

LINUX+ CERTIFICATION

Available Dates: **Request Dates**

Class Length: **5 day**

Cost: **\$2,495**

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Class Outline:

Description:

This course will prepare students for the current CompTIA Linux+ certification exam. It provides a comprehensive guide to common tasks performed by system administrators, including installation, customization, and troubleshooting. Expanded coverage of networking and security are included, which map to the 2004 exam objectives.

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Unit 1: Introduction to Linux

Topic A: Linux as an operating system

Topic B: Common uses for Linux

Unit 2: Installing a Linux system

Topic A: Installing Linux

Topic B: Understanding hardware

Topic C: Gathering pre-installation information

Unit 3: Exploring interfaces and filesystems

Topic A: Linux interfaces

Topic B: Basic shell commands

Topic C: Files and directories

Topic D: Displaying the contents of files

Topic E: Searching and editing text files

Unit 4: Filesystem management

Topic A: The Filesystem Hierarchy Standard

Topic B: Searching and linking files

Topic C: File and directory permissions

Topic D: Default and special permissions

Unit 5: Filesystem administration

Topic A: The /dev directory and device files

Topic B: Using floppy disks and CD-ROMs

Topic C: Hard disks

Topic D: Monitoring filesystems

Unit 6: Advanced installation and troubleshooting

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Topic B: Fault-tolerant disk systems

Topic C: Advanced installation methods

Topic D: Troubleshooting installations

Unit 7: Working with the BASH shell

Topic A: Command input and output

Topic B: Shell variables

Topic C: Shell scripts

Topic D: BASH command history

Unit 8: System initialization

Topic A: Booting and boot loaders

Topic B: System initialization

Unit 9: The X Windows system

Topic A: GUI components

Topic B: Configuring X Windows

Unit 10: Managing system processes

Topic A: Starting, viewing, and killing processes

Topic B: Foreground and background processes

Topic C: Process priorities and scheduling

Unit 11: Printer and log file administration

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Topic B: Log file administration

Unit 12: User, group, and file administration

Topic A: Administering users and groups

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Unit 13: Compression, backup, and software installation

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Unit 14: Troubleshooting and performance monitoring

Topic A: Troubleshooting

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Unit 15: Network Configuration

Topic A: Networks and TCP/IP

Topic B: Configuring a PPP interface

Topic C: Name resolution

Topic D: Using network resources

Topic E: Configuring network services

Unit 16: Security

Topic A: System security

Topic B: Detecting intrusion

Appendix A: The GNU Public License

Appendix B: Finding Linux resources on the Internet

Appendix C: Certification exam objectives map

Objectives:

-Outline the key features of the Linux operating system, list the advantages of using Linux, and explain the common uses of Linux in the industry.

-Install Fedora Core 2; describe common types of central processing units, physical memory, disk drives, mainboards, peripheral devices, video adapter cards, monitors, keyboards, and mice; and obtain the hardware and software information necessary to install Linux.

-Explain the function of the Filesystem Hierarchy Standard, use standard commands to manage files and directories, find files and directories, understand and create linked files, modify file and directory ownership, define and change file and directory permissions, identify the default permissions created on files and directories, and apply special file and directory permissions.

-Redirect the input and output of a command; identify, manipulate, create, and export shell variables; edit environment files to create variables; describe the purpose of shell scripts; create and execute shell scripts; use common decision constructs in shell scripts; and use and customize the BASH shell command history feature.

-Install and configure SCSI devices; identify default IRQs, I/O addresses, and DMAs; explain how Plug-and-Play can be used to assign configuration to peripheral devices; explore fault-tolerant disk systems and RAID configurations; outline the steps used to install Linux from source files on a hard disk or network server; create a kickstart file; and troubleshoot the installation process.

-Explain the purpose of the GUI components such as X Windows, window managers, and desktop environments; list the common window managers and desktop environments; configure X Windows by using various utilities; start and stop an X server; and run X applications from the command line.

-Outline the major steps necessary to boot a Linux system, configure the LILO and GRUB boot loaders, dual boot Linux with the Windows operating system, understand how the init daemon initializes the system at boot time, and understand runlevels.

