



CompTIA Linux+

Duration 5 Days



COURSE DESCRIPTION

The Official CompTIA® Linux+® courseware builds on your existing experience with systems operations and administration to provide you with the knowledge and skills required to configure, manage, operate, and troubleshoot a Linux environment by using security best practices, scripting, and automation. This course will also prepare you for the Exam XK0-004.

COURSE OBJECTIVES

In this course, you will configure, operate, and troubleshoot Linux systems.

You will:

- Perform basic Linux tasks.
- Manage users and groups.
- Manage permissions and ownership.
- Manage storage.
- Manage files and directories.
- Manage kernel modules.
- Manage the Linux boot process.
- Manage system components.
- Manage devices.
- Manage networking.
- Manage packages and software.
- Secure Linux systems.
- Write and execute Bash shell scripts.
- Automate tasks.
- Plan and perform a Linux installation.

WHO SHOULD ATTEND

This course is designed for IT professionals whose primary job responsibility is the management of servers and other devices running the Linux operating system. A typical student in this course should have at least nine months of hands-on Linux experience and at least one and a half years of IT experience in other computing environments. The target student should wish to expand their skillset to support their career in Linux system administration and operation.

This course is also designed for students who are seeking the CompTIA Linux+ certification and who want to prepare for Exam XK0-004. The Linux+ certification can validate the student's understanding and skill in configuring, monitoring, and supporting Linux systems.

PREREQUISITES

To ensure your success in this course, you should have at least foundational experience with general systems administration procedures, some hands-on exposure to one or more Linux distributions, as well as knowledge of computing hardware and basic networking and cybersecurity concepts.

**COURSE OUTLINE****1 - PERFORMING BASIC LINUX TASKS**

- Topic A: Identify the History and Development of Linux
- Topic B: Enter Shell Commands
- Topic C: Get Help Using Linux

2 - MANAGING USERS AND GROUPS

- Topic A: Assume Superuser Privileges
- Topic B: Create, Modify, and Delete Users
- Topic C: Create, Modify, and Delete Groups
- Topic D: Query Users and Groups
- Topic E: Configure Account Profiles

3 - MANAGING PERMISSIONS AND OWNERSHIP

- Topic A: Modify File and Directory Permissions
- Topic B: Modify File and Directory Ownership
- Topic C: Configure Special Permissions and Attributes
- Topic D: Troubleshoot Permissions Issues

4 - MANAGING STORAGE

- Topic A: Create Partitions
- Topic B: Manage Logical Volumes
- Topic C: Mount File Systems
- Topic D: Manage File Systems
- Topic E: Navigate the Linux Directory Structure
- Topic F: Troubleshoot Storage Issues

5 - MANAGING FILES AND DIRECTORIES

- Topic A: Create and Edit Text Files
- Topic B: Search for Files
- Topic C: Perform Operations on Files and Directories
- Topic D: Process Text Files
- Topic E: Manipulate File Output

6 - MANAGING KERNEL MODULES

- Topic A: Explore the Linux Kernel
- Topic B: Install and Configure Kernel Modules
- Topic C: Monitor Kernel Modules

7 - MANAGING THE LINUX BOOT PROCESS

- Topic A: Configure Linux Boot Components
- Topic B: Configure GRUB 2

8 - MANAGING SYSTEM COMPONENTS

- Topic A: Configure Localization Options
- Topic B: Configure GUIs
- Topic C: Manage Services
- Topic D: Troubleshoot Process Issues
- Topic E: Troubleshoot CPU and Memory Issues

9 - MANAGING DEVICES

- Topic A: Identify the Types of Linux Devices
- Topic B: Configure Devices
- Topic C: Monitor Devices
- Topic D: Troubleshoot Hardware Issues

10 - MANAGING NETWORKING

- Topic A: Identify TCP/IP Fundamentals
- Topic B: Identify Linux Server Roles
- Topic C: Connect to a Network
- Topic D: Configure DHCP and DNS Client Services
- Topic E: Configure Cloud and Virtualization Technologies
- Topic F: Troubleshoot Networking Issues

11 - MANAGING PACKAGES AND SOFTWARE

- Topic A: Identify Package Managers
- Topic B: Manage RPM Packages with YUM
- Topic C: Manage Debian Packages with APT
- Topic D: Configure Repositories
- Topic E: Acquire Software
- Topic F: Build Software from Source Code
- Topic G: Troubleshoot Software Dependency Issues

12 - SECURING LINUX SYSTEMS

- Topic A: Implement Cybersecurity Best Practices
- Topic B: Implement Identity and Access Management Methods
- Topic C: Configure SELinux or AppArmor
- Topic D: Configure Firewalls
- Topic E: Implement Logging Services
- Topic F: Back Up, Restore, and Verify Data

13 - WORKING WITH BASH SCRIPTS

- Topic A: Customize the Bash Shell Environment
- Topic B: Identify Scripting and Programming Fundamentals
- Topic C: Write and Execute a Simple Bash Script
- Topic D: Incorporate Control Statements in Bash Scripts

14 - AUTOMATING TASKS

- Topic A: Schedule Jobs
- Topic B: Implement Version Control Using Git
- Topic C: Identify Orchestration Concepts

15 - INSTALLING LINUX

- Topic A: Prepare for Linux Installation
- Topic B: Perform the Installation