Miami Dade College

GENERAL INFORMATION

Course Prefix/Number: CGS1560	Course Title: Microcomputer Operating Systems

Number of Credits: 4 (3 hr. lecture; 2 hr. lab)

Degree Type	☐ B.A. ☐ B.S. ☐ B.A.S ☐ A.A. ☒ A.S. ☐ A.A.S. ☐ C.C.C. ☐ A.T.C. ☐ V.C.C

Date Submitted:	Effective Year/Term: 2007-1

☐ New Course Competency   ☒ Revised Course Competency

Course Description This is a comprehensive course in the use of operating systems for microcomputers suitable for students seeking preparation for A+ operating system certification. Students will learn how to install, configure, use, manage, and troubleshoot the Disk Operating System (DOS), Microsoft Windows, and other microcomputer operating systems. Prerequisite: CGS1060 or computer experience is required. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

Prerequisite(s): CGS1060 or computer experience is required.	Corequisite(s):

Course Competencies:

Competency 1: The student will demonstrate an understanding of the development of the microcomputer operating systems by:

1. Describing the historical development of microcomputer operating systems.
2. Identifying the fundamental principles of using microcomputers.
3. Describing how operating systems interact with the computer hardware.
4. Identifying the various microcomputer operating systems.
5. Identifying the fundamental principles of using operating systems.
6. Describing the general features and uses of current operating systems.

Competency 2: The student will demonstrate an understanding of operating system fundamentals by:

1. Identifying the major desktop components and interfaces, and their functions.
2. Differentiating the characteristics of Windows 9x/Me, Windows NT 4.0 Workstation, Windows 2000 Professional, Windows XP, Linux, and Mac OS.
3. Identifying the names, locations, purposes, and contents of major system files.
4. Using command line functions and utilities to manage the operating system, including the proper syntax and switches.
5. Creating, viewing, and managing disks, directories and files, and changing file attributes.
6. Identifying the major operating system utilities, their purpose, location, and options.

Competency 3: The student will demonstrate the ability to install, configure and upgrade microcomputer operating systems by:

1. Installing Windows 9x/Me, Windows NT 4.0 Workstation, Windows 2000 Professional, and Windows XP, and bringing the operating system to a basic operational level.

Revision Date: 03-26-2007____ Approved By Academic Dean Date: _____   Reviewed By Director of Academic Programs Date: _____

2. Performing operating system upgrades from Windows 9.x/ME, Windows NT 4.0 Workstation, Windows 2000 Professional, and Windows XP.
3. Creating an emergency boot disk with utilities installed for Windows 9x/Me, Windows NT 4.0 Workstation, Windows 2000 Professional, and Windows XP utilizing basic system boot sequences and boot methods.
4. Installing and adding devices, including loading, adding, and configuring device drivers, and required software.
5. Optimizing the operating system and major operating system subsystems.

Competency 4: The student will demonstrate the ability to diagnose and troubleshoot operating systems by:

1. Recognizing and interpreting the meaning of common error codes and startup messages from the boot sequence, and identifying steps to correct the problems.
2. Recognizing when to use common diagnostic utilities and tools.
3. Selecting and using system utilities and tools to diagnose, troubleshoot and resolve operating system problems.
4. Detecting common operational and usability problems and determining proper methods for resolution.

Competency 5: The student will demonstrate the ability to configure the network capabilities of Windows by:

1. Explaining the fundamental principles of networks.
2. Identifying the basic Internet protocols and terminologies.
3. Discussing the network protocols used by operating systems.
4. Explaining the networking features of operating systems.
5. Configuring operating systems to connect to a local area network.
6. Establishing Internet connectivity.
7. Configuring operating systems to connect to and use Internet resources.
8. Diagnosing and troubleshooting basic network connectivity problems.
9. Diagnosing and troubleshooting basic Internet connectivity problems.