A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: 2
Lab Hours/Week: 1
OJT Hours/Week: *

Prerequisites:
CVNP 1612 - Cisco 2 (Number of Years Valid: 5) AND CVNP 1603 - Cisco 1 (Number of Years Valid: 5) AND CVNP 2606 - Cisco 3 (Number of Years Valid: 5)

Corequisites: None

MnTC Goals: None

This course discusses the wide area network (WAN) technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and to resolve common issues with data link protocols. Students will also develop the knowledge and skills needed to implement virtual private network (VPN) operations in a complex network. Prerequisite: CVNP1603 Cisco 1, CVNP1612 Cisco 2, and CVNP2606 Cisco 3.

B. COURSE EFFECTIVE DATES: 01/09/2017 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Configure and troubleshoot Frame Relay
2. Connecting to the WAN
3. Hierarchical network design
4. Point-to-Point connections
5. Network Address Translation (NAT) for Internet Protocol IPv4
6. Broadband solutions
7. Securing site-to-site connectivity
8. Monitoring the network
9. Troubleshooting the network

D. LEARNING OUTCOMES (General)

1. The learner will demonstrate an understanding of different WAN technologies and their benefits.
2. The learner will demonstrate an understanding of troubleshooting serial and broadband connections.
3. The learner will demonstrate an understanding of tunneling and NAT operations.
4. The learner will demonstrate an understanding of various network architectures including borderless networks, data centers and virtualization, and collaborative technology and solutions.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus
G. SPECIAL INFORMATION

None noted