

# Cyber Security for IT Teams (CS112)

40 Hours

## Outline

This unique program is intended to provide the theoretical and practical knowledge required for integrating in main position of leading IT teams in the cyber security industry. The program provides advanced thinking skills, technique for complex defensive and offensive operations, advance monitoring and prevention and the most updated platforms and tools that will gain your arsenal of knowledge.

## Target Audience

This course is intended for IT teams, SOC teams and People that almost integrated in the information security industry and want to gain their practical and theoretical skill.

## Objectives

On completing this course, delegates will be able to:

- Understand The Hacker Point of View
- Improve Skills on Cyber Security
- Gain New Techniques For the Best Investigation

# Contents

## Day 1

### Module 1: Cyber Security

- Basics of Networks
- Kinds of Protocols
- Kinds of Services
- Examples for Social Engineering
- OSI Model
- How to Create a Secure Passwords
- How to Avoid Phishing
- Secure the Data
- Groups Policy
- Working Remotely
- Wireless Security - Home & Public
- Hacker Point of View

### Module 2: Hands-On Simulations

- Phishing & Spam
  - Virtualization
  - Phishing
  - Ransomware
  - Email Security
  - Identifying Spam
- Network Attack
  - DDoS
  - Password Hacking
  - Scanning Methods

## Day 2

### Module 3: Network Security

- Virtualization
- Prepare Your Lab
  - Installation
  - Configuration
- Basics of Penetration Tasting
- Metasploit Basics
- Metasploit Auxiliary
- Meterpreter
- Creating Your Own Exploits
- Simulated Penetration Test
- Intelligence Gathering
- Anti-Forensic
- Thinking Anonymous
- Secure Log & Data Deletion
- Overwriting Metadata
- Preventing Data Creation
- Finding Important Files
- Auto-Start Directories
- WMI
- PowerShell Scripts

## Day 3

### Module 4: SOC Training

- Introduction to SIEM
- SIEM Architecture
- Log Monitoring
- SIEM Platforms
- Investigation Techniques and Nodes

- Analytical Reporting
- IDS and IPS
- Anti-Virus and Signatures
- Firewall Types and Configurations

### Module 5: Prepare Your Forensics Lab

- Determining Lab Requirements
- Key Components of a Forensics Lab
- Forensics Tools
  - Autopsy
  - Volatility
  - NirSoft
  - FTK Imager
  - HxD
  - Bulk Extractor
  - Forensics Common Frameworks for Investigation

### Day 4

### Module 6: Windows Forensics

- File System Types
- Hard Disc Types
- Open Source Tools
- Recovering Deleted Files
- Browsers and Internet Evidence Collecting
- Collecting RAM Information
- Key Files = Key Evidences
- Image Mounting and Analyze
- File Carving
- Pagefile.sys, Hiberfil.sys and Unallocated Space Analysis

## Day 5

### Module 7: Network Forensics

- Introduction to Network Forensics
- Wireshark
- CAP Files Manipulation
- Package Structure and Analysis
- Internet Traffic Analyze
- Network Forensics Investigation Process
- Professional Report Writing

### Module 8: Log Analysis

- Defining Log Data
- System Audit Policies
- Network Activity Logging
- Log Sources
- Log Analysis Tools
- Common Manipulation Methods
- Windows Event Viewer