Sinclair Community College
444 E. Third St.
Dayton, OH 45402

Master Syllabus

CIS 2640 - Network Security

Division: Business and Public Services

Department: Computer Information Systems

Credit Hour Total: 3.0 **Lecture Hrs:** 3.0

Prerequisite(s): CIS 1107 AND CIS 1130 OR CIS 1411

Date Revised: September 2016

Course Description:

Intermediate computing and network security fundamentals. Topics include network vulnerabilities and attacks, network defenses, wireless network security, access control, network assessment and auditing, cryptography and organizational security. Preparation will also be given for the ComptTIA Security + exam.

General Education Outcomes:

- Critical Thinking/Problem Solving Competency
- Information Literacy Competency
- Computer Literacy Competency

Course Outcomes:

Cryptography in Networks
Use cryptography including the proper use of algorithms, digital certificates, public key cryptographic standards, key management, and cryptographic transport protocols to create secure networks.

Assessment Method: Locally developed exams
Performance Criteria: 70% or higher on a standard rubric

Assessment Method: Simulations
Performance Criteria: 70% or higher on a standard rubric

Network Access Control and Vulnerability Mitigation
Control access to and mitigate vulnerabilities in wired and wireless networks.

Assessment Method: Locally developed exams
Performance Criteria: 70% or higher on standard rubric

Assessment Method: Simulations
Performance Criteria: 70% or higher on standard rubric

Network Infrastructure Protection
Assess network vulnerabilities and attacks, identify hardware and software defenses needed to protect the infrastructure in both wired and wireless installations, and the strategies used to protect a network infrastructure.

Assessment Method: Locally developed exams
Performance Criteria: 70% or higher on a standard rubric

Assessment Method: Simulations
Performance Criteria: 70% or higher on a standard rubric

Outline:

Network Vulnerabilities and Attacks
Network Defense Strategies
Wireless Network Security
Access Control Fundamentals
Network Authentication
Vulnerability
Assessments
Conducting Security Audits
Cryptography
Business Continuity Planning
Security Policy planning and implementation
Acceptable Use Policies