

# Cyber Security

Degree Awarded: Associate in Applied Science

## Recommended Course Sequence

First Semester	Credits
ENG 101 Freshman English 1	3
MAT 121 College Algebra	3
CRJ 101 Intro to Criminal Justice	3
CIT 100 Computer Literacy	3
CIT 105 Data Communications and Introduction to Networking	3
<b>Second Semester</b>	
ENG 102 Freshman English 2	3
CIT 116 Networking 1	4
CIT 112 Computer Hardware and Software	4
CIT 118 Operating Systems	4
MAT 122 College Trigonometry	3
<b>Third Semester</b>	
CIT 203 Networking 2	4
CIT 217 Introduction to Unix/Linux	3
CFR 221 Computer Forensics	3
CSS 223 Information Security	3
PSY ___ Psychology	3
<b>Fourth Semester</b>	
CFR 222 Network Forensics	3
CSS 224 Network Perimeter Security	3
CSS 226 Cyber Crime Investigations	3
CRJ 111 Criminology	3
_____ Restricted Elective *	3

Total Credits: 64

\* *Restricted Electives:*

*CIT 111 - Internet & HTML Programming*

*CIT 115 - Visual Basic*

*Any course approved by the Department Chair*

## Program Description

The Associate in Applied Science degree program in Cyber Security prepares students for employment in a variety of entry level careers in Cyber Security. Today, everyone is concerned with security, and people with knowledge in this area are in high demand. Positions can include such titles as Network Administrator, network security specialist, information security technician, just to name a few. The main thrust is protection of information and limiting access to network resources. In addition to security, students will also be instructed in techniques used to track perpetrators once an attack has occurred.

In addition to basic computer and networking skills, the student will be instructed in Operating Systems, Computer Forensics, Network Forensics, Information Security, Network Perimeter Security, and Cyber Crime Investigation.

Classes are designed to provide students with hands-on training utilizing state-of-the-art computer facilities. Lab work and assignments will present real world cyber security scenarios encountered in the work place. For forensics studies, industry standard software will be used.

While A.A.S. graduates are prepared to enter the workforce immediately, many students choose to transfer to upper-level programs leading to a bachelor's degree in technology. If students are considering this, they should consult with the department chair and advisors for program planning. Special planning is available for students entering the program with previous college credit or equivalent training/work experience.

## Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission.

Hudson Valley Educational Consortium students from Sullivan County Community College or Ulster Community College who plan to register for Cybersecurity courses must apply to and be accepted in the program by the following dates: August 15 for a Fall semester; December 15 for a Spring semester.

## Program Learning Outcomes

Students will:

- Develop basic networking and computer skills, specifically as they relate to industry environments and practices.
- Demonstrate knowledge of Operating Systems fundamentals and configure and utilize software packages.
- Demonstrate an understanding of network security and forensics and perform computer forensic analysis.
- Develop an understanding of the social, institutional, and legal issues associated with cybersecurity and document appropriate procedures for handling case evidence.

## Career Opportunities

Entry level

- Network Administrator
- Network Security Specialist
- Computer Crime Investigation

## Transfer Opportunities

SUNY Orange has special relationships with upper-level colleges and universities for transfer.

These transfer institutions include:

- St. John's University

## Contact Information

Computer Science & Technology  
Department Chair  
341-4523  
Admissions Office  
(845) 341-4030