

Master Syllabus

CIS 1130 - Network Fundamentals

Division: Business and Public Services

Department: Computer Information Systems

Credit Hour Total: 3.0

Lecture Hrs: 3.0

Date Revised: June 2014

Course Description:

Introduction to computer networking. Topics include network standards and the Open Source Interconnection (OSI) model, topologies and Ethernet standards, network hardware, remote connectivity, wireless networking, in-depth TCP/IP, network security, network troubleshooting and network management.

General Education Outcomes:

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

Course Outcomes:

TCP/IP networking

Use, install, and integrate the TCP/IP protocol into the networking environment.

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 Problems

Troubleshoot computer network problems.

Assessment Method: Locally developed exams

Performance Criteria: 70% or higher on standard rubric

Assessment Method: Simulations

Performance Criteria: 70% or higher on standard rubric

Securing networks

Identify and use techniques to secure network communication.

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

OSI Model Network Layer Architecture

Apply the OSI model to various 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

Outline:

Network Standards
OSI Model
Topology and Ethernet Standards
Network Hardware
Wide Area Networks (WANs)
Remote Connectivity
Wireless Networking
TCP/IP
Network Security
Network Troubleshooting
Network Management