

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

Course Prefix and Number: ITN 154

Credits: 3

Course Title: Networking Fundamentals-Cisco

Course Description

Introduces networking using the OSI reference model. Covers data encapsulation, TCP/IP suite, routing, IP addressing, and structured cabling design and implementation. Lecture 3 hours per week.

General Course Purpose

This course provides an introduction to Cisco networking fundamentals.

Course Prerequisites/Corequisites

none

Course Objectives

Upon completing the course, the student will be able to:

- a. design and configure a network.
- b. administer and configure routers.
- c. administer and configure switches and host devices.
- d. subnet a network.
- e. troubleshoot network connectivity.
- f. understand WAN connectivity.

Major Topics to be Included

- a. OSI Model
- b. Networking addressing
- c. Hardware Addresses
- d. Address Resolution Protocol (ARP)
- e. Sub-netting
- f. Topology
- g. Planning and cabling networks
- h. Network Management

Effective Date of Course Content Summary: 2/18/2009