

EASTERN ARIZONA COLLEGE

Operating Systems I

Course Design
2018-2019

Course Information

Division Business
Course Number CMP 113
Title Operating Systems I
Credits 3
Developed by James McBride
Lecture/Lab Ratio 2 Lecture/2 Lab

Transfer Status

ASU	NAU	UA
Elective Credit	Elective Credit NAU Extended Campuses: ECCL Departmental Elective	BASV Dept Elective, credit given in Bachelor of Applied Sci only.

Activity Course No
CIP Code 11.0100
Assessment Mode Pre/Post Test (96 Questions/100 Points)
Semester Taught Fall and Spring
GE Category None
Separate Lab No
Awareness Course No
Intensive Writing Course No
Diversity and Inclusion Course No

Prerequisites

None

Educational Value

This course, which serves as a program requirement and personal interest course, introduces the student to the principles of the Microsoft, Linux/Unix, Apple operating systems.

Description

In this course the rationale behind various operating systems will be examined, namely: Microsoft Windows, Linux/Unix, MacOS, and iOS. Hands-on experience will be gained using each operating system, including desktop management, file and folder manipulation, configuration, data manipulation, networking, proper operating system management, and operating system settings. It is recommended one introductory course in computers be completed prior to enrolling in this course.

Supplies

Internet email account such as Yahoo Mail or a flash drive.

Competencies and Performance Standards

1. Explore the basics of Microsoft Windows.

Learning objectives

What you will learn as you master the competency:

- a. Start Windows, tour the desktop and Start Menu.
- b. Use a folder window.
- c. Access help and support.
- d. Lock the computer.

Performance Standards

Competence will be demonstrated:

- by participation in oral discussion
- by tests
- by labs

Criteria - Performance will be satisfactory when:

- learner starts Windows, tours the desktop and start menu
- learner uses a folder window
- learner accesses help and support
- learner locks the computer

2. Manage files and folders in Windows.

Learning objectives

What you will learn as you master the competency:

- a. Explain the elements of the Windows file systems and file organization.
- b. Install and configure Windows operating system.

Performance Standards

Competence will be demonstrated:

- by participation in oral discussion
- by tests
- by labs

Criteria - Performance will be satisfactory when:

- learner expresses knowledge of Windows file organization and system installation in oral discussion
- learner completes labs demonstrating proper file system and operating system installation and organization
- learner completes tests covering file system and operating system installation terms

3. Organize files and folders in Windows.

Learning objectives

What you will learn as you master the competency:

- a. Navigate through windows.
- b. Use multiple windows.
- c. Move files and folders.
- d. Copy files and folders.
- e. Remove file properties.
- f. Add file properties.

Performance Standards

Competence will be demonstrated:

- o by participation in oral discussion
- o by tests
- o by labs

Criteria - Performance will be satisfactory when:

- o learner navigates through windows
- o learner uses multiple windows
- o learner moves files and folders
- o learner copies files and folders
- o learner removes file properties
- o learner adds file properties

4. Customize Windows Explorer.

Learning objectives

What you will learn as you master the competency:

- a. Change the icon size.
- b. Display and hide details.
- c. Sort by details.
- d. Group by details.
- e. Stack by details.
- f. Change a folder Window layout.
- g. Set General Folder options.
- h. Set Advanced Folder options.
- i. Add and Remove favorite links.

Performance Standards

Competence will be demonstrated:

- o by participation in oral discussion
- o by tests
- o by labs

Criteria - Performance will be satisfactory when:

- o learner changes icon sizes

- learner displays and hides details
- learner sorts by details
- learner groups by details
- learner stacks by details
- learner changes a Folder Window layout
- learner sets General Folder options
- learner sets Advanced Folder options
- learner adds and removes favorite links

5. **Manage and use cloud services.**

Learning objectives

What you will learn as you master the competency:

- a. Evaluate cloud services.
- b. Customize cloud services.
- c. Manage cloud services.
- d. Secure cloud services.

Performance Standards

Competence will be demonstrated:

- by participation in oral discussion
- by tests
- by labs

Criteria - Performance will be satisfactory when:

- learner identifies the components of cloud services
- learner customizes cloud services
- learner manages cloud services
- learner secures cloud services

6. **Search for files, folders, settings, and Apps.**

Learning objectives

What you will learn as you master the competency:

- a. Use a search box.
- b. Search from the start menu.
- c. Search in a folder.
- d. Use a search folder.
- e. Conduct an advanced search.
- f. Reuse a search.
- g. Use search tools.
- h. Customize the Index.

Performance Standards

Competence will be demonstrated:

- by participation in oral discussion

- o by tests
- o by labs

Criteria - Performance will be satisfactory when:

- o learner uses a search box
- o learner searches from the start menu
- o learner searches in a folder
- o learner uses a search folder
- o learner conducts an advanced search
- o learner reuses a search
- o learner uses search tools

7. Personalize the workspace.

Learning objectives

What you will learn as you master the competency:

- a. Customize the start menu.
- b. Select start menu settings.
- c. Pin, unpin, and remove start menu items.
- d. Manage the taskbar.
- e. Move and size the taskbar.
- f. Hide the taskbar.
- g. Display and hide the quick launch toolbar.
- h. Add a toolbar to the taskbar.
- i. Customize the notification area.
- j. Work with shortcuts.
- k. Add a folder shortcut to the start menu.
- l. Configure a program to start automatically.
- q. Customize the desktop.
- r. Select a desktop background.
- s. Customize window colors.
- t. Adjust display settings.
- u. select a screen saver.
- v. Control desktop icons.

Performance Standards

Competence will be demonstrated:

- o by participation in oral discussion
- o by tests
- o by labs

Criteria - Performance will be satisfactory when:

- o learner customizes the start menu
- o learner selects start menu settings
- o learner pins, unpins, and removes start menu items

- o learner manages the taskbar
- o learner moves and sizes the taskbar
- o learner hides the taskbar
- o learner displays and hides the quick launch toolbar
- o learner adds a toolbar to the taskbar
- o learner customizes the notification area
- o learner works with shortcuts
- o learner adds a folder shortcut to the start menu
- o learner configures a program to start automatically
- o learner customizes the desktop
- o learner selects a desktop background
- o learner customizes window colors
- o learner adjusts display settings
- o learner selects a screen saver
- o learner controls desktop icons

8. Use windows online help and remote assistance.

Learning objectives

What you will learn as you master the competency:

- a. Locate a help topic.
- b. Use windows help and support's table of contents.
- c. Search for a help topic.
- d. Include windows online help content in a search.
- e. Print a help topic.
- f. Find help online.
- g. Use windows online help and how-to web site.
- h. Search the Microsoft knowledge base.
- i. Use windows remote assistance.
- j. Enable windows remote assistance.
- k. Request remote assistance.

Performance Standards

Competence will be demonstrated:

- o by participation in oral discussion
- o by tests
- o by labs

Criteria - Performance will be satisfactory when:

- o learner locates a help topic
- o learner uses windows help and support's table of contents
- o learner searches for a help topic
- o learner includes Windows online help content in a search
- o learner prints a help topic

- o learner finds help online
- o learner uses windows online help and how-to web site
- o learner searches the Microsoft knowledge base
- o learner uses windows remote assistance
- o learner enables windows remote assistance

9. **Manage system resources.**

Learning objectives

What you will learn as you master the competency:

- a. Locate system information.
- b. View basic system information.
- c. Determine resource usage.
- d. Use Windows ReadyBoost.
- e. Manage power options.
- f. Select a power plan.
- g. Customize a power plan.
- h. Change the power button settings.
- i. Manage devices and drivers.
- j. Display installed devices.
- k. Disable and enable a device.
- l. Work with drivers.
- m. Safely remove hardware.
- n. View a local printer.
- o. Manage installed printers.
- p. Set the default printer.
- q. Determine printer status.
- r. Manage the print queue.
- s. Manage disks.
- t. Determine free disk space.
- u. View partitions.
- v. Check disks for problems.
- w. Defragment a hard disk.

Performance Standards

Competence will be demonstrated:

- o by participation in oral discussion
- o by tests
- o by labs

Criteria - Performance will be satisfactory when:

- o learner locates system information
- o learner views basic system information
- o learner determines resource usage

- learner manages power options
- learner selects a power plan
- learner customizes a power plan
- learner changes the power button settings
- learner manages devices and drivers
- learner displays installed devices
- learner disables and enables a device
- learner works with drivers
- learner safely removes hardware
- learner views a local printer
- learner manages installed printers
- learner sets the default printer
- learner determines printer status
- learner manages the print queue
- learner manages disks
- learner determines free disk space
- learner views partitions
- learner checks a disk for problems
- learner defragments a hard disk

10. **Manage software.**

Learning objectives

What you will learn as you master the competency:

- a. Install a program.
- b. Change or repair a program.
- c. Uninstall a program.
- d. Configure an older program to run with Windows.
- e. Shut down an unresponsive program.
- f. Create a restore point.
- g. Use a restore point.
- h. Schedule a backup.
- i. Back up data.
- j. Restore files and folders from a backup.
- k. Restore a previous version of a file.

Performance Standards

Competence will be demonstrated:

- by participation in oral discussion
- by tests
- by labs

Criteria - Performance will be satisfactory when:

- learner installs a program

- learner changes or repairs a program
- learner uninstalls a program
- learner configures an older program to run under Windows
- learner shuts down an unresponsive program
- learner creates a restore point
- learner schedules a backup
- learner backs up data
- learner restores files and folders from a backup
- learner restores a previous version of a file

11. Manage files and folders in Windows.

Learning objectives

What you will learn as you master the competency:

- a. Explain the elements of Windows file systems and file organization.
- b. Install and configure Windows operating system.

Performance Standards

Competence will be demonstrated:

- by participation in oral discussion
- by tests
- by lab

Criteria - Performance will be satisfactory when:

- learner expresses knowledge of Windows file organization and system installation in oral discussion
- learner completes labs demonstrating proper file system and operating system installation and organization
- learner completes tests covering file system and operating system installation terms

12. Organize files and folders in Windows.

Learning objectives

What you will learn as you master the competency:

- a. Navigate through windows.
- b. Use multiple windows.
- c. Move files and folders.
- d. Copy files and folders.
- e. Remove file properties.
- f. Add file properties.

Performance Standards

Competence will be demonstrated:

- by participation in oral discussion
- by tests
- by labs

Criteria - Performance will be satisfactory when:

- learner navigates through windows
- learner uses multiple windows
- learner moves files and folders
- learner copies files and folders
- learner removes file properties
- learner adds file properties

13. Demonstrate an understanding of Linux/Unix operating system components.

Learning objectives

What you will learn as you master the competency:

- a. Explain the various component sub-systems that make up the Linux/Unix operating system.
- b. Identify of the various component sub-systems that make the Linux/Unix operating system.

Performance Standards

Competence will be demonstrated:

- by participation in oral discussion
- by tests
- by lab

Criteria - Performance will be satisfactory when:

- learner identifies various component sub-systems facts in oral discussion
- learner completes labs demonstrating Linux/Unix component sub-system identification
- learner completes tests covering Linux/Unix component sub-systems

14. Demonstrate an understanding of Linux/Unix operating system file systems and organization.

Learning objectives

What you will learn as you master the competency:

- a. Explain the elements of Linux/Unix file systems, and file organization.
- b. Install and configure Linux/Unix operating system.

Performance Standards

Competence will be demonstrated:

- by participation in oral discussion
- by tests
- by labs

Criteria - Performance will be satisfactory when:

- learner expresses knowledge of Linux/Unix file organization and system installation in oral discussion
- learner completes labs demonstrating proper file system and operating system installation and organization
- learner completes tests covering file system and operating system installation terms

15. Demonstrate an understanding of Linux/Unix system organization and corresponding utilities and commands.

Learning objectives

What you will learn as you master the competency:

- a. Explain the elements of the Linux/Unix operating system and the commands/utilities used to manage the system.
- b. Implement, Configure, and modify the Linux/Unix system through Linux/Unix system commands/utilities.

Performance Standards

Competence will be demonstrated:

- o by participation in oral discussion
- o by tests
- o by labs

Criteria - Performance will be satisfactory when:

- o learner expresses knowledge of the Linux/Unix operating system and system commands/utilities in oral discussion
- o learner completes labs demonstrating proper Linux/Unix operating system use and implementation
- o learner completes tests covering Linux/Unix operating system terms

16. Demonstrate an understanding of iOS operating system components.

Learning objectives

What you will learn as you master the competency:

- a. Explain the various component sub-systems that make up the iOS operating system.
- b. Identify the various component sub-systems that make up the iOS operating system.

Performance Standards

Competence will be demonstrated:

- o by participation in oral discussion
- o by tests
- o by labs

Criteria - Performance will be satisfactory when:

- o learner identifies various component sub-systems facts in oral discussion
- o learner completes labs demonstrating iOS component sub-system identification
- o learner completes tests covering iOS component sub-systems

17. Demonstrate an understanding of iOS operating system file systems and organization.

Learning objectives

What you will learn as you master the competency:

- a. Explain the elements of iOS file systems, and file organization.
- b. Configure and upgrade iOS operating system.

Performance Standards

Competence will be demonstrated:

- o by participation in oral discussion

- o by tests
- o by lab

Criteria - Performance will be satisfactory when:

- o learner expresses knowledge of iOS file organization and system configuration in oral discussion
- o learner completes labs demonstrating proper file system and operating system upgrade and organization
- o learner completes tests covering operating system configuration and file system terms

18. Demonstrate an understanding of iOS system organization and corresponding utilities.

Learning objectives

What you will learn as you master the competency:

- Explain the elements of the iOS operating system and the commands/utilities used to manage the system.
- Implement, configure, and modify the iOS system through iOS system utilities.

Performance Standards

Competence will be demonstrated:

- o by participation in oral discussion
- o by tests
- o by labs

Criteria - Performance will be satisfactory when:

- o learner expresses knowledge of the iOS operating system and system commands/utilities in oral discussion
- o learner completes labs demonstrating proper iOS operating system use and implementation
- o learner completes tests covering iOS operating system terms

Types of Instruction

Classroom Presentation
 Discussion
 Lab Exercises

Grading Information

Grading Rationale

The Post Test will represent 10% of the course grade.
 Course learning activities shall represent 90% of the course grade

Grading Scale

- A 90-100%
- B 80-89%
- C 70-79%
- D 60-69%
- F <60%