

**uCertify**

# Course Outline

**CompTIA Security+ (SY0-501)**



03 May 2024

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2. Pre-Assessment
3. Exercises, Quizzes, Flashcards & Glossary  
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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  
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Chapter 11: Social Engineering and Other Foes  
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Here's what you get

## Features

### 10. Live labs

#### Lab Tasks

Here's what you get

### 11. Post-Assessment

## 1. Course Objective

We have a course on the latest Security+ exam, please check out the latest [CompTIA Security+ course!](#)

Pass the CompTIA Security+ SY0-501 certification exam in your first attempt with the CompTIA Security+ course and lab. The lab comes with a well-organized component library for every task. The course and lab completely cover the Security+ SY0-501 exam objectives and teach concepts such as threats, attacks, and vulnerabilities; technologies and tools; architecture and design; identity and access management; risk management; cryptography and PKI, 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. 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.



## 4. 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.

**121**

**QUIZZES**

## 5. 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.

**265**

**FLASHCARDS**

## 6. 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.

**265**

**GLOSSARY OF  
TERMS**

## 7. 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.

## 8. 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.

## 9. 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.

## 10. 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

## 11. 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

- Before You Begin the CompTIA Security+ Certification Exam
- Why Become Security+ Certified?
- How to Become a Security+ Certified Professional



- Who Should Read This Book?
- What Does This Book Cover?
- Tips for Taking the Security+ Exam
- Exam SY0-501 Exam Objectives
- SY0-501 Certification Exam Objective Map

## Chapter 2: Managing Risk

- Threat Assessment
- Risk Assessment
- Developing Policies, Standards, and Guidelines
- Summary
- Exam Essentials

## Chapter 3: Monitoring and Diagnosing Networks

- Frameworks, Best Practices, and Configuration Guides
- Secure Network Architecture Concepts
- Secure Systems Design
- Summary

- Exam Essentials

## Chapter 4: Understanding Devices and Infrastructure

- Designing with Security in Mind
- Summary
- Exam Essentials

## Chapter 5: Identity and Access Management

- Using Tools to Assess Your Network
- Troubleshooting Common Security Issues
- Security Technologies
- Identity and Access Management Concepts
- Install and Configure Identity and Access Services
- File and Database Security
- Summary
- Exam Essentials

## Chapter 6: Wireless Network Threats

- Wireless Vulnerabilities to Know

- Wireless Commonsense
- Wireless Attack Analogy
- Summary
- Exam Essentials

## Chapter 7: Securing the Cloud

- Working with Cloud Computing
- Working with Virtualization
- Security and the Cloud
- Summary
- Exam Essentials

## Chapter 8: Host, Data, and Application Security

- Threat Actors and Attributes
- Use of Open Source Intelligence
- Types of Vulnerabilities
- Embedded Systems Security
- Application Vulnerabilities
- Secure Programming

- Other Application Security Issues
- Code Issues
- Summary
- Exam Essentials

## Chapter 9: Cryptography

- An Overview of Cryptography
- Modern Cryptography
- Using Cryptographic Systems
- Understanding Cryptography Standards and Protocols
- Public Key Infrastructure
- Using Public Key Infrastructure
- Authentication
- Summary
- Exam Essentials

## Chapter 10: Threats, Attacks, and Vulnerabilities

- Threat and Attack Terminology

- Living in a World of Viruses
- Malware and Crypto-Malware
- Understanding Various Types of Application/Service Attacks
- Summary
- Exam Essentials

## Chapter 11: Social Engineering and Other Foes

- Understanding Social Engineering
- Understanding Physical Security
- Various Control Types
- Data Security and Privacy Practices
- Summary
- Exam Essentials

## Chapter 12: Security Administration

- Connection Types
- Mobile Devices
- Account Management Concepts
- Summary

- Exam Essentials

## Chapter 13: Disaster Recovery and Incident Response

- Penetration Testing
- Issues Associated with Business Continuity
- Summary
- Exam Essentials

## Chapter 14: Appendix A: 3D Game Simulation

## Chapter 15: Appendix B

- Videos

## Videos and How To

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

**81**

VIDEOS

**20:49**

HOURS

## 12. Practice Test

Here's what you get

**95**

PRE-ASSESSMENTS  
QUESTIONS

**2**

FULL LENGTH TESTS

**90**

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.

## 13. 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

### **Monitoring and Diagnosing Networks**

- Configuring a Perimeter Firewall
- Installing the Web Server IIS Server Role

### **Understanding Devices and Infrastructure**

- Using Network Monitoring
- Configuring Remote Access VPN
- Using Windows Defender

### **Identity and Access Management**

- Detecting a Phishing Site Using Netcraft
- Preventing Zone Transfers
- Viewing Results of Live Hosts
- Verifying Network Services
- Observing Traffic Patterns Using Wireshark
- Analyzing Protocols with Wireshark
- Securing Default Accounts
- Assigning Permissions to Folders
- Managing Windows Firewall
- Configuring Windows Firewall
- Enabling Intrusion Prevention and Detection
- Implementing Data Execution Prevention



- Configuring Kerberos Policy Settings
- Enabling Audit Policies
- Enabling Object Access Auditing
- Configuring Audit Group Policy
- Installing Remote Access Services
- Configuring a Static TCP/IP Address

## **Securing the Cloud**

- Installing and Configuring NLB
- Creating a Virtual Machine
- Importing a Virtual Machine
- Configuring Secondary Virtual Hard Disk
- Creating a Virtual Switch

## **Cryptography**

- Observing MD5 Hash
- Using OpenSSL to Create a Public/Private Key Pair
- Adding a Certificate to MMC
- Configuring SSL Connections
- Configuring the SSL Port Setting
- Using BitLocker in Windows 10

## **Threats, Attacks, and Vulnerabilities**

- Working with Task Manager
- Viewing Running Processes on a Linux-based Machine
- Enabling Debug Logging on the DNS Server
- Simulating a DoS Attack
- Spoofing MAC Address with SMAC
- Performing for ARP Spoofing

## **Security Administration**

- Resetting a Password

- Configuring Group Policy Settings
- Creating a Fine-Grained Password Policy
- Managing Services with Group Policy
- Restricting Local Accounts
- Creating a User Account and Configuring Restrictions
- Configuring Account Policies
- Managing a User Account

#### **Disaster Recovery and Incident Response**

- Running a Security Scan to Identify Vulnerabilities
- Remediating Vulnerabilities on the Local Workstation
- Remediating Vulnerabilities on the Network
- Installing Windows Server Backup
- Creating a Backup Schedule
- Creating a Backup Once

### **Here's what you get**

**54**

LIVE LABS

**55**

VIDEO TUTORIALS

**12:24**

HOURS

## **14. 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.

**GET IN TOUCH:**

**[www.uCertify.com](http://www.uCertify.com)**