

Infrastructure Security - A.S. Degree

Description

The Infrastructure Security Associate of Science degree confers skills and best practices in secure deployment and configuration of hardware devices that deliver connectivity and enable the exchange of information services. The graduate of this program is able to design, install and implement network and application services; detect intrusions, monitor and capture network traffic, manage and optimize security infrastructure to ensure compliance with security controls. They have completed instruction in the infiltration of information systems, baseline performance measurement, management of alerts and exception thresholds and formulation of security policies, and formation of an incident response team to investigate and respond to operational security threats and attacks. They conduct security research, analysis and review of infrastructure designs to ensure compliance with company security policies; evaluate new products and technologies to protect against existing and emerging security threats; and develop and implement information security policies and procedures.

Major Core Courses

Units: 21.0

CIS 052	Cloud Security Fundamentals
CIS 053	Intrusion Detection In-Depth: Compliance, Security, Forensics and Troubleshooting
CIS 054	IT Security Goals, Strategy, Policy, and Leadership
CIS 055	Hacker Techniques, Exploits, and Incident Handling
CIS 058	Hacker Guard – Baseline Training for IT Administrators and Operations
CIS 060	Computer Forensics Fundamentals
CIS 072	Systems and Network Administration

Major Elective Courses List A

Units: 3.0-5.0

Select one course for a minimum of 3 units.

CIS 005	Introduction to Computer Science
CIS 006	Introduction to Computer Programming
CIS 007	Control Structures and Objects
CS 020	Python Application Programming

Major Elective Courses List B

Units: 3.0-4.0

Select one course for a minimum of 3 units.

CIS 051	Introduction to Information Technology Project Management
CIS 098	Database Programming with SQL
CIS 178	Build Automation for DevOps and QA
CIS 221	Cyber Safety, Online Identity, and Computer Literacy
CIS 247	Information Systems Skills Challenge
COPED 469	Occupational Work Experience in Security Administration

Elective Courses to Meet 60 Units

Units: 14.0

Select degree-applicable courses for 11-14 units.

Local AA/AS General Education Courses

Units: 19.0

Select general education courses for a minimum of 19 units.

Total: 60.0-63.0