COURSE DESCRIPTION

Prerequisites: None.

A course in networking technologies and their implementation. Topics include local area networks, wide area networks, the OSI reference model, network protocols and services, transmission media, and networking hardware and software.

This course is designed to help prepare students for successful completions of Microsoft Technology Associate Certification - MTA Exam 98-366. Additional certification information is available at http://www.microsoft.com/learning

This is a 4 credit hour course. (3 lec. 4 lab.)

END OF COURSE OUTCOMES

Understanding Network Infrastructures, Understanding Network Hardware, Understanding Protocols and Services

STUDENT LEARNING OUTCOMES

Upon successful completion of ITNW 1425 MTA Networking Fundamentals the student will be able to:

- Examine Local Area Networks, Devices, and Data Transfer
- Identify Network Topologies and Standards
- Understand OSI Basics
- Define the Communications Subnetwork
- Define the Upper OSI Layers
- Define the Communications Subnetwork
- Understand wired Networks and Media Types
- Understand wireless Networks
- Understand IPv4
- Understand IPv6
- Use Basic TCP/IP Commands
- Work with Advanced TCP/IP Commands
- Set Up Common Networking Services
- Define More Network Services
- Define Name Resolution Techniques
- Understand Routing
- Understand Common WAN Technologies and Connections
- Understand networks outside the LAN
- Understand security Devices and Zones.
COURSE MATERIALS


A student of this institution (El Centro College) is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Major Course Requirement

Students will review Comprehensive Lecture on each lesson topic.

Students will complete Case Scenarios related to concepts for each lesson topic.

Students will complete Lesson Tests, which evaluate the students’ knowledge in each of the topic areas.

Students will complete TestOut Lab Exercises on lecture technologies and concepts using a virtual lab environment.

In this classroom course, students will have access to additional content including Topical External Links, Certification Information and Preparation Materials, and Software and Tools Downloads, and additional study materials including PowerPoint Decks, and Key Terms Glossaries.

Subject Matter

Topics covered in the course include:

- Understanding Local Area Networking
- Defining Networks with the OSI Model
- Understanding Wired and Wireless Networks
- Understanding Internet Protocol
- Implementing TCP/IP in the Command Line
- Working with Networking Services
- Understanding Wide Area Networks
- Defining Network Infrastructures and Network Security

Disclaimer

The provisions contained in this syllabus do not constitute a contract between the student and El Centro College. These provisions may be changed at the discretion of the Coordinator/Instructor. When necessary, appropriate notice of such changes will be given to the student.
The instructor-of-record may provide additional information to enhance the course to meet the needs of the enrolled students, provided that the enhancements do not conflict with the official course syllabus.

**Policies**
Students should click on the links below and read all of these policies.

[General institutional policies](#)
[Course-related institutional policies](#)