uCertify

Course Outline

CompTIA Security SY0-501

25 Apr 2024

1. Course Objective

2. Expert Instructor-Led Training

3. ADA Compliant & JAWS Compatible Platform

4. State of the Art Educator Tools

5. Award Winning Learning Platform (LMS)

6. Live labs

   Lab Tasks

   Here's what you get

1. 📘 Course Objective

Gain hands-on experience in CompTIA Security+ certification exam with CompTIA Security+ SY0-501 performance-based labs. Performance-based labs simulate real-world, hardware, software & command line interface environments and can be mapped to any text-book, course & training. CompTIA Security+ performance-based labs focus on the CompTIA Security+ SY0-501 exam objectives and provide skills and knowledge in the areas such as application of security controls to maintain confidentiality, integrity, and availability; identification of appropriate technologies and products; troubleshooting security events and incidents, and much more.

2. 👥 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.

3. ⊗ 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.

4. 🔧 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.

5. 👨‍🎓 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

6. 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

Introduction to Security

- Using Windows Defender

Computer Systems Security Part I

- Managing Windows Firewall
- Encrypting Files with EFS

Computer Systems Security Part II

- Configuring Windows Firewall
- Using BitLocker in Windows 10

OS Hardening and Virtualization

- Configuring Group Policy Settings
- Managing Services with Group Policy
- Configuring Audit Group Policy
- Creating a Virtual Machine
- Importing a Virtual Machine
- Configuring Secondary Virtual Hard Disk

Application Security

- Configuring Security Setting in Popular Browser
- Dos Attack using Smurf Attack
- Attacking a Website Using XSS Injection
- Cross-Site Request Forgery with low complexity

- Exploiting a Website Using SQL Injection

Network Design Elements

- Installing the Web Server IIS Server Role
- Installing and Configuring NLB
- Creating a Virtual Switch
- Configuring a Perimeter Firewall
- Viewing Results of Live Hosts
- Verifying Network Services
- Enabling Intrusion Prevention and Detection
- Spoofing MAC Address with SMAC
- Clearing the DNS Cache
- Performing for ARP Spoofing
- Detecting a Phishing Site Using Netcraft

Networking Protocols and Threats

- Preventing Zone Transfers
- Simulating a DoS Attack

Network Perimeter Security

- Implementing Data Execution Prevention

Securing Network Media and Devices

- Securing Default Accounts
- Resetting a Password
- Creating a Fine-Grained Password Policy
- Configuring Remote Access VPN
- Configuring a Static TCP/IP Address

Physical Security and Authentication Models

- Configuring Kerberos Policy Settings
- Installing Remote Access Services

Access Control Methods and Models

- Assigning Permissions to Folders
- Restricting Local Accounts
- Creating a User Account and Configuring Restrictions
- Configuring Account Policies
- Managing a User Account

Vulnerability and Risk Assessment

- Running a Security Scan to Identify Vulnerabilities
- Remediating Vulnerabilities on the Local Workstation
- Remediating Vulnerabilities on the Network

Monitoring and Auditing

- Using Network Monitoring
- Observing Traffic Patterns Using Wireshark
- Analyzing Protocols with Wireshark
- Working with Task Manager
- Viewing Running Processes on a Linux-based Machine
- Enabling Debug Logging on the DNS Server
- Enabling Audit Policies
- Enabling Object Access Auditing

Encryption and Hashing Concepts

- Observing MD5 Hash

PKI and Encryption Protocols

- Configuring SSL Connections
- Configuring the SSL Port Setting
- Using OpenSSL to Create a Public/Private Key Pair
- Adding a Certificate to MMC

Redundancy and Disaster Recovery

- Installing Windows Server Backup
- Creating a Backup Schedule
- Creating a Backup Once

Social Engineering, User Education, and Facilities Security

- Using social engineering techniques to plan an attack

Policies and Procedures

- Purging old files in linux

Here's what you get

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LIVE LABS

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