Course Information
Division: Business
Contact Hours: 45
Total Credits: 3

Prerequisites
CIS 130 Introduction to Computer Information Systems

Course Description
This course provides students with the basic networking concepts. Topics include: OSI Model, network medium, architectures, devices, services, protocols, topologies and network security. TCP/IP along with the OSI communication model will be discussed. Aside from learning the technologies involved in networking, students will get to understand the daily tasks involved with managing and troubleshooting a network. Students will have a variety of hands-on and case project assignments that reinforces the concepts covered in each chapter.

This course is a required core course for students pursuing an:
AAS in System Administration Specialist
AAS in Cybersecurity and Information Assurance
AAS in PC Support Technician

Course Outcomes
In order to evidence success in this course, the students will be able to:
1. Students will be able to describe basic network topologies;
2. Students will be able to identify basic network hardware;
3. Students will be able to define basic network protocols;
4. Students will be able to explain the OSI model;
5. Students will be able to implement basic network security

Program Outcomes Addressed by this Course:

Upon successful completion of this course, students should be able to meet the program outcomes listed below:
Course Outcome Summary
Required Program Core Course
CIS 209 Network Concepts

System Administration

1. Students will be able to describe basic network topologies;
   **Applies to Program Outcome**
   Demonstrate a basic understanding of networks and computer security in the business environment.
   Configure basic TCP/IP networking services on computers in the workplace.

2. Students will be able to identify basic network hardware;
   **Applies to Program Outcome**
   Demonstrate a basic understanding of networks and computer security in the business environment.
   Configure basic TCP/IP networking services on computers in the workplace.

3. Students will be able to define basic network protocols;
   **Applies to Program Outcome**
   Demonstrate a basic understanding of networks and computer security in the business environment.
   Configure basic TCP/IP networking services on computers in the workplace.

4. Students will be able to explain the OSI model;
   **Applies to Program Outcome**
   Demonstrate a basic understanding of networks and computer security in the business environment.
   Configure basic TCP/IP networking services on computers in the workplace.

5. Students will be able to implement basic network security;
   **Applies to Program Outcome**
   Demonstrate a basic understanding of networks and computer security in the business environment.
   Configure basic TCP/IP networking services on computers in the workplace.

   Examine and apply the fundamental techniques of computer security. Identify and explain potential security issues.
Cybersecurity and Information Assurance

1. Students will be able to describe basic network topologies;
   **Applies to Program Outcome**
   Demonstrate a basic understanding of networks and computer security in the business environment.
   Configure basic TCP/IP networking services on computers in the workplace.

2. Students will be able to identify basic network hardware;
   **Applies to Program Outcome**
   Demonstrate a basic understanding of networks and computer security in the business environment.
   Configure basic TCP/IP networking services on computers in the workplace.

3. Students will be able to define basic network protocols;
   **Applies to Program Outcome**
   Demonstrate a basic understanding of networks and computer security in the business environment.
   Configure basic TCP/IP networking services on computers in the workplace.

4. Students will be able to explain the OSI model;
   **Applies to Program Outcome**
   Demonstrate a basic understanding of networks and computer security in the business environment.
   Configure basic TCP/IP networking services on computers in the workplace.

5. Students will be able to implement basic network security;
   **Applies to Program Outcome**
   Demonstrate a basic understanding of networks and computer security in the business environment.
   Configure basic TCP/IP networking services on computers in the workplace.
   Examine and apply the fundamental techniques of computer security. Identify and explain potential security issues.

PC Support

1. Students will be able to describe basic network topologies;
   **Applies to Program Outcome**
   Perform routine maintenance on the different computer hardware and software operating systems in today’s business.

5. Students will be able to implement basic network security
   **Applies to Program Outcome**
   Demonstrate a basic understanding of networks and computer security in the business environment.