

Cyber Security and Ethical Hacking Course

1. Introduction (28 min)

- **Welcome and Introduction to the Instructor!** (02:06) Preview
- **Security Quick Win!** (11:59) Preview
- **Goals and Learning Objectives - Volume 1** (02:30) Preview
- **Target Audience** (01:54) Preview
- **Study Recommendations** (05:16) Preview
- **Course Updates** (00:40) Preview
- **Cyber Security and Ethical Hacking Careers** (03:45) Preview
- **How to Start a Career in Cyber Security and Ethical Hacking**

2. Know Yourself - The Threat and Vulnerability Landscape (Theory & Practical) (01:08)

- **Goals and Learning Objectives** (00:41)
- **Protect What You Value** (04:36)
- **What is Privacy, Anonymity, and Pseudonymity** (04:35)
- **Security, Vulnerabilities, Threats, and Adversaries** (04:37)
- **Asset Selection** (03:21)
- **Threat Modeling and Risk Assessments** (07:51)
- **Security vs Privacy vs Anonymity - Can We Have It All?** (01:56)
- **Confidentiality, Integrity, and Availability (Security Attributes)** (09:22)
- **Defense in Depth** (01:36)
- **The Zero Trust Model** (03:40)

3. Know Your Enemy - The Current Threat and Vulnerability Landscape

- **Goals and Learning Objectives** (00:43)
- **Why You Need Security - The Value of a Hack** (05:14)
- **The Top 3 Things You Need to Stay Safe Online** (01:23)
- **Security Bugs and Vulnerabilities - The Vulnerability Landscape** (09:35)
- **Hackers, Crackers, and Cyber Criminals** (02:32)
- **Malware, Viruses, Rootkits, and RATs** (06:52)
- **Spyware, Adware, Scareware, PUPs & Browser Hijacking** (04:44)
- **Spamming & Doxing** (03:15)
- **Social Engineering - Scams, Cons, Tricks, and Fraud** (05:31)
- **CPU Hijackers - Crypto Mining Malware and Cryptojackers** (08:42)

- **Darknets, Dark Markets, and Exploit Kits** (08:01)
- **Governments, Spies, and Secret Stuff - Part I** (05:13)
- **Governments, Spies, and Secret Stuff - Part II** (10:35)
- **Regulating Encryption, Mandating Insecurity & Legalizing Spying** (14:37)
- **Trust & Backdoors** (10:14)
- **Censorship** (02:24)
- **Cyber Threat Intelligence - Stay Informed** (01:12)

4. Encryption Crash Course

- **Goals and Learning Objectives** (00:24)
- **Symmetric Encryption** (09:54)
- **Asymmetric Encryption** (10:17)
- **Hash Functions** (06:32)
- **Digital Signatures** (04:45)
- **SSL Stripping** (12:02)
- **HTTPS (HTTP Secure)** (06:59)
- **Digital Certificates** (06:20)
- **Certificate Authorities and HTTPS** (14:07)
- **End-to-End Encryption (E2EE)** (01:57)
- **Steganography** (08:12)
- **How Security and Encryption is Really Attacked** (02:42)

5. Setting up a Testing Environment Using Virtual Machines (Lab)

- **Goals and Learning Objectives** (00:27)
- **Introduction to Setting up a Testing Environment Using Virtual Machines** (10:01)
- **VMware** (10:55)
- **VirtualBox** (12:09)
- **Kali Linux 2018** (04:11)

6. Operating System Security and Privacy (Windows vs Mac vs Linux)

- **Goals and Learning Objectives** (00:37)
- **Security Features and Functionality** (05:56)
- **Security Bugs and Vulnerabilities** (05:31)
- **Usage Share** (05:01)
- **Windows 10 - Privacy & Tracking** (06:08)
- **Windows 10 - Disable Tracking Automatically** (04:42)
- **Windows 10 - Tool: Disable Windows 10 Tracking** (08:14)
- **Windows 10 - Cortana** (02:59)
- **Windows 10 - Privacy Settings** (09:40)
- **Windows 10 - WiFi Sense** (04:16)
- **Windows 7, 8, and 8.1 - Privacy & Tracking** (07:19)

- **Mac - Privacy & Tracking** (04:28)
- **Linux and Unix “like” Operating Systems** (03:30)
- **General Use Operating Systems (Windows, MacOS, Linux)** (04:09)
- **Security and Privacy Focused OS (Debian, Arch, Tails, Whonix, QubesOS, Subgraph OS, Trisquel OS)**

7. Security Bugs and Vulnerabilities

- **Goals and Learning Objectives** (00:25)
- **The Importance of Patching** (03:47)
- **Auto Updates (Windows, Linux, Mac, Browsers - Firefox, Chrome, Edge)**

8. Reducing Threat Privilege

- **Goals and Learning Objectives - Removing Privilege** (02:53)
- **Windows 7, 8, 10 - Not Using Admin**

9. Social Engineering and Social Media Offense & Defense

- **Goals and Learning Objectives** (00:26)
- **Information Disclosure & Identity Strategies for Social Media** (12:34)
- **Identify Verification & Registration** (05:05)
- **Behavioral & Technical Security Controls Against Social Threats**

10. Security Domains

- **Goals and Learning Objectives** (00:20)
- **Security Domains Overview** (10:00)

11. Security Through Isolation and Compartmentalization

- **Goals and Learning Objectives** (00:37)
- **Introduction to Isolation and Compartmentalization** (02:10)
- **Physical & Hardware Isolation (Mac Address, Hardware Serials)**
- **Virtual Isolation, Dual Boot, Sandboxes, Virtual Machines**
- **Security-Focused OS (Whonix, QubesOS, etc.)**

12. Wrap-Up

- **Congratulations** (00:58)
- **Certificate of Completion for CPEs** (00:56)
- **Samples from Vol 2 - 4 (Router Vulnerability, Password Cracking, Firewalls, Email Security, etc.)**

13. Bonus Section

- **BONUS Content** (00:24)