

# CEH v13 - AI Powered I Syllabus

## **Module 01: Introduction to Ethical Hacking 2 Hours**

Learn the fundamentals and key issues in information security, including the basics of ethical hacking, information security controls, relevant laws, and standard procedures.

## **Module 02: Foot Printing and Reconnaissance 2 Hours**

Learn how to use the latest techniques and tools for foot printing and reconnaissance, a critical pre-attack phase of ethical hacking.

## **Module 03: Scanning Networks 2 Hours**

Learn different network scanning techniques and countermeasures.

## **Module 04: Enumeration 2 Hours**

Learn various enumeration techniques, including Border Gateway Protocol (BGP) and Network File Sharing (NFS) exploits and associated countermeasures.

## **Module 05: Vulnerability Analysis 2 Hours**

Learn how to identify security loopholes in a target organization's network, communication infrastructure, and end systems. Different types of vulnerability assessment and vulnerability assessment tools are also included.

## **Module 06: System Hacking 2 Hours**

Learn about the various system hacking methodologies used to discover system and network vulnerabilities, including steganography, steganalysis attacks, and how to cover tracks.

## **Module 07: Malware Threats 2 Hours**

Learn about different types of malware (Trojan, viruses, worms, etc.), APT and fileless malware, malware analysis procedures, and malware countermeasures.

## **Module 08: Sniffing 2 Hours**

Learn about packet sniffing techniques and their uses for discovering network vulnerabilities, plus countermeasures to defend against sniffing attacks.

## **Module 09: Social Engineering 2 Hours**

Learn social engineering concepts and techniques, including how to identify theft attempts, audit human-level vulnerabilities, and suggest social engineering countermeasures.

### **Module 10: Denial-of-Service 2 Hours**

Learn about different Denial of Service (DoS) and Distributed DoS (DDoS) attack techniques, plus the tools used to audit a target and devise DoS and DDoS countermeasures and protections.

### **Module 11: Session Hijacking 2 Hours**

Learn the various session-hijacking techniques used to discover network-level session management, authentication, authorization, and cryptographic weaknesses and associated countermeasures.

### **Module 12: Evading IDS, Firewalls, and Honeypots 2 Hours**

Learn about firewalls, intrusion detection systems (IDS), and honeypot evasion techniques; the tools used to audit a network perimeter for weaknesses; and countermeasures.

### **Module 13: Hacking Web Servers 2 Hours**

Learn about web server attacks, including a comprehensive attack methodology used to audit vulnerabilities in web server infrastructures and countermeasures.

### **Module 14: Hacking Web Applications 2 Hours**

Learn about web application attacks, including a comprehensive hacking methodology for auditing vulnerabilities in web applications and countermeasures.

### **Module 15: SQL Injection 2 Hours**

Learn about SQL injection attack techniques, evasion techniques, and SQL injection countermeasures.

### **Module 16: Hacking Wireless Networks 2 Hours**

Learn about different types of encryption, threats, hacking methodologies, hacking tools, security tools, and countermeasures for wireless networks.

### **Module 17: Hacking Mobile Platforms 2 Hours**

Learn mobile platform attack vectors, Android and iOS hacking, mobile device management, mobile security guidelines, and security tools.

### **Module 18: IoT and OT Hacking 2 Hours**

Learn different types of Internet of Things (IoT) and operational technology (OT) attacks, hacking methodologies, hacking tools, and countermeasures.

### **Module 19: Cloud Computing 2 Hours**

Learn different cloud computing concepts, such as container technologies and serverless computing, various cloud computing threats, attacks, hacking methodologies, and cloud security techniques and tools.

### **Module 20: Cryptography 2 Hours**

Learn about encryption algorithms, cryptography tools, Public Key Infrastructure (PKI), email encryption, disk encryption, cryptography attacks, and cryptanalysis tools.