

Computer Information Department Course Outline

CISM 1313 OPERATING SYSTEMS – UNIX (On Demand)

Catalog Description

An introductory course on the concepts and practical applications of the UNIX operating systems. Emphasis is on commands used to create and manipulate files and directories and obtain information from the system. Basic shell scripts will be created and tested and system security will be introduced. (Outside lab time will be required.)

Prerequisites

CISQ 1103-Introduction to Computer Information Systems, experience with a Windows O/S

Credit Hours/Contact Hours/Load Hours

3/3/3

Target Audience/Transferability

Designed for students seeking to understand the UNIX operating system concepts and become capable UNIX system users.

Student Learning Outcomes

Students completing this course will:

- Demonstrate an understanding of UNIX operating system concepts and commands.
- Discern which UNIX command is needed to perform a specific task.
- Design and test UNIX scripts to efficiently solve business problems.
- Formulate and implement appropriate security measures.
- Demonstrate effective communication between technical and non-technical people concerning business needs and how to solve those needs in a way comfortable to system users.

Topics

- Navigate through the UNIX file system.
- Manage files, including moving, copying, renaming, and deleting files.
- Create and remove directories.
- Use wildcards to find files whose names match a pattern you define.
- Link files by creating symbolic links and hard links.
- Use a variety of commands, such as cat, pg, more, head, tail, sort, and grep, to view file contents in special ways.
- Redirect input and output and pipe commands together, using the output of one command as the input to another command.
- Use the vi editor to create and edit documents.
- Learn about other users, using the “who” and “finger” commands.
- Communicate with other users by sending messages with banner, write, and electronic mail.

- List, manage, and schedule processes.
- Use the chmod command to change security on specific files.
- Print documents and manage print jobs.
- Compare several popular shells (Bourne shell, Korn shell, C shell, and Bourne Again shell)
- Investigate different file systems and their features and limitations (NTFS, FAT-32, ext4)

Forms of Assessment

Chapter quizzes, UNIX scripts, and final test and/or projects, laboratory exercises

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