

# uCertify

## Course Outline

### CompTIA PenTest+ (PT0-001)



07 May 2024

1. Course Objective
2. Pre-Assessment
3. Exercises, Quizzes, Flashcards & Glossary  
Number of Questions
4. Expert Instructor-Led Training
5. ADA Compliant & JAWS Compatible Platform
6. State of the Art Educator Tools
7. Award Winning Learning Platform (LMS)
8. Chapter & Lessons

Syllabus

Chapter 1: Introduction

Chapter 2: Introduction to Ethical Hacking and Penetration Testing

Chapter 3: Planning and Scoping a Penetration Testing Assessment

Chapter 4: Information Gathering and Vulnerability Identification

Chapter 5: Social Engineering Attacks

Chapter 6: Exploiting Wired and Wireless Networks

Chapter 7: Exploiting Application-Based Vulnerabilities

Chapter 8: Exploiting Local Host and Physical Security Vulnerabilities

Chapter 9: Performing Post-Exploitation Techniques

Chapter 10: Penetration Testing Tools

Chapter 11: Understanding How to Finalize a Penetration Test

Chapter 12: Appendix: Video Tutorials

Videos and How To

9. Practice Test

Here's what you get

Features

10. Live labs

Lab Tasks

Here's what you get

11. Post-Assessment

## 1. Course Objective

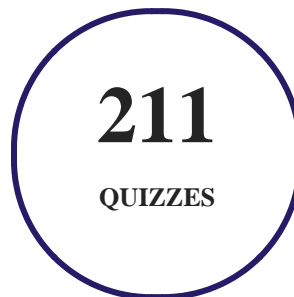
Get certified for the CompTIA PenTest+ certification exam with the CompTIA PenTest+ PT0-001 Course and Lab. The lab provides a hands-on learning experience in a safe and online environment. The CompTIA PenTest+ study guide covers the PT0-001 exam objectives and imparts skills on penetration testing topics such as planning and scoping a penetration testing assessment, exploiting wired and wireless networks, performing post-exploitation techniques, and more.

## 2. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

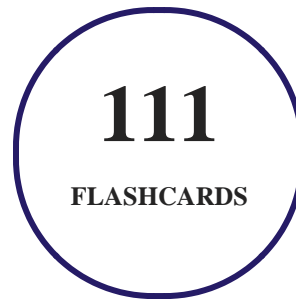
## 3. Quizzes

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.



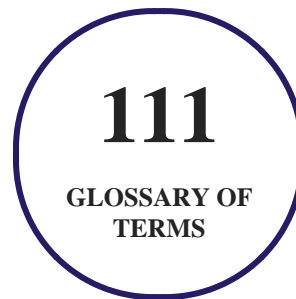
## 4. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.



## 5. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.



## 6. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

## 7. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

## 8. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

## 9. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**
  1. Best Postsecondary Learning Solution
- **2015**
  1. Best Education Solution

2. Best Virtual Learning Solution
3. Best Student Assessment Solution
4. Best Postsecondary Learning Solution
5. Best Career and Workforce Readiness Solution
6. Best Instructional Solution in Other Curriculum Areas
7. Best Corporate Learning/Workforce Development Solution

- **2016**

1. Best Virtual Learning Solution
2. Best Education Cloud-based Solution
3. Best College and Career Readiness Solution
4. Best Corporate / Workforce Learning Solution
5. Best Postsecondary Learning Content Solution
6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

- **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**

1. Best Higher Education LMS or Learning Platform
2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**

1. Best Virtual Learning Solution
2. Best Content Authoring Development or Curation Solution
3. Best Higher Education Learning Management Solution (LMS)

- **2020**

1. Best College and Career Readiness Solution
2. Best Cross-Curricular Solution
3. Best Virtual Learning Solution

## 10. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

### Syllabus

#### Chapter 1: Introduction

#### Chapter 2: Introduction to Ethical Hacking and Penetration Testing

- Understanding Ethical Hacking and Penetration Testing
- Understanding the Current Threat Landscape
- Exploring Penetration Testing Methodologies
- Building Your Own Lab
- Review All Key Topics

#### Chapter 3: Planning and Scoping a Penetration Testing Assessment



- Explaining the Importance of the Planning and Preparation Phase
- Understanding the Legal Concepts of Penetration Testing
- Learning How to Scope a Penetration Testing Engagement Properly
- Learning the Key Aspects of Compliance-Based Assessments
- Review All Key Topics

## Chapter 4: Information Gathering and Vulnerability Identification

- Understanding Information Gathering and Reconnaissance
- Understanding the Art of Performing Vulnerability Scans
- Understanding How to Analyze Vulnerability Scan Results
- Review All Key Topics

## Chapter 5: Social Engineering Attacks

- Understanding Social Engineering Attacks
- Phishing
- Pharming
- Malvertising
- Spear Phishing

- SMS Phishing
- Voice Phishing
- Whaling
- Elicitation, Interrogation, and Impersonation (Pretexting)
- Social Engineering Motivation Techniques
- Shoulder Surfing
- USB Key Drop and Social Engineering
- Review All Key Topics

## Chapter 6: Exploiting Wired and Wireless Networks

- Exploiting Network-Based Vulnerabilities
- Exploiting Wireless and RF-Based Attacks and Vulnerabilities
- Review All Key Topics

## Chapter 7: Exploiting Application-Based Vulnerabilities

- Overview of Web Applications for Security Professionals
- How to Build Your Own Web Application Lab
- Understanding Injection-Based Vulnerabilities
- Exploiting Authentication-Based Vulnerabilities

- Exploiting Authorization-Based Vulnerabilities
- Understanding Cross-Site Scripting (XSS) Vulnerabilities
- Understanding Cross-Site Request Forgery Attacks
- Understanding Clickjacking
- Exploiting Security Misconfigurations
- Exploiting File Inclusion Vulnerabilities
- Exploiting Insecure Code Practices
- Review All Key Topics

## Chapter 8: Exploiting Local Host and Physical Security Vulnerabilities

- Exploiting Local Host Vulnerabilities
- Understanding Physical Security Attacks
- Review All Key Topics

## Chapter 9: Performing Post-Exploitation Techniques

- Maintaining Persistence After Compromising a System
- Understanding How to Perform Lateral Movement
- Understanding How to Cover Your Tracks and Clean Up Systems After a Penetration Testing Engagement

- Review All Key Topics

## Chapter 10: Penetration Testing Tools

- Understanding the Different Use Cases of Penetration Testing Tools and How to Analyze Their Output
- Leveraging Bash, Python, Ruby, and PowerShell in Penetration Testing Engagements
- Review All Key Topics

## Chapter 11: Understanding How to Finalize a Penetration Test

- Explaining Post-Engagement Activities
- Surveying Report Writing Best Practices
- Understanding Report Handling and Communications Best Practices
- Review All Key Topics

## Chapter 12: Appendix: Video Tutorials

### Videos and How To

uCertify course includes videos to help understand concepts. It also includes How Tos that help learners in accomplishing certain tasks.

**192**

VIDEOS

**07:26**

HOURS

## 11. Practice Test

**Here's what you get**

**84**

PRE-ASSESSMENTS  
QUESTIONS

**2**

FULL LENGTH TESTS

**85**

POST-ASSESSMENTS  
QUESTIONS

## Features

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

### Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

## 12. Live Labs

The benefits of live-labs are:

- Exam based practical tasks
- Real equipment, absolutely no simulations
- Access to the latest industry technologies
- Available anytime, anywhere on any device
- Break and Reset functionality
- No hardware costs

### Lab Tasks

#### Information Gathering and Vulnerability Identification

- Using dnsrecon to Perform Enumeration
- Performing Nmap SYN Scan
- Performing a UDP Scan Using Nmap
- Performing Nmap FIN Scan
- Using Nmap for Host Enumeration
- Using Nmap for User Enumeration
- Using Nmap for Network Share Enumeration
- Using Nmap to Perform recon
- Using Nmap for Web Application Enumeration
- Using Nmap for Network Enumeration
- Performing Domain Enumeration
- Using DNSdumpster
- Using Recon-ng to Gather Information
- Performing Zone Transfer Using dig
- Performing Automated Vulnerability Scanning

## **Social Engineering Attacks**

- Using the SET Tool

## **Exploiting Wired and Wireless Networks**

- Exploiting SMB
- Exploiting SNMP
- Exploiting SMTP
- Understanding the Pass-the-hash Attack
- Searching Exploits Using searchsploit
- Performing ARP Spoofing
- Performing the Man-in-the-Middle Attack
- Performing DHCP Starvation Attack
- Understanding MAC Bypass
- Simulating DDoS Attack
- Using the EternalBlue Exploit in Metasploit

## **Exploiting Application-Based Vulnerabilities**

- Exploiting SQL Injection Vulnerabilities
- Exploiting Blind SQL Injection Vulnerabilities
- Exploit PHP Object Injection
- Exploiting the Stored (Persistent) XSS Attack
- Exploiting the DOM-Based XSS Attack
- Exploiting the Reflected XSS Attack
- Exploiting the Cross-site Request Forgery (CSRF or XSRF) Attacks
- Exploiting Command Injection Vulnerabilities
- Understanding Credential based Brute-force Attack
- Performing Session Hijacking
- Exploiting Local File Inclusion Vulnerabilities
- Exploiting Remote File Inclusion Vulnerabilities
- Understanding SUID or SGID and Unix Program

## **Exploiting Local Host and Physical Security Vulnerabilities**

- Understanding Local Privilege Escalation
- Exploiting SAM Database
- Using Apktool to Decode and Analyze apk File

### **Performing Post-Exploitation Techniques**

- Creating Reverse and Bind Shells using Netcat
- Using the Metasploit RDP Post-Exploitation Module

### **Penetration Testing Tools**

- Using nslookup
- Using Dig for Passive Reconnaissance
- Using ExifTool
- Using the theHarvester Tool
- Using Nikto
- Using OWASP ZAP
- Using meterpreter
- Using Bash for Penetration Testing
- Using Python for Penetration Testing
- Using PowerShell for Penetration Testing
- Using Maltego to Gather Information
- Using the Zenmap Tool
- Using OpenVAS

### **Understanding How to Finalize a Penetration Test**

- Using the Dradis Framework CE on Kali Linux
- Studying the Communication Plan and the Main Elements of a Pen Test Report

**Here's what you get**



**60**

LIVE LABS

**60**

VIDEO TUTORIALS

**56**

MINUTES

### 13. Post-Assessment

After completion of the uCertify course Post-Assessments are given to students and often used in conjunction with a Pre-Assessment to measure their achievement and the effectiveness of the exam.

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