

COMPUTER SCIENCE: CYBER SECURITY

Associate of Science Degree

Program Description

Cyber Security is a field that involves protecting the confidentiality, integrity and availability of information. The Cyber Security program is an interdisciplinary Associates Degree program. It incorporates business, networking, law, and computer programming courses for individuals preparing for a career in Cyber Security.

Program Outcomes

At the completion of this program, the student should be able to:

- Demonstrate security assessment techniques.
- Mitigate cyber threats identified using the risk management process.
- Explain the ethical responsibilities organizations have to protect an individual's private data and describe how to secure that data.
- Demonstrate knowledge of cybersecurity principles and methods.
- Design a secure network using firewalls, encryption, and other technologies.
- Configure and secure a Linux-based web server.
- Describe how to conduct an investigation, secure an incident, and prepare for an evidence search.
- Use forensic data acquisition tools.
- Describe the theory of operation for file systems and network intrusion detection/protection systems.
- Analyze various configuration, data, and log files.

Additional Information

1. Indicates course requires the completion of a prerequisite.

NOTE: All classes are offered in the fall and the spring unless otherwise designated:

F=Class is only offered in the Fall

S=Class is only offered in the Spring

General Education Requirements – see p. 98	Credits
25 credits total	
Computer Science	3 credits
ENG 101 English Composition I	3 credits
ENG 102 English Composition II ¹	3 credits
History/Government	3 credits
IDS 167 First Year Seminar	3 credits
Math	3 credits
Natural Science w/ Lab	4 credits
Social Science/Psychology	3 credits

Program Requirements – 36 credits total	Credits
BUS 220 Business Ethics	3 credits
CSI 104 Introduction to Programming with Python	3 credits
CSI 217 Introduction to Operating Systems (F)	3 credits
CSI 226 UNIX with Linux	3 credits
CSI 242 Computer Systems Security ¹ (F)	3 credits
CSI 244 Networking I	3 credits
CSI 245 Networking II ¹	3 credits
CSI 265 Linux System Administration ¹ (S)	3 credits
CSI 266 Computer Forensics ¹ (S)	3 credits
LAW 203 Cyber Law (F)	3 credits
Program Electives (see below)	6 credits

Total credits required for graduation

61 credits

Program Electives	Credits
CJS 215 White-Collar Crime (S)	3 credits
CSA 213 Database Management	3 credits
CSI 107 C++ Programming ¹	3 credits
CSI 235 Computer Architecture ¹	3 credits
CSI 246 Networking III ¹ (S)	3 credits
CSI 267 Amazon Web Services Academy Cloud Foundations (S) ¹	3 credits
CSI 311 Computer Organization ¹ (F)	3 credits
PSY 215 Abnormal Psychology ¹	3 credits

Prior Learning Assessment Opportunity

CompTIA and QC Courses

Network+ is equivalent to CSI 244 Networking I

Security+ is equivalent to CSI 242 Computer Systems Security

Students with proof of completion please contact Division Dean.

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Semester 1	Credits	Pre-Requisites
Computer Science	3 credits	
ENG 101 English Composition I	3 credits	
IDS 167 First Year Seminar	3 credits	
Math	3 credits	
Natural Science w/ Lab	4 credits	
Total	16 credits	

Semester 2	Credits	Pre-Requisites
CSI 104 Introduction to Programming with Python	3 credits	
CSI 244 Networking I	3 credits	
ENG 102 English Composition II	3 credits	ENG 101
History/Government	3 credits	
Social Science/Psychology	3 credits	
Total	15 credits	

Semester 3	Credits	Pre-Requisites
BUS 220 Business Ethics	3 credits	
CSI 217 Introduction to Operating Systems	3 credits	
CSI 226 UNIX with Linux	3 credits	
CSI 245 Networking II	3 credits	CSI 244
CSI 242 Computer System Security	3 credits	CSI 244
Total	15 credits	

Semester 4	Credits	Pre-Requisites
LAW 203 Cyber Law	3 credits	
CSI 265 Linux System Administration	3 credits	CSI 226
CSI 266 Computer Forensics	3 credits	CSI 226, CSI 242, CSI 245
Program Elective	3 credits	
Program Elective	3 credits	
Total	15 credits	

Semester Path:

Recommended course of study for a full-time student. It is recommended that students speak to an Academic Advisor before registering for courses each semester.

Student Resources:

Academic Advising

617-984-1720

Dean's Office of Arts and Sciences & Professional Programs

617-405-5920

Dean's Office of Allied Health

617-405-5960

Dean's Office of Nursing

617-405-5990

Financial Aid Office

617-984-1620

Registrar's Office

617-984-1650

Student Accessibility and Academic Support Services

617-405-5915