

## Penetration Testing with Kali Linux

The Penetration Testing with Kali Linux (PEN-200) course is OffSec's essential training program for aspiring penetration testers. The course teaches learners how to identify and exploit real-world vulnerabilities across computers, networks, web applications, and basic cloud environments. Emphasizing hands-on, practical learning, PEN-200 provides the core technical skills and mindset required to simulate offensive security operations— and defend against them.

<b>Introduction to CyberSecurity</b>	Master the core concepts, technologies, and best practices that form the bedrock of cybersecurity, providing a solid foundation for your pen testing journey
<b>Report Writing for Penetration Testers</b>	Craft clear, actionable reports to detail security vulnerabilities, their potential impact, and step-by-step remediation guidance
<b>Information Gathering</b>	Use advanced ethical hacking techniques and tools like Nmap and Shodan to map target systems and discover exploitable vulnerabilities
<b>Vulnerability Scanning</b>	Use tools like Nessus and OpenVAS to identify known vulnerabilities in networks, applications, and systems to streamline your penetration testing process
<b>Introduction to Web Applications</b>	Learn how web applications function, what their underlying technologies are, and the architectural weaknesses that create common attack vectors
<b>Common Web Application Attacks</b>	Explore the techniques behind common web attacks, injection flaws, session hijacking, and the essential strategies to stop them
<b>SQL Injection Attacks</b>	Master the art of manipulating databases through SQL injections to extract sensitive information, compromise backend systems, and escalate your privileges
<b>Client-Side Attacks</b>	Exploit vulnerabilities in web browsers, browser extensions, and client-side technologies to compromise user systems and gain access
<b>Locating Public Exploits</b>	Find reliable public exploits, assess their significance, and responsibly integrate them into your security testing workflow
<b>Fixing Exploits</b>	Adapt and customize existing exploits, employ obfuscation techniques, and develop creative payloads to bypass defenses and successfully test target systems
<b>Antivirus Evasion</b>	Develop strategies and techniques to disguise exploits, obfuscate payloads, and evade detection by antivirus solutions to simulate real-world attacker behavior
<b>Password Attacks</b>	Uncover weak authentication practices using password cracking techniques like brute-force, dictionary attacks, and rainbow table methods to improve password security

<b>Windows Privilege Escalation</b>	Identify and exploit misconfigurations and vulnerabilities in Windows systems to gain admin-level access and more control within a network
<b>Linux Privilege Escalation</b>	Escalate your privileges and gain root-level access to fully compromised servers and critical infrastructure on Linux systems
<b>Advanced Tunneling</b>	Establish covert channels, pivot through networks, evade detection, and maintain persistence during penetration tests with sophisticated tunneling protocols and techniques
<b>The Metasploit Framework</b>	Use Metasploit's broad capabilities for exploit development, payload generations, and post-exploitation activities to streamline your penetration testing tasks
<b>Active Directory: Introduction and Enumeration</b>	Understand the structure of Active Directory, learn to enumerate users, groups, trusts, and sensitive configurations using tools like BloodHound and PowerView to identify attack paths
<b>Attacking Active Directory Authentication</b>	Exploit weaknesses in Active Directory authentication mechanisms (Kerberos, NTLM, etc) to compromise credentials and gain unauthorized access
<b>Lateral Movement in Active Directory</b>	Move laterally in Active Directory environments, expand your control, and achieve your penetration testing objectives with post-exploitation techniques and tools