Syllabus

OSINT

CYBERIUM ARENA
— SIMULATOR —

Description

Open-source intelligence (OSINT) covers the techniques and procedures practiced retrieving targeted information from open-source networks containing immense amounts of data. This course teaches participants how to collect and analyze information using every data source available. Students will be further exposed to collecting information from the Darknet, social networks, and other sources.

The course helps prepare for the certification exams GOSI (SANS) and C|OSINT (Mcafee).

Target Audience

This course targets mostly law-enforcement wanting to master the art of finding data around the internet.

Objectives

- Providing students with an all-source methodology of employing open-source intelligence gathering
- Discovering techniques and technologies needed to generate highly relevant intelligence
- Understanding how to collect information from various social networks
- Exploring the Darknet for information bases

Module 1: Introduction to the Internet

In this module, participants will learn the fundamentals of the internet and how everything works and registered. Students will also learn to gather information regarding domains in different parts of the world.

Networking
- The Internet Structure
- The OSI Model
- The TCP/IP Model
- Network Devices
- Network Protocols
- Proxy Layer
- Virtual Private Network (VPN)
- DNS Leakage Testing

Domains and Organizations
- Extracting Details
- Collecting Information
- Reconnaissance of an Organization

Module 2: OSINT Tools and Search Engines

Students will get to know practical tools and search engines they will handle to collect data throughout this module. They will deepen their understanding of various information sources and will focus on gathering data from social networks.

Introduction to OSINT
- Gray areas and Ethics in OSINT
- Building OSINT Plan
- Categorizing and Cataloging Information
- Organizing and Formatting Data

OSINT Tools
- Online Tools and Frameworks
- Introduction to Basic Bash Scripting and Automation
- Extracting Information From Major Social Networks

Searching for OSINT Information
- Dive into Metadata
- Common Files Metadata
- Web Sites Metadata
- People Search Engines
- Types of OSINT Sources
- Reverse Image Search

Module 3: Advanced OSINT Search Engines

Students will become familiar with a wider and more advanced array of OSINT tools and search engines in this module. They will understand how to use metadata and maximize the use of different filtering and customization options for searching. Students will gain the capabilities of identifying further information that may not be disclosed in a standard Google search.

Mastering Google Search Engine

- Google Search Engine Advanced Search
- Geographic Information Gathering
- Searching in Different Languages
- Building a Google Custom Search Engine
- Reverse Image Search
- Passive Target Scanners

Module 4: The Darknet

The Darknet is considered the most prominent source of huge amounts of relevant information that is not accessible through the usual network. During this module, participants will learn to use the Darknet, pinpoint the information they are looking for, collect it, use avatars, purchase databases with sensitive information, and activate different automated tools for browsing and extracting information from the Darknet.

Darknet Overview

- Understanding Global Internet Layers
- Surface Web and Deep Web
- Installing and Configuration of the Tor Browser
- Darknet Search Engines
- Installation and Security Concerns
- The Tor UI
- Onion System
- Find Hidden Services
- Understanding Cryptocurrency Marketing
- Analyzing Databases from the Darknet
- Validating Leaked Password Databases