas Nedorost, nedorost@eecs.ucf.edu

This certificate distinguishes those students with special training in cyber operations. Recommended for students majoring in Computer Science, Information Technology, and Computer Engineering seeking additional academic content in cyber security.

Admission Requirements

- None

Certificate Requirements

- None

Prerequisite Courses

- None

Required Courses (30 hrs)

| | | |
|-----------|---|-------|
| COP 3502C | Computer Science I | 3 hrs |
| CIS 3360 | Security in Computing | 3 hrs |
| CIS 3362 | Cryptography and Information Security | 3 hrs |
| CIS 4615 | Secure Software Development and Assurance | 3 hrs |
| CIS 4940C | Topics in Cybersecurity | 3 hrs |
| CAP 4145 | Introduction to Malware Analysis | 3 hrs |

Select 1: 3 hrs

| | | |
|-----------|--|-------|
| COT 3100C | Introduction to Discrete Structures or | 3 hrs |
| MAD 2104 | Foundations of Discrete Math | 3 hrs |

Select 1: 3 hrs

| | | |
|----------|---------------------------|-------|
| COP 4600 | Operating Systems or | 3 hrs |
| CGS 3763 | Operating System Concepts | 3 hrs |

Select 1: 3 hrs

| | | |
|----------|--|-------|
| CNT 4704 | Analysis of Computer Communication Networks or | 3 hrs |
| EEL 4781 | Computer Communication Networks | 3 hrs |

Select one of the following sequences of courses:

| | | |
|-----------|-------------------------------------|-------|
| CDA 3103C | Computer Logic and Organization and | 3 hrs |
| EEL 4768 | Computer Architecture | 3 hrs |

or

| | | |
|-----------|---------------------------|-------|
| EEL 3801C | Computer Organization and | 4 hrs |
| EEL 4768 | Computer Architecture | 3 hrs |

or

| | | |
|----------|--------------------------------|-------|
| CGS 3269 | Computer Architecture Concepts | 3 hrs |
|----------|--------------------------------|-------|

Restricted Electives (9 hrs)

| | | |
|-----------|--|-------|
| CAP 3104 | Foundations of HCI | 3 hrs |
| CIS 4203C | Digital Forensics | 3 hrs |
| CIS 4524 | Managing IT Integration | 3 hrs |
| CNT 4714 | Enterprise Computing | 3 hrs |
| COP 3402 | Systems Software | 3 hrs |
| EEE 4346C | Hardware Security and Trusted Circuit Design | 3 hrs |
| EEL 4783 | Hardware Description Languages in Digital Systems Design | 3 hrs |
| EEL 5722C | Field-Programmable Gate Array (FPGA) Design | 3 hrs |

Foreign Language Requirements

- None

Total Semester Hours Required

- 39

Other Requirements

- A grade of "C" (2.0) or better is required in each course toward this certificate.
- A student may not earn both the Cyber Operations Certificate and the Secure Computing and Networks Minor.
- Total hours required may vary based on courses selected to meet requirements.