

WHEN CYBERCRIME STRIKES - CYBERSAVIOURS RESPOND

CS CEH (Cybersaviours Certified Ethical Hacker)

Importance of CS | CEH







85% Career Advancement

Higher Salary **Increased** Potential

Latest Tools Cutting-Edge Tech

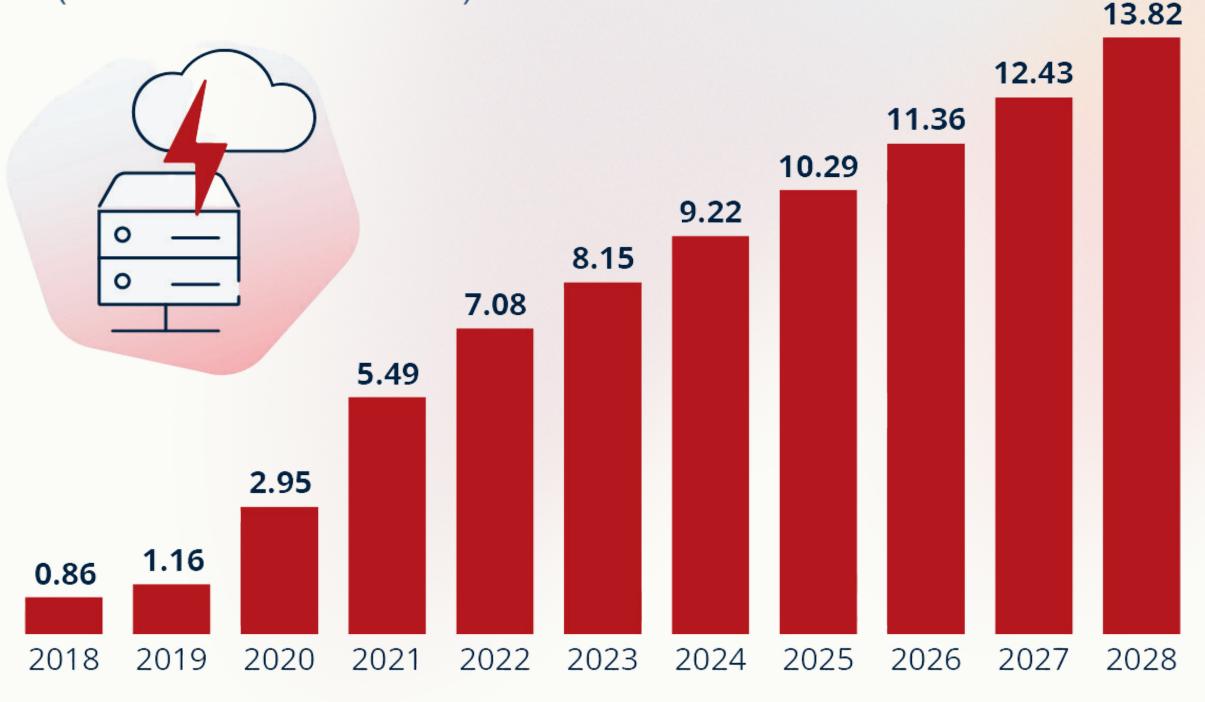




Real-World Attack Scenarios

Cybercrime Expected To Skyrocket

Estimated annual cost of cybercrime worldwide (in trillion U.S. dollars)





Increase in cyber attacks reported in 2023

4.1 Million

Global Cybersecurity Workforce Gap

32%

Increased from 2023 -24

Program Strategic Overview





In-depth training progressing from foundational cybersecurity concepts to advanced attack and defense techniques.

Emphasizes hands-on practice with industry-standard tools and real-world scenarios to ensure practical skill development

Learning Objectives

> Develop comprehensive understanding of ethical hacking methodologies

S Master advanced network scanning and vulnerability assessment technique

S Gain proficiency in using cutting-edge cybersecurity tools

Practical Experience

Course Modules

Module 1: Introduction to Ethical Hacking :

Objective: Build foundational knowledge in ethical hacking and understand cybersecurity threats, vulnerabilities.

• Key Topics:

- Definition of Ethical Hacking and Penetration Testing
- Cybersecurity Threat Landscape and Attack Vectors
- Information Security Controls, Laws, and Compliance
- Ethical Hacking Phases

• Learning Outcome: Understand the ethical hacking and the fundamentals of cybersecurity

Module 2: Footprinting and Reconnaissance

Objective: Master techniques for collecting information on a target network, including identifying vulnerabilities.

- Key Topics:
 - Footprinting Techniques: Active vs. Passive
 - Information Gathering: DNS, WHOIS, Network Mapping
 - Social Engineering and Physical Security Evasion
 - Countermeasures to Reconnaissance Techniques
- Learning Outcome: Practical experience in gathering and analyzing open-source information on targets.
- Hands-on Lab: Conducting footprinting to gather network details and identify potential entry points.
- Tools:
 - WHOIS theHarvester o Ο • Shodan
 - Google Dorks 0 Ο

<u>shodan.io</u> Recon-ng 0 Maltego whois.net Ο

Module 3: Scanning Networks

Objective: Develop skills in network scanning, open port identification, and network mapping.

- Key Topics:
 - Network Scanning Techniques: Ping Sweep, Port Scanning, Vulnerability Scanning
 - Identifying Live Systems, Open Ports, Service Version Detection
 - OS Fingerprinting and Network Topology Analysis
- Learning Outcome: Ability to accurately map network infrastructure and identify vulnerabilities.
- Hands-on Lab: Using network scanners to identify live hosts, open ports, and services.

• Tools:

- Nmap Ο
- Angry IP Scanner

Netcat Zenmap

Ο

Module 4: Enumeration

Objective: Enhance skills in gathering detailed information about networks, systems, and services.

- Key Topics:
 - Enumeration Techniques: User and Group, Network and Service
 - DNS, SNMP, and LDAP Enumeration
- Learning Outcome: Proficiency in extracting sensitive information via network services and protocols.
- Hands-on Lab: Conducting enumeration exercises to reveal details about user accounts and network services.
- Tools:
 - SNMP Enumeration Tool
 - Nessus

- Enum4linux \bigcirc
- Netcat \bigcirc

<u>Metasploit</u> Ο exploit-db.com Ο

Module 5: Vulnerability Analysis

Objective: Equip participants with skills to assess vulnerabilities and prioritize security risks.

- Key Topics:
 - Vulnerability Assessment Lifecycle
 - Common Vulnerabilities and Exploits (CVEs)
 - Using Vulnerability Scanners
- Learning Outcome: Ability to identify, analyze, and report vulnerabilities in a network and website.

Hands-on Lab: Conducting vulnerability assessments with a focus on prioritizing findings

• Tools:

- OpenVAS
- Nessus

Nikto \bigcirc <u>cvedetails.com</u>

Module 6: System Hacking

Objective: Learn to compromise systems and gain unauthorized access, while understanding defensive measures.

- Key Topics:
 - Gaining Access and Escalating Privileges
 - Password Cracking, Keylogging, and Privilege Escalation
 - Covering Tracks and Creating Backdoors
- **Learning Outcome:** Mastery in using tools for system hacking and understanding countermeasures.
- Hands-on Lab: Exploiting systems and covering tracks on compromised machines.

• Tools:

- Metasploit
- John the Ripper

- Cain & Abel Ο
- Mimikatz Ο

• PowerShell Empire exploit-db.com Ο

Module 7: Malware Threats

Objective: Understand the techniques for creating and deploying malware and learn about mitigation.

- Key Topics:
 - Types of Malware: Viruses, Worms, Trojans, Ransomware
 - Malware Analysis and Creation
 - Countermeasures and Mitigations
- **Learning Outcome:** Ability to identify malware threats, analyze them, and understand their effects on systems.
- Hands-on Lab: Analysing malware samples and testing detection methods.

• Tools:

- Ο • **REMnux**
- Cuckoo Sandbox

- Process Monitor
- Wireshark Ο

virustotal.com Ο <u>malwarebytes.com</u> Ο

Module 8: Sniffing

Objective: Master techniques for intercepting and analyzing network traffic, while understanding counter-sniffing techniques.

- Key Topics:
 - Packet Sniffing Techniques: Passive vs. Active
 - Protocol Analysis and Password Sniffing
 - Countermeasures for Sniffing Attacks
- Learning Outcome: Proficiency in packet capturing, analyzing network traffic, and applying antisniffing techniques.
- Hands-on Lab: Using packet sniffers to capture and analyze network data.
- Tools:
 - Wireshark
 - Tcpdump

- Snort
- Ettercap Ο

Module 9: Social Engineering

Objective: Understand social engineering techniques, including psychological manipulation and phishing tactics.

- Key Topics:
 - Types of Social Engineering Attacks: Phishing, Pretexting, Baiting
 - Techniques for Human Manipulation and Psychological Exploitation
 - Countermeasures and Employee Training
- **Learning Outcome:** Ability to recognize and prevent social engineering attacks.
- Hands-on Lab: Simulating phishing attacks and evaluating awareness measures.
- Tools:
 - SET (Social-Engineer Toolkit)
 - Gophish

- Maltego
- <u>social-engineer.org</u>

Module 10: Denial-of-Service (DoS) Attacks

Objective: Develop an understanding of DoS and DDoS attacks, as well as mitigation techniques.

- Key Topics:
 - DoS Attack Types: Flood Attacks, SYN Flood, Ping of Death
 - Distributed Denial-of-Service (DDoS) Mechanisms
 - Detection and Mitigation Techniques
- **Learning Outcome:** Proficiency in identifying and countering DoS attacks.
- Hands-on Lab: Conducting DoS simulations and implementing defensive measures.
- Tools:
 - LOIC (Low Orbit Ion Cannon)

- OWASP ZAP
- cloudflare.com/ddos

• Hping3

Module 11: Session Hijacking

Objective: Learn techniques to intercept and hijack active sessions and apply counter-hijacking measures.

- Key Topics:
 - Session Hijacking Concepts: Cookie Hijacking, Sidejacking, Cross-Site Scripting (XSS)
 - Tools and Techniques for Interception
 - Preventive Measures and Secure Session Management
- Learning Outcome: Capability to conduct and prevent session hijacking.
- Hands-on Lab: Session hijacking exercises to identify and mitigate vulnerabilities.
- Tools:
 - Wireshark
 - Burp Suite

- Firesheep
- <u>owasp.org</u> Ο

Module 12: Evading IDS, Firewalls, and Honeypots

Objective: Master evasion techniques to bypass detection systems such as IDS, firewalls, and honeypots.

- Key Topics:
 - Intrusion Detection and Prevention Systems (IDS/IPS)
 - Firewall and Honeypot Evasion Tactics
 - Countermeasures and Detection Techniques
- **Learning Outcome:** Capability to conduct and prevent session hijacking.
- Hands-on Lab: Skills in evading IDS and firewalls while understanding counter-evasion measures.
- Tools:
 - Nmap
 - Snort

- Nikto
- Metasploit

Module 13: Hacking Web Servers

Objective: Gain expertise in exploiting web server vulnerabilities and applying security measures.

- Key Topics:
 - Common Web Server Vulnerabilities: Directory Traversal, Misconfiguration, DDoS
 - Techniques for Exploiting Web Server Weaknesses
 - Defensive Strategies for Securing Web Servers
- **Learning Outcome:** Proficiency in identifying, exploiting, and securing web server vulnerabilities
- Hands-on Lab: Simulating attacks on web servers and applying security configurations.
- Tools:
 - Nikto
 - Metasploit

- Nessus
- <u>securityheaders.com</u>

Module 14: Hacking Web Applications

Objective: Understand web application vulnerabilities, exploit common weaknesses, and apply secure development practices

- Key Topics:
 - Web Application Vulnerabilities: XSS, CSRF, SQL Injection, LFI/RFI
 - Techniques for Exploiting and Securing Web Applications
 - OWASP Top 10 Security Risks
- **Learning Outcome:** Ability to detect and mitigate web application vulnerabilities.
- Hands-on Lab: Performing vulnerability assessments and exploiting web application flaws.
- Tools:
 - Burp Suite
 - OWASP ZAP

- Acunetix
- <u>owasp.org</u> \bigcirc

Module 15: SQL Injection

Objective: Master SQL injection techniques to compromise databases and implement secure coding practices.

- Key Topics:
 - SQL Injection Basics: Error-Based, Blind, Union-Based
 - Techniques for Database Exploitation and Data Exfiltration
 - Secure Coding and Mitigation Strategies
- Learning Outcome: Proficiency in detecting SQL vulnerabilities and applying countermeasures.
- Hands-on Lab: Conducting SQL injection attacks and practicing secure coding.
- Tools:
 - SQLmap
 - Havij

- SQL Ninja
- <u>exploit-db.com</u>

Module 16: Hacking Wireless Networks

Objective: Understand wireless network vulnerabilities and apply tools and techniques to exploit and secure wireless communications.

- Key Topics:
 - Wireless Network Protocols: WEP, WPA, WPA2
 - Common Attacks: Evil Twin, Deauthentication, MAC Spoofing
 - Wireless Security Standards and Best Practices
- **Learning Outcome:** Ability to assess and secure wireless networks against common threats.
- Hands-on Lab: Simulating attacks on wireless networks and implementing security measures.
- Tools:
 - Aircrack-ng
 - Wireshark

- Kismet
- Fern WiFi Cracker

Module 17: Hacking Mobile Platforms

Objective: Explore vulnerabilities in mobile platforms and understand methods for assessing and securing mobile applications and operating systems.

- Key Topics:
 - Mobile OS Vulnerabilities: Android, iOS
 - Mobile App Security Risks: Code Injection, Data Leakage
 - Security Measures for Mobile Devices and Applications
- **Learning Outcome:** Proficiency in identifying and securing mobile application vulnerabilities.
- Hands-on Lab: Performing vulnerability assessments on mobile applications and devices.
- Tools:
 - Drozer
 - MobSF (Mobile Security Framework)

- APKTool

• Burp Suite Mobile Assistant

Module 18: IoT and OT Hacking

Objective: Gain expertise in identifying vulnerabilities in Internet of Things (IoT) and Operational Technology (OT) environments.

- Key Topics:
 - IoT Protocols and Technologies: MQTT, CoAP
 - IoT and OT Security Challenges
 - Exploitation and Countermeasures for IoT/OT Environments
- Learning Outcome: Understanding of IoT/OT vulnerabilities and the ability to secure connected devices and industrial systems
- Hands-on Lab: Conducting security assessments on IoT and OT systems.
- Tools:
 - Shodan
 - IoT Inspector

• Wireshark

• Nmap

Module 19: Cloud Computing

Objective: Gain expertise in cloud security vulnerabilities and understand methods for securing cloud environments.

- Key Topics:
 - Cloud Security Architecture: Public, Private, Hybrid, and Community Clouds
 - Cloud-Specific Threats: Data Breaches, Account Hijacking, Misconfiguration
 - Compliance and Security Standards for Cloud Environments
- Learning Outcome: Ability to identify cloud vulnerabilities, apply security measures, and understand cloud compliance requirements.
- Hands-on Lab: Conducting cloud security assessments and implementing security configurations.
- Tools:
 - CloudSploit
 - ScoutSuite

- AWS CloudTrail

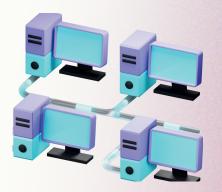
• Microsoft Azure Security Center

Objective: Understand and apply cryptographic principles for secure data transmission and storage.

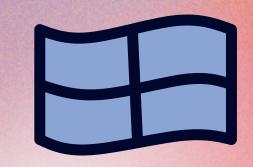
- Key Topics:
 - Cryptographic Algorithms: Symmetric, Asymmetric, Hash Functions
 - Digital Signatures, Certificates, and Public Key Infrastructure (PKI)
 - Encryption and Decryption Techniques for Data Protection
- Learning Outcome: Proficiency in encryption methods, cryptographic standards, and secure key management
- Hands-on Lab: Implementing encryption and decryption processes and using digital certificates.
- Tools:
 - OpenSSL
 - HashCalc

• GnuPG • Keyczar

Prerequisites



Networking Basics



Basics of Operating Systems (Windows,Linux)



Basics of Programming (Python,Bash,Javascript)

Pricings

Certification with Credits

LOR (Letter of Recomendation)



₹34,999 499

Why Choose Cybersaviours



Advanced Curriculum

- Latest Techniques
- **Emerging threat-**Landscape
- Real world Hacking



Immersive Learning

- 70% Practicals
- 30% Theoritical
- Live Hacking -Demonstrations





Expert Led Training

Real World **Penetration Testers**

Job Opportunities in Reality

Ethical Hacker

SOC Analyst

NOTE : Internship opportunities are free or 5k to 10k Stipend



22k to 38k/month Excl : cuttings



About Us CyberSaviours: Your Trusted Training Partner



Vision

- Transforming cybersecurity landscape
- Empowering organizations globally
- Creating resilient digital ecosystems



Mission

To provide exceptional cybersecurity, digital forensics, and governance solutions that protect businesses and strengthen their resilience.

VAUES

- Integrity
- Excellence
- Innovation
- Client Centric Appraoch

Leadership

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Your Security- Our Responsibility

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