

Common Course Outline
DCOM 219
Cisco III: LAN Switching and Wireless
4 Semester Hours

The Community College of Baltimore County

Description

DCOM 219 – 4 Credits – Cisco III: LAN Switching and Wireless provides a comprehensive approach to learning the technologies and protocols needed to design and implement a converged switched network. The class is designed to help students prepare for professional careers in the information and communication technology (ICT) field and the Cisco Certified Network Associate (CCNA) certification exam.

Prerequisite: DCOM 218 or consent of the program coordinator

Overall Course Objectives

Upon completion of this course the student will be able to:

1. troubleshoot common network problems at OSI Layers 1, 2, 3, and 7 using a layered model approach;
2. interpret network diagrams;
3. perform and verify initial switch configuration tasks including remote access management;
4. configure, verify, and troubleshoot Virtual Local Area Networks (VLANs), inter-VLAN routing, VLAN Trunk Protocol (VTP), trunking on Cisco switches, and Rapid Spanning Tree Protocol (RSTP) operation;
5. manage Cisco Internetwork Operating System (IOS) configuration files; and
6. identify the basic parameters to configure a wireless network and common implementation issues.

Major Topics

- I. Local Area Network (LAN) design
- II. Basic switch concepts and configuration
- III. Virtual Local Area Networks (VLANs)
- IV. VLAN Trunk Protocol (VTP)
- V. Spanning Tree Protocol (STP)
- VI. Inter-VLAN routing
- VII. Basic wireless concepts and configuration

Course Requirements

Grading/exams: Grading procedures will be determined by the individual faculty member but will include the following:

Minimum of five laboratory projects
Minimum of three exams

Writing: The individual faculty member will determine specific writing assignments, such as an Acceptable Usage Policy.

Other Course Information

This course is a program requirement for the Network Technology Security and Cisco degree options, as well as the Network Technology Cisco certificate.

This course is the third course in a four-course sequence.

This course is taught in a computerized environment.

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