Course Prefix and Number: ITN 101
Credits: 3

Course Title: Introduction to Network Concepts

Course Description: Provides instruction in networking media, physical and logical topologies, common networking standards and popular networking protocols. Emphasizes the TCP/IP protocol suite and related IP addressing schemes, including CIDR. Includes selected topics in network implementation, support, and LAN/WAN connectivity. Co-requisite: ITE 221 or school approval. Lecture 3 hours per week.

General Course Purpose: This course provides a comprehensive foundation in networking concepts and technologies. Students will learn how to use, install, and configure basic networking technologies as would be expected from a network support technician or network administrator. The covered material of this course is related to the industry certification Network+.

Course Prerequisites and Co-requisites:
Co-requisite: ITE 221 or school approval

Student Learning Outcomes:
Upon completing the course, the student will be able to
a. Describe the operation of data networks;
b. Implement an IP addressing scheme;
c. Describe the appropriate administrative tasks required of a small network;
d. Explain proper operation of network protocols;
e. Select the appropriate wired and wireless devices for a local area network;
f. Identify security threats to a network and methods of mitigating damage;
g. Specify the main features of different types of networking technologies; and
h. Employ troubleshooting methods to solve typical network connectivity issues.

Major Topics to Be Included:
  a. Architecture and operation of both wired and wireless local area networks
  b. Addressing a TCP/IP network
  c. Selection and proper use of networking media and cabling
  d. Installation and operation of a protocol analyzer to study network protocols
  e. LAN/WAN technologies
  f. Network management
  g. Network troubleshooting
  h. Network security

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