

Certified Ethical Hacker Introduction

Length: 1 Day

COURSE CONTENT

INTRODUCTION TO ETHICAL HACKING

- Internet Crime Current Report: IC3
- Data Breach Investigations Report
- Types of Data Stolen From the Organizations
- Essential Terminologies & Elements of Information Security
- Authenticity and Non-Repudiation
- The Security, Functionality, and Usability Triangle
- Security Challenges
- Effects of Hacking & Effects of Hacking on Business
- Who is a Hacker?
- Hacker Classes & Hacktivism
- What Does a Hacker Do?
- Phase 1 - Reconnaissance & Reconnaissance Types
- Phase 2 - Scanning
- Phase 3 – Gaining Access
- Phase 4 – Maintaining Access
- Phase 5 – Covering Tracks
- Types of Attacks on a System: Operating System Attacks, Application-Level Attacks, Shrink Wrap Code Attacks, & Misconfiguration Attacks
- Why Ethical Hacking is Necessary? What Do Ethical Hackers Do?
- Defense in Depth
- Scope and Limitations of Ethical Hacking
- Skills of an Ethical Hacker
- Vulnerability Research & Vulnerability Research Websites
- What is Penetration Testing? Why Penetration Testing?
- Penetration Testing Methodology

FOOTPRINTING AND RECONNAISSANCE

- Footprinting Terminologies & Objectives of Footprinting
- What is Footprinting?
- Footprinting Threats
- Finding a Company's URL
- Locate Internal URLs
- Public and Restricted Websites
- Search for Company's Information & Tools to Extract Company's Data
- Footprinting Through Search Engines
- Collect Location Information & Satellite Picture of a Residence
- People Search
- Gather Information from Financial Services
- Footprinting Through Job Sites
- Monitoring Target Using Alerts
- Competitive Intelligence Gathering
- WHOIS Lookup: Result Analysis, SmartWhois, Tools, & Online Tools
- Extracting DNS Information
- DNS Interrogation Tools & Online Tools
- Locate the Network Range
- Traceroute & Traceroute Analysis
- Traceroute Tools: 3D Traceroute, LorientPro, & Path Analyzer Pro
- Mirroring Entire Website & Website Mirroring Tools
- Extract Website Information from <http://www.archive.org>
- Monitoring Web Updates Using Website Watcher
- Tracking Email Communications & Email Tracking Tools
- Footprint Using Google Hacking Techniques
- What a Hacker Can Do With Google Hacking?

- Google Advance Search Operators & Finding Resources using Google Advance Operator
- Google Hacking Tools: Google Hacking Database (GHDB)
- Additional Footprinting Tools, Countermeasures, & Pen Testing

SCANNING NETWORKS

- Network Scanning & Other Types of Scanning
- Checking for Live Systems - ICMP Scanning
- Ping Sweep & Ping Sweep Tools
- Three-Way Handshake
- TCP Communication Flags & Create Custom Packet using TCP Flags
- Hping2 / Hping3 & Hping Commands
- Scanning Techniques & IDS Evasion Techniques
- IP Fragmentation Tools
- Scanning Tools: Nmap, NetScan Tools Pro
- Do Not Scan These IP Addresses (Unless you want to get into trouble)
- Scanning Countermeasures
- War Dialing
- Why War Dialing?
- War Dialing Tools
- War Dialing Countermeasures & SandTrap Tool
- OS Fingerprinting, Active Banner Grabbing Using Telnet & Banner Grabbing Tool: ID Serve
- GET REQUESTS
- Banner Grabbing Tools: Netcraft
- Banner Grabbing Countermeasures: Disabling or Changing Banner
- Hiding File Extensions & Hiding File Extensions from Webpages
- Vulnerability Scanning
- Vulnerability Scanning Tools: Nessus, SAINT, & GFI LANGuard
- Network Vulnerability Scanners
- LANsurveyor
- Network Mappers
- Proxy Servers & Why Attackers Use Proxy Servers?
- Use of Proxies for Attack
- How Does MultiProxy Work?
- Free Proxy Servers & Proxy Workbench
- Proxifier Tool: Create Chain of Proxy Servers
- SocksChain

- TOR (The Onion Routing) & TOR Proxy Chaining Software
- HTTP Tunneling Techniques & Why do I Need HTTP Tunneling?
- Super Network Tunnel Tool
- Httptunnel for Windows & Additional HTTP Tunneling Tools
- SSH Tunneling
- SSL Proxy Tool & How to Run SSL Proxy?
- Proxy Tools
- Anonymizers & Types of Anonymizers
- Case: Bloggers Write Text Backwards to Bypass Web Filters in China
- Text Conversion to Avoid Filters
- Censorship Circumvention Tool: Psiphon
- How Psiphon Works?
- How to Check if Your Website is Blocked in China or Not?
- G-Zapper
- Anonymizer Tools
- Spoofing IP Address
- IP Spoofing Detection Techniques: Direct TTL Probes, IP Identification Number, TCP Flow Control Method
- IP Spoofing Countermeasures
- Scanning Pen Testing