

**J. Sargeant Reynolds Community College  
Course Content Summary**

**Course Prefix and Number:** ITN 101

**Credits:** 4

**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. Prerequisite or Co-requisite: ITE 221 or IT faculty approval. Lecture 4 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:**

Prerequisite or Co-requisite: ITE 221 or IT faculty approval

**Course Objectives:**

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

**Effective Date of Course Content Summary:** January 14, 2017