

Welcome to *OffSec Live: PEN-200*!

*OffSec Live: PEN-200* is our scheduled and open streaming offering that includes a learning journey designed to facilitate learning, improve engagement and ultimately increase Offensive Security Certified Professional (OSCP) certification preparedness and achievement designed for OffSec students currently enrolled in PEN-200.

*OffSec Live: PEN-200* includes a week-by-week learning journey - including learning objectives, recommended hours to dedicate, course modules to focus on and topic / lab exercises to complete - along with twice per week live Twitch streaming sessions where our OffSec team provides course specific, interactive learning guidance and lab concept demonstrations to better assist currently enrolled PEN-200 students. In addition, the *OffSec Live* offering will facilitate a dedicated *OffSec Live* Discord channel where currently enrolled PEN-200 students may collaborate to better understand the PEN-200 materials and methodology.

*OffSec Live's* weekly Twitch streaming is open to the public, and no additional fees will be charged to active OffSec subscription holders. Currently enrolled OffSec PEN-200 and Learn Unlimited subscription holders will also be provided access to an overall PEN-200 learning journey, recorded Twitch streaming sessions, specialized demonstration lab exercises, and an *OffSec Live* Discord channel. Those who do not have a current OffSec PEN-200 or Learn Unlimited subscription will have access to the weekly *OffSec Live* Twitch streaming sessions.

We hope you enjoy the offering and learning journey!

For additional questions, please see our *OffSec Live: PEN-200* **FAQs** [here](#).

## Getting Ready

To prepare for **PEN-200**, please see quick reference guidance that will help you get started with the **OffSec Training Library (OTL)** platform and improve your learning experience.

Getting Started	Community, Mentoring and Support
<ul style="list-style-type: none"><li>• <a href="#">Familiarize with the OTL</a></li><li>• <a href="#">Virtual Machine Requirements</a></li><li>• <a href="#">Lab Connectivity Guide</a></li></ul>	<ul style="list-style-type: none"><li>• <a href="#">Join OffSec Community</a> (OffSec Discord Server)</li><li>• Join <i>OffSec Live: PEN-200</i> Community (dedicated OffSec Live Discord channel for student sharing and Office Hours)*</li><li>• <a href="#">Mentoring Guideline</a> (help with course exercises and lab machines)</li><li>• <a href="#">Technical Support Services</a> (help with technical issues such as platform, VPN, lab machine connectivity, etc.)</li><li>• <a href="#">OffSecOfficial - Twitch</a> (Coming soon!)</li><li>• <a href="#">OffSec Forum</a> (exchange ideas and course discuss issues)</li></ul>
PEN-200 Course	Exam
<ul style="list-style-type: none"><li>• <a href="#">Getting started with your PEN-200 course</a></li><li>• <a href="#">PEN-200 Topic Exercises</a> (course exercises)</li><li>• <a href="#">Learning Path Guide</a> (a set of lab machines that will help you get started)</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">Exam Guide</a></li><li>• <a href="#">Exam Preparation</a> (tips and suggestions to prepare for your OSCP exam)</li><li>• <a href="#">Exam Scheduling</a> (how to schedule your OSCP exam)</li><li>• <a href="#">Reporting</a> (OSCP exam reporting requirements)</li></ul>

*\*All currently enrolled PEN200 students will have access to the OffSec Live - PEN200 Discord channel.*

For more detailed information and FAQ, please click [here!](#)

## Preparing for *OffSec Live: PEN-200* - weekly sessions guidance:

### Recommended approach

- 1) Read content for the PEN-200 course Topic covered in the week.
- 2) Watch videos for PEN-200 Topic covered in the week.
- 3) Complete the topic exercises covered in the week.
- 4) Attempt the demo labs for the weekly topic prior to *OffSec Live* Wednesday session.
- 5) Attempt the PG-Play machine for the week prior to *OffSec Live* Friday session.
- 6) Complete the target lab exercises each week.

Please note this is a recommendation for preparing for each *OffSec Live* weekly session only. Please follow the recommended best approach + the Learning Journey below to most effectively prepare for the OSCP exam.

PG Play & Practice is *not* a substitute for the PEN200 lab environment. PG Play & Practice demonstrations are meant to augment the PEN200 learning experience only. Successful completion of PEN200 requires active and consistent engagement in the PEN200 lab environment. [Those students who successfully complete all topic exercises and more than 50 PEN200 lab machines have a significantly higher OSCP pass rate than those who do not do so.](#)

## OffSec Live- PEN-200 Learning Journey:

	<i>OffSec Live: PEN-200 Learning Journey</i>	
<b>Week 1: Terminal Best Practices</b>	<b>Learning Objectives</b>	1) Understand some popular Linux command line programs. 2) Learn more about the Bash/ZSH environment. 3) Learn about environment variables and how to use them.
	<b>Learning time (Hours)</b>	10
	<b>Office Hours</b>	Monday, June 20 - NONE
	<b>OffSec Live Weekly Demo</b>	Wednesday, June 22 - 12 pm - 1 pm (ET): Kick-off Terminal best practices
	<b>OffSec Live Weekly Demo</b>	Friday, June 24 - 12 pm - 1 pm (ET): Terminal best practices
	<b>Readings: Topic in LMS</b>	Command-Line Fun: 3.1 - 3.9
	<b>Watch: Videos in LMS</b>	Command-Line Fun: 2.1 - 2.5
	<b>Topic exercises to complete</b>	3.1.4. Practice - The Bash Environment 3.2.6. Practice - Piping and Redirection 3.3.6. Practice - Text Searching and Manipulation 3.5.4. Practice - Comparing Files 3.6.4. Practice - Managing Processes 3.7.3. Practice - File and Command Monitoring 3.8.4. Practice - Downloading Files 3.9.4. Practice - Customizing the Bash Environment
	<b>Lab exercises to complete</b>	None

<b>Week 2 : Practical Tools</b>	<b>Learning Objectives</b>	1) Understand some practical tools that are found in every pentester's toolkit. 2) Understand packet structures and learn how to sniff traffic. 3) Identify the difference between reverse and bind shells.
	<b>Learning time (Hours)</b>	10
	<b>Office Hours</b>	Monday, June 27 - 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, June 29 - 12 pm - 1 pm (ET): Practical Tools
	<b>OffSec Live Weekly Demo</b>	Friday, July 1 - 12 pm - 1 pm (ET): PG Play - USV2017
	<b>Readings: Topic in LMS</b>	Practical Tools: 4.1 - 4.5
	<b>Watch: Videos in LMS</b>	Practical Tools: 3.1 - 3.5
	<b>Topic exercises to complete</b>	4.1.5. Practice - Netcat 4.2.5. Practice - Socat 4.3.9. Practice - PowerShell and Powercat 4.4.6. Practice - Wireshark 4.5.3. Practice - Tcpdump
	<b>Lab exercises to complete</b>	None

<b>Week 3: Passive Information Gathering</b>	<b>Learning Objectives</b>	1) Learn the importance of Passive Information Gathering. 2) Practical examples that show the impact of online presence.
	<b>Learning time (Hours)</b>	10
	<b>Office Hours</b>	Monday, July 4, 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, July 6 - 12 pm - 1 pm (ET): Passive Information Gathering
	<b>OffSec Live Weekly Demo</b>	Friday, July 8, 1 pm - 2 pm (ET): MegaCorpOne
	<b>Readings: Topic in LMS</b>	Passive Information Gathering: 6.1 - 6.16
	<b>Watch: Videos in LMS</b>	Passive Information Gathering: 5.1 - 5.14
	<b>Topic exercises to complete</b>	6.3.1. Practice - Whois Enumeration 6.4.1. Practice - Google Hacking 6.5.1. Practice - Netcraft 6.6.1. Practice Recon-ng 6.7.1. Practice - Open-Source Code 6.12.3. Practice - User Information Gathering 6.13.2. Practice - Social Media Tools
	<b>Lab exercises to complete</b>	10.11.1.222 - Chris

<b>Week 4: Active Information Gathering</b>	<b>Learning objectives</b>	1) Understand some common active information gathering techniques including port scanning and DNS, SMB, NFS, SMTP, and SNMP enumeration.
	<b>Learning time (Hours)</b>	10
	<b>Office Hours</b>	Monday, July 11, 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, July 13, 12 pm - 1 pm (ET): Active Information Gathering
	<b>OffSec Live Weekly Demo</b>	Friday, July 15, 12 pm - 1 pm (ET): Getting Started with PWK Labs - Jeremy Miller, PG Play - Born2root
	<b>Readings: Topic in LMS</b>	Active Information Gathering: 7.1 - 7.7
	<b>Watch: Videos in LMS</b>	Active Information Gathering: 6.1 - 6.3
	<b>Topic exercises to complete</b>	7.1.7. Practice - DNS Enumeration 7.2.3. Practice - Port Scanning 7.3.3. Practice - SMB Enumeration 7.4.3. Practice - NFS Enumeration 7.5.1. Practice - SMTP Enumeration 7.6.4. Practice - SNMP Enumeration
	<b>Lab exercises to complete</b>	Complete Initial Enumeration of PWK Labs. 10.11.1.5 - Alice 10.11.1.146 - Susie 10.11.1.231 - Mailman

<b>Week 5: Vulnerability Scanning</b>	<b>Learning objectives</b>	1) Understand automated and manual vulnerability scanning.
	<b>Learning time (Hours)</b>	10
	<b>Office Hours</b>	Monday, July 18, 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, July 20, 12 pm - 1 pm (ET): Vulnerability Scanning
	<b>OffSec Live Weekly Demo</b>	Friday, July 22 - 12 pm - 1 pm (ET): PG Play - Sumo
	<b>Readings: Topic in LMS</b>	Vulnerability Scanning: 8.1 - 8.4
	<b>Watch: Videos in LMS</b>	Vulnerability Scanning: 7.1 - 7.3
	<b>Topic exercises to complete</b>	8.2.9. Practice - Scanning with Individual Nessus Plugins 8.3.1. Practice - Vulnerability Scanning with Nmap
	<b>Lab exercises to complete</b>	Scan PWK Lab machines for specific vulnerabilities. 10.11.1.5 - Alice 10.11.1.146 - Susie



<b>Week 6: Web Application Attacks</b>	<b>Learning objectives</b>	1) Learn web application vulnerability enumeration and exploitation. 2) Demonstrate the exploitation of several common web application vulnerabilities listed in the OWASP Top 10.
	<b>Learning time (Hours)</b>	15
	<b>Office Hours</b>	Monday, July 25 - 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, July 27 - 12 pm - 1 pm (ET): Web App Attacks
	<b>OffSec Live Weekly Demo</b>	Friday, July 29 - 12 pm - 1 pm (ET): PG Box - PG Play - Dc5
	<b>Readings: Topic in LMS</b>	Web Application Attacks: 9.1 - 9.3
	<b>Watch: Videos in LMS</b>	Web Application Attacks: 8.1 - 8.3
	<b>Topic exercises to complete</b>	9.2.6. Practice - Web Application Enumeration 9.3.4. Practice - Web Application Assessment Tools
	<b>Lab exercises to complete</b>	10.11.1.71 - Alpha 10.11.1.72 - Beta 10.11.1.13 - Disco 10.11.1.50 - Bethany 10.11.1.217 - Hotline

<b>Week 7: Web Application Attacks</b>	<b>Learning Objectives</b>	1) Learn web application vulnerability enumeration and exploitation. 2) Demonstrate the exploitation of several common web application vulnerabilities listed in the OWASP Top 10.
	<b>Learning time (Hours)</b>	15
	<b>Office Hours</b>	Monday, August 1 - 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, August 3 - 12 pm - 1 pm (ET): Web App Attacks
	<b>OffSec Live Weekly Demo</b>	Friday, August 5 - 12 pm - 1 pm (ET): PG Play - Dc5
	<b>Readings: Topic in LMS</b>	Web Application Attacks: 9.4 - 9.10
	<b>Watch: Videos in LMS</b>	Web Application Attacks: 8.4 - 8.9
	<b>Topic exercises to complete</b>	9.5.2. Practice - Exploiting Admin Consoles 9.6.6. Practice - Cross-Site Scripting (XSS) 9.7.2. Practice - Directory Traversal Vulnerabilities 9.8.7. Practice - Remote File Inclusion (RFI) 9.8.10. Practice - PHP Wrappers 9.9.9. Practice - Extracting Data from the Database 9.9.11. Practice - From SQL Injection to Code Execution 9.9.13. Practice - Automating SQL Injection 9.10.1. Practice - Extra Miles
	<b>Lab exercises to complete</b>	10.11.1.222 - Chris 10.11.1.231 - Mailman 10.11.1.251 - Sean + 2 PWK Lab Machines

<b>Week 8 : Catch-up Week</b>	<b>Learning objectives</b>	None
	<b>Learning time (Hours)</b>	None
	<b>Office Hours</b>	None
	<b>OffSec Live Weekly Demo</b>	None
	<b>Readings: Topic in LMS</b>	None
	<b>Watch: Videos in LMS</b>	None
	<b>Topic exercises to complete</b>	None
	<b>Lab exercises to complete</b>	None

<b>Week 9: Introduction to Buffer Overflows and Windows Buffer Overflows</b>	<b>Learning objectives</b>	1) Learn the principles behind a buffer overflow attack. 2) Discover and exploit a remote buffer overflow.
	<b>Learning time (Hours)</b>	15
	<b>Office Hours</b>	Monday, August 15 - 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, August 17 - 12 pm - 1 pm (ET): Introduction to Buffer Overflows
	<b>OffSec Live Weekly Demo</b>	Friday, August 19 - 12 pm - 1 pm (ET): Windows Buffer Overflow
	<b>Readings: Topic in LMS</b>	Introduction to Buffer Overflows: 10.1 - 10.3 Windows Buffer Overflows: 11.1 - 11.3
	<b>Watch: Videos in LMS</b>	Introduction to Buffer Overflows: 9.1 - 9.2 Windows Buffer Overflows: 10.1 - 10.3
	<b>Topic exercises to complete</b>	10.2.5. Practice - Introduction to Buffer Overflows 11.1.2. Practice - Discovering the Vulnerability 11.2.4. Practice - Controlling EIP 11.2.8. Practice - Checking for Bad Characters 11.2.10. Practice - Finding a Return Address 11.2.15. Practice - Improving the Exploit 11.2.16. Extra Mile Exercises
	<b>Lab exercises to complete</b>	None

<b>Week 10: Linux Buffer Overflows</b>	<b>Learning objectives</b>	1) Introduction Linux buffer overflows.
	<b>Learning time (Hours)</b>	15
	<b>Office Hours</b>	Monday, August 22 - 12 pm - 1 pm (ET): Linux Buffer Overflows
	<b>OffSec Live Weekly Demo</b>	Wednesday, August 24 - 12 pm - 1 pm (ET): Linux Buffer Overflows
	<b>OffSec Live Weekly Demo</b>	Friday, August 26 - 12 pm - 1 pm (ET): PG Play - Covfefe
	<b>Readings: Topic in LMS</b>	Linux Buffer Overflows: 12.1 - 12.8
	<b>Watch: Videos in LMS</b>	Linux Buffer Overflows: 11.1 - 11.8
	<b>Topic exercises to complete</b>	12.2.1. Practice - Replicating the Crash 12.3.1. Practice - Controlling EIP 12.5.1. Practice - Checking for Bad Characters 12.6.1. Practice - Finding a Return Address 12.7.1. Practice - Getting a Shell
	<b>Lab exercises to complete</b>	3 PWK Labs Machines

<b>Week 11: Client-Side Attacks</b>	<b>Learning objectives</b>	1) Identify factors that are important to consider for client-side attacks. 2) Learn exploitation scenarios involving malicious HTML Applications and Microsoft Word documents.
	<b>Learning time (Hours)</b>	15
	<b>Office Hours</b>	Monday, August 29 - 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, August 31 - 12 pm - 1 pm (ET): Client-Side Attacks
	<b>OffSec Live Weekly Demo</b>	Friday, September 2 - 12 pm - 1 pm (ET): PG Play - BTRSys2.1
	<b>Readings: Topic in LMS</b>	Client-Side Attacks: 13.1 - 13.4
	<b>Watch: Videos in LMS</b>	Client-Side Attacks: 12.1 - 12.3
	<b>Topic exercises to complete</b>	13.1.5. Practice - Know Your Target 13.2.3. Practice - Leveraging HTML Applications 13.3.3. Practice - Microsoft Word Macro 13.3.5. Practice - Object Linking and Embedding 13.3.7. Practice - Evading Protected View
	<b>Lab exercises to complete</b>	3 PWK Labs Machines

<b>Week 12: Locating and Fixing Public Exploits</b>	<b>Learning objectives</b>	1) Identify online resources that host exploits for publicly known vulnerabilities. 2) Learn how to modify public exploit code to fit a specific attack platform and target.
	<b>Learning time (Hours)</b>	15
	<b>Office Hours</b>	Monday, September 5 - 1 pm - 2 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, September 7 - 1 pm - 2 pm (ET): Locating Public Exploits and Fixing Exploits
	<b>OffSec Live Weekly Demo</b>	Friday, September 9 - 1 pm - 2 pm (ET): PG Play - Bbscute
	<b>Readings: Topic in LMS</b>	Locating Public Exploits: 14.1 - 14.4 Fixing Exploits: 15.1 - 15.3
	<b>Watch: Videos in LMS</b>	Locating Public Exploits: 13.1 - 13.3 Fixing Exploits: 14.1 - 14.2
	<b>Topic exercises to complete</b>	14.3.1. Practice - Putting It All Together 15.1.4. Practice - Cross-Compiling Exploit Code 15.1.6. Practice - Changing the Socket Information 15.1.8. Practice - Changing the Return Address 15.1.10. Practice - Changing the Payload 15.2.4. Practice - Changing Connectivity Information 15.2.6. Practice - Troubleshooting the "index out of range" Error
	<b>Lab exercises to complete</b>	10.11.1.146 - Susie 10.11.1.71 - Alpha 10.11.1.71 - Beta 10.11.1.50 - Bethany 10.11.1.231 - Mailman 10.11.1.5 - Alice

<b>Week 13: File Transfers and Anti Virus Bypass</b>	<b>Learning objectives:</b>	1) Identify various file transfer methods that can be used in an assessment. 2) Learn how to bypass antivirus software on target machines.
	<b>Learning time (Hours)</b>	18
	<b>Office Hours</b>	Monday, September 12 -1 pm - 2 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, September 14 - 1 pm - 2 pm (ET): File Transfers and Anti Virus Bypass
	<b>OffSec Live Weekly Demo</b>	Friday, September 16 - 1 pm - 2 pm (ET): PG Play - Inclusiveness
	<b>Readings: Topic in LMS</b>	File Transfers: 16.1 - 16.3 Anti Virus Bypass : 17.1 - 17.4
	<b>Watch: Videos in LMS</b>	File Transfers: 15.1 - 15.2 Anti Virus Bypass: 16.1 - 16.3
	<b>Topic exercises to complete</b>	16.1.4. Practice - Considerations and Preparations 16.2.6. Practice - Transferring Files with Windows Hosts 17.3.5. Practice - Antivirus Evasion
	<b>Lab exercises to complete</b>	10.11.1.251 - Sean 10.11.1.146 - Susie + 3 PWK Lab Machines



<b>Week 14: Privilege Escalation (Linux, Windows)</b>	<b>Learning objectives</b>	1) Learn privilege escalation techniques to elevate privileges on Windows and Linux-based targets from non-privileged user accounts.
	<b>Learning time (Hours)</b>	18
	<b>Office Hours</b>	Monday, September 19 -12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, September 21 - 12 pm - 1 pm (ET): Privilege Escalation (Linux, Windows)
	<b>OffSec Live Weekly Demo</b>	Friday, September 23 - 12 pm - 1 pm (ET): PG Play - Funbox
	<b>Readings: Topic in LMS</b>	Privilege Escalation: 18.1 - 18.4
	<b>Watch: Videos in LMS</b>	Privilege Escalation: 17.1 - 17.3
	<b>Topic exercises to complete</b>	18.1.2. Practice - Manual Enumeration 18.1.4. Practice - Automated Enumeration 18.2.4. Practice - User Account Control (UAC) Bypass: fodhelper.exe Case Study 18.2.6. Practice - Insecure File Permissions: Serviio Case Study 18.3.3. Practice - Insecure File Permissions: Cron Case Study 18.3.5. Practice - Insecure File Permissions: /etc/passwd Case Study
	<b>Lab exercises to complete</b>	10.11.1.13 - Disco + 3 PWK Lab Machines

<b>Week 15: Windows Privilege Escalation Vectors</b>	<b>Learning objectives</b>	1) Learn privilege escalation techniques to elevate privileges on Windows and Linux-based targets from non-privileged user accounts.
	<b>Learning time (Hours)</b>	20
	<b>Office Hours</b>	Monday, September 26 - 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, September 28 - 12 pm - 1 pm (ET): Windows Privilege Escalation Vectors
	<b>OffSec Live Weekly Demo</b>	Friday, September 30 - 1 pm - 2 pm (ET): PG Practice - Spaghetti
	<b>Readings: Topic in LMS</b>	None
	<b>Watch: Videos in LMS</b>	None
	<b>Topic exercises to complete</b>	None
	<b>Lab exercises to complete</b>	3 PWK Lab Machines

<b>Week 16: Password Attacks</b>	<b>Learning objectives</b>	1) Learn how to leverage password attacks to gain access to a Windows-based target.
	<b>Learning time (Hours)</b>	20
	<b>Office Hours</b>	Monday, October 3 - 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, October 5 - 12 pm - 1 pm (ET): Password Attacks
	<b>OffSec Live Weekly Demo</b>	Friday, October 7 - 12 pm - 1 pm (ET): PG Play - FowSniff
	<b>Readings: Topic in LMS</b>	Password Attacks: 19.1 - 19.5
	<b>Watch: Videos in LMS</b>	Password Attacks: 18.1 - 18.4
	<b>Topic exercises to complete</b>	19.2.1. Practice - Brute Force Wordlists 19.3.2. Practice - HTTP htaccess Attack with Medusa 19.3.4. Practice - Remote Desktop Protocol Attack with Crowbar 19.3.6. Practice - SSH Attack with THC-Hydra 19.3.8. Practice - HTTP POST Attack with THC-Hydra 19.4.2. Practice - Retrieving Password Hashes 19.4.4. Practice - Passing the Hash in Windows 19.4.6. Practice - Password Cracking
	<b>Lab exercises to complete</b>	10.11.1.123 - xor-app59 + 4 PWK Lab Machines

<b>Week 17 : Port Redirection and Tunneling</b>	<b>Learning objectives</b>	1) Understand various forms of port redirection, tunneling, and traffic encapsulation. 2) Manipulate the directional flow of targeted traffic in restricted network environments.
	<b>Learning time (Hours)</b>	20
	<b>Office Hours</b>	Monday, October 10 - 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, October 12 - 12 pm - 1 pm (ET): Port Redirection and Tunneling
	<b>OffSec Live Weekly Demo</b>	Friday, October 14 - 12 pm - 1 pm (ET): PG Practice - Nukem
	<b>Readings: Topic in LMS</b>	Port Redirection and Tunneling: 20.1 - 20.6
	<b>Watch: Videos in LMS</b>	Port Redirection and Tunneling: 19.1 - 19.5
	<b>Topic exercises to complete</b>	20.1.2. Practice - Port Forwarding 20.2.6. Practice - SSH Dynamic Port Forwarding 20.3.1. Practice - PLINK.exe 20.4.1. Practice - NETSH 20.5.1. Practice - HTTP Tunnel-ing Through Deep Packet Inspection
	<b>Lab exercises to complete</b>	4 PWK Lab Machines

<b>Week 18 : Active Directory Attacks (Part 1)</b>	<b>Learning objectives</b>	1) Learn the basic concepts of Active Directory. 2) Demonstrate Active Directory enumeration, authentication, and lateral movement techniques.
	<b>Learning time (Hours)</b>	20
	<b>Office Hours</b>	Monday, October 17 - 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, October 19 - 12 pm - 1 pm: Active Directory Attacks (Part 1)
	<b>OffSec Live Weekly Demo</b>	Friday, October 21 - 12 pm - 1 pm (ET): TBD
	<b>Readings: Topic in LMS</b>	Active Directory Attacks: 21.1 - 21.6
	<b>Watch: Videos in LMS</b>	Active Directory Attacks: 20.1 - 20.5
	<b>Topic exercises to complete</b>	21.2.2. Practice - Traditional Approach 21.2.4. Practice - A Modern Approach 21.2.6. Practice - Resolving Nested Groups 21.2.8. Practice - Currently Logged on Users 21.2.10. Practice - Enumeration Through Service Principal Names 21.3.4. Practice - Cached Credential Storage and Retrieval 21.4.3. Practice - Overpass the Hash 21.4.5. Practice - Pass the Ticket 21.4.7. Practice - Distributed Component Object Model 21.5.4. Practice - Active Directory Attacks
	<b>Lab exercises to complete</b>	4 PWK Lab Machines

<b>Week 19: Active Directory Attacks (Part 2)</b>	<b>Learning objectives</b>	1) Learn the basic concepts of Active Directory 2) Demonstrate Active Directory enumeration, authentication, and lateral movement techniques.
	<b>Learning time (Hours)</b>	20
	<b>Office Hours</b>	Monday, October 24 - 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, October 26 - 12 pm - 1 pm (ET): Active Directory Attacks (Part 2)
	<b>OffSec Live Weekly Demo</b>	Friday, October 28 - 12 pm - 1 pm (ET): TBD
	<b>Readings: Topic in LMS</b>	None
	<b>Watch: Videos in LMS</b>	None
	<b>Topic exercises to complete</b>	None
	<b>Lab exercises to complete</b>	4 PWK Lab Machines

<b>Week 20: Assembling the pieces</b>	<b>Learning objectives:</b>	1) Conduct a simulated penetration test inspired by real-world findings.
	<b>Learning time (Hours)</b>	20
	<b>Office Hours</b>	Monday, October 31 - 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, November 2 - 12 pm - 1 pm (ET): Assembling the pieces
	<b>OffSec Live Weekly Demo</b>	Friday, November 4 - 12 pm - 1 pm (ET): TBD
	<b>Readings: Topic in LMS</b>	Assembling the pieces: 24.1 - 24.10
	<b>Watch: Videos in LMS</b>	Assembling the pieces: 23.1 - 23.9
	<b>Topic exercises to complete</b>	None
	<b>Lab exercises to complete</b>	4 PWK Lab Machines

<b>Week 21:</b>	<b>Learning objectives:</b>	1) Practice concepts with PWK Lab machines/Challenge Labs.
	<b>Learning time (Hours)</b>	20
	<b>Office Hours</b>	Monday, November 7 - 12 pm - 1 pm (ET)
	<b>OffSec Live Weekly Demo</b>	Wednesday, November 9 - 12 pm - 1 pm (ET): Discussion on cybersecurity careers
	<b>OffSec Live Weekly Demo</b>	Friday, November 11: None
	<b>Readings: Topic in LMS</b>	None
	<b>Watch: Videos in LMS</b>	None
	<b>Topic exercises to complete</b>	None
	<b>Lab exercises to complete</b>	5 PWK Lab Machines



<b>Week 22</b>	<b>Learning objectives:</b>	1) Practice concepts with PWK Lab machines/Challenge Labs.
	<b>Learning time (Hours)</b>	20
	<b>Office Hours</b>	Monday, November 14: None
	<b>OffSec Live Weekly Demo</b>	Wednesday, November 16 - 12 pm - 1 pm (ET): How to prepare for the OSCP exam
	<b>OffSec Live Weekly Demo</b>	Friday, November 18: None
	<b>Readings: Topic in LMS</b>	None
	<b>Watch: Videos in LMS</b>	None
	<b>Topic exercises to complete</b>	None
	<b>Lab exercises to complete</b>	5 PWK Lab Machines

<b>Week 23</b>	<b>Learning objectives:</b>	1) Practice concepts with PWK Lab machines/Challenge Labs.
	<b>Learning time (Hours)</b>	20
	<b>Office Hours</b>	Monday, November 21: None
	<b>OffSec Live Weekly Demo</b>	Wednesday, November 23: None
	<b>OffSec Live Weekly Demo</b>	Friday, November 25: None
	<b>Readings: Topic in LMS</b>	None
	<b>Watch: Videos in LMS</b>	None
	<b>Topic exercises to complete</b>	None
	<b>Lab exercises to complete</b>	5 PWK Lab Machines

<b>Week 24</b>	<b>Learning objectives:</b>	1) Practice concepts with PWK Lab machines/Challenge Labs.
	<b>Learning time (Hours)</b>	20
	<b>Office Hours</b>	Monday, November 28: None
	<b>OffSec Live Weekly Demo</b>	Wednesday, November 30 12 pm - 1 pm (ET): AMA Session - Morten, Sicko and Jeremy
	<b>OffSec Live Weekly Demo</b>	Friday, December 2: None
	<b>Readings: Topic in LMS</b>	None
	<b>Watch: Videos in LMS</b>	None
	<b>Topic exercises to complete</b>	None
	<b>Lab exercises to complete</b>	5 PWK Lab Machines

<b>Week 25</b>	<b>Learning objectives:</b>	1) Attempt the Mock Exam.
	<b>Learning time (Hours)</b>	20
	<b>Office Hours</b>	Monday, December 5: None
	<b>OffSec Live Weekly Demo</b>	Wednesday, December 7: None
	<b>OffSec Live Weekly Demo</b>	Friday, December 9: None
	<b>Readings: Topic in LMS</b>	None
	<b>Watch: Videos in LMS</b>	None
	<b>Topic exercises to complete</b>	None
	<b>Lab exercises to complete</b>	5 PWK Lab Machines