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## LLC 501 CYBERSECURITY AND ETHICAL HACKING I

### COURSE OUTLINE

#### 1. Information Security (IS) Fundamentals

- Principles of Information Security
- Information Security Standards
- Information Valuation and Asset Classification
- Physical Security
- Hardware Asset Management
- Basic Security Requirement

#### 2. Penetration Testing

- What is Penetration Testing?
- Importance of Penetration Testing
- Types of Penetration Testing
- Phases of Penetration Testing
- Security Testing Methodology

#### 3. KALI 2023 Linux Installation and Configuration

- Downloading KALI Linux
- Hardware Requirements
- KALI Linux Installation Methods
- Installation and Configuration
- Booting up KALI Linux

#### 4. KALI Linux Filesystem Hierarchy Standard, Services and Tools

- KALI Linux Filesystem Hierarchy Standard (FHS)
- Managing KALI Linux Services
- Searching, Installing and Removing Tools

#### 5. BASH Shell Scripting

- The BASH Environment
- Piping and Redirection
- Text Searching and Manipulation

- Editing Files from the Command Line
- Comparing Files
- Process Management
- File and Command Monitoring
- Downloading Files with wget, curl and axes
- Customizing the BASH Environment

## **6. Penetration Testing Tools**

- Netcat
- Socat
- PowerShell
- Powercat
- Wireshark
- Tcpdump

## **7. Passive Information Gathering**

- Website Recon
- Whois Enumeration
- Google Hacking
- Netcraft
- Recon-ng
- Open-Source Code
- Shodan
- Security Headers Scanner
- SSL Server Test
- Pastebin
- Email Harvesting
- Password Dumps
- Site-Specific Tools
- Information Gathering Frameworks using OSINT and Maltego

## **8. Active Information Gathering or Enumeration**

- DNS Enumeration
- Port Scanning with Nmap
- SMB Enumeration with Nmap
- NFS Enumeration with Nmap

- SMTP Enumeration
- SNMP Enumeration

## **9. Vulnerability Networks Scanning**

- Vulnerability Scanning Overview and Considerations
- Installing Nessus Vulnerability Scanner
- Defining Targets
- Configuring Scan Definitions
- Unauthenticated Scanning with Nessus
- Authenticated Scanning with Nessus
- Vulnerability Scanning with Nmap

## **TARGET AUDIENCE**

- Information Security Officers
- ICT Directors & Managers
- Finance Officers and Auditors
- Network Administrators
- System Administrators
- Database Administrators
- Software, Mobile and Application Developers

## **PREREQUISITE**

- LPIC 1 Linux System Administration Certification
- Proficiency in Linux and UNIX Commands

## **CERTIFICATION EXAM CHALLENGE**

- LLC 501 Cybersecurity and Ethical Hacking I Practical Exam