

SEC 350. NETWORK SECURITY.

Credit Hours: 5

Scheduled hours per week

Lecture: 3

Lab: 2

Other: #

Catalog Course Description: This class will teach students to design and implement security solutions that will reduce the risk of revenue loss and vulnerability. The course focuses on the overall security processes based on a security policy, with an emphasis on hands-on skills in the areas of secure perimeter, secure connectivity, security management, identity services, and intrusion detection.

Pre-requisites: Grade of "C" or better in CIT 206

Co-requisites: N/A

Course Learning Outcomes:

- Describe the role of network security in the global human network
- Identify components of network security
- Describe and discuss routing protocol and control plane security
- Demonstrate an ability to implement and manage AAA services
- Describe and discuss access control lists and firewall technologies
- Describe and discuss the characteristics of intrusion prevention systems
- Describe and discuss various layer 2 security threats and mitigation tactics
- Identify and describe integrity and confidentiality
- Implement and manage virtual private networks
- Demonstrate an ability to manage a secure network

Topics to be studied:

- Network security threats
- Authentication, Authorization, and Accounting
- Firewall technologies
- Intrusion prevention
- Cryptographic systems
- Virtual Private Networks
- Cisco Adaptive Security Appliance
- Managing a secure network

Relationship of Course to Program or Discipline Learning Outcomes:

	Ability to understand, plan, and execute good Project Management
X	Ability to recognize and apply industry recognized code of ethics to various situations
X	Ability to understand and apply Information Security concepts and best practices
	Ability to plan, implement, and troubleshoot Advanced Routing and Switching technologies
	Ability to plan, implement, and troubleshoot Advanced Systems Administration technologies
X	Ability to plan, implement, and troubleshoot Advanced Security Systems

Relationship of Course to General Education Learning Outcomes:	
Composition and Rhetoric Students illustrate a fundamental understanding of the best practices of communicating in English and meet the writing standards of their college or program-based communication requirements.	X
Science & Technology Students successfully apply systematic methods of analysis to the natural and physical world, understand scientific knowledge as empirical, and refer to data as a basis for conclusions.	X
Mathematics & Quantitative Skills Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts.	X
Society, Diversity, & Connections Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication.	
Human Inquiry & the Past Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills.	X
The Arts & Creativity Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art.	
5/3/2016	

Special requirements of the course:

N/A

Additional information:

N/A

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