Kali Linux Essentials for Security Professionals Training Course

Professional Development Training Course Outline

Category	Data Security	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The landscape of modern cybersecurity demands practitioners who can transition seamlessly from defense to offense to understand true organizational risk. Kali Linux Essentials for Security Professionals Training Course provides security professionals with foundational mastery of Kali Linux, the industry-standard distribution for penetration testing and vulnerability assessment. Participants will gain practical, hands-on experience with essential tools for network reconnaissance, exploitation, and post-exploitation activities in a controlled, ethical environment.

This course is engineered for the future of offensive security, focusing on real-world lab scenarios and leveraging trending cybersecurity tools within the Kali ecosystem. By learning to wield the core capabilities of this powerful platform, security analysts and aspiring ethical hackers will sharpen their ability to identify critical weaknesses, understand the attacker's perspective, and effectively fortify defenses against complex threats, including modern ransomware and cloud-native vulnerabilities.

Programme Curriculum

Kali Linux Essentials for Security Professionals Training Course

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Course Objectives

Upon completion, participants will be able to:

1. Master the Linux command line interface for efficient security operations.
2. Install, configure, and harden Kali Linux in a virtualized environment.
3. Perform comprehensive network reconnaissance and footprinting using professional-grade tools.
4. Conduct detailed vulnerability analysis to identify critical system weaknesses.
5. Execute ethical hacking techniques on simulated target systems legally and responsibly.
6. Understand and prevent common web application vulnerabilities.
7. Utilize the Metasploit Framework for efficient exploitation and payload delivery.
8. Implement post-exploitation strategies for persistence and privilege escalation.
9. Perform password cracking and hash analysis using specialized tools like John the Ripper.
10. Apply techniques for wireless network auditing and defense against common Wi-Fi attacks.
11. Develop basic Bash and Python scripts for security automation and custom tool development.
12. Establish robust digital forensics practices for evidence collection and preservation.
13. Integrate Kali Linux findings into a professional Penetration Test Report.

Target Audience

1. Aspiring Penetration Testers/Ethical Hackers
2. Junior Security Analysts and SOC Analysts
3. Network Administrators and System Engineers
4. IT Auditors and Compliance Officers
5. Forensics Investigators
6. Blue Team members
7. Software Developers
8. Cloud Security Engineers

Course Modules

Module 1: Kali Linux & Foundational Security Setup

- Secure Virtualization Setup.
- Linux CLI Mastery
- System Hardening & Best Practices.
- Initial Network Configuration & Troubleshooting
- Case Study: "Securing the Lab" - Hardening a newly installed Kali instance to meet corporate baseline standards before any penetration testing begins.

Module 2: Network Reconnaissance and Footprinting

- Passive Reconnaissance.
- Active Scanning with Nmap.
- Vulnerability Scanning Fundamentals.
- DNS Enumeration and Network Mapping.
- Case Study: "Mapping the Target" - Using Nmap, WHOIS, and DNS tools to create a detailed network topology and service map for a publicly available corporate network.

Module 3: Vulnerability Assessment and Exploitation Basics

- Vulnerability Classification.
- Introduction to the Metasploit Framework.
- Exploitation Workflow.
- Avoiding Detection.
- Case Study: "Exploiting an Outdated Service" - Using Metasploit to exploit a known vulnerability found during a vulnerability scan, demonstrating a full exploit chain.

Module 4: Web Application Penetration Testing Essentials

- Introduction to Burp Suite Community Edition.
- OWASP Top 10 Overview
- SQL Injection Attacks using SQLMap.
- Authentication & Session Hijacking.
- Case Study: "E-Commerce Data Breach Simulation" - Performing a simulated SQL Injection attack on a vulnerable web application to extract customer data.

Module 5: Password Cracking and Access Attacks

- Understanding Hashes and Salt.
- Offline Password Cracking with John the Ripper and Hashcat.
- Online Brute-Forcing with Hydra.
- Credential Harvesting and Social Engineering Toolkit.
- Case Study: "Cracking the Weak Link" - Performing an effective dictionary and brute-force attack on a captured password hash file to highlight the risk of weak password policies.

Module 6: Wireless and Network Attacks (MITM)

- Wireless Network Auditing.
- Cracking WPA/WPA2-PSK.
- Man-in-the-Middle (MITM) Attacks.
- Network Sniffing and Packet Analysis with Wireshark.
- Case Study: "The Rogue Access Point" - Executing a controlled MITM attack to intercept non-HTTPS credentials over a simulated public Wi-Fi network and analyzing the captured traffic with Wireshark.

Module 7: Post-Exploitation and Maintaining Access

- Privilege Escalation Techniques.
- Pivoting and Tunneling.
- Covering Tracks.
- Creating Persistent Backdoors.
- Case Study: "From Shell to Root" - A multi-step lab where a low-privilege shell is exploited, a local privilege escalation technique is used to gain root access, and persistence is established.

Module 8: Security Automation and Professional Reporting

- Scripting for Security.
- Introduction to Digital Forensics Tools.
- Developing an Incident Response Plan.
- Penetration Test Reporting.
- Case Study: "The Final Report" - Taking the findings from all previous modules to generate a professional, high-impact Vulnerability Management and Penetration Test Report for a simulated C-level audience.

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call +254769199797

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

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