**Document Generated: 11/14/2026**

**Learning Style: On Demand**

**Technology: Linux Foundation**

**Difficulty: Beginner**

**Course Duration: 60 Hours**

# Linux System Administration Essentials (LFS207)



## About This Course:

The course, along with real-world experience and study, will provide the skills and knowledge also tested by the Linux Foundation Certified Systems Administrator (LFCS) exam.

## Course Objectives:

- In this course you will learn how to administer, configure and upgrade Linux systems running one of the major Linux distribution families: Debian/Ubuntu and Red Hat/CentOS/Fedora, how to master the tools and concepts you'll need to efficiently build and manage an enterprise Linux infrastructure, how to work with Git and perform essential collaborative tasks, how to use state-of-the-art system administration techniques in real-life scenarios via practical labs, and more.

## Audience:

- The course is ideal for those new to IT, or those who have worked with operating systems other than Linux and want to move into a career administering Linux systems. Aspiring cloud professionals will also benefit from understanding Linux administration as it serves as the basis of most cloud instances.

## Prerequisites:

- None

## Course Outline:

- Chapter 1. Introduction
- Chapter 2. Linux Filesystem Tree Layout
- Chapter 3. User Environment
- Chapter 4. User Account Management
- Chapter 5. Group Management
- Chapter 6. File Permissions and Ownership
- Chapter 7. Package Management Systems
- Chapter 8. dpkg
- Chapter 9. APT
- Chapter 10. RPM
- Chapter 11. dnf and yum

- Chapter 12. zypper
- Chapter 13. GIT Fundamentals
- Chapter 14. Processes
- Chapter 15. Process Monitoring
- Chapter 16. Memory Monitoring, Usage and Configuring Swap
- Chapter 17. I/O Monitoring
- Chapter 18. Containers Overview
- Chapter 19. Linux Filesystems and the VFS
- Chapter 20. Disk Partitioning
- Chapter 21. Filesystem Features: Attributes, Creating, Checking, Usage, Mounting
- Chapter 22. The EXT4 Filesystem
- Chapter 23. Logical Volume Management (LVM)
- Chapter 24. Kernel Services and Configuration
- Chapter 25. Kernel Modules
- Chapter 26. Devices and udev
- Chapter 27. Network Addresses
- Chapter 28. Network Devices and Configuration
- Chapter 29. LDAP
- Chapter 30. Firewalls
- Chapter 31. System Init: systemd History and Customization
- Chapter 32. Backup and Recovery Methods
- Chapter 33. Linux Security Modules
- Chapter 34. System Rescue