

Paths completed: 5

Targets compromised: 305

Ranking: Top 1%

## PATHS COMPLETED

## PROGRESS

### Operating System Fundamentals

**3 Modules** Easy



To succeed in information security, we must have a deep understanding of the Windows and Linux operating systems and be comfortable navigating the command line on both as a "power user." Much of our time in any role, but especially penetration testing, is spent in a Linux shell, Windows cmd or PowerShell console, so we must have the skills to navigate both types of operating systems with ease, manage system services, install applications, manage permissions, and harden the systems we work from in accordance with security best practices.

100% Completed

### Cracking into Hack the Box

**3 Modules** Easy



To be successful in any technical information security role, we must have a broad understanding of specialized tools, tactics, and terminology. This path introduces core concepts necessary for anyone interested in a hands-on technical infosec role. The modules also provide the essential prerequisite knowledge for joining the main Hack The Box platform, progressing through Starting Point through easy-rated retired machines, and solving "live" machines with no walkthrough. It also includes helpful information about staying organized, navigating the HTB platforms, common pitfalls, and selecting a penetration testing distribution. Students will complete their first box during this path with a guided walkthrough and be challenged to complete a box on their own by applying the knowledge learned in the Getting Started module.

100% Completed

### Basic Toolset

**7 Modules** Medium



In this path, modules cover the basic tools needed to be successful in network and web application penetration testing. This is not an exhaustive listing of all tools (both open source and commercial) available to us as security practitioners but covers tried and true tools that we find ourselves using on every technical assessment that we perform. Learning how to use the basic toolset is essential, as many different tools are used in penetration testing. We need to understand which of them to use for the various situations we will come across.

100% Completed

### Information Security Foundations

**12 Modules** Easy



Information Security is a field with many specialized and highly technical disciplines. Job roles like Penetration Tester & Information Security Analyst require a solid technical foundational understanding of core IT & Information Security topics. This skill path is made up of modules that will assist learners in developing &/or strengthening a foundational understanding before proceeding with learning the more complex security topics. Every long-standing building first needs a solid foundation. Welcome to Information Security Foundations.

100% Completed



## SOC Analyst

15 Modules Medium

The SOC Analyst Job Role Path is for newcomers to information security who aspire to become professional SOC analysts. This path covers core security monitoring and security analysis concepts and provides a deep understanding of the specialized tools, attack tactics, and methodology used by adversaries. Armed with the necessary theoretical background and multiple practical exercises, students will go through all security analysis stages, from traffic analysis and SIEM monitoring to DFIR activities and reporting. Upon completing this job role path, you will have obtained the practical skills and mindset necessary to monitor enterprise-level infrastructure and detect intrusions at an intermediate level. The SOC Analyst Prerequisites skill path can be considered prerequisite knowledge to be successful while working through this job role path.

100% Completed

### MODULE

### PROGRESS



#### Intro to Academy

Introduction to Academy

8 Sections Fundamental General

This module is recommended for new users. It allows users to become acquainted with the platform and the learning process.

100% Completed



#### Hacking WordPress

Hacking WordPress

16 Sections Easy Offensive

WordPress is an open-source Content Management System (CMS) that can be used for multiple purposes.

37.5% Completed



#### Learning Process

Learning Process

20 Sections Fundamental General

The learning process is one of the essential and most important components that is often overlooked. This module does not teach you techniques to learn but describes the process of learning adapted to the field of information security. You will learn to understand how and when we learn best and increase and improve your learning efficiency greatly.

100% Completed



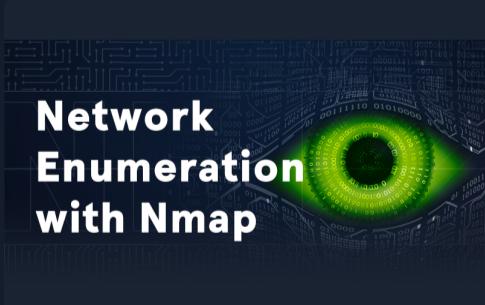
#### Linux Fundamentals

Linux Fundamentals

30 Sections Fundamental General

This module covers the fundamentals required to work comfortably with the Linux operating system and shell.

100% Completed



#### Network Enumeration with Nmap

Network Enumeration with Nmap

12 Sections Easy Offensive

Nmap is one of the most used networking mapping and discovery tools because of its accurate results and efficiency. The tool is widely used by both offensive and defensive security practitioners. This module covers fundamentals that will be needed to use the Nmap tool for performing effective network enumeration.

100% Completed



#### Cracking Passwords with Hashcat

Cracking Passwords with Hashcat

14 Sections Medium Offensive

This module covers the fundamentals of password cracking using the Hashcat tool.

100% Completed



## Introduction to Bash Scripting

10 Sections | Easy | General

This module covers the basics needed for working with Bash scripts to automate tasks on Linux systems. A strong grasp of Bash is a fundamental skill for anyone working in a technical information security role. Through the power of automation, we can unlock the Linux operating system's full potential and efficiently perform habitual tasks.

100% Completed

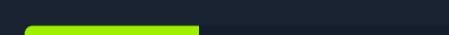


## File Transfers

10 Sections | Medium | Offensive

During an assessment, it is very common for us to transfer files to and from a target system. This module covers file transfer techniques leveraging tools commonly available across all versions of Windows and Linux systems.

40% Completed



## SQL Injection Fundamentals

17 Sections | Medium | Offensive

Databases are an important part of web application infrastructure and SQL (Structured Query Language) to store, retrieve, and manipulate information stored in them. SQL injection is a code injection technique used to take advantage of coding vulnerabilities and inject SQL queries via an application to bypass authentication, retrieve data from the backend database, or achieve code execution on the underlying server.

100% Completed



## OSINT: Corporate Recon

23 Sections | Hard | Offensive

OSINT (Open-source Intelligence) is a crucial stage of the penetration testing process. A thorough examination of publicly available information can increase the chances of finding a vulnerable system, gaining valid credentials through password spraying, or gaining a foothold via social engineering. There is a vast amount of publicly available information from which relevant information needs to be selected.

100% Completed



## Web Requests

8 Sections | Fundamental | General

This module introduces the topic of HTTP web requests and how different web applications utilize them to communicate with their backends.

100% Completed

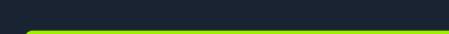


## Introduction to Networking

21 Sections | Fundamental | General

As an information security professional, a firm grasp of networking fundamentals and the required components is necessary. Without a strong foundation in networking, it will be tough to progress in any area of information security. Understanding how a network is structured and how the communication between the individual hosts and servers takes place using the various protocols allows us to understand the entire network structure and its network traffic in detail and how different communication standards are handled. This knowledge is essential to create our tools and to interact with the protocols.

100% Completed

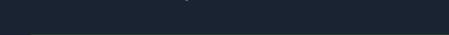


## Using the Metasploit Framework

15 Sections | Easy | Offensive

The Metasploit Framework is an open-source set of tools used for network enumeration, attacks, testing security vulnerabilities, evading detection, performing privilege escalation attacks, and performing post-exploitation.

100% Completed



## JavaScript Deobfuscation

11 Sections | Easy | Defensive

This module will take you step-by-step through the fundamentals of JavaScript Deobfuscation until you can deobfuscate basic JavaScript code and understand its purpose.

100% Completed



# Windows Fundamentals



## Windows Fundamentals

14 Sections Fundamental General

This module covers the fundamentals required to work comfortably with the Windows operating system.

100% Completed



# Linux Privilege Escalation



## Linux Privilege Escalation

28 Sections Easy Offensive

Privilege escalation is a crucial phase during any security assessment. During this phase, we attempt to gain access to additional users, hosts, and resources to move closer to the assessment's overall goal. There are many ways to escalate privileges. This module aims to cover the most common methods emphasizing real-world misconfigurations and flaws that we may encounter in a client environment. The techniques covered in this module are not an exhaustive list of all possibilities and aim to avoid extreme "edge-case" tactics that may be seen in a Capture the Flag (CTF) exercise.

96.43% Completed



# Attacking Web Applications with Ffuf



## Attacking Web Applications with Ffuf

13 Sections Easy Offensive

This module covers the fundamental enumeration skills of web fuzzing and directory brute forcing using the Ffuf tool. The techniques learned in this module will help us in locating hidden pages, directories, and parameters when targeting web applications.

100% Completed



# Login Brute Forcing



## Login Brute Forcing

11 Sections Easy Offensive

Learn how to brute force logins for various types of services and create custom wordlists based on your target.

100% Completed



# SQLMap Essentials

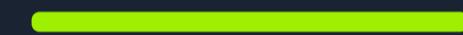


## SQLMap Essentials

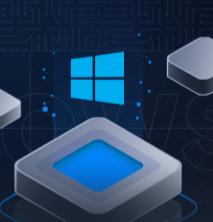
11 Sections Easy Offensive

The SQLMap Essentials module will teach you the basics of using SQLMap to discover various types of SQL Injection vulnerabilities, all the way to the advanced enumeration of databases to retrieve all data of interest.

100% Completed



# Windows Privilege Escalation

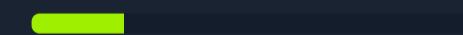


## Windows Privilege Escalation

33 Sections Medium Offensive

After gaining a foothold, elevating our privileges will provide more options for persistence and may reveal information stored locally that can further our access in the environment. Enumeration is the key to privilege escalation. When you gain initial shell access to the host, it is important to gain situational awareness and uncover details relating to the OS version, patch level, any installed software, our current privileges, group memberships, and more. Windows presents an enormous attack surface and, being that most companies run Windows hosts in some way, we will more often than not find ourselves gaining access to Windows machines during our assessments. This covers common methods while emphasizing real-world misconfigurations and flaws that we may encounter during an assessment. There are many additional "edge-case" possibilities not covered in this module. We will cover both modern and legacy Windows Server and Desktop versions that may be present in a client environment.

21.21% Completed



# Introduction to Active Directory

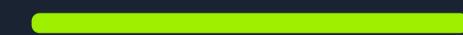


## Introduction to Active Directory

16 Sections Fundamental General

Active Directory (AD) is present in the majority of corporate environments. Due to its many features and complexity, it presents a vast attack surface. To be successful as penetration testers and information security professionals, we must have a firm understanding of Active Directory fundamentals, AD structures, functionality, common AD flaws, misconfigurations, and defensive measures.

100% Completed

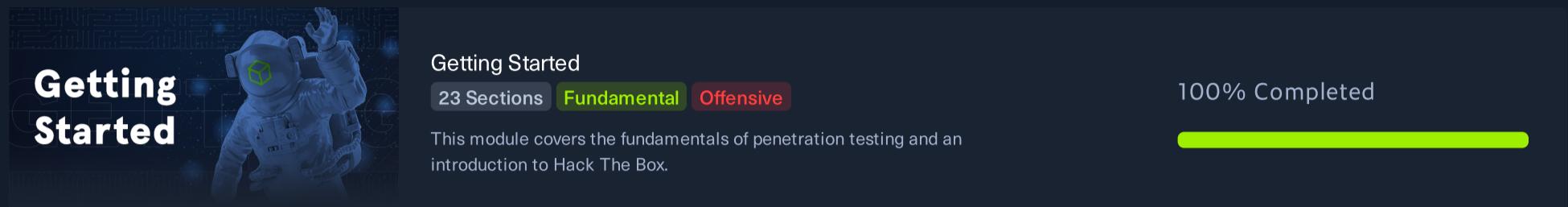




## Introduction to Web Applications

17 Sections Fundamental General

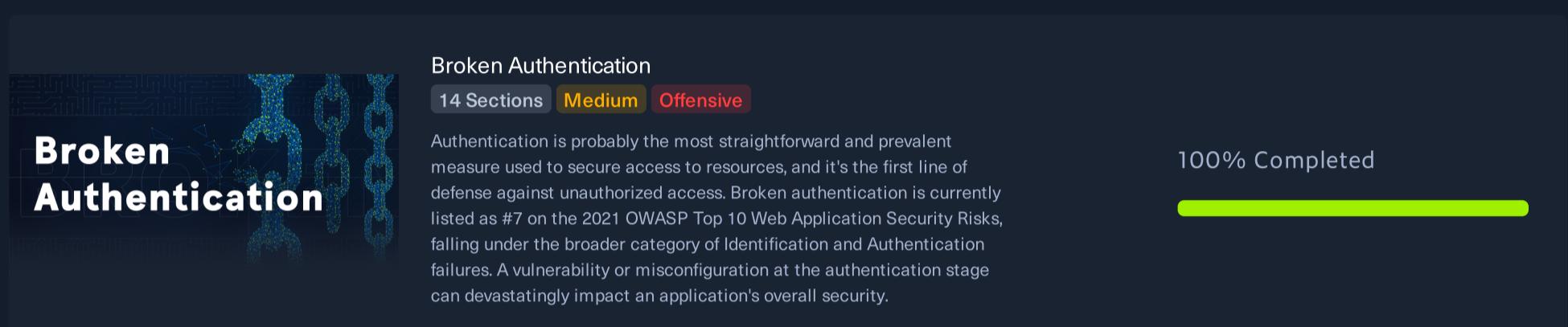
In the Introduction to Web Applications module, you will learn all of the basics of how web applications work and begin to look at them from an information security perspective.



## Getting Started

23 Sections Fundamental Offensive

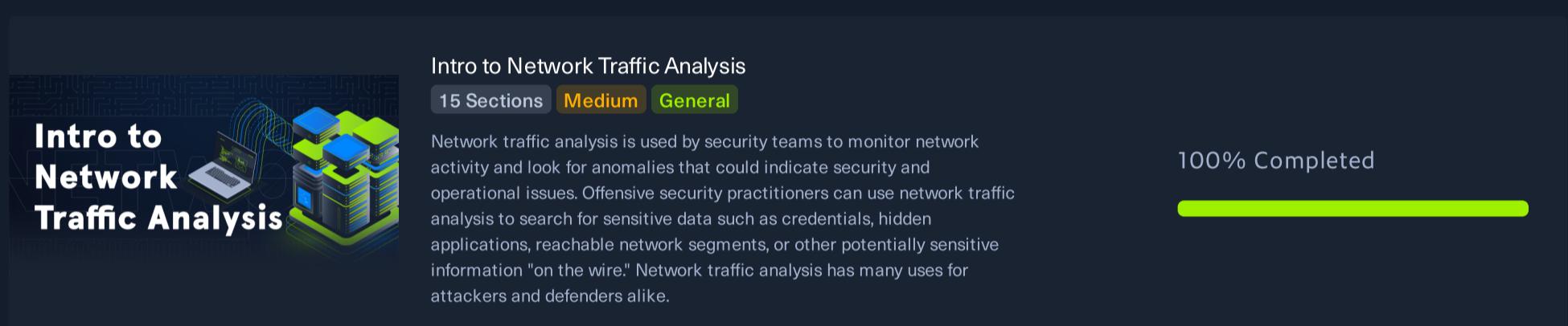
This module covers the fundamentals of penetration testing and an introduction to Hack The Box.



## Broken Authentication

14 Sections Medium Offensive

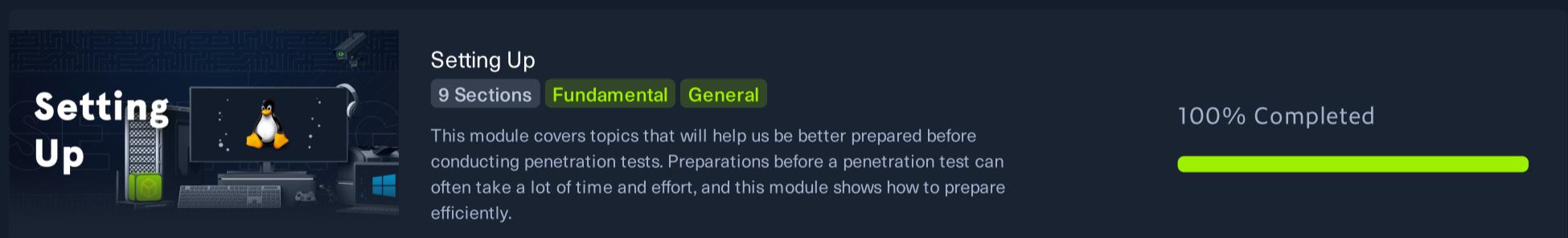
Authentication is probably the most straightforward and prevalent measure used to secure access to resources, and it's the first line of defense against unauthorized access. Broken authentication is currently listed as #7 on the 2021 OWASP Top 10 Web Application Security Risks, falling under the broader category of Identification and Authentication failures. A vulnerability or misconfiguration at the authentication stage can devastatingly impact an application's overall security.



## Intro to Network Traffic Analysis

15 Sections Medium General

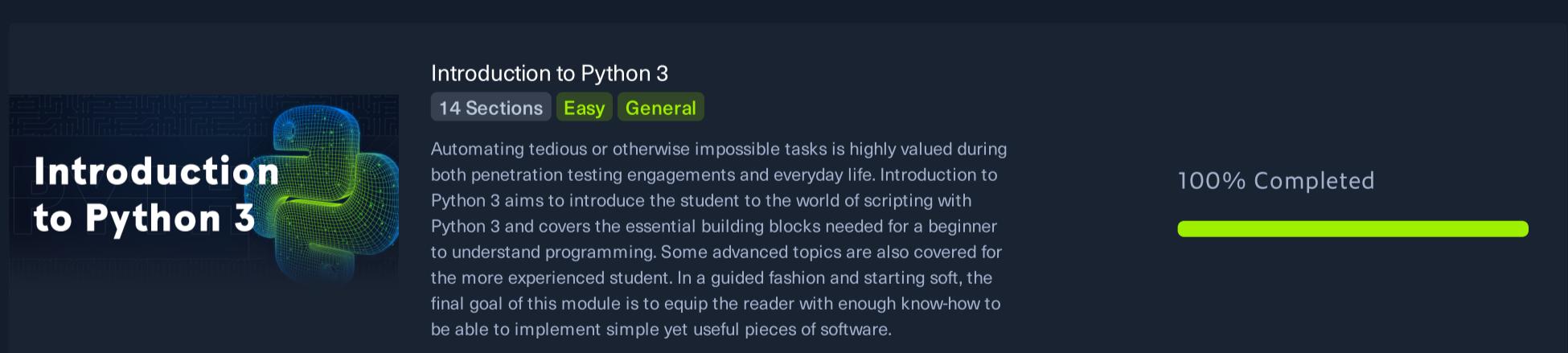
Network traffic analysis is used by security teams to monitor network activity and look for anomalies that could indicate security and operational issues. Offensive security practitioners can use network traffic analysis to search for sensitive data such as credentials, hidden applications, reachable network segments, or other potentially sensitive information "on the wire." Network traffic analysis has many uses for attackers and defenders alike.



## Setting Up

9 Sections Fundamental General

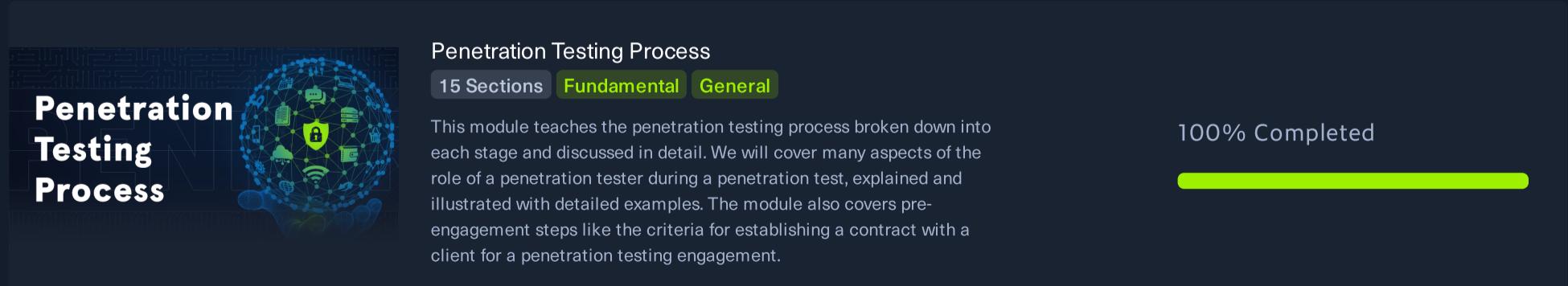
This module covers topics that will help us be better prepared before conducting penetration tests. Preparations before a penetration test can often take a lot of time and effort, and this module shows how to prepare efficiently.



## Introduction to Python 3

14 Sections Easy General

Automating tedious or otherwise impossible tasks is highly valued during both penetration testing engagements and everyday life. Introduction to Python 3 aims to introduce the student to the world of scripting with Python 3 and covers the essential building blocks needed for a beginner to understand programming. Some advanced topics are also covered for the more experienced student. In a guided fashion and starting soft, the final goal of this module is to equip the reader with enough know-how to be able to implement simple yet useful pieces of software.



## Penetration Testing Process

15 Sections Fundamental General

This module teaches the penetration testing process broken down into each stage and discussed in detail. We will cover many aspects of the role of a penetration tester during a penetration test, explained and illustrated with detailed examples. The module also covers pre-engagement steps like the criteria for establishing a contract with a client for a penetration testing engagement.

## Cross-Site Scripting (XSS)

10 Sections | Easy | Offensive

Cross-Site Scripting (XSS) vulnerabilities are among the most common web application vulnerabilities. An XSS vulnerability may allow an attacker to execute arbitrary JavaScript code within the target's browser and result in complete web application compromise if chained together with other vulnerabilities. This module will teach you how to identify XSS vulnerabilities and exploit them.

100% Completed



## Vulnerability Assessment

17 Sections | Easy | Offensive

This module introduces the concept of Vulnerability Assessments. We will review the differences between vulnerability assessments and penetration tests, how to carry out a vulnerability assessment, how to interpret the assessment results, and how to deliver an effective vulnerability assessment report.

94.12% Completed



## Using Web Proxies

15 Sections | Easy | Offensive

Web application penetration testing frameworks are an essential part of any web penetration test. This module will teach you two of the best frameworks: Burp Suite and OWASP ZAP.

100% Completed



## Footprinting

21 Sections | Medium | Offensive

This module covers techniques for footprinting the most commonly used services in almost all enterprise and business IT infrastructures. Footprinting is an essential phase of any penetration test or security audit to identify and prevent information disclosure. Using this process, we examine the individual services and attempt to obtain as much information from them as possible.

95.24% Completed



## Attacking Common Applications

33 Sections | Medium | Offensive

Penetration Testers can come across various applications, such as Content Management Systems, custom web applications, internal portals used by developers and sysadmins, and more. It's common to find the same applications across many different environments. While an application may not be vulnerable in one environment, it may be misconfigured or unpatched in the next. It is important as an assessor to have a firm grasp of enumerating and attacking the common applications discussed in this module. This knowledge will help when encountering other types of applications during assessments.

93.94% Completed



## Attacking Common Services

19 Sections | Medium | Offensive

Organizations regularly use a standard set of services for different purposes. It is vital to conduct penetration testing activities on each service internally and externally to ensure that they are not introducing security threats. This module will cover how to enumerate each service and test it against known vulnerabilities and exploits with a standard set of tools.

100% Completed



## Information Gathering - Web Edition

10 Sections | Easy | Offensive

This module covers techniques for identifying and analyzing an organization's web application-based attack surface and tech stack. Information gathering is an essential part of any web application penetration test, and it can be performed either passively or actively.

100% Completed





## Active Directory Enumeration & Attacks

36 Sections Medium Offensive

Active Directory (AD) is the leading enterprise domain management suite, providing identity and access management, centralized domain administration, authentication, and much more. Due to the many features and complexity of AD, it presents a large attack surface that is difficult to secure properly. To be successful as infosec professionals, we must understand AD architectures and how to secure our enterprise environments. As Penetration testers, having a firm grasp of what tools, techniques, and procedures are available to us for enumerating and attacking AD environments and commonly seen AD misconfigurations is a must.

8.33% Completed



## Password Attacks

22 Sections Medium Offensive

Passwords are still the primary method of authentication in corporate networks. If strong password policies are not in place, users will often opt for weak, easy-to-remember passwords that can often be cracked offline and used to further our access. We will encounter passwords in many forms during our assessments. We must understand the various ways they are stored, how they can be retrieved, methods to crack weak passwords, ways to use hashes that cannot be cracked, and hunting for weak/default password usage.

22.73% Completed



## Incident Handling Process

9 Sections Fundamental General

Security Incident handling has become a vital part of each organization's defensive strategy, as attacks constantly evolve and successful compromises are becoming a daily occurrence. In this module, we will review the process of handling an incident from the very early stage of detecting a suspicious event, to confirming a compromise and responding to it.

100% Completed



## Bug Bounty Hunting Process

6 Sections Easy General

Bug bounty programs encourage security researchers to identify bugs and submit vulnerability reports. Getting into the world of bug bounty hunting without any prior experience can be a daunting task, though. This module covers the bug bounty hunting process to help you start bug bounty hunting in an organized and well-structured way. It's all about effectiveness and professionally communicating your findings.

100% Completed

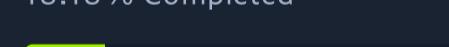


## MacOS Fundamentals

11 Sections Fundamental General

This module covers the fundamentals required to work comfortably within the macOS operating system and shell.

18.18% Completed



## Documentation & Reporting

8 Sections Easy General

Proper documentation is paramount during any engagement. The end goal of a technical assessment is the report deliverable which will often be presented to a broad audience within the target organization. We must take detailed notes and be very organized in our documentation, which will help us in the event of an incident during the assessment. This will also help ensure that our reports contain enough detail to illustrate the impact of our findings properly.

87.5% Completed



## Introduction to Windows Command Line

23 Sections Easy General

As administrators and Pentesters, we may not always be able to utilize a graphical user interface for the actions we need to perform. Introduction to Windows Command Line aims to introduce students to the wide range of uses for Command Prompt and PowerShell within a Windows environment. We will cover basic usage of both key executables for administration, useful PowerShell cmdlets and modules, and different ways to leverage these tools to our benefit.

100% Completed





## Windows Attacks & Defense

16 Sections Medium Defensive

Microsoft Active Directory (AD) has been, for the past 20+ years, the leading enterprise domain management suite, providing identity and access management, centralized domain administration, authentication, and much more. Throughout those years, the more integrated our applications and data have become with AD, the more exposed to a large-scale compromise we have become. In this module, we will walk through the most commonly abused and fruitful attacks against Active Directory environments that allow threat actors to perform horizontal and vertical privilege escalations in addition to lateral movement. One of the module's core goals is to showcase prevention and detection methods against the covered Active Directory attacks.

100% Completed



## Security Monitoring & SIEM Fundamentals

11 Sections Easy Defensive

This module provides a concise yet comprehensive overview of Security Information and Event Management (SIEM) and the Elastic Stack. It demystifies the essential workings of a Security Operation Center (SOC), explores the application of the MITRE ATT&CK framework within SOCs, and introduces SIEM (KQL) query development. With a focus on practical skills, students will learn how to develop SIEM use cases and visualizations using the Elastic Stack.

100% Completed



## Introduction to Threat Hunting & Hunting With Elastic

6 Sections Medium Defensive

This module initially lays the groundwork for understanding Threat Hunting, ranging from its basic definition, to the structure of a threat hunting team. The module also dives into the threat hunting process, highlighting the interrelationships between threat hunting, risk assessment, and incident handling. Furthermore, the module elucidates the fundamentals of Cyber Threat Intelligence (CTI). It expands on the different types of threat intelligence and offers guidance on effectively interpreting a threat intelligence report. Finally, the module puts theory into practice, showcasing how to conduct threat hunting using the Elastic stack. This practical segment uses real-world logs to provide learners with hands-on experience.

100% Completed

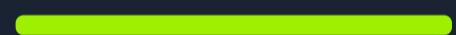


## Windows Event Logs & Finding Evil

6 Sections Medium Defensive

This module covers the exploration of Windows Event Logs and their significance in uncovering suspicious activities. Throughout the course, we delve into the anatomy of Windows Event Logs and highlight the logs that hold the most valuable information for investigations. The module also focuses on utilizing Sysmon and Event Logs for detecting and analyzing malicious behavior. Additionally, we delve into Event Tracing for Windows (ETW), explaining its architecture and components, and provide ETW-based detection examples. To streamline the analysis process, we introduce the powerful Get-WinEvent cmdlet.

100% Completed



## Understanding Log Sources & Investigating with Splunk

6 Sections Medium Defensive

This module provides a comprehensive introduction to Splunk, focusing on its architecture and the creation of effective detection-related SPL (Search Processing Language) searches. We will learn to investigate with Splunk as a SIEM tool and develop TTP-driven and analytics-driven SPL searches for enhanced threat detection and response. Through hands-on exercises, we will learn to identify and understand the ingested data and available fields within Splunk. We will also gain practical experience in leveraging Splunk's powerful features for security monitoring and incident investigation.

100% Completed



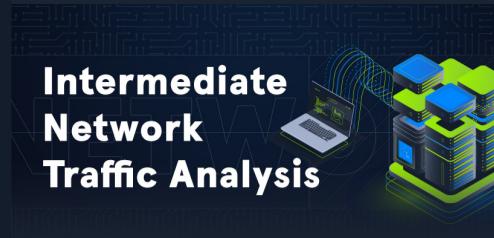
## Working with IDS/IPS

11 Sections Medium Defensive

This module offers an in-depth exploration of Suricata, Snort, and Zeek, covering both rule development and intrusion detection. We'll guide you through signature-based and analytics-based rule development, and you'll learn to tackle encrypted traffic. The module features numerous hands-on examples, focusing on the detection of prevalent malware such as PowerShell Empire, Covenant, Sliver, Cerber, Dridex, Ursnif, and Patchwork. We also dive into detecting attacking techniques like DNS exfiltration, TLS/HTTP Exfiltration, PsExec lateral movement, and beaconing through IDS/IPS.

100% Completed





## Intermediate Network Traffic Analysis

18 Sections Easy Defensive

Through network traffic analysis, this module sharpens skills in detecting link layer attacks such as ARP anomalies and rogue access points, identifying network abnormalities like IP spoofing and TCP handshake irregularities, and uncovering application layer threats from web-based vulnerabilities to peculiar DNS activities.

100% Completed

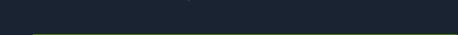


## Brief Intro to Hardware Attacks

8 Sections Medium General

This mini-module concisely introduces hardware attacks, covering Bluetooth risks and attacks, Cryptanalysis Side-Channel Attacks, and vulnerabilities like Spectre and Meltdown. It delves into both historical and modern Bluetooth hacking techniques, explores the principles of cryptanalysis and different side-channel attacks, and outlines microprocessor design, optimisation strategies and vulnerabilities, such as Spectre and Meltdown.

100% Completed

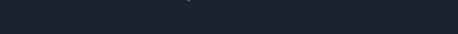


## Introduction to Malware Analysis

9 Sections Hard Defensive

This module offers an exploration of malware analysis, specifically targeting Windows-based threats. The module covers Static Analysis utilizing Linux and Windows tools, Malware Unpacking, Dynamic Analysis (including malware traffic analysis), Reverse Engineering for Code Analysis, and Debugging using x64dbg. Real-world malware examples such as WannaCry, DoomJuice, Brbot, Dharma, and Meterpreter are analyzed to provide practical experience.

100% Completed



## YARA & Sigma for SOC Analysts

11 Sections Easy Defensive

This Hack The Box Academy module covers how to create YARA rules both manually and automatically and apply them to hunt threats on disk, live processes, memory, and online databases. Then, the module switches gears to Sigma rules covering how to build Sigma rules, translate them into SIEM queries using "sigmac", and hunt threats in both event logs and SIEM solutions. It's all hands-on, using real-world malware and techniques.

100% Completed



## Detecting Windows Attacks with Splunk

23 Sections Medium Defensive

This Hack The Box Academy module is focused on pinpointing attacks on Windows and Active Directory. Utilizing Splunk as the cornerstone for investigation, this training will arm participants with the expertise to adeptly identify Windows-based threats leveraging Windows Event Logs and Zeek network logs. Furthermore, participants will benefit from actual PCAP files associated with the discussed Windows and Active Directory attacks, enhancing their understanding of the respective attack patterns and techniques.

100% Completed



## Security Incident Reporting

5 Sections Easy General

Tailored to provide a holistic understanding, this Hack The Box Academy module ensures participants are adept at identifying, categorizing, and documenting security incidents with utmost accuracy and professionalism. The module meticulously breaks down the elements of a robust incident report and then presents participants with a real-world incident report, offering practical insights into the application of the concepts discussed.

100% Completed



## Introduction to Digital Forensics

8 Sections Medium Defensive

Dive into Windows digital forensics with Hack The Box Academy's "Introduction to Digital Forensics" module. Gain mastery over core forensic concepts and tools such as FTK Imager, KAPE, Velociraptor, and Volatility. Dive deep into memory forensics, disk image analysis, and rapid triaging procedures. Learn to construct timelines from MFT, USN Journals, and Windows event logs while getting hands-on with key artifacts like MFT, USN Journal, Registry Hives, Prefetch Files, ShimCache, Amcache, BAM, and SRUM data.

100% Completed

