

Computer Information Department Course Outline

NTWK 2263 Network Security Support (On Demand)

Catalog Description:

Network Security Support is an advanced course that provides students with the knowledge to secure Cisco routers and switches and their associated networks. Students learn to configure, troubleshoot and monitor network devices to maintain integrity, confidentiality and availability of data and devices and develop competency in the technologies that Cisco uses in its security infrastructure. Some specific topics include: IPv4 to IPv6 transition, AAA, ACLs, secure network management and reporting. This course is aligned with the Cisco CCNA Security certification (Exam 640-554) and is recognized by the U.S. National Security Agency (NSA) and the Committee on National Security Systems (CNSS) to meet the CNSS 4011 training standard.

Prerequisite(s):

NTWK 2014, NTWK 2084, or equivalent knowledge.

Credit Hours/Contact Hours/Load Hours:

3/3/3

Target Audience/Transferability

The target includes, but is not necessarily limited to, the following:

- Students pursuing a career in Networking or other computer-related field
- Students who wish to enhance their understanding of network design
- Community members or networking professionals who wish to expand their understanding of what business and technical decisions lead to network design decisions and actual implementation

Student Learning Outcomes:

The student will:

- Further their knowledge of the implementation of security principles and practices
- Describe common security threats and threat mitigation
- Secure the Local-Area network using AAA and Radius
- Describe cryptographic systems on routers
- Implement VPNs
- Implement Cisco Adaptive Security
- Configure Zone-Based Policy Firewalls
- Configure Intrusion Prevention System
- Secure Layer 2 Switches
- Configure ASA settings and firewalls using CLI and ASDM
- Respond properly to security incidents

Methods of Instruction:

The primary methods of instruction include lecture, lab demonstrations audio visual demonstrations and required lab assignments and projects.

Forms of Assessment:

Students will demonstrate proficiency by averaging at least 70% on all homework, quizzes, tests and lab assignments.

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