COURSE DESCRIPTION

Prerequisites: Prior networking course, networking experience or instructor approval.

Assists individuals in preparing for the Computing Technology Industry Association (CompTIA) Network+ certification exam and career as a network professional.

ITNW 1425 is a 4 credit hour course. (3 lec., 4 lab.)

WECEM END-OF-COURSE OUTCOMES: Identify and use network transmission media; explain the OSI model; Identify the characteristics of network topologies and protocols; identify the functions of a network operating system and distinguish between centralized, client/server, and peer-to-peer systems; and distinguish between Local Area Networks (LANs) and Wide Area Networks (WANs) and identify the components used to expand a LAN into a WAN.

STUDENT LEARNING OUTCOMES:

Upon successful completion of ITNW 1458 Networking+, students will be able to:

- Write a one page research paper describing various computer network topologies
- Utilize equipment, protocols, and topologies to differentiate between various network systems
- Work in teams to install network hardware, software, and cable
- Troubleshoot network connectivity
- Configure network protocol; and install and configure network client software.
- Collaborate with three classmates about the importance of basic network security

COURSE MATERIALS


Other supplies may be required by the instructor.

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 Requirements
Students will participate in Discussion Board addressing topics in each chapter.
Students will complete the review questions in each chapter. 
Students will complete hands-on projects in each chapter. 
Students will complete Case Projects in each chapter. 
Students will complete LabSim exercises. 
Students will produce a Case Study Project paper. 

Networking 
OSI Model 
Transmission Basics 
Network Media 
Topologies 
Hardware 
TCP/IP 
Convergence 
Security 
Troubleshooting 
Integrity 
Network Management

A mid-term and final exam will evaluate the student’s understanding of the fundamentals of Network+ concepts.

Subject Matter 
Topics covered in the lecture portion of the course include: 
  An Introduction to Networking 
  Networking Standards and the OSI Model 
  Transmission Basics and Networking Media 
  Introduction to TCP/IP Protocols 
  Topologies and Ethernet Standards 
  Network Hardware 
  WANS and Remote Connectivity 
  Wireless Networking 
  Networking Operating Systems 
  Voice and Video over IP 
  Network Security 
  Troubleshooting Network Problems 
  Ensuring Integrity and availability 
  Network Management 
  Network+ Examination Objectives 
  Network Practice Exam 
  Visual Guide to Connectors

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