

## **DCOM 163**

### **Computer Systems Management and Troubleshooting**

4 Credits

Community College of Baltimore County  
Common Course Outline

#### **Description**

**DCOM 163 – Computer Systems Management and Troubleshooting:** introduces computer hardware, software technologies, emphasizing the ability to install, configure, and troubleshoot PCs, mobile devices, and network hardware. Students will learn about various operating systems, including Windows, Linux, and macOS, and their built-in tools and utilities. Students also practice networking devices, implement security measures to protect devices and network, and best practices for operational procedures such as documentation and environmental safety. This course prepares the students to take CompTIA A+ certification.

**Pre-requisites:** ACLT 053 or (ESOL 052 and ESOL 054)

#### **Overall Course Objectives**

Upon completion of this course, students will be able to:

1. configure various computer hardware components such as, CPU, Storage Devices, RAM. and Operating System;
2. troubleshoot common computer related problems;
3. identify different types of mobile devices;
4. troubleshoot using command line tools for the Windows Operating System;
5. configure Microsoft Windows;
6. configure file systems;
7. explain ports and protocols;
8. secure the operating system;
9. identify network cabling types;
10. describe virtualization and cloud technology;
11. implement best practices associated with documentation and support systems information management; and
12. practice proper communication techniques and professionalism.

#### **Major Topics**

- I. Computer Hardware Components
  - a. motherboard
  - b. CPUs
  - c. RAM
  - d. Storage Devices(hard drives)
- II. Operating Systems and its features
  - a. Windows OS
  - b. Windows command line utilities

The Common Course Outline (CCO) determines the essential nature of each course.

For more information, see your professor's syllabus.

- c. MacOS and its features
- d. Linux distributions and its shell command utilities
- III. Network Protocols and Ports
  - a. Network cabling types
  - b. Network devices
  - c. Network configuration
  - d. Network protocols such as TCP, UDP, ICMP, and ARP
  - e. Network ports such as HTTP, HTTPS, FTP, and DNS
- IV. Cloud and Virtualization

## **Cloud and Virtualization**

### **Course Requirements**

Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- Five lab assignments
- Two exams

### **Other Course Information**

This course prepares the students to take CompTIA A+ certification.

Date Revised: 2/18/2025