## **RECON CYBER SECURITY**

MASTER DIPLOMA
IN CYBER SECURITY

**DURATION 1 YEAR** 



### OVERVIEW

In this course, student will learn Basic to Expert Penetration Testing techniques to find out vulnerabilities and how to exploit them, Like: Bug Hunting, VA/PT API Testing, Ctf Expert, etc.

## Pre-Requisites

Students should already be familiar with any operating system(Like: Windows Or Linux).

#### Who We Are?

We promise to offer the best training and certification programs to our students. We provide the programs and resources you need to succeed if you are just beginning your Cyber security career or are an experienced expert wishing to develop your skills. Contact us today to learn more about our training and certification options!

## Why Choose us?

Welcome to our Cyber Security Training Institute, where we are committed to giving individuals and organisations who want to protect their digital assets thorough training and certification programmes. Our knowledgeable Trainers will bring you through the complexities of cybersecurity with their cutting-edge expertise and practical experience. You will learn useful methods and abilities to protect yourself from online dangers, such as ethical hacking, network security, incident response, and other things. Our programmes give you the opportunity to hone your skills and grow your profession through practical lab experiences and individualised coaching.



# COURSE SYLLABUS

# Level 1 Advanced Networking

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01. Introduction To Networking
02. Fundamentals of Networking
03. OSI Model v/s TCP/IP
04. TCP v/s UDP
05. Mac Address
06. IP Addressing
     IPv 4
     IPv 6
07. Subnetting
08. Network Cabling
09. Router Fundamentals
10. Lab Configuration on Packet tracer
11. Router, Switch And PC Communication
12. Routing Protocols
     Default Routing
     Static Routing
     Static routing With Subnetting
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Dynamic Routing
RIP
EIGRP
OSPF

13. DHCP
14. NAT - Network Address Translation
15. VLAN - Virtual Local Aria Network
16. ACL - Access Control Line
17. BGP
```

## Level 2 Linux Essentials

- O1. Linux Evolution And Popular Operating System Introduction

  Linux Distribution
  Linux Embedded System
  Hardware Requirement
  Installing Linux
  OS Differences
  Open Software Application

  O1. The Common Differences
  O3. Differences
  O5. Directorical Differences
- Open Software Application
  What is Open Source
  Desktop and server application
  Languages and tools
  Packages installs and repositories
- 03. The Linux Environments
  Linux Desktop Environments
  Linux Shell and Commands
  Managing Softwares Packages

- 04. The Command Line
  Difference b/w shells
  Command Line
  Command Usage
  Man Pages
- **05.** Directories And Files
- 06. Searching and Extracting Data From File
- 07. Package Installation in Different Directory
- **08.** User Account and Groups

Creating Account From The Shell

Modifying And Deleting Account

Working as Root

09. Managing File Ownership And Permission

# Level 3 Ethical Hacking

01. Introduction to Ethical Hacking
02. Reconnaissance
Active Foot-Printing
Passive Foot-Printing
Finger Printing Active/Passive
03. Scanning Networks
Host Discovery
TCP/UDP Port Scanning
Vulnerability Scanning
04. Enumeration
05. System Hacking
Physical Access (Windows / Linux OS)
06. Malware & Threats
Virus / Worms
Trojan Horse
Ransomware
Polymorphic Virus
Macro Virus
Micro Virus
Rootkit, etc.
07. Social Engineering
Phishing Attacks

Vishing Attacks, etc.

- 08. Denial of ServiceDOS (Deial of Service)DDOS (Distributed Denial of Service)
- 09. Session Hijacking10. Wireless HackingWEP / WPA / WPA2 Wi-Fi Hacking
- 11. Mobile Hacking
- 12. Hacking Web-Application (with BurpSuite)
- 13. SQL Injection
  Automatic tool based
  Manual SQL Injection
- 14. Hacking Web Server
- 15. Sniffing / Sniffers
  MITM Attack
  DNS Attack
  DHCP Attack
  MAC Address Attack, etc.
- **16.** IDS, Firewall, Honeypot
- 17. Cryptography
- 18. Basics of Cloud Computing / Hacking
- 19. IoT Hacking
- Basics of Penetration Testing

# Level 4 Python Programming

- **01.** Introduction To Python
- 02. Environment Setup
- 03. Basic Syntax
- **04.** Comments
- **05.** Variables
- 06. Data Types
- **07.** Operators
- **08.** Division Making
- 09. Loops
- 10. Numbers

- 11. Strings
- 12. Lists
- 13. Tuples
- **14.** Dictionary
- 15. Date & type
- 16. Function
- 17. Modules
- 18. Files I/O
- 19. Exceptions

# **Level 5** Network Pen-Testing

- 01. How to plan your Penetration Testing 08. Browser exploitation **02.** Scoping your Penetration Testing 03. Network & Web-Application 04. Scanning Vulnerability Port Scanning Script scanning Enumeration Service & Version Scanning Web-Application Scanning **05.** Exploitation with Metasploit **Exploit Vulnerability** Bind & Reverse Shell Payload Creation, etc. **06.** Post-Exploitation **07.** Pivoting Attack
  - **BEEF Exploit**
  - 09. In-Depth Password Attacks John the Ripper **Brute Force Attack Dictionary Attack** Rainbow Table Attack Other Password Cracking Tools
  - 10. Cracking / Solving CTFs
  - 11. Final Analysis
  - **12.** Final Report Generation Manual Reporting **Automatic Reporting**

# Level 6 Web-App Pen-Testing

- 01. Introduction to Web-App Pen-Testing
- **02.** Finding Subdomains
- 03. Understanding HTTP
- **04.** Access Control Flaws
- 05. Ajax Security
- **06.** Authentication Flaws
- **07.** Buffer overflows
- **08.** Code Quality
- 09. Concurrency Flaws
- 10. Cross-Site Scripting
- 11. Improper Error Handling

- 12. Injection Flaws
- 13. Denial of Service
- 14. Insecure Communication
- **15.** Insecure Configuration
- 16. Insecure Storage
- 17. Malicious File Execution
- 18. Parameter Tampering
- 19. Session Management Flaws
- 20. Challenge Online Platform

# Level 7 Mobile-App Pen-Testing

- **01.** Introduction to Mobile-App Testing
- 02. Lab setup
- 03. Android Architecture
- **04.** APK File Structure
- 05. Reversing with APKtool/ Jadx-GUI
- 06. Reversing with MobSP
- **07.** Static Analysis
- 08. Scanning Vulnerabilities with Drozer 19. Intercepting The Network Traffic
- 09. Improper Platform Usage
- 10. Log Analysis
- 11. Insecure Storage

- 12. Insecure Communication
- 13. Hard Coding Issues
- 14. Insecure Authentication
- 15. Insufficient Cryptography
- 16. Code Tempering
- 17. Extraneous functionality
- 18. SSL pinning
- 20. Dynamic Analysis
- 21. Report Preparation

## Level 8 Apple IOS Application Pen-Testing

- 01. Introduction
- **02.** Introduction to IOS Apps
- 03. Challenges with IOS lab setup
- 04. Lab setup with jailbreaken IOS device
- **05.** Setting up XCODE
- 06. Installing Apps in IOS device
- **07.** Decrypting IOS applications
- **08.** Introduction to SecureStorev2
- 09. Dumpping class information
- 10. Jailbreak detection bypass
- 11. IOS Traffic analysis
- 12. Introduction to Frida / Frida CLI
- 13. Frida Scripts to trace HTTP calls
- 14. Introduction to end-to-end Encryption
- **15.** Introduction to hopper
- 16. Jailbreak detection using hopper
- 17. SSL pinning attack
- 18. Pentesting Local Data storage
- 19. Pentesting Uninteded Data Leakage
- 20. Pentesting client side injection

- 21. Traffic Analysis
- 22. RunTime Analysis
- 23. Network Attacks
- 24. Reporting

# Level 9 Bug Hunting

- 01. Introduction
- **02.** Information Gathering
- 03. BurpSuite Introduction
- **04.** Cross Site Scripting (XSS)
- 05. Host Header Injection
- 06. URL Redirection
- **07.** Parameter Tempering
- 08. HTML Injection
- 09. SQL Injection
- 10. File Inclusion
- 11. Missing SPF Record
- 12. No rate Limiting
- 13. Source Code Discloser
- 14. Long Password Dos Attack
- **15.** IDOR
- 16. Server Site Request Forgery (SSRF) 39. Server Side Includes Injection
- 17. Cross Site Request Forgery (CSRF)
- **18.** Hostile Subdomain Takeover
- 19. S3 Bucket Takeover
- **20.** Command Injection (RCE)
- 21. File Uploading
- 22. XML External Entity Injection
- 23. Buffer Overflow

- **24.** Wordpress Vulnerability
- 25. Joomla Vulnerability
- **26.** Drupal Vulnerability
- 27. CMS Vulnerability Hunting
- 28. HSTS (HTTP Strict transport security)
- 29. Session Fixation
- 30. Account Lookout
- 31. Password Reset Poisoning
- 32. Identity Management test Testing
- **33.** Authentication Testing
- 34. Cryptographic Vulnerability
- **35.** Session Management Testing
- 36. Exposed Source Code Control System
- 37. Apache Structs RCE Hunting
- 38. Web Cache Deceptions
- 40. Ticket Tricks Bug Bounty
  - 41. Multi-Factor Authentication
- 42. HTTPoxy Attact
- 43. Webmin Unauthentication RCE
- 44. HeartBleed
- 45. Appweb Authentication bypass
- 46. Ngnix

- 47. MySQL Authentication Bypass
- 48. DMS Zone Transfer
- 49. Log Injection
- 50. Black (Jinja-2) SSTI to RCE
- 51. Handloop Vulnerability
- 52. CSRF Same Site Bypass
- 53. Jwt Token Attack
- 54. Email Bounce Resource
- 55. IVR Call Request Crash
- 56. Weak Password Reset
- 57. Business Logic Vulnerability
- 58. RPC Ping Back Attack
- 59. WAF / MOD Security Bypass
- **60.** Broken Authentication
- 61. Open Redirection
- **62.** Null Byte Injection
- 63. CORS Vulnerability

## Level 10 API-Testing

- **01.** introduction to API
- 02. Postman Lab setup
- 03. Preparation for API Pen-Testing
- 04. Lab Setup
- 05. OWASP API TOP 10
- 06. SQL injection
- **07.** Command Injection
- **08.** Offensive XXE Exploitation
- 09. Server Side Request Forgery
- 10. Cross site scripting
- 11. Transport layer security issues
- 12. Mass Assignment attack
- 13. Broken Object Level Authorization Issues

- 14. File Path Traversal
- 15. User Enumeration
- **16.** Information Disclosure
- 17. JSON web token
- 18. Unauthorized password change
- 19. Excessive data exposure
- 20. Lack of Resource & Rate Limiting
- 21. Regular Expression DOS attack
- 22. BFLA Issues
- 23. Billion laugh attack
- 24. Hidden API Functionality Exposure
- 25. RCE Via Deserilization in API

# Level 11 Malware Analysis

- **01.** Introduction to Malware Analysis
- **02.** Basic Of Analysis
- 03. Advanced Static Analysis
- **04.** Analysing Windows Programs
- **05.** Advanced Dynamic Analysis
- **06.** Malware Behaviour
- **07.** Data Encoding and Malware Countermeasures
- **08.** Covert Malware Launching
- 09. Antianalysis
- 10. Packing and Unpacking
- 11. Rootkit Techniques

# Level 12 CTF Challenge

- O1. Introduction
   Finding Files
   Services in Kali SSH Service
   FTP Services
   HTTP Service
   Mysql Services
   Service Management
  O2. Basic Linux and Commands
- O3. Netcat Tutorials
  Getting started with NC
  Connecting to a Server
  Fetching HTTP header
  Chatting
  Creating a Backdoor
  Verbose Mode
- Save Output to Disk

  O4. Port Scanning
  Reverse TCP Shell Exploitation
  Randomize Port
  File Transfer
  Reverse Netcat Shell Exploitation
  Banner grabbing
  Nmap Firewall Scan

- 05. Enumeration
- **06.** Passive Info Gathering
- 07. Reverse Shell
- 08. Intro to Overflows
- 09. Windows BO Example
- 10. Linux BO Example
- 11. Using Public Exploits
- 12. File Transfers
- 13. Linux Privilege Escalation
- 14. Web Application Attacks
- 15. Password Cracking
- 16. Port Fun
- 17. Metasploit Framework
  Exploits
  Payloads
  Meterpreter
  Additional Payloads
  Ripary Payloads

Binary Payloads
Porting Exploits
Post Exploitation

18. Antivirus Avoidance
Overview
Shellter
Veil – Evasion
Thefatrat

## Tools and Benefits of the Diploma course

- 500 GB Toolkit
- Online and Offline classes
- Diploma Certificate After Completion
- 6 Months Internships Latter
- 2 Years Membership
- Interview Preparation
- Live Hacking Training
- Class session recordings
- 24x7 Support

## **Contact Us:**

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