

Alexandria Technical and Community College

CVNP 2606: Cisco 3

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: 3

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)

Corequisites: None

MnTC Goals: None

This course describes the architecture, components, and operations of routers and switches in large and complex networks. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with Open Shortest Path First (OSPF), Enhanced Interior Gateway Routing Protocol (EIGRP), and Spanning Tree Protocol (STP) in both Internet Protocol v4 and 6 (IPv4) and (IPv6) networks. Students will also develop the knowledge and skills needed to implement a Wireless Local Area Network (WLAN) in a small-to-medium sized network. Prerequisite: CVNP1603 Cisco 1 and CVNP1612 Cisco 2.

B. COURSE EFFECTIVE DATES: 08/22/2016 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Introduction to Scaling Networks
2. Local Area Network (LAN) redundancy
3. Link aggregation
4. Wireless Local Area Networks (WLAN)
5. Adjust Single-Area Open Shortest Path First (OSPF)
6. Troubleshoot Single-Area OSPF
7. Multiarea OSPF
8. EIGRP advanced configurations and troubleshooting
9. Enhanced Interior Gateway Routing Protocol (EIGRP)
10. Internetwork Operating System (IOS) images and licensing

D. LEARNING OUTCOMES (General)

1. The learner will demonstrate an understanding of design and performance issues related to scaled network design.
2. The learner will demonstrate the understanding of (WLAN) and (VLAN) design.
3. The learner will demonstrate the understanding and ability to configure OSPF and EIGRP protocols.

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted