

# CompTIA Linux+

## Overview

CompTIA Linux+ validates the skills administrators need to secure the enterprise, power the cloud and keep systems running. The new certification ensures that IT professionals, software developers, cybersecurity engineers and penetration testers have these necessary skills to support today's tech systems.

## Course Objectives

After course completion, you will be able to

- Describe history and features of Linux
- Manage files and directories
- Describe foundational concepts of documentation
- Describe foundational concepts of troubleshooting
- Implement identity management
- Configure and execute remote connectivity for system management
- Analyze and troubleshoot user access and file permissions
- Apply the appropriate access controls
- Create simple shell scripts to automate common tasks
- Build and install software
- Manage software configurations
- Summarize Linux fundamentals
- Use the appropriate networking tools or configuration files
- Analyze and troubleshoot storage issues
- Analyze and troubleshoot central processing unit (CPU) and memory issues
- Configure and use the appropriate processes and services
- Use of security best practices in a Linux environment
- Use systemd to diagnose and resolve common problems with a Linux system

## Duration

5 Days

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### Who Should Attend

This course is suited for these roles:

- Linux Administrator
- Junior Cloud Engineer
- Junior DevOps Support Engineer
- Technical Support Specialist
- Systems Administrator
- Network Administrator
- Web Administrator/ Developer
- Cybersecurity Engineer
- Linux
- Engineer

### Prerequisites

It is recommended that prior to taking this course, you have taken CompTIA A+, CompTIA Network+ and have 12 months experience as a Junior Linux Engineer.

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## Course Topics

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| <b>Module 1</b> | <b>Introducing Linux</b> <ul style="list-style-type: none"> <li>Identify Linux Characteristics</li> <li>Understand Bash Interaction with Linux</li> <li>Use Help in Linux</li> <li>Identify the Linux Troubleshooting Methodology</li> </ul>                                                                                                                                      |
| <b>Module 2</b> | <b>Administering Users and Groups</b> <ul style="list-style-type: none"> <li>Manage User Accounts</li> <li>Topic 2B: Manage Group Accounts</li> <li>Topic 2C: Configure Privilege Escalation</li> <li>Topic 2D: Troubleshoot User and Group Issues</li> </ul>                                                                                                                     |
| <b>Module 3</b> | <b>Configuring Permissions</b> <ul style="list-style-type: none"> <li>Configure Standard Linux Permissions</li> <li>Topic 3B: Configure Special Linux Permissions</li> <li>Topic 3C: Configure Access Control Lists</li> </ul>                                                                                                                                                    |
| <b>Module 4</b> | <b>Implementing File Management</b> <ul style="list-style-type: none"> <li>Understand the Linux File System</li> <li>Topic 4B: Use File Management Commands</li> <li>Topic 4C: Find File Locations</li> </ul>                                                                                                                                                                     |
| <b>Module 5</b> | <b>Authoring Text Files</b> <ul style="list-style-type: none"> <li>Edit Text Files</li> <li>Topic 5B: Manage Text Files</li> </ul>                                                                                                                                                                                                                                                |
| <b>Module 6</b> | <b>Managing Software</b> <ul style="list-style-type: none"> <li>Understand Software Management</li> <li>Topic 6B: Manage RPM Software Packages and Repositories</li> <li>Topic 6C: Manage Debian-based Software Packages and Repositories</li> <li>Topic 6D: Compile from Source Code</li> <li>Topic 6E: Acquire Software</li> <li>Topic 6F: Run Software in a Sandbox</li> </ul> |

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| Module 7  | <b>Administering Storage</b> <ul style="list-style-type: none"> <li>Understand Storage</li> <li>Topic 7B: Deploy Storage</li> <li>Topic 7C: Manage Other Storage Options</li> <li>Topic 7D: Troubleshoot Storage</li> </ul>                                               |
| Module 8  | <b>Managing Devices, Processes, Memory, and the Kernel</b> <ul style="list-style-type: none"> <li>Gather Hardware Information</li> <li>Topic 8B: Manage Processes</li> <li>Topic 8C: Manage Memory</li> <li>Topic 8D: Manage the Linux Kernel</li> </ul>                  |
| Module 9  | <b>Managing Services</b> <ul style="list-style-type: none"> <li>Manage System Services</li> <li>Topic 9B: Configure Common System Services</li> <li>Topic 9C: Configure Localization Settings</li> </ul>                                                                  |
| Module 10 | <b>Configuring Network Settings</b> <ul style="list-style-type: none"> <li>Understand Network Fundamentals</li> <li>Topic 10B: Manage Network Settings</li> <li>Topic 10C: Configure Remote Administrative Access</li> <li>Topic 10D: Troubleshoot the Network</li> </ul> |
| Module 11 | <b>Configuring Network Security</b> <ul style="list-style-type: none"> <li>Configure the Firewall</li> <li>Topic 11B: Monitor Network Traffic</li> </ul>                                                                                                                  |
| Module 12 | <b>Managing Linux Security</b> <ul style="list-style-type: none"> <li>Harden a Linux System</li> <li>Topic 12B: Manage Certificates</li> <li>Topic 12C: Understand Authentication</li> <li>Topic 12D: Configure SELinux or AppArmor</li> </ul>                            |