

CIT 218—Advanced Unix Administration (3)

Course Description

This course provides the core foundation for supporting the Unix operating system. The goal of this course is to provide support professionals with the skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Unix. Lecture: 2 hours, lab: 2 hours. Prerequisites: CIT 217; or consent of instructor.

Course Competencies

Upon successful completion of this course, the student can:

1. Describe the system strategy for Unix.
2. Install and configure Unix.
3. Create and manage partitions, file systems, and NFS volumes
4. Install and support applications under Unix
5. Install and configure network transport protocols
6. Install and configure network service daemons
7. Implement remote access services
8. Install and configure Internet and WWW services

Course Outline

- I. The Unix Environment
 - A. Unix variants
 - B. Unix architecture overview
- II. Installing Unix
 - A. Preparing for installation
 - B. Installation and kernel compilation
 - C. The Unix boot process
 - D. Troubleshooting installation
 - E. Upgrading Unix
- III. Configuring the network
 - A. Configuration files
 - B. Using the netstat command
 - C. Routing
 - D. Using the route and arp commands
- IV. X-Windows
 - A. Installing and configuring X-Windows
 - B. Using X-Windows
- V. Managing File Systems
 - A. File systems supported by Unix
 - B. Working with NFS and volumes
 - C. Repairing file systems
- VI. Managing Fault Tolerance
 - A. RAID systems
 - B. Recovering from hard disk failure
- VII. Installing and Supporting Applications
 - A. Using make

- B. Compiling application files
- VIII. Networking Services
 - A. Installing and configuring network services
 - B. Network Information System
 - C. Installing and configuring a Domain Name System
- IX. Remote Access and remote administration
 - A. Using SLIP, PPP, and DIP
 - B. Using the “r” commands
 - C. Remote procedure calls
 - D. Telnet
- X. Internetworking and Intranetworking
 - A. Internet and Intranet overview
 - B. The Internet daemon, inetd
 - C. Securing internet and intranet sites.
- XI. Interoperability with Novell Netware and Windows NT
 - A. Windows NT connectivity with Unix
 - B. Novell Netware connectivity with Unix
- XII. Troubleshooting Resources
 - A. Troubleshooting categories
 - B. Diagnostic tools
 - Additional resources for troubleshooting