

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

Course Prefix and Number: ITN 151

Credits: 4

Course Title: Introductory Routing and Switching--Cisco

Course Description

Teaches advantages of LAN segmentation using bridges, routers, and switches. Includes Spanning Tree Protocol and Virtual LANs, as well as multiprotocol support and traffic filtering. Covers network design issues and differences between the following WAN services: LAPB, Frame Relay, ISDN, HDLC, and PPP. Prerequisite: ITN 150 or school approval. Lecture 4 hours per week.

General Course Purpose

This course covers advanced routing and switching techniques.

Course Prerequisites/Corequisites

ITN 150 or school approval

Course Objectives

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

- a. understand switching devices.
- b. understand Virtual LANs.
- c. understand LAN design parameters.
- d. understand interior routing protocols.
- e. understand different LAN proprietary protocols.
- f. understand access control.

Major Topics to be Included

- a. LAN switching
- b. VLANs
- c. LAN design
- d. RIP, OSPF, EIGRP
- e. Access lists
- f. Installation and configuration

Effective Date of Course Content Summary: 10/16/2008