

## 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

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### 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
- ▣ Computer Literacy

### 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