



## Overview

The Official CompTIA® Linux+® Powered by LPI Instructor Guide (Exams LX0-103 and LX0-104) course builds on your existing user-level knowledge and experience with the Linux operating system to present fundamental skills and concepts that you will use on the job in any type of Linux career.

This course can benefit you in two ways. If your job duties include Linux troubleshooting, installation, or maintenance, or if you are preparing for any type of Linux-related career, it provides the background knowledge and skills you will require to be successful. In addition, if you intend to pass the CompTIA® Linux+® Powered by LPI certification examination (LX0-103 and LX0-104) this course can be a significant part of your preparation.



## Duration

5 Days (08:30 - 16:00)



## Audience Profile

This course is intended for entry-level computer support professionals with basic knowledge of computer hardware, software, and operating systems, who wish to increase their knowledge and understanding of Linux concepts and skills to prepare for a career in Linux support or administration, or to prepare for the CompTIA® Linux+® certification examination. A typical student in this course should have at least 6 to 12 months of Linux experience.



## Pre-requisites

To ensure your success, CompTIA® A+® is helpful but not required.



## Course Accreditations

Learnfast is a CompTIA Authorized Partner. CompTIA's Authorised Partner Programme works collaboratively with organisations throughout the globe to increase market impact, customer satisfaction and revenue to enhance student career opportunities.



## Course Outline

### Lesson 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
- Topic D: Start and Stop Linux

### Lesson 2: Managing User and Group Accounts

- Topic A: Create User and Group Accounts
- Topic B: Configure User Profiles
- Topic C: Administer User and Group Accounts

### Lesson 3: Managing Partitions and the Linux Filesystem

- Topic A: Create Partitions
- Topic B: Navigate Through the Linux Filesystem
- Topic C: Manage the Filesystem
- Topic D: Maintain the Filesystem

### Lesson 4: Managing Files in Linux

- Topic A: Create and Edit Text Files
- Topic B: Locate Files
- Topic C: Search Text Using Regular Expressions
- Topic D: Apply Filters to Text Streams
- Topic E: Link Files
- Topic F: Back Up and Restore Files
- Topic G: Manage Databases Using MariaDB

### Lesson 5: Managing Linux Permissions and Ownership

- Topic A: Modify File and Directory Permissions
- Topic B: Modify Default Permissions
- Topic C: Modify File and Directory Ownership
- Topic D: Set Special Permissions and Attributes

### Lesson 6: Printing Files

- Topic A: Configure a Local Printer
- Topic B: Print Files
- Topic C: Configure Remote Printing

### Lesson 7: Managing Packages

- Topic A: Manage Packages Using RPM
- Topic B: Verify Packages
- Topic C: Upgrade Packages
- Topic D: Configure Repositories

## Lesson 8: Managing Kernel Services

- Topic A: Explore the Linux Kernel
- Topic B: Customize Kernel Modules
- Topic C: Create an initrd Image
- Topic D: Manage Device Drivers and Hardware Devices
- Topic E: Monitor Processes and Resources

## Lesson 9: Working with the Bash Shell and Shell Scripts

- Topic A: Perform Basic Bash Shell Operations
- Topic B: Write a Bash Shell Script
- Topic C: Customize the Bash Shell
- Topic D: Redirect Standard Input and Output
- Topic E: Use Control Statements in Shell Scripts

## Lesson 10: Managing Jobs and Processes

- Topic A: Manage Jobs and Background Processes
- Topic B: Manage Processes Using the Process Table
- Topic C: Delay and Detach Jobs
- Topic D: Schedule Jobs
- Topic E: Maintain the System Time

## Lesson 11: Managing System Services

- Topic A: Configure System Services
- Topic B: Monitor System Logs
- Topic C: Configure Security-Enhanced Linux (SELinux)

## Lesson 12: Configuring Network Services

- Topic A: Connect to a Network
- Topic B: Configure Routes
- Topic C: Configure Client Network Services
- Topic D: Manage Remote Network Systems

## Lesson 13: Configuring Basic Internet Services

- Topic A: Configure Email Services
- Topic B: Control Internet Services

## Lesson 14: Securing Linux

- Topic A: Implement Basic System Security
- Topic B: Secure User Accounts

## Lesson 15: Managing Hardware

- Topic A: Identify Common Hardware Components and Resources

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- Topic B: Configure Removable Hardware
- Topic C: Configure Disk Quotas

## Lesson 16: Troubleshooting Linux Systems

- Topic A: Troubleshoot System-Based Issues
- Topic B: Troubleshoot Hardware Issues
- Topic C: Troubleshoot Network Connection and Security Issues

## Lesson 17: Installing Linux

- Topic A: Prepare for Installation
- Topic B: The Linux Boot Process
- Topic C: Configure GRUB
- Topic D: Install the Operating System

## Lesson 18: Configuring the GUI

- Topic A: Implement X
- Topic B: Customize the Display Manager
- Topic C: Enable Accessibility Settings in Linux