



# CYBER SECURITY

## Module 01 - Introduction to Ethical Hacking

- Information Security Overview
- Information Security Threats and Attack Vectors
- Penetration Testing Concepts
- Hacking Concepts
- Ethical Hacking Concepts
- Information Security Controls
- Information Security Laws and Standards

## Module 02 - Footprinting and Reconnaissance

- Footprinting Concepts
- Footprinting through Search Engines
- Footprinting through Web Services
- Footprinting through Social Networking Sites
- Website Footprinting
- Email Footprinting
- Competitive Intelligence
- Whois Footprinting
- DNS Footprinting
- Network Footprinting
- Footprinting through Social Engineering
- Footprinting Tools
- Countermeasures
- Footprinting Pen Testing

## Module 03 - Scanning Networks

- Network Scanning Concepts
- Scanning Tools
- Scanning Techniques
- Scanning Beyond IDS and Firewall
- Banner Grabbing
- Draw Network Diagrams
- Scanning Pen Testing

## Module 04 - Enumeration

- Enumeration Concepts
- NetBIOS Enumeration
- SNMP Enumeration
- LDAP Enumeration
- NTP Enumeration
- SMTP Enumeration and DNS Enumeration
- Enumeration Countermeasures
- Other Enumeration Techniques
- Enumeration Pen Testing

## Module 05 - Vulnerability Analysis

- Vulnerability Assessment Concepts
- Vulnerability Assessment Solutions
- Vulnerability Scoring Systems
- Vulnerability Assessment Tools
- Vulnerability Assessment Reports

## Module 06 - System Hacking

- System Hacking Concepts
- Cracking Passwords
- Escalating Privileges
- Executing Applications
- Hiding Files
- Covering Tracks
- Penetration Testing



## Module 07 - Malware Threats

- Malware Concepts
- Trojan Concepts
- Virus and Worm Concepts
- Malware Analysis
- Countermeasures
- Anti-Malware Software
- Malware Penetration Testing

## Module 08 - Sniffing

- Sniffing Concepts
- Sniffing Technique: MAC Attacks
- Sniffing Technique: DHCP Attacks
- Sniffing Technique: ARP Poisoning
- Sniffing Technique: Spoofing Attacks
- Sniffing Technique: DNS Poisoning
- Sniffing Tools
- Countermeasures
- Sniffing Detection Techniques
- Sniffing Pen Testing

## Module 09- Social Engineering

- Social Engineering Concepts
- Social Engineering Techniques
- Insider Threats
- Impersonation on Social Networking Sites
- Identity Theft
- Countermeasures
- Social Engineering Penetration Testing

## Module 10- Denial-of-Service

- DoS/DDoS Concepts
- DoS/DDoS Attack Techniques
- Botnets
- DDoS Case Study
- DoS/DDoS Attack Tools
- Countermeasures
- DoS/DDoS Protection Tools
- DoS/DDoS Attack Penetration Testing

## Module 11- Session Hijacking

- Session Hijacking Concepts
- Application-Level Session Hijacking
- Network Level Session Hijacking
- Session Hijacking Tools
- Countermeasures
- Penetration Testing

## Module 12 - Evading IDS, Firewalls, and Honeypots

- IDS, Firewall, and Honeypot Concepts
- IDS, Firewall, and Honeypot Solutions
- Evading IDS
- Evading Firewalls

## Module 13- Hacking Web Servers

- Web Server Concepts
- Web Server Attacks
- Web Server Attack Methodology
- Web Server Attack Tools

## Module 14- Hacking Web Applications

- Web App Concepts
- Web App Threats
- Hacking Methodology
- Web Application Hacking Tools
- Countermeasures
- Web App Security Testing Tools
- Web App Pen Testing

## Module 15- SQL Injection

- SQL Injection Concepts
- Types of SQL Injection
- SQL Injection Methodology
- SQL Injection Tools
- Evasion Techniques
- Countermeasures



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## Module 16- Hacking Wireless Networks

- Wireless Concepts
- Wireless Encryption
- Wireless Threats
- Wireless Hacking Methodology
- Wireless Hacking Tools
- Bluetooth Hacking
- Countermeasures
- Wireless Security Tools
- Wi-Fi Pen Testing

## Module 17- Hacking Mobile Platforms

- Mobile Platform Attack Vectors
- Hacking Android OS
- Hacking iOS
- Mobile Spyware
- Mobile Device Management
- Mobile Security Guidelines and Tools
- Mobile Pen Testing

## Module 18- IoT Hacking

- IoT Concepts
- IoT Attacks
- IoT Hacking Methodology
- IoT Hacking Tools
- Countermeasures
- IoT Pen Testing

## Module 19- Cloud Computing

- Cloud Computing Concepts
- Cloud Computing Threats
- Cloud Computing Attacks
- Cloud Security
- Cloud Security Tools
- Cloud Penetration Testing

## Module 20- Cryptography

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



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