



# CYBERIUM ARENA

— SIMULATOR —



## SYLLABUS

# NETWORK SECURITY

### MAIN FEATURES

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#### Labs

The labs hold questions and tasks to support the training.



#### Book

The coursebooks accompany the lecturers and students alike in cybersecurity studies.



#### Scenarios

Provide participants possible situations from cybersecurity or cyberterrorism to solve.



#### Project

Trainees must complete a practical built-in project, produce defense and assault tools.



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### Description

Network security is a broad term that covers multiple technologies, devices, and processes. During this program students discover security vulnerabilities across the network and the organization domain using different network hacking techniques.

## MODULES

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### Module 1: Advanced Networking

#### Network Security Fundamentals

- Principles of Network Security
- Packet Tracer
- Subnetting
- Configuring your Network
- Analyzing Network Protocols
- Taking Advantage of Network Protocols

### Module 2: Network Attacks

#### Analyzing the Network

- Automations Using NMAP
- Launching NSE to Detect Possible Vulnerabilities
- Capturing Spoofed Data
- Data Enumeration
- Password Authentication
- Attacking the Local Network

### Module 3: Domain Attacks

#### Domain

- Building an Organization Network
- Setting DNS
- Setting DHCP
- Setting a Router
- Configuring Policy
- Connecting to the Domain
- Network Authentication

### Module 4: Mitigation

#### Network Components Hardening

- Working with Events
- Events with PowerShell
- Static ARP and DHCP
- Working with IPTables
- Hardening Windows Server
- Hardening Linux Services