

CEH v11 Syllabus

Module 01: Introduction to Ethical Hacking 2 Hours - 7 Topics

- **Information Security Overview (Day 1)**
- **Information Security Threats and Attack Vectors (Day 1)**
- **Hacking Concepts (Day 1)**
- **Ethical Hacking Concepts (Day 1)**
- **Information Security Controls (Day 1)**
- **Penetration Testing Concepts (Day 1)**
- **Information Security Laws and Standards (Day 1)**

Module 02: Footprinting and Reconnaissance 2 Hours - 14 Topics

- **Footprinting Concepts (Day 2)**
- **Footprinting through Search Engines (Day 2)**
- **Footprinting through Web Services (Day 2)**
- **Footprinting through Social Networking Sites (Day 2)**
- **Website Footprinting (Day 2)**
- **Email Footprinting (Day 2)**
- **Competitive Intelligence (Day 2)**
- **Whois Footprinting (Day 2)**
- **DNS Footprinting (Day 2)**
- **Network Footprinting (Day 2)**
- **Footprinting Through Social Engineering (Day 2)**
- **Footprinting Tools (Day 2)**
- **Footprinting Countermeasures (Day 2)**
- **Footprinting Penetration Testing (Day 2)**

Module 03: Scanning Networks 2 Hours - 7 Topics

- **Network Scanning Concepts (Day 3)**
- **Scanning Tools (Day 3)**
- **Scanning Techniques (Day 3)**
- **Scanning Beyond IDS and Firewall (Day 3)**
- **Banner Grabbing (Day 3)**
- **Draw Network Diagrams (Day 3)**
- **Scanning Pen Testing (Day 3)**

Module 04: Enumeration 2 Hours - 8 Topics

- **Enumeration Concepts (Day 4)**
- **NetBIOS Enumeration (Day 4)**
- **SANP Enumeration (Day 4)**

- **LDP Enumeration (Day 4)**
- **SMTP and DNS Enumeration (Day 4)**
- **Other Enumeration Techniques (Day 4)**
- **Enumeration Countermeasures (Day 4)**
- **Enumeration Pen Testing (Day 4)**

Module 05: Vulnerability Analysis 2 Hours - 5 Topics

- **Vulnerability Assessment Concepts (Day 5)**
- **Vulnerability Assessment Solutions (Day 5)**
- **Vulnerability Scoring Systems (Day 5)**
- **Vulnerability Assessment Tools (Day 5)**
- **Vulnerability Assessment Reports (Day 5)**

Module 06: System Hacking 2 Hours - 7 Topics

- **System Hacking Concepts (Day 6)**
- **Cracking Passwords (Day 6)**
- **Escalating Privileges (Day 6)**
- **Executing Applications (Day 6)**
- **Hiding Files (Day 6)**
- **Covering Tracks (Day 6)**
- **Penetration Testing (Day 6)**

Module 07: Malware Threats 2 Hours - 7 Topics

- **Malware Concepts (Day 7)**
- **Trojan Concepts (Day 7)**
- **Virus and Worm Concepts (Day 7)**
- **Malware Analysis (Day 7)**
- **Countermeasures (Day 7)**
- **Anti-Malware Software (Day 7)**
- **Malware Penetration testing (Day 7)**

Module 08: Sniffing 2 Hours - 10 Topics

- **Sniffing Concepts (Day 8)**
- **Sniffing Technique: MAC Attacks (Day 8)**
- **Sniffing Technique: DHCP Attacks (Day 8)**
- **Sniffing Technique: ARP Poisoning (Day 8)**
- **Sniffing Technique: Spoofing Attacks (Day 8)**
- **Sniffing Technique: DNS Poisoning (Day 8)**
- **Sniffing Tools (Day 8)**
- **Countermeasures (Day 8)**
- **Sniffing Detection Techniques (Day 8)**
- **Sniffing Pen Testing (Day 8)**

Module 09: Social Engineering2 Hours - 7 Topics

- **Social Engineering Concepts (Day 9)**
- **Social Engineering Techniques (Day 9)**
- **Insider Threats (Day 9)**
- **Impersonation on Social Networking Sites (Day 9)**
- **Identity Theft (Day 9)**
- **Countermeasures (Day 9)**
- **Social Engineering Pen Testing (Day 9)**

Module 10: Denial-of-Service2 Hours - 8 Topics

- **DoS/DDos Concepts (Day 10)**
- **DoS/DDos Attack Techniques (Day 10)**
- **Botnets (Day 10)**
- **DDoS Case Study (Day 10)**
- **DoS/DDos Attack Tools (Day 10)**
- **Countermeasures (Day 10)**
- **DoS/DDos Protection Tools (Day 10)**
- **DoS/DDos Penetration Testing (Day 10)**

Module 11: Session Hijacking2 Hours - 6 Topics

- **Session Hijacking Concepts (Day 11)**
- **Application Level Session Hijacking (Day 11)**
- **Network Level Session Hijacking (Day 11)**
- **Session Hijacking Tools (Day 11)**
- **Countermeasures (Day 11)**
- **Penetration Testing (Day 11)**

Module 12: Evading IDS,Firewalls, and Honeypots2 Hours - 8 Topics

- **IDS, Firewall and Honeypot Concepts (Day 12)**
- **IDS, Firewall and Honeypot Solutions (Day 12)**
- **Evading IDS (Day 12)**
- **Evading Firewalls (Day 12)**
- **IDS/Firewall Evading Tools (Day 12)**
- **Detecting Honeypots (Day 12)**
- **IDS/Firewall Evasion Countermeasures (Day 12)**
- **Penetration Testing (Day 12)**

Module 13: Hacking Web Servers2 Hours - 8 Topics

- **Web Server Concepts (Day 13)**
- **Web Server Attacks (Day 13)**
- **Web Server Attacks Methodology (Day 13)**

- **Web Server Attack Tools (Day 13)**
- **Countermeasures (Day 13)**
- **Patch Management (Day 13)**
- **Web Server Security Tools (Day 13)**
- **Web Server Pen Testing (Day 13)**

Module 14: Hacking Web Applications2 Hours - 7 Topics

- **Web App Concepts (Day 14)**
- **Web App Threats (Day 14)**
- **Hacking Methodology (Day 14)**
- **Web App Hacking Tools (Day 14)**
- **Countermeasures (Day 14)**
- **Web App Security Testing Tools (Day 14)**
- **Web App Pen Testing (Day 14)**

Module 15: SQL Injection2 Hours - 6 Topics

- **SQL Injection Concepts (Day 15)**
- **Types of SQL Injection (Day 15)**
- **SQL Injection Methodology (Day 15)**
- **SQL Injection Tools (Day 15)**
- **Evasion Techniques (Day 15)**
- **Countermeasures (Day 15)**

Module 16: Hacking Wireless Networks2 Hours - 9 Topics

- **Wireless Concepts (Day 16)**
- **Wireless Encryption (Day 16)**
- **Wireless Threats (Day 16)**
- **Wireless Hacking Methodology (Day 16)**
- **Wireless Hacking Tools (Day 16)**
- **Bluetooth Hacking (Day 16)**
- **Countermeasures (Day 16)**
- **Wireless Security Tools (Day 16)**
- **Wireless Pen Testing (Day 16)**

Module 17: Hacking Mobile Platforms2 Hours - 7 Topics

- **Mobile Platform Attack Vectors (Day 17)**
- **Hacking Android OS (Day 17)**
- **Hacking iOS (Day 17)**
- **Mobile Spyware (Day 17)**
- **Mobile Device Management (Day 17)**
- **Mobile Security Guidelines and Tools (Day 17)**
- **Mobile Pen Testing (Day 17)**

Module 18: IoT Hacking2 Hours - 6 Topics

- **IoT Concepts (Day 18)**
- **IoT Attacks (Day 18)**
- **IoT Hacking Methodology (Day 18)**
- **IoT Hacking Tools (Day 18)**
- **Countermeasures (Day 18)**
- **IoT Pen Testing (Day 18)**

Module 19: Cloud Computing2 Hours - 6 Topics

- **Cloud Computing Concepts (Day 19)**
- **Cloud Computing Threats (Day 19)**
- **Cloud Computing Attacks (Day 19)**
- **Cloud Security (Day 19)**
- **Cloud Security Tools (Day 19)**
- **Cloud Penetration Testing (Day 19)**

Module 20: Cryptography2 Hours - 8 Topics

- **Cryptography Concepts (Day 20)**
- **Encryption Algorithms (Day 20)**
- **Cryptography Tools (Day 20)**
- **Public Key Infrastructure (PKI) (Day 20)**
- **Email Encryption (Day 20)**
- **Disk Encryption (Day 20)**
- **Cryptanalysis (Day 20)**
- **Countermeasures (Day 20)**