

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

Course Prefix and Number: ITN 155

Credits: 4

Course Title: Introductory Routing -- Cisco

Course Description (including lecture hours, lab hours, total contacts)

Features an introduction to basic router configuration using Cisco IOS software. Includes system components, interface configuration, IP network design, troubleshooting techniques, configuration and verification of IP addresses, and router protocols. Prerequisite: ITN 154. Lecture 4 hours per week.

General Course Purpose

Prepares students to configure the Cisco IOS in a networked environment. Can lead to industry certification.

Course Prerequisites/Corequisites (*Entry-level competencies **required** for enrollment*)

ITN 154 Networking Fundamentals -- Cisco

Course Objectives (Each item should complete the following sentence.)

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

- Explain the router's role, its main hardware and software components
- Configure and verify static routes
- Configure and troubleshoot RIP
- Implement classless routing protocols
- Configure, verify and troubleshoot EIGRP
- Examine link-state routing protocol concepts, algorithms, and routing process
- Configure, verify and troubleshoot OSPF

Major Topics to be Included

- Routing and Packet Forwarding
- Static Routing
- Dynamic Routing
- RIP v1
- VLSM and CIDR
- RIP v2
- EIGRP
- OSPF

Effective Date of Course Content Summary (Month, Date Year): May, 2010