

**HACKERU**



# Linux Security

CB104

**05**  
Days

# Linux Security

## Outline

Linux has become very popular in recent years due to its use for IoT products and benefits for Information Security personnel.

This course teaches students how to manage and operate the Ubuntu Debian Linux open-source operating system. In particular, it focuses on the Kali Linux Cyber Security distribution. Students will also be taught the security aspects and hardening of Linux environments.



### Target Audience

- System and IT team members.
- System personnel who want to expand their knowledge of Linux and UNIX systems.



### Prerequisites

Before attending this course, students must have the following technical knowledge:

- Working knowledge of computer networking, and information security principles.
- Good understanding of communication protocols.
- Basic understanding of operating systems.



### Objectives

The purpose of this course is to provide students with both theoretical knowledge and hands-on experience with Linux and UNIX shell environment systems and Linux Security Layers.



## Content

### Day 1 **Module 01** Introduction to Linux

- | Linux History
- | Distributions
- | Open-source philosophy
- | Linux installation
- | CLI vs GUI

### Day 1 **Module 02** CLI Fundamentals

- | CLI & terminal emulators
- | Filesystem structure
- | Command structure
- | Navigating in the filesystem
- | Gathering system information
- | Grep basics
- | Find and Locate
- | History
- | Piping

### Day 2 **Module 03** Users and permissions

- | Users
- | Password management
- | Groups
- | Permissions
- | Sticky bit and PATH

### Day 2 **Module 04** Networking & system management

- | Network testing using Ping and Traceroute
- | Networking files and configuration
- | Updating network configuration

### Day 3 **Module 05** Package Management

- | Package installation
- | APT vs YUM
- | Git concepts
- | Apache installation
- | Other applications

### Day 3 **Module 06** Services and hardening

- | Common services and protocols
- | SSH and SCP
- | FTP setup & configuration
- | Samba setup & configuration
- | Hardening services

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## Module 07 Bash scripting

- | Bash scripting introduction
- | Script input and output
- | Conditions & Arithmetic operators
- | Working with archives
- | File integrity
- | Crontab

Day  
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## Module 08 Host Security

- | Linux external mounting
- | Boot protection
- | PAM
- | SELinux & AppArmor
- | Privilege escalation
- | Crontab security

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## Module 09 Network Security

- | iptables
- | firewalld
- | fail2ban
- | Log monitoring
- | Apache secure configuration
- | SSH secure configuration



Students will also be taught the **security aspects and hardening** of Linux environments”



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[Info@hackerupro.com](mailto:Info@hackerupro.com)



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