

# Minnesota State College Southeast

## NWAT 2673: Unix Operating Systems

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 2

Lab Hours/Week: 2

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course examines the planning, installing and implementing a UNIX computing environment. Students will learn how to configure and manage graphical user applications, basic and advanced directory and file systems and file security features. Additional emphasis will be placed on UNIX system processes, the use of text editors, backing up and restoring procedures and establishing a flexible printing environment. (Prerequisites: NWAT1641, NWAT1649) (3 credits: 2 lecture/1 lab)

**B. COURSE EFFECTIVE DATES:** 10/12/2004 - Present

**C. OUTLINE OF MAJOR CONTENT AREAS**

## **D. LEARNING OUTCOMES (General)**

1. Describe the main components and capabilities of the UNIX operating system
2. Explain the Solaris operating environment
3. Compare UNIX to other types of operating systems
4. Identify requirements for user accounts and passwords
5. Explain the procedure for logging in/out of the UNIX command line
6. Explain the Common Desktop Environment (CDE) basic features and functions
7. Configure the CDE workspace
8. Explain the GNU Network Object Model Environment (GNOME)
9. Explain the K Desktop Environment (KDE)
10. Configure the GNOME and KDE graphical desktop managers
11. Describe the Mail Tool utility
12. Describe the Calendar Manager
13. Describe common CDE applications
14. List common UNIX commands
15. List common UNIX utilities
16. Explain the CDE Help Manager
17. Explain metacharacters used by UNIX
18. Explain the Nautilus file manager
19. Install the UNIX OS
20. Configure the UNIX OS
21. List specific commands to access files and directories in a UNIX network
22. Explain the rules and procedure for creating files and directories
23. Troubleshoot common problems associated with the UNIX OS
24. Explain how to copy, link, move and rename files and directories
25. List commands for piping and input/output redirection
26. Explain the find, grep and sort file utilities to locate files on a hard drive
27. List various graphical search tools available with CDE and GNOME
28. Install basic UNIX word processor programs
29. Explain the text-editing tools used in UNIX
30. Configure user's work environment by use of shell scripts
31. Identify requirements for file system security
32. Configure directory and file permissions
33. Identify which users are logged in
34. Identify current login status when switching between user accounts
35. Describe several methods of printing
36. Explain the basic components of a UNIX printing service
37. Identify the status and availability of network printers
38. Explain the GNOME Print Applet
39. Configure UNIX printing queues
40. Explain UNIX based compression programs such as zip and GNOME's gzip
41. Identify key components in a comprehensive security plan
42. Explain various network and workstation backup strategies
43. Describe requirements and procedures for UNIX backups
44. Describe requirements and procedures for UNIX restores

45. Identify UNIX system processes and process management
46. Configure schedules for one time only and recurring tasks
47. Analyze process information
48. Display professionalism
49. Display interpersonal communication
50. Display troubleshooting techniques
51. Display safe work habits
52. Display teamwork attitude
53. Explain the UNIX kernel
54. List UNIX provided built in shells
55. Configure a shell script
56. List common shell script commands
57. Debug simple and more complex shell scripts

**E. Minnesota Transfer Curriculum Goal Area(s) and Competencies**

None

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted