

CompTIA Linux+ (XK0-005) Exam Prep 2026

CompTIA Linux+ XK0-005 2026. Linux security, automation, cloud integration, and command-line skills.

IT Certifications Instructor: Brian Taylor • 5 sections • 50 lessons • 16.00h total

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About this course

Preparing for the updated XK0-005 exam can feel overwhelming with all the changes in Linux security, automation, and cloud integration. This course cuts through the noise, focusing on the practical skills and command-line knowledge you need to pass the test and perform on the job.

You will learn how to configure and manage Linux systems, secure them with modern practices, and automate tasks. Through step-by-step guides, real case study analysis, and problem-solving sessions, you will gain the skills to handle the exam and your daily work.

Course curriculum

Foundations and System Management

- **Understanding the 2026 XK0-005 Exam Objectives (12m)**
We'll break down the latest exam domains and show you how to focus your study time effectively.
- **the Command Line Interface (CLI) (25m)**
Learn essential commands for navigation, file management, and permissions with a practical step-by-step guide.
- **User and Group Administration: A Step-by-Step Guide (18m)**
Create, modify, and manage user accounts and groups, applying the correct permissions for your environment.
- **File System Management and Permissions in Depth (22m)**
A real case study analysis of Linux file systems, including mounting, ownership, and the chmod/chown commands.
- **Configuring and Managing Storage Solutions (28m)**
We'll explore partitions, logical volumes (LVM), and filesystems to manage data effectively.
- **Process Management: Monitoring and Control (15m)**
Problem-solving session on identifying and managing system processes using tools like ps, top, and kill.
- **Package Management: RPM and DEBN Fundamentals (14m)**
Learn how to install, update, and remove software packages on different Linux distributions.
- **Service Management with Systemd (16m)**
Understand how to control services, check their status, and enable them to start on boot.

Core Security, Networking, and Automation

- **Configuring Basic Network Services (24m)**
Set up and troubleshoot network interfaces and understand key networking tools for the exam.
- **Firewall Fundamentals with Iptables and FirewallD (20m)**
A practical guide to securing your system by managing incoming and outgoing traffic.
- **SSH Key Management and Secure Remote Access (17m)**
We'll show you how to set up key-based authentication and harden your SSH configuration.
- **Introduction to Bash Scripting for Automation (32m)**
Write your first scripts to automate repetitive tasks, saving you time and effort.
- **Intermediate Scripting: Logic and Loops (29m)**
Enhance your scripts with conditional logic and loops for more complex automation.
- **Scheduling Tasks with Cron and At (11m)**
Learn how to schedule jobs to run automatically at specific times or intervals.
- **Securing User Accounts and Implementing Sudo (19m)**
A problem-solving session on configuring sudo and limiting root access for better security.
- **Log Management and Analysis (21m)**
Find and interpret log files to troubleshoot issues and monitor system activity.

- **SELinux and AppArmor: Practical Configuration (26m)**
Real case study analysis of mandatory access control systems and how to manage them.
- **Introduction to Encryption and PKI (13m)**
Understand the basics of public key infrastructure and how it's used to secure Linux systems.
- **Troubleshooting Common Network Issues (23m)**
Use tools like ping, traceroute, and netstat to diagnose and fix network problems.
- **Troubleshooting Common System Issues (18m)**
A guided walkthrough for diagnosing boot problems, hardware conflicts, and service failures.

Advanced Cloud, Container, and Automation Concepts

- **Infrastructure as Code: Ansible Basics (30m)**
Get a hands-on introduction to Ansible for automating server configuration and deployment.
- **Containerization with Docker: Getting Started (25m)**
We'll pull, run, and manage containers, a key skill for modern IT environments.
- **Dockerfile Essentials for Linux (22m)**
Learn how to build your own custom container images from scratch.
- **Orchestration Concepts with Kubernetes (27m)**
Understand the core components of Kubernetes and its role in managing containers.
- **Git for System Administrators (16m)**
Use Git to version control your scripts and configuration files for better collaboration.
- **Cloud Integration with AWS and Azure Linux VMs (28m)**
A real case study on deploying and managing Linux instances in the cloud.
- **Performance Tuning: CPU and Memory Optimization (21m)**
Use advanced tools to monitor and optimize system performance under load.
- **Advanced File System Management: Btrfs and ZFS (19m)**
Explore modern file systems and their features like snapshots and data integrity.

Deep Dive: Security Hardening and Advanced Troubleshooting

- **Automating Security Audits with Scripts (24m)**
Build a script to check for common security misconfigurations on your system.
- **Tuning Kernel Parameters with Sysctl (14m)**
Learn how to modify kernel settings to improve performance and security.
- **Configuring Network Security Policies (26m)**
We'll implement TCP wrappers and other network-level access controls.
- **Troubleshooting Boot Processes: GRUB and Initramfs (31m)**
A deep-dive problem-solving session on fixing systems that won't boot.
- **Managing Complex Storage: RAID and iSCSI (29m)**
Configure and troubleshoot advanced storage setups relevant to enterprise environments.
- **Advanced SSH: Port Forwarding and Jump Hosts (18m)**
Master secure access techniques for complex network topologies.
- **Container Security Best Practices (20m)**
Learn how to scan images for vulnerabilities and run containers securely.

- **Automating Deployments with CI/CD Pipelines (27m)**
See a real-world example of automating code deployment to a Linux server.
- **Disaster Recovery: Backup and Restore Strategies (23m)**
Create a practical backup plan using tools like rsync and tar.
- **Final Exam Strategy: Review and Mock Questions (15m)**
We'll review key concepts and walk through sample questions to test your readiness.

Implementation and Career Next Steps

- **Setting Up Your Own Linux Lab Environment (12m)**
A step-by-step guide to creating a free, powerful lab for hands-on practice.
- **Building Your IT Portfolio with Linux Projects (16m)**
Learn how to showcase your skills with GitHub repositories and personal projects.
- **Creating a Study Plan for Exam Day (10m)**
We'll help you structure your final weeks of study to maximize your score.
- **Navigating the Pearson VUE Testing Experience (8m)**
Know what to expect on exam day, from check-in to submitting your answers.
- **Common Exam Pitfalls and How to Avoid Them (13m)**
A problem-solving session covering tricky questions and time management.
- **Understanding Performance-Based Questions (PBQs) (15m)**
We'll break down how to approach the hands-on simulations you'll see on the test.
- **Linux+ Career Paths: What's Next? (11m)**
Explore roles like SysAdmin, DevOps Engineer, and Cloud Administrator.
- **Preparing for Renewal and Continuing Education (9m)**
Learn how to keep your certification current with CompTIA's CE program.
- **Automating Your Daily Workflow: Final Project (25m)**
Build a comprehensive script that combines several skills you've learned in the course.
- **Congratulations! Your Path Forward (5m)**
A final message and a checklist of your next steps after completing this course.
- **Bonus: Downloadable Cheat Sheets and Templates (7m)**
Get access to our collection of command references and script templates for your studies.
- **Bonus: Common Command-Line Flags Explained (14m)**
A quick reference guide to the most useful and frequently tested command options.

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