J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: ITN 157                  Credits: 4

Course Title: WAN Technologies – Cisco

Course Description: Concentrates on an introduction to Wide Area Networking (WAN). Includes WAN design, LAPB, frame relay, ISDN, HDLC, and PPP. Prerequisite: ITN 156 – Basic Switching and Routing – Cisco. Lecture 4 hours per week.

General Course Purpose: Prepares students to implement the appropriate WAN technology to provide integrated services in a networked environment. Can lead to industry certification.

Course Prerequisites and Co-requisites:
Prerequisite: ITN 156 – Basic Switching and Routing – Cisco

Course Objectives:
Upon completing the course, the student will be able to
a. Integrate WAN technology to provide integrated services;
b. Implement PPP serial communication;
c. Employ frame relay technology;
d. Describe the common security threats to networks;
e. Implement, verify, and troubleshoot ACLs;
f. Describe how to use VPN technology;
g. Implement IP addressing services; and
h. Troubleshoot common networking issues.

Major Topics to Be Included:
a. Services in a WAN
b. PPP
c. Frame relay
d. Network security
e. Access Control Lists (ACLs)
f. VPN technologies
g. Implementing IP addressing
h. Troubleshooting networks

Effective Date of Course Content Summary: May, 2010