




## 3-Month Cybersecurity & Ethical Hacking Course Syllabus

 **Duration:** 12 Weeks

 **Mode:** Online/Offline

 **Level:** Beginner to Advanced

 **Outcome:** Industry-Ready Skills + Certificate + Final Project

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### ◇ Month 1: Foundations of Ethical Hacking & Networking

#### ✓ Week 1: Introduction to Cybersecurity & Ethical Hacking

- Types of Hackers & Cyber Threats
- Cyber Law & Legal Aspects
- Setting up a Hacking Lab (Kali Linux, VirtualBox, DVWA, Metasploitable)

#### ✓ Week 2: Networking Essentials

- OSI Model & TCP/IP Basics
- IP Addressing, Subnetting, DNS, DHCP
- Packet Flow Analysis with Wireshark

#### ✓ Week 3: Linux & Windows OS Basics for Hackers

- Linux Terminal Commands, File System
- User Management & Permissions
- Windows Architecture & PowerShell for Hackers

#### ✓ Week 4: Footprinting & Reconnaissance

- Passive and Active Information Gathering
  - WHOIS, NSLookup, Social Engineering, Shodan
  - Tools: Maltego, Recon-ng, theHarvester, SpiderFoot
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### ◇ Month 2: Scanning, Vulnerability Analysis & Exploitation

### ✓ **Week 5: Scanning & Enumeration**

- Port Scanning: Nmap, Zenmap
- Network Mapping, OS Detection
- Service Enumeration: SMB, FTP, SNMP

### ✓ **Week 6: Vulnerability Assessment**

- What are CVEs and CVSS?
- Vulnerability Scanning Tools: Nessus, OpenVAS
- Manual Vulnerability Detection

### ✓ **Week 7: System Hacking & Exploitation**

- Password Cracking (Hydra, John the Ripper, Hashcat)
- Privilege Escalation (Windows & Linux)
- Remote Access Tools (RATs)

### ✓ **Week 8: Metasploit Framework**

- Exploitation using Metasploit
- Creating Payloads with MSFvenom
- Meterpreter Basics & Post Exploitation

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## ◇ **Month 3: Advanced Web, Wireless, & Real-World Attacks**

### ✓ **Week 9: Web Application Hacking (Part 1)**

- OWASP Top 10 Overview
- SQL Injection (Manual + Automated with SQLmap)
- Cross-Site Scripting (XSS)

### ✓ **Week 10: Web Application Hacking (Part 2)**

- Command Injection, File Upload Vulnerabilities
- Burp Suite Professional (Deep Usage)

- Testing with DVWA, bWAPP, and Juice Shop

### ✓ **Week 11: Wireless Hacking & Social Engineering**

- Wi-Fi Cracking using Aircrack-ng, Wifite, Fluxion
- Evil Twin Attacks, Deauthentication Attacks
- Social Engineering Toolkit (SET)
- Phishing Page Creation & Cloning Websites

### ✓ **Week 12: Capture The Flag (CTF) & Career Building**

- Introduction to CTF Challenges (TryHackMe, Hack The Box)
- Real-World Scenarios & Simulated Pentesting
- Report Writing for Pentesters
- Career Paths: Bug Bounty, Pentester, SOC Analyst
- Final Exam + Certificate + Career Guidance

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### **Extras:**

- **Resume Building for Ethical Hackers**
- **Internship & Freelance Guidance**
- **List of Bug Bounty Platforms**
- **Practice Labs & CTF Platforms (Hack The Box, TryHackMe, PortSwigger)**
- **Interview Preparation Tips**