

**Common Course Outline**  
**DCOM 235**  
**Computer Systems Operation, Maintenance and Troubleshooting**  
**4 Credits**

**Community College of Baltimore County**

**Description**

**DCOM 235 – Computer Systems Operation, Maintenance and Troubleshooting** is a course in which students examine the interrelationships between hardware and software at the system level. A review of computer operating systems, security, troubleshooting and operational procedures is provided. Course instruction is supported with lab experiences.

**4 Credits**

**Prerequisite:** DCOM 141 or permission of program coordinator.

**Overall Course Objectives**

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

1. identify common operating system types, versions, features, and purposes;
2. compare general operating system and application installation considerations, upgrade methods, and configuration concepts;
3. apply the appropriate operating system features, tools, and utilities;
4. configure operating system networking on a device;
5. explain the importance of physical security measures and logical security concepts;
6. evaluate security protocols, authentication methods, threats, vulnerabilities, and operating system security settings;
7. configure security on workstations, mobile devices, and wireless/wired networks;
8. resolve operating system security issues and application issues;
9. apply basic change management best practices, disaster prevention, and recovery methods; and
10. explain common safety procedures, environmental impacts and appropriate controls.

## **Major Topics**

- I. Operating System (OS) types and purposes
- II. Operating System installation and upgrade methods
- III. Microsoft Windows
  - A. Features
  - B. Tools
  - C. Networking features
- IV. Physical and logical security measures
- V. Malware detection, prevention and mitigation
- VI. Social engineering, threats, and vulnerabilities
- VII. Security best practices
  - A. Workstations
  - B. Mobile devices
  - C. Small office/home office
- VIII. Software Troubleshooting
  - A. Microsoft Windows
  - B. Personal computing security
- IX. Basic change management best practices
- X. Basic disaster prevention and recovery methods
- XI. Common safety procedures
- XII. Environmental impacts and appropriate controls

## **Course Requirements**

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

### **Grading/exams**

- A minimum of five lab projects
- A minimum of two exams

Written Assignments: Students are required to use appropriate academic resources.

### **Other Course Information**

This course is the second course in a two course series that helps prepare students to take the CompTIA A+ Core 2 Exam.