

## **SYLLABUS**

### **GENERAL INFORMATION**

Course Title:	CompTIA PenTest+
Code:	PT0-002
Contact Hours:	40
Academic Term:	TBA

### **COURSE DESCRIPTION**

The CompTIA PenTest+ course is an advanced program tailored to train individuals in the practices of systematic penetration testing and vulnerability assessment. This course equips participants with the skills necessary to conduct hands-on penetration testing to identify, exploit, report, and manage vulnerabilities on a network. Upon completion, students will be able to perform penetration tests using a comprehensive and repeatable process and prepare for the CompTIA PenTest+ certification exam, globally recognized as a standard of excellence in the field of penetration testing. This course is ideal for cybersecurity professionals, system and network analysts, and anyone interested in enhancing their knowledge of security through offensive measures.

### **GENERAL OBJECTIVES**

Throughout the course, students will engage in both theoretical learning and practical exercises that cover a broad range of topics related to ethical hacking and penetration testing. The curriculum includes:

- **Ethical Hacking Fundamentals:** Understand ethical hacking principles, the penetration testing process, and legal compliance.
- **Planning and Scoping Penetration Tests:** Learn to plan, scope, and manage vulnerabilities assessments and penetration tests.
- **Information Gathering and Vulnerability Identification:** Techniques for effectively gathering data and identifying system vulnerabilities.
- **Attacks and Exploits:** Execute network, application, and system exploitation techniques to evaluate security weaknesses.
- **Reporting and Communication:** Develop comprehensive reports and communicate findings to enhance the security posture of the organization.

- **Tools and Scripting:** Utilize various tools and scripting languages to automate tasks and improve testing efficiency.

## **COURSE CONTENT**

**Lesson 1: Scoping Organizational/Customer Requirements**

**Lesson 2: Defining the Rules of Engagement**

**Lesson 3: Footprinting and Gathering Intelligence**

**Lesson 4: Evaluating Human and Physical Vulnerabilities**

**Lesson 5: Preparing the Vulnerability Scan**

**Lesson 6: Scanning Logical Vulnerabilities**

**Lesson 7: Analyzing Scanning Results**

**Lesson 8: Avoiding Detection and Covering Tracks**

**Lesson 9: Exploiting the LAN and Cloud**

**Lesson 10: Testing Wireless Networks**

**Lesson 11: Targeting Mobile Devices**

**Lesson 12: Attacking Specialized Systems**

**Lesson 13: Web Application-Based Attacks**

**Lesson 14: Performing System Hacking**

**Lesson 15: Scripting and Software Development**

**Lesson 16: Leveraging the Attack: Pivot and Penetrate**

**Lesson 17: Communicating During the PenTesting Process**

**Lesson 18: Summarizing Report Components**

**Lesson 19: Recommending Remediation**

**Lesson 20: Performing Post-Report Delivery Activities**

## EVALUATION CRITERIA

<b>Criteria</b>	<b>Grade Total</b>
Mid-Term Exam	100
Final Exam	100
Quizzes	100
Assessment	100
Laboratories	100
<b>Total</b>	<b>500</b>

Assignments are due in class on the designated day. Late submissions will incur a penalty of one letter grade per day late, unless previously discussed and approved for extension.

## EDUCATIONAL RESOURCES

Bock, L., Flefel, H., (2021). The Official CompTIA PenTest+ Guide (PT0-002). CompTIA Inc., Downers Grove, Illinois.  
ISBN: 978-1-64274-374-6

## NOTES

**Reasonable Accommodation:** Any student needing accommodation should make a request at the beginning of the course or as soon as possible thereafter.

**Academic Integrity:** Honesty, fraud, plagiarism, and other forms of academic misconduct are violations of the institution's policies and may result in disciplinary action, including suspension or expulsion.