

Ethical Hacking & Cyber Sec. Course

Course Duration: 90 Days

Topics & Details

Introduction to Ethical Hacking:

- ★ Overview of Ethical Hacking and its importance
- ★ Difference between Ethical Hacking and Cyber Security
- ★ Legal implications and responsibilities of ethical hacking

Reconnaissance Techniques:

- ★ Passive and active reconnaissance
- ★ Footprinting tools and techniques
- ★ Information gathering from public

Scanning Networks:

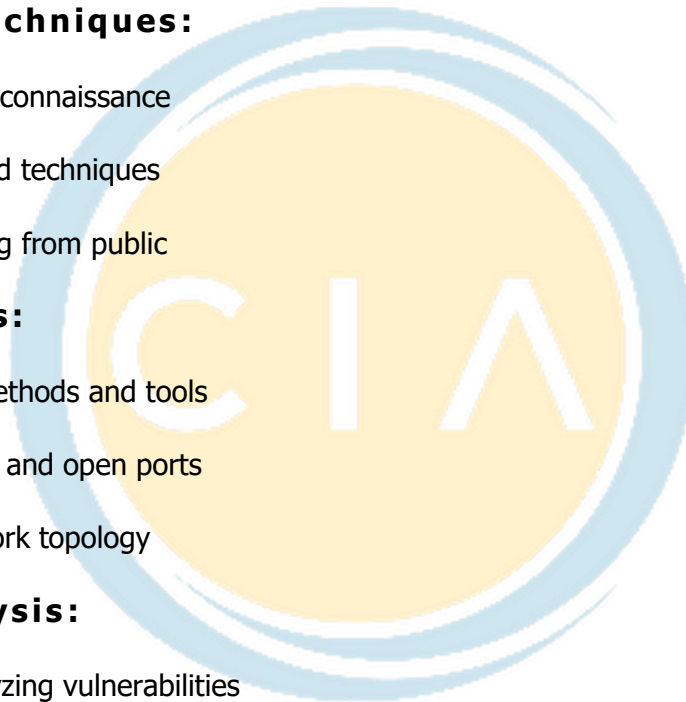
- ★ Network scanning methods and tools
- ★ Identifying live hosts and open ports
- ★ Understanding network topology

Vulnerability Analysis:

- ★ Identifying and analyzing vulnerabilities
- ★ Using Vulnerability scanners
- ★ Manual vulnerability assessment techniques

System Hacking:

- ★ Gaining access to system
- ★ Privilege escalation
- ★ Maintaining access and covering tracks



Malware and Backdoors:

- ★ Types of malware and their effects
- ★ Methods for detecting and removing malware
- ★ Creating and using backdoors

Sniffing and Evasion:

- ★ Network sniffing techniques
- ★ Tools for capturing and analyzing network traffic
- ★ Techniques for evading IDS/IPS system

Social Engineering:

- ★ Understanding social engineering attacks
- ★ Techniques for phishing, baiting and other attacks
- ★ Mitigation strategies

Denial of Services (DoS) Attacks:

- ★ Types of DoS and DDoS attacks
- ★ Tools for launching DoS attacks
- ★ Defending against DoS attacks

Session Hijacking:

- ★ Understanding session hijacking
- ★ Techniques for session hijacking
- ★ Mitigation and defense strategies

Web Application Hijacking:

- ★ Common web application vulnerabilities (e.g. SQL injection, XSS)
- ★ Tools and techniques for testing web application
- ★ Searching web application

Wireless Network Hacking:

- ★ Wireless network vulnerabilities
- ★ Tools for hacking wireless networks
- ★ Securing wireless networks

Cryptography:

- ★ Basics of cryptography
- ★ Common cryptographic attacks
- ★ Implementing and breaking encryption

Penetration Testing:

- ★ Planning and conducting penetration tests
- ★ Reporting and documenting findings
- ★ Ethical consideration in penetrating testing

Introduction to Cyber Security:

- ★ Overview of cyber security and its importance
- ★ Key concepts and terminologies
- ★ The cyber security landscape

Network Security:

- ★ Network architecture and design
- ★ Firewalls, VPNs and intrusion detection system
- ★ Securing network devices

Endpoint Security:

- ★ Securing workstations, servers and mobile devices
- ★ Endpoint protection platforms
- ★ Best practices for end

Identity and Access Management:

- ★ Authentication and authorization mechanism
- ★ Single Sign-On (SSO) and Multi-Factor Authentication (MFA)
- ★ Managing user privileges and roles

Securities Policies and Procedures:

- ★ Developing and implementing security policies
- ★ Incident response and management
- ★ Security awareness training

Risk Management:

- ★ Identifying and assessing risks
- ★ Risk mitigation strategies
- ★ Conduction risk assessments

Security Compliance and Strategies:

- ★ Overview of security standards (e.g. ISO 27001, NIST)
- ★ Compliance requirements and audits
- ★ Implanting security controls

Data Security:

- ★ Protecting data at and its transit
- ★ Data encryption techniques
- ★ Data loss prevention (DLP) strategies

Cloud Securities:

- ★ Understanding cloud computing security
- ★ Securing cloud services and infrastructure
- ★ Compliance in the cloud



Application Security:

- ★ Secure software development lifecycle (SDLC)
- ★ Common application testing
- ★ Application security testing

Incident Response and Forensics:

- ★ Incident response planning and execution
- ★ Digital forensics tools and techniques
- ★ Evidence collection and analysis

Threat Intelligence

- ★ Gathering and analysing threat intelligence
- ★ Using threat intelligence to improve security posture
- ★ Threat hunting techniques

Security Operations Center (SOC):

- ★ Roles and responsibilities within a SOC
- ★ SOC tools and technologies
- ★ Monitoring and responding to security incidents

Cyber Security Frameworks:

- ★ Overviews to popular cyber security frameworks
- ★ Implanting frameworks in an organisation
- ★ Continuous improvement in cyber security

