

**NorthWest Arkansas Community College
Business and Computer Information Course Outline**

CISM 1313 OPERATING SYSTEMS – UNIX (S – Even Years)

Catalog Description

An introductory course on 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
CISM 1303 or equivalent experience.

Credit Hours: 3

Target Audience

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

General Course Objectives:

Knowledge:

- Demonstrate an understanding of UNIX operating system concepts and commands.

Critical Thinking:

- 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.

Cultural Awareness:

- Communicate effectively with technical and non-technical people about business needs and how to solve those needs in a way comfortable to system users.

Required Text

To be determined.

Topics Covered

- UNIX/Linux History and Characteristics
- UNIX File Structure
- Basic Essential Commands: passwd, pwd, logout/exit, clear
- Gathering Information: who, date, man, id, ls
- Creating and Manipulating Files and Directories: cat, mkdir, cd, mv, cp, rm, rmdir, ln, chmod, chgrp, touch
- Displaying File Contents: more, less, head, tail
- Editing Files with vi
- Useful Utilities: grep, sort, wc, find, cal, cut, sdiff
- Piping and Redirection, Tee Command
- Customizing the Shell Environment
- Utilizing Command History
- Communications and Networking: ftp, telnet, rlogin, write, wall, talk, mesg, mail, ping
- Aliases, Functions, and Scripts: if, for, while, until, case
- Programming and Job Control: cc, make, &, jobs, ps, fg, bg, kill
- Security, Administration, and Scheduling: at, cron