APPLIED TECHNOLOGY ACADEMY

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Fundamentals of Linux Training

The Linux Foundation Authorized Training · Applied Technology Academy

Fundamentals of Linux provides a comprehensive introduction to the Linux operating system, command-line skills, system navigation, basic administration, and essential open-source concepts. This course equips learners with the foundational knowledge required to operate Linux systems effectively in enterprise, cloud, and DevOps environments.

LEVEL	DURATION	EXPERIENCE	AVERAGE SALARY	LABS
Beginner	**5 Days**	**Basic computer literacy**	**$120,000**	**Yes**

Course Overview

- Understand Linux architecture, distributions, and open-source principles
- Navigate the Linux file system and manage files from the command line
- Use essential Linux commands, utilities, and text editors
- Manage users, groups, and permissions
- Work with processes, system logs, and basic system configuration
- Perform basic networking tasks
- Manage software installation and package repositories
- Use shell scripting fundamentals for automation
- Operate confidently in a Linux-based environment

Course Outline

- **Module 1: Introduction to Linux & Open Source**
  - Overview of Linux and its distributions
  - Open-source concepts and licensing
  - Linux server vs. desktop environments
- **Module 2: Linux System Navigation**
  - File system structure
  - Absolute vs. relative paths
  - Linux documentation and help utilities
- **Module 3: Working with Files & Directories**
  - Creating, copying, moving, and deleting files
  - File viewing tools (cat, less, head, tail)
  - File compression and archiving
- **Module 4: Command Line Essentials**

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  - Shell basics and command syntax
  - Pipes, redirection, and command chaining
  - Using wildcards and regular expressions
- **Module 5: Text Editing with vi/vim**
  - Navigating and editing files in vi/vim
  - Insert, command, and visual modes
  - Saving, quitting, and advanced editing
- **Module 6: User & Group Management**
  - Creating and managing users and groups
  - Understanding /etc/passwd and /etc/shadow
  - File ownership and permissions
- **Module 7: Permissions & Security Basics**
  - chmod, chown, and chgrp
  - Understanding rwx permissions
  - Introduction to sudo and privilege escalation
- **Module 8: Process & System Monitoring**
  - Viewing and managing processes (ps, top, kill)
  - System logs and log file management
  - Monitoring resource usage
- **Module 9: Software Management**
  - Package managers (apt, yum, dnf, etc.)
  - Installing, updating, and removing software
  - Repository management basics
- **Module 10: Networking Fundamentals**
  - Network configuration and troubleshooting
  - Common networking tools (ping, netstat, ip, ss)
  - Configuring hostname and DNS
- **Module 11: Storage & File Systems**
  - Mounting and unmounting file systems
  - Disk and partition basics
  - Understanding file system types
- **Module 12: Shell Scripting Basics**
  - Scripting fundamentals
  - Variables, loops, and conditionals
  - Creating and executing shell scripts

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Intended Audience

- IT professionals transitioning into Linux, and
- those preparing for Linux-focused certification pathways.

Prerequisites

- Basic computer literacy
- No prior Linux experience required

Follow-On Courses

- Linux Foundation Certified Engineer (LFCE)
- Kubernetes Administrator (CKA)
- Kubernetes for Developers (CKAD)

Ready to enroll? Call 800.674.3550 or email Info@AppliedTechAc.com — private team cohorts, GSA MAS purchasing, military credentialing funding, VA GI Bill and VR&E and student financing available.