

# CONTENTS ABOUT DIPLOMA IN CYBER SECURITY

#### **1** Introduction to Ethical Hacking

- Definition of ethical hacking and its importance.
- Different types of hackers (white, black, grey hats) and cyber crimes.
- Ethical hacking phases and cyber kill chain.
- Rules and legal boundaries for ethical hackers.
- Tools used in ethical hacking.

#### 2 Set-up Hacking Lab's

- Requirements for setting up a hacking lab.
- Virtualization software (vmware, virtualbox).
- Common operating systems for ethical hacking (kali linux, parrot os).
- Networking setup in a virtual environment.
- Common tools and packages to install.

#### **3** Kali Linux & Red Hat

- Most important linux commands.
- Files and directory management.
- File sharing configuration.







- Linux system administration.
- Security and permission management.

#### **4** Information Gathering

- Identifying publicly available information.
- Whois lookups and domain information.
- Dns enumeration tools and techniques.
- Social media and osint (open source intelligence) tools.
- Google dorking for advanced search engine reconnaissance.

#### **5** Networking & Scanning

- All about networking and types.
- Using nmap for network scanning.
- Network scanning different tools and techniques.
- Identifying open ports and services.
- Os detection and service version detection and bypassing firewall.





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#### 6 Cyber Laws

- Legal framework for cybercrime across various countries.
- Intellectual property laws and digital rights.
- Understanding data protection regulations punishments.
- The role of cybersecurity in corporate governance.
- Ethical hacker responsibilities under the it act 2000 and ipc law.

#### 7 Social Engineering

- Types of social engineering attacks (phishing, baiting, pretexting, vishing).
- The psychology behind social engineering.
- Thinking like a hacker and there motivation.
- Real-world examples of successful social engineering attacks.
- How to train employees to spot and prevent social engineering attacks.

#### 8 Anonymity

- Proxy servers and anonymity processes.
- Virtual private networks (vpns) for anonymity.
- The tor network and its role in anonymization.
- Mac address spoofing for identity masking.
- Use of anonymous browsers and encrypted communication.



# SOFT SKILLS

#### **9** Spoofing & Sniffing Techniques

- What is sniffing ,types, and its role in network attacks.
- Capturing data from same network , from others devices.
- Tools used for sniffing and spoofing ip , dns, mac address.
- How to sniff encrypted / unencrypted traffic.
- Location tracking with ip address & get ip address with phishing.

#### **10** Secure Communication

- Techniques for secure file sharing.
- File encryption and its importance.
- Monitoring file-sharing activities on a network.
- Common file-sharing services used in hacking.



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#### **11** Vulnerability Analysis

- What is vulnerability analysis and its role in cybersecurity.
- Manual vs automated vulnerability scanning.
- Using common vulnerability databases.
- Tools used for vulnerability scanning.
- Exploit development and testing vulnerabilities.

#### **12** Malware Threats & Analysis

- What is malware and types of malware.
- Methods of malware creating and delivery | creating automation program.
- Bind virus with image file , generate .Vbs , .Bat etc.
- Malware detection and removal.
- Preventive measures against malware.

#### **13** Denial-of-Service Attack

- Types of dos attacks (syn flood, ping of death).
- Perform distributed denial-of-service (ddos) attacks.
- Tools used for launching dos attacks.
- Impact of dos attacks on networks and services.
- Detection and mitigation of dos attacks.

#### **14** Firewalls, IDS & Honeypots







- Role of firewalls in network security.
- Types of firewalls (stateful, stateless).
- Intrusion detection systems (ids) vs intrusion prevention systems (ips).
- Types of ids (network-based, host-based).
- How honeypots are used to deceive attackers.

#### **15 Hacking Wireless Network**

- Types of wireless network encryption (wep, wpa, wpa2).
- Tools used for wireless network hacking (aircrack-ng, kismet).
- Deauth attacks and packet injection.
- Capturing wpa handshake for cracking.
- Rogue access points and evil twin attacks.





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#### **16 Windows System Hacking**

- Common vulnerabilities in windows systems, generate spyware to hack windows.
- Creating malicious scrips to infect target system, privilege escalation in windows.
- Disable mouse , keyboard and monitor of victim system.
- Remotely access victim computer and hack web-camera using usb pendrive.
- Tools used for windows hacking (metasploite, gui rat).
- Bypassing user account control (uac) in windows.

#### **17** Android Hacking

- Exploiting vulnerabilities in android apps and os.
- Reverse engineering android apks, android-specific tools and rat malware.
- Get call details of target phone, listening call recording & crash all data.
- Access live front/back camera.
- Monitoring android live screen remotely.
- Social engineering attacks through malicious apps.

#### **18** Legal Identity Theft

- Consequences of identity theft for victims.
- Laws governing identity theft (e.G., ID theft and assumption deterrence act).
- Tools for monitoring and protecting against identity theft.
- Creating fake account to trap the cyber criminal.
- Real-world case studies of identity theft.







#### **19** Steganography

- Definition and methods of steganography.
- Types of steganography (image, audio, video).
- Tools used for steganography (openstego, steghide).
- How to detect steganography in digital media.
- Practical applications of steganography in cybersecurity.

#### 20 Cryptography

- All about cryptography and symmetric vs asymmetric encryption.
- Hide your confidential data inside an image file.
- Hashing techniques (sha-256, md5).
- Use most secure encryption techniques to share the data.
- How encryption is used in data transmission.





#### **Bonus: Full Black Hat Hacking Training**

# **Certifications**

Our Certificate Is Approved By Indian Government, ISO And UK Accreditation Forum

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Debadutta Chandan Dash Founder CEO

#### **COURSE COMPLETION CERTIFICATE**





## HACKER ID CARD

ISO Certificate + Free Hacking Tools + 3 Months Cyber Security Internship Program

- Call Us / Whatsapp: <u>+916370634758</u>
- E-mail: <u>cyber@spyriotsecurity.in</u> <u>agent.spyriot@gmail.com</u>
- Instagram: <u>@spyriotsecurity</u>
- YouTube: Spyriotsecurity
- LinkedIn: spyriotsecurity



UPI: spyriot@ybl Number: +91 6370634758



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Founder of Spyriot Security: Debadutta Chandan Dash

Visit Our Website www.spyriotsecurity.in

