

# Common Course Outline

## Routing and Switching

### DCOM 239

4 Semester Hours

## The Community College of Baltimore County

### Description

The purpose of the course is to provide the student with an overview of the principles and practice of network routing and switching. Upon completion of the course, students will be able to analyze technological requirements, design a network infrastructure, and install and configure routing and switching equipment. Using a hands-on approach, students will install and configure Cisco, Microsoft, and Nortel routers and switches.

4 credits; 4 lecture hours, 0 laboratory hours required.

Prerequisite: DCOM 101

### Overall Course Objectives

- Define the purpose of routing and switching
- Identify the principles of network design
- Design a switched network
- Install a router
- Install a switch
- Configure routers and switches
- Load multiple protocols
- Differentiate between routing and routed protocols

### Major Topics

- Configure TCP/IP routing
- Setup network security
- Implement filters and access lists
- Configure LAN routing
- Configure WAN routing
- Set up a VLAN
- Compare and contract different vendors of routing and switching equipment

### Course Requirements

Evaluation: There will be two exams (a mid-term and a final) and two quizzes. Each exam accounts for one-third of the student's final grade; each quiz accounts for one-sixth of the final grade.

**Other Course Information**

This course will be a requirement in the Network Technology LAN Technician Degree Option and is a DCOM Program Elective.