

Paths completed: 4
Targets compromised: 349
Ranking: Top 1%

PATHS COMPLETED

PROGRESS

 <p>Local Privilege Escalation</p> <p>2 Modules Medium</p> <p>Privilege escalation is a vital phase of the penetration testing process, one we may revisit multiple times during an engagement. During our assessments, we will encounter a large variety of operating systems and applications. Most often, if we can exploit a vulnerability and gain a foothold on a host, it will be running some version of Windows or Linux. Both present a large attack surface with many tactics and techniques available to us for escalating privileges. This path teaches the core concepts of local privilege escalation necessary for being successful against Windows and Linux systems. The path covers manual enumeration and exploitation and the use of tools to aid in the process.</p>	<p>100% Completed</p> <div style="width: 100%; background-color: #2e7131; height: 10px;"></div>
 <p>Operating System Fundamentals</p> <p>3 Modules Easy</p> <p>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.</p>	<p>100% Completed</p> <div style="width: 100%; background-color: #2e7131; height: 10px;"></div>
 <p>Information Security Foundations</p> <p>12 Modules Easy</p> <p>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.</p>	<p>100% Completed</p> <div style="width: 100%; background-color: #2e7131; height: 10px;"></div>
 <p>SOC Analyst Prerequisites</p> <p>10 Modules Easy</p> <p>The SOC Analyst Prerequisites path is designed for those looking to become SOC/Security Analysts. It dives into fundamental IT and Information Security subjects including networking, Linux and Windows operating systems, basic programming and scripting, as well as working with Assembly. In addition, students will be exposed to the fundamental concepts of information security and penetration testing. This skill path is made up of modules that will assist learners in developing and strengthening a foundational understanding before proceeding with learning more complex security topics.</p>	<p>100% Completed</p> <div style="width: 100%; background-color: #2e7131; height: 10px;"></div>



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



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



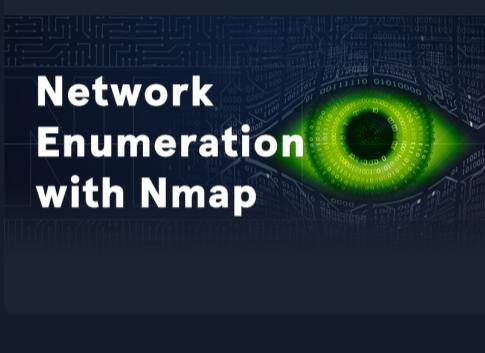
Linux Fundamentals

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



Introduction to Bash Scripting

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

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.

100% Completed



SQL Injection Fundamentals

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



Web Requests

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





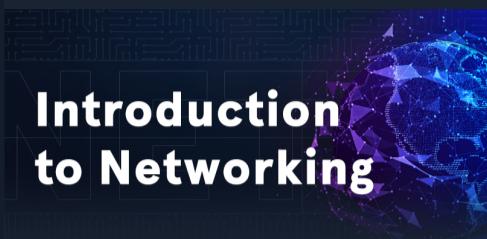
File Inclusion

File Inclusion

11 Sections Medium Offensive

File Inclusion is a common web application vulnerability, which can be easily overlooked as part of a web application's functionality.

100% Completed



Introduction to Networking

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

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



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.

100% 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



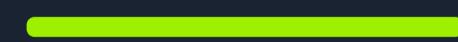
Login Brute Forcing

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

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.

100% Completed



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.

100% Completed



Getting Started

23 Sections Fundamental Offensive

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

100% Completed

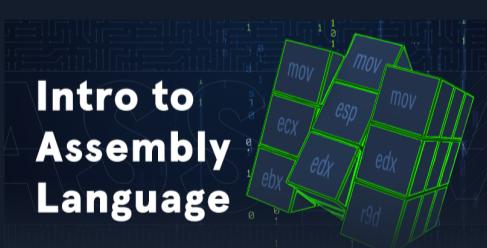


Intro to Network Traffic Analysis

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.

100% Completed



Intro to Assembly Language

24 Sections Medium General

This module builds the core foundation for Binary Exploitation by teaching Computer Architecture and Assembly language basics.

100% Completed



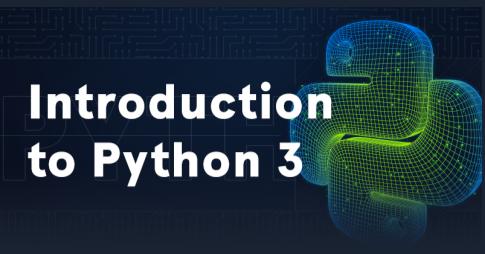
Setting Up

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.

100% Completed



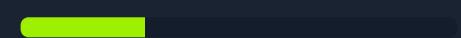


Introduction to Python 3

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.

28.57% Completed



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.

100% Completed



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.

100% Completed



Command Injections

12 Sections | Medium | Offensive

Command injection vulnerabilities can be leveraged to compromise a hosting server and its entire network. This module will teach you how to identify and exploit command injection vulnerabilities and how to use various filter bypassing techniques to avoid security mitigations.

100% 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.

100% 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.

100% Completed



Shells & Payloads

17 Sections Medium Offensive

Gain the knowledge and skills to identify and use shells & payloads to establish a foothold on vulnerable Windows & Linux systems. This module utilizes a fictitious scenario where the learner will place themselves in the perspective of a sysadmin trying out for a position on CAT5 Security's network penetration testing team.

100% 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



Web Attacks

18 Sections Medium Offensive

This module covers three common web vulnerabilities, HTTP Verb Tampering, IDOR, and XXE, each of which can have a significant impact on a company's systems. We will cover how to identify, exploit, and prevent each of them through various methods.

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



File Upload Attacks

11 Sections Medium Offensive

Arbitrary file uploads are among the most critical web vulnerabilities. These flaws enable attackers to upload malicious files, execute arbitrary commands on the back-end server, and even take control over the entire server and all web applications hosted on it and potentially gain access to sensitive data or cause a service disruption.

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.

100% Completed





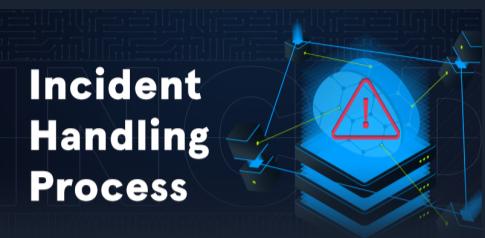
Password Attacks

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.

100% Completed



Incident Handling Process

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



Pivoting, Tunneling, and Port Forwarding

Pivoting, Tunneling, and Port Forwarding

18 Sections | Medium | Offensive

Once a foothold is gained during an assessment, it may be in scope to move laterally and vertically within a target network. Using one compromised machine to access another is called pivoting and allows us to access networks and resources that are not directly accessible to us through the compromised host. Port forwarding accepts the traffic on a given IP address and port and redirects it to a different IP address and port combination. Tunneling is a technique that allows us to encapsulate traffic within another protocol so that it looks like a benign traffic stream.

100% Completed



Documentation and Reporting

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.

50% Completed



Introduction to Windows Command Line

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



Security Monitoring & SIEM Fundamentals

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 C#

Introduction to C#

21 Sections | Easy | General

Introduction to C# aims to provide a solid foundation to understand and work with C# code. Covering the crucial foundations and more intricate concepts, providing a comprehensive depth of knowledge in C#.

9.52% Completed

