



## 6-Month Cybersecurity & Ethical Hacking Course Syllabus

 **Duration:** 24 Weeks

 **Mode:** Online/Offline

 **Level:** Beginner to Expert

 **Outcome:** Advanced Skills + Live Projects + Internship Support + Industry-Recognized Certificate

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### Phase 1: Cybersecurity & Ethical Hacking Basics (Month 1)

#### **Week 1: Introduction to Cybersecurity**

- What is Cybersecurity?
- Types of Threats & Attacks
- Roles in Cybersecurity
- Basics of Cyber Law (India + International)

#### **Week 2: Linux & Windows OS Basics**

- Introduction to Linux (Kali/Parrot)
- File System, Command Line, Permissions
- Basic Windows Administration for Hackers

#### **Week 3: Networking Fundamentals**

- OSI & TCP/IP Model
- IP Addressing, Subnetting, DNS, DHCP
- Tools: Wireshark, tcpdump

#### **Week 4: Virtual Lab Setup**

- Installing VirtualBox / VMware
  - Setting up Kali Linux, Metasploitable, DVWA
  - Introduction to Penetration Testing
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## **Phase 2: Footprinting, Scanning & Vulnerability Assessment (Month 2)**

### **Week 5: Footprinting & Reconnaissance**

- OSINT Techniques
- Tools: theHarvester, Shodan, Maltego, Recon-ng
- Email Footprinting, Google Dorking

### **Week 6: Scanning & Enumeration**

- Nmap, Zenmap, Masscan
- Service Detection, Banner Grabbing
- Enumerating SMB, FTP, SNMP

### **Week 7: Vulnerability Assessment**

- What is a CVE, CVSS Scoring
- Vulnerability Scanning: Nessus, OpenVAS
- Manual Testing vs Automated Testing

### **Week 8: System Hacking Basics**

- Password Cracking: Hashcat, John the Ripper
  - Brute Force using Hydra
  - Privilege Escalation Techniques (Windows/Linux)
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## **Phase 3: Exploitation, Metasploit & Malware (Month 3)**

### **Week 9: Metasploit Framework**

- Creating Payloads with MSFvenom
- Exploiting Services
- Meterpreter Usage

### **Week 10: Trojans, RATs & Malware Analysis**

- Introduction to Malware
- Remote Access Tools (DarkComet, Quasar)
- Basic Static & Dynamic Malware Analysis

#### **Week 11: Social Engineering & Phishing**

- SET Toolkit
- Phishing Website Cloning
- USB Payload Attacks, Human Weakness Exploits

#### **Week 12: Bypassing Security**

- Antivirus Evasion Techniques
- UAC Bypass & Payload Obfuscation
- Sandbox & Firewall Evasion

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### **Phase 4: Web App Hacking (Month 4)**

#### **Week 13: OWASP Top 10 Overview**

- SQL Injection, XSS
- CSRF, IDOR
- Tools: DVWA, bWAPP

#### **Week 14: Burp Suite in Depth**

- Proxy, Repeater, Intruder, Scanner
- Web Crawler & Intercepting Traffic
- Authentication Bypass & Token Manipulation

#### **Week 15: Advanced Web Attacks**

- SSRF, XXE, Command Injection
- LFI, RFI
- Exploiting File Upload & Broken Access Control

#### **Week 16: Bug Bounty Hunting**

- Introduction to Bug Bounty Platforms (HackerOne, Bugcrowd)
  - Report Writing for Vulnerabilities
  - Responsible Disclosure Guidelines
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## **Phase 5: Wireless & Cloud Security (Month 5)**

### **Week 17: Wi-Fi Hacking**

- Aircrack-ng, Fluxion, Wifite
- WPA/WPA2 Cracking
- Evil Twin & Deauth Attacks

### **Week 18: MITM & Sniffing Attacks**

- ARP Spoofing, DNS Spoofing
- Tools: Ettercap, Wireshark
- Capturing Passwords in Plaintext

### **Week 19: Mobile Hacking**

- Android Pentesting Basics
- Drozer & ADB Tools
- APK Reverse Engineering

### **Week 20: Cloud Security**

- Basics of AWS, Azure, GCP Security
  - Cloud Vulnerabilities
  - S3 Bucket Hacking
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## **Phase 6: Advanced Topics, Projects & Career (Month 6)**

### **Week 21: Active Directory & Internal Network Attacks**

- AD Enumeration, Kerberoasting, Pass-the-Hash

- Lateral Movement & Pivoting
- Tools: BloodHound, Mimikatz

#### **Week 22: Capture The Flag (CTF)**

- HackTheBox / TryHackMe Rooms
- Vulnhub Machine Walkthroughs
- Realistic CTF Practice

#### **Week 23: Real-Time Pentesting Project**

- Live Application/Network Testing (Simulated Environment)
- Documentation, Screenshots, Report Writing
- Exploitation Chain Demonstration

#### **Week 24: Final Exam + Career Support**

- Practical Exam + Viva
- Resume Building for Cybersecurity
- Job Roles: SOC Analyst, Pentester, Red Teamer
- Internship / Freelance Project Guidance

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#### **Included Extras:**

- **Lifetime Access to Lab Material**
- **Free E-books & Tools List**
- **Access to Private CTFs**
- **Interview Preparation Questions**
- **Certificate of Completion + Internship Certificate**