

COURSE OUTLINE

CMSY-218

Operating System Fundamentals

3 Semester Hours

HOWARD COMMUNITY COLLEGE

Description

After successful completion of this course, the student will be able to define and explain the purpose of basic DOS and Windows operating system components with an emphasis on file management. In addition, the student will be able to identify and use the functions, structure, and major system files of operating systems. This will include a survey and comparison of major operating systems and MS-DOS commands needed for troubleshooting situations. In addition, the student will learn how to install and use the various versions of Windows. This course is designed to meet the needs of students who want to work toward A+ certification. (2 hours lecture, 2 hours lab)

Overall Course Objectives

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

1. Define terminology specific to DOS and Windows.
2. Use external and internal DOS commands.
3. Work with files and directories in DOS; work with files and folders in Windows.
4. Describe the differences between various Windows operating systems.
5. Explain how DOS and Windows view and manage memory, floppy disks, and hard drives.
6. Troubleshoot the boot process, hardware, and applications, and Windows performance.
7. Explain how to install, customize, use, and support, and troubleshoot various versions of Windows.
8. Use tools for maintenance, troubleshooting, and performance monitoring in Windows.
9. Explain how viruses work and how to protect against them.
10. Recognize the meaning of error messages and explain what to do to correct the error.

Major Topics

- I. DOS and Windows Terminology
- II. DOS Internal and External Commands

- III. Windows – File Management
- IV. Understanding the Boot Process and Command Line
 - A. Booting the Computer; Emergency Startup Disks
 - B. How DOS and Windows View and Manage Memory
 - C. Managing Floppy Disks and Hard Drives
- V. Installing and Using Windows
 - A. Installing and Using Windows; Installing Hardware with Windows; Installing Applications
 - B. Managing Memory with Windows
- VI. Supporting and Troubleshooting Windows
 - A. Troubleshooting the Windows Boot Process
 - B. The Windows Registry
 - C. Tools Used to Monitor, Control, and Troubleshoot Windows
- VII. Installing, Supporting, and Troubleshooting Windows NT
- VIII. Installing and Using Windows 2000 Professional
- IX. Managing and Troubleshooting Windows 2000
 - A. Understanding and Troubleshooting the Boot Process
 - B. The Windows NT/2000/XP Registry
- X. Supporting Hard Drives
 - A. Disk Compression, Caching, and Backups
 - B. Viruses and Other Computer Infestations
- XI. Windows on a Network
 - A. Addressing on a Network; Connecting to a Network and Sharing Resources
- XII. Windows on the Internet

Course Requirements

Specific assignments and procedures for evaluating student performance in the class will be described in the individual class syllabus, but will include the following:

1. A written test on definitions and procedures.
2. A computer test to demonstrate knowledge of concepts.
3. A file management project.