

Official CompTIA learning resources  
for Instructor-Led Training:

# CompTIA PenTest+

Official CompTIA learning resources for Instructor-Led Training are designed with the instructor in mind, providing insights and tools for successfully training learners pursuing their CompTIA PenTest+ certification.

## OVERVIEW

**The Official CompTIA PenTest+ Guides (Exam PTO-001)** are designed for cybersecurity practitioners who want to develop penetration testing skills to enable them to identify information-system vulnerabilities and effective remediation techniques for those vulnerabilities. These materials focus on the knowledge, ability, and skills necessary to perform tasks on systems as well as management skills used to plan, scope, and manage weaknesses, not just exploit them, as well as prepare candidates to take the CompTIA PenTest+ certification exam.

### OFFICIAL LEARNING RESOURCES

- The Official CompTIA PenTest+ Instructor Guide (Exam PTO-001)
- The Official CompTIA PenTest+ Student Guide (Exam PTO-001)
- CompTIA Learning Center – Digital Learning Platform – included with purchase of print and eBook
- CompTIA PenTest+ (Exam PTO-001) CompTIA Labs
- CompTIA CertMaster Practice for PenTest+ (Exam PTO-001)

## WHY ARE OFFICIAL COMPTIA LEARNING RESOURCES DIFFERENT?

- **For Exam Takers by the Exam Developer** - Official CompTIA learning resources are the only study material exclusively developed by CompTIA for the CompTIA certification candidate.
- **Developed with the instructor in mind** - Official CompTIA learning resource's focus on instruction are unique, providing instructors ease and flexibility to teach to any audience within any modality.
- **Complete Library** - No other content library covers all exam objectives for all certifications. It provides complete breadth, depth and currency of material unavailable with competitors.

## KEY FEATURES AND BENEFITS

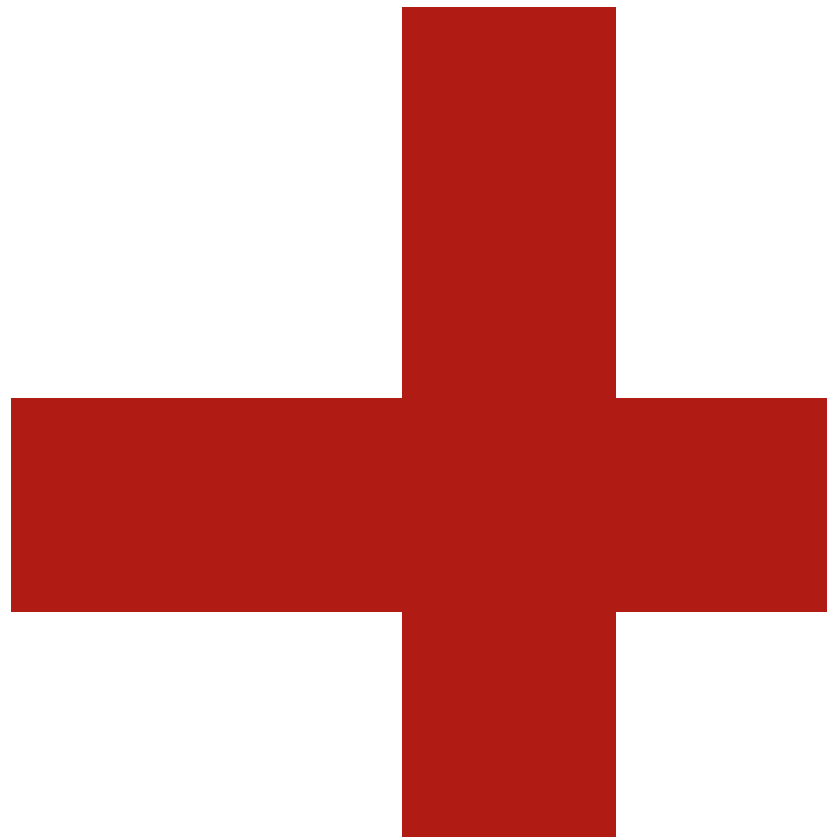
- **Designed and Class-tested for Instructor-Led Training** using proven instructional design. Topics are presented in a hierarchy that offers knowledge, procedural tasks and hand-on activities that require students put knowledge into practice. This approach keeps student engaged and ensures success.
- **Focused on job roles and 100% coverage of exam objectives** means learning resources are practical, based on real performance scenarios. In addition, learning resources are aligned to certification exam objectives.
- **Active Learning** is integrated with one activity per topic designed to enable students to practice guidelines and procedures as well as solidify understanding of the informational material presented in the course.
- **Flexible and customizable based on course format** whether the course is co-located or remote, synchronous or asynchronous. Class resources can be easily configured based on modality.

## LABS

CompTIA Labs, hosted by Learn on Demand Systems, allow students to learn in actual software applications through a remote lab environment. Labs allow students to practice what they are learning using real, hands-on experiences. Students have access to the software environment for 180 days after a CompTIA Labs access key is redeemed, providing a post-class resource for students to practice their skills.

## EXAM PREP OPTION

CertMaster Practice is an online assessment and remediation tool designed to help students feel more confident and prepared for their CompTIA exam.



## ENHANCED LEARNING RESOURCES

The Official CompTIA PenTest+ Guides include the accompanying resources:

Comprehensive <b>INSTRUCTOR</b> resources ensure successful course delivery by providing:	Comprehensive <b>STUDENT</b> resources engage students by providing:
<ul style="list-style-type: none"><li>• <b>Course-specific delivery tips</b> provide the instructor with additional insights to deliver the course successfully</li><li>• <b>Facilitator notes</b> in instructor guide</li><li>• <b>Solutions</b> to activities and discussions</li><li>• <b>PowerPoint slides:</b> A complete set of slides to facilitate the class including lists, tables, diagrams, illustrations, annotated screens and activity summaries</li><li>• <b>Presentation Planners</b> help plan and schedule courses based on different course lengths</li><li>• <b>Solutions:</b> Instructors have solutions to Activities and Discussion Questions embedded within the Instructor Guide.</li></ul>	<ul style="list-style-type: none"><li>• <b>eBook:</b> An interactive online version of the book, along with secure PDF and downloadable versions</li><li>• <b>Files:</b> Any course files available to download</li><li>• <b>Videos:</b> Brief videos, developed exclusively for CompTIA by ITProTV, provide demonstrations of key activities in the course</li><li>• <b>Assessment:</b> A series of different assessments for each lesson as well an overall self-assessment</li><li>• <b>PowerPoint slides</b></li><li>• <b>Solutions</b> to activities and discussions</li><li>• <b>Strengths and Weaknesses Dashboard:</b> Students assessments results are aggregated in the Strengths and Weaknesses dashboard to provide an indicator of their overall performance in the course.</li></ul>

## COURSE OVERVIEW

As organizations scramble to protect themselves and their customers against privacy or security breaches, the ability to conduct penetration testing is an emerging skill set that is becoming ever more valuable to the organizations seeking protection, and ever more lucrative for those who possess these skills. In this course, you will be introduced to general concepts and methodologies related to pen testing, and you will work your way through a simulated pen test for a fictitious company.

This course will assist you if you are pursuing the CompTIA PenTest+ certification, as tested in exam PTO-001.

## JOB ROLES

- Penetration Tester
- Vulnerability Tester
- Security Analyst (II)
- Vulnerability Assessment Analyst
- Network Security Operations
- Application Security Vulnerability



## PREREQUISITES

To ensure your success in this course, you should have:

- Intermediate knowledge of information security concepts, including but not limited to identity and access management (IAM), cryptographic concepts and implementations, computer networking concepts and implementations, and common security technologies.
- Practical experience in securing various computing environments, including small to medium businesses, as well as enterprise environments.

You can obtain this level of skills and knowledge by taking the official CompTIA® Security+® (Exam SY0-501) course or by obtaining the appropriate industry certification.

## TABLE OF CONTENTS

<b>Lesson 1: Planning and Scoping Penetration Tests</b> Topic A: Introduction to Penetration Testing Concepts Topic B: Plan a Pen Test Engagement Topic C: Scope and Negotiate a Pen Test Engagement Topic D: Prepare for a Pen Test Engagement	<b>Lesson 2: Conducting Passive Reconnaissance</b> Topic A: Gather Background Information Topic B: Prepare Background Findings for Next Steps	<b>Lesson 3: Performing Non-Technical Tests</b> Topic A: Perform Social Engineering Tests Topic B: Perform Physical Security Tests on Facilities
<b>Lesson 4: Conducting Active Reconnaissance</b> Topic A: Scan Networks Topic B: Enumerate Targets Topic C: Scan for Vulnerabilities Topic D: Analyze Basic Scripts	<b>Lesson 5: Analyzing Vulnerabilities</b> Topic A: Analyze Vulnerability Scan Results Topic B: Leverage Information to Prepare for Exploitation	<b>Lesson 6: Penetrating Networks</b> Topic A: Exploit Network-Based Vulnerabilities Topic B: Exploit Wireless and RF-Based Vulnerabilities Topic C: Exploit Specialized Systems
<b>Lesson 7: Exploiting Host-Based Vulnerabilities</b> Topic A: Exploit Windows-Based Vulnerabilities Topic B: Exploit *Nix-Based Vulnerabilities	<b>Lesson 8: Testing Applications</b> Topic A: Exploit Web Application Vulnerabilities Topic B: Test Source Code and Compiled Apps	<b>Lesson 9: Completing Post-Exploit Tasks</b> Topic A: Use Lateral Movement Techniques Topic B: Use Persistence Techniques Topic C: Use Anti-Forensics Techniques
<b>Lesson 10: Analyzing and Reporting Pen Test Results</b> Topic A: Analyze Pen Test Data Topic B: Develop Recommendations for Mitigation Strategies Topic C: Write and Handle Reports Topic D: Conduct Post-Report-Delivery Activities		

## PURCHASE EVERYTHING IN ONE PLACE

Official CompTIA learning resources are available on the CompTIA Store at <https://store.comptia.org/>, which means partners will be able to obtain Official CompTIA learning resources, CompTIA CertMaster products and exam vouchers all in one place. Please contact your CompTIA business development representative for more information.

