

uCertify

Course Outline

**Pentester Guide: Learn, Practice, and Pass PenTest+
PT0-003**



30 Oct 2025

1. Pre-Assessment
2. Exercises, Quizzes, Flashcards & Glossary
 - Number of Questions
3. Expert Instructor-Led Training
4. ADA Compliant & JAWS Compatible Platform
5. State of the Art Educator Tools
6. Award Winning Learning Platform (LMS)
7. Chapter & Lessons
 - Syllabus
 - Chapter 1: Introduction
 - Chapter 2: Penetration Testing
 - Chapter 3: Planning and Scoping Penetration Tests
 - Chapter 4: Information Gathering
 - Chapter 5: Vulnerability Scanning
 - Chapter 6: Analyzing Vulnerability Scans
 - Chapter 7: Exploit and Pivot
 - Chapter 8: Exploiting Network Vulnerabilities
 - Chapter 9: Exploiting Physical and Social Vulnerabilities
 - Chapter 10: Exploiting Application Vulnerabilities
 - Chapter 11: Exploiting Host Vulnerabilities
 - Chapter 12: Reporting and Communication
 - Chapter 13: Scripting for Penetration Testing
- Videos and How To
8. Practice Test
 - Here's what you get
 - Features
9. Live labs
 - Lab Tasks

Here's what you get

10. Post-Assessment

1. 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.

2. Exercises

There is no limit to the number of times learners can attempt these. Exercises come with detailed remediation, which ensures that learners are confident on the topic before proceeding.

473
EXERCISES

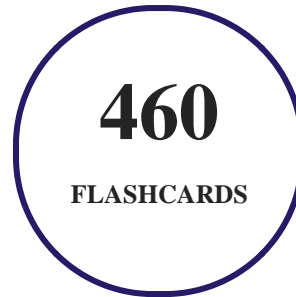
3. Quiz

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.

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QUIZ

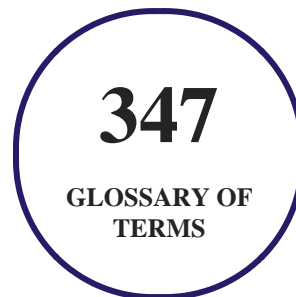
4. flashcards

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

- CompTIA
- The PenTest+ Exam
- What Does This Course Cover?
- CompTIA PenTest+ Certification Exam Objectives

Chapter 2: Penetration Testing

- What Is Penetration Testing?
- Reasons for Penetration Testing

- Who Performs Penetration Tests?
- The CompTIA Penetration Testing Process
- The Cyber Kill Chain
- Tools of the Trade
- Summary
- Exam Essentials
- Lab Exercises

Chapter 3: Planning and Scoping Penetration Tests

- Summarizing Pre-engagement Activities
- Shared Responsibility Model
- Key Legal Concepts for Penetration Tests
- Regulatory Compliance Considerations
- Penetration Testing Standards and Methodologies
- Threat Modeling Frameworks
- Summary
- Exam Essentials
- Lab Exercises

Chapter 4: Information Gathering

- Reconnaissance and Enumeration
- Active Reconnaissance and Enumeration
- Summary
- Exam Essentials
- Lab Exercises

Chapter 5: Vulnerability Scanning

- Identifying Vulnerability Management Requirements
- Configuring and Executing Vulnerability Scans
- Software Security Testing
- Developing a Remediation Workflow
- Overcoming Barriers to Vulnerability Scanning
- Summary
- Exam Essentials
- Lab Exercises

Chapter 6: Analyzing Vulnerability Scans

- Reviewing and Interpreting Scan Reports
- Validating Scan Results
- Common Vulnerabilities
- Summary
- Exam Essentials
- Lab Exercises

Chapter 7: Exploit and Pivot

- Exploits and Attacks
- Pivoting and Lateral Movement
- Exploitation Toolkits and Tools
- Exploit Specifics
- Leveraging Exploits
- Persistence and Evasion
- Covering Your Tracks
- Summary
- Exam Essentials
- Lab Exercises

Chapter 8: Exploiting Network Vulnerabilities

- Identifying Exploits
- Conducting Network Exploits
- Exploiting Windows Services
- Identifying and Exploiting Common Services
- Wireless Exploits
- Summary
- Exam Essentials
- Lab Exercises

Chapter 9: Exploiting Physical and Social Vulnerabilities

- Exploiting Physical Vulnerabilities
- Exploiting Social Vulnerabilities
- Summary
- Exam Essentials
- Lab Exercises

Chapter 10: Exploiting Application Vulnerabilities

- Exploiting Injection Vulnerabilities
- Exploiting Authentication Vulnerabilities
- Exploiting Authorization Vulnerabilities
- Exploiting Web Application Vulnerabilities
- Unsecure Coding Practices
- Application Testing Tools
- Summary
- Exam Essentials
- Lab Exercises

Chapter 11: Exploiting Host Vulnerabilities

- Attacking Hosts
- Credential Attacks and Testing Tools
- Remote Access
- Attacking Virtual Machines and Containers
- Attacking Cloud Technologies
- Attacking Mobile Devices
- Attacking Artificial Intelligence (AI)

- Attacking IoT, ICS, Embedded Systems, and SCADA Devices
- Attacking Data Storage
- Summary
- Exam Essentials
- Lab Exercises

Chapter 12: Reporting and Communication

- The Importance of Collaboration and Communication
- Recommending Mitigation Strategies
- Writing a Penetration Testing Report
- Wrapping Up the Engagement
- Summary
- Exam Essentials
- Lab Exercises

Chapter 13: Scripting for Penetration Testing

- Scripting and Penetration Testing
- Variables, Arrays, and Substitutions

- Comparison Operations
- String Operations
- Flow Control
- Input and Output (I/O)
- Error Handling
- Reusing Code
- The Role of Coding in Penetration Testing
- Summary
- Exam Essentials
- Lab Exercises

Videos and How To

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

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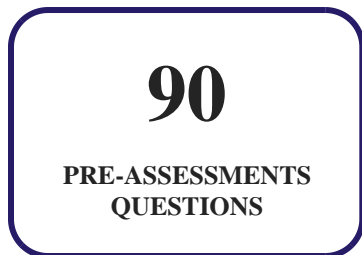
VIDEOS

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HOURS

11. Practice Test

Here's what you get



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

- Performing Zone Transfer Using dig
- Using the dig and nslookup Commands
- Using Maltego to Gather Information
- Performing UDP and SYN Scans Using Nmap
- Using Nmap for Network and User Enumeration
- Using Recon-ng to Gather Information
- Performing Reconnaissance on a Network
- Capturing Network Packets Using TCPDump

Vulnerability Scanning

- Consulting a Vulnerability Database
- Performing Vulnerability Scanning Using OpenVAS
- Conducting Vulnerability Scanning Using Nessus

Analyzing Vulnerability Scans

- Analyzing CVSS Scores

Exploit and Pivot

- Examining MITRE ATT&CK
- Using Meterpreter to Display the System Information
- Exploiting SMB
- Running Scheduled Tasks Through cron
- Understanding Local Privilege Escalation
- Hiding Text Using Steganography

Exploiting Network Vulnerabilities

- Simulating the DDoS Attack
- Performing ARP Spoofing
- Using the EternalBlue Exploit in Metasploit
- Exploiting SMTP
- Exploiting SNMP

Exploiting Physical and Social Vulnerabilities

- Identifying Access Badge Areas
- Using SET to Plan an Attack
- Using BeEF

Exploiting Application Vulnerabilities

- Exploiting Command Injection Vulnerabilities
- Exploiting a Website Using SQL Injection
- Performing Session Hijacking Using Burp Suite
- Exploiting LFI and RFI Vulnerabilities
- Conducting an XSS Attack
- Conducting a CSRF Attack
- Using OWASP ZAP

Exploiting Host Vulnerabilities

- Performing Scans in Zenmap
- Understanding the Pass-the-Hash Attack
- Cracking Passwords Using Cain and Abel
- Cracking Linux Passwords Using John the Ripper
- Creating Reverse and Bind Shells Using Netcat

Reporting and Communication

- Implementing Physical Security

Scripting for Penetration Testing

- Finding Live Hosts by Using the Ping Sweep in Python
- Writing a Bash Shell Script
- Performing the Nmap Scan in Python
- Performing Reverse DNS Lookups in Python

Here's what you get

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LIVE LABS

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VIDEO TUTORIALS

01:55

HOURS

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.

You can't stay away! Get

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