uCertify

Course Outline

CompTIA Cybersecurity Analyst (CySA)

02 May 2024

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3. Exercises, Quizzes, Flashcards & Glossary

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4. Expert Instructor-Led Training
5. ADA Compliant & JAWS Compatible Platform
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    Here's what you get

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1. Course Objective

Gain the skills required to pass the CompTIA CySA+ certification exam with the CompTIA Cybersecurity Analyst (CySA+) course and lab. The lab is versatile and delivers a hands-on experience, replacing expensive physical labs. The CompTIA CySA+ training course and lab cover the CS0-002 exam objectives and offer an interactive learning experience required to analyze and interpret data; identify and address vulnerabilities, and more. The CySA+ study guide has all the learning resources to help you master all the skills covered in the exam.

2. Pre-Assessment

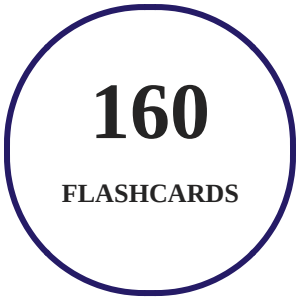
Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

3. 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.

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

- What Does This Course Cover?
- Objectives Map for CompTIA Cybersecurity Analyst (CySA+) Exam CS0-002

Chapter 2: Today’s Cybersecurity Analyst

- Cybersecurity Objectives
- Privacy vs. Security
- Evaluating Security Risks
- Building a Secure Network

- Secure Endpoint Management
- Penetration Testing
- Reverse Engineering
- The Future of Cybersecurity Analytics
- Summary
- Exam Essentials

Chapter 3: Using Threat Intelligence

- Threat Data and Intelligence
- Threat Classification
- Attack Frameworks
- Applying Threat Intelligence Organizationwide
- Summary
- Exam Essentials

Chapter 4: Reconnaissance and Intelligence Gathering

- Mapping and Enumeration
- Passive Footprinting

- Gathering Organizational Intelligence
- Detecting, Preventing, and Responding to Reconnaissance
- Summary
- Exam Essentials

Chapter 5: Designing a Vulnerability Management Program

- Identifying Vulnerability Management Requirements
- Configuring and Executing Vulnerability Scans
- Developing a Remediation Workflow
- Overcoming Risks of Vulnerability Scanning
- Vulnerability Scanning Tools
- Summary
- Exam Essentials

Chapter 6: Analyzing Vulnerability Scans

- Reviewing and Interpreting Scan Reports
- Validating Scan Results
- Common Vulnerabilities
- Summary

- Exam Essentials

Chapter 7: Cloud Security

- Understanding Cloud Environments
- Operating in the Cloud
- Cloud Infrastructure Security
- Summary
- Exam Essentials

Chapter 8: Infrastructure Security and Controls

- Understanding Defense-in-Depth
- Improving Security by Improving Controls
- Analyzing Security Architecture
- Summary
- Exam Essentials

Chapter 9: Identity and Access Management Security

- Understanding Identity
- Threats to Identity and Access

- Identity as a Security Layer
- Federation and Single Sign-On
- Summary
- Exam Essentials

Chapter 10: Software and Hardware Development Security

- Software Assurance Best Practices
- Designing and Coding for Security
- Software Security Testing
- Hardware Assurance Best Practices
- Summary
- Exam Essentials

Chapter 11: Security Operations and Monitoring

- Security Monitoring
- Summary
- Exam Essentials

Chapter 12: Building an Incident Response Program

- Security Incidents
- Phases of Incident Response
- Building the Foundation for Incident Response
- Creating an Incident Response Team
- Coordination and Information Sharing
- Classifying Incidents
- Summary
- Exam Essentials

Chapter 13: Analyzing Indicators of Compromise

- Analyzing Network Events
- Investigating Host-Related Issues
- Investigating Service and Application-Related Issues
- Summary
- Exam Essentials

Chapter 14: Performing Forensic Analysis and Techniques

- Building a Forensics Capability

- Understanding Forensic Software
- Conducting Endpoint Forensics
- Network Forensics
- Cloud, Virtual, and Container Forensics
- Conducting a Forensic Investigation
- Forensic Investigation: An Example
- Summary
- Exam Essentials

Chapter 15: Containment, Eradication, and Recovery

- Containing the Damage
- Incident Eradication and Recovery
- Wrapping Up the Response
- Summary
- Exam Essentials

Chapter 16: Risk Management

- Analyzing Risk
- Managing Risk

- Security Controls
- Summary
- Exam Essentials

Chapter 17: Policy and Compliance

- Understanding Policy Documents
- Complying with Laws and Regulations
- Adopting a Standard Framework
- Implementing Policy-Based Controls
- Security Control Verification and Quality Control
- Summary
- Exam Essentials

Chapter 18: Appendix: Video Tutorials

- Introduction
- Threat and Vulnerability Management
- Software and Systems Security
- Security Operations and Monitoring

- Incident Response
- Compliance and Assessment
- Afterword

Videos and How To

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

36	15:04
VIDEOS	HOURS

11. Practice Test

Here's what you get

85	2	85
PRE-ASSESSMENTS QUESTIONS	FULL LENGTH TESTS	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.

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

Today's Cybersecurity Analyst

- Setting up a Honeypot on Kali Linux

- Using the iptables Command to Create a Personal Firewall in Linux

Reconnaissance and Intelligence Gathering

- Using the hping Program
- Scanning the Local Network
- Performing Reconnaissance on a Network
- Identifying Search Options in Metasploit
- Making Syslog Entries Readable
- Using nslookup for Passive Reconnaissance

Designing a Vulnerability Management Program

- Conducting Vulnerability Scanning Using Nessus
- Using OWASP ZAP
- Inspecting the Vulnerability in the Echo Server's Source Code
- Performing Session Hijacking Using Burp Suite
- Using Nikto
- Performing Vulnerability Scanning Using OpenVAS

Analyzing Vulnerability Scans

- Attacking a Website Using XSS Injection
- Exploiting a Website Using SQL Injection
- Performing a MITM Attack
- Detecting Rootkits

Software and Hardware Development Security

- Encrypting and Decrypting Messages Using Kleopatra
- Encrypting and Decrypting a File Using AES Crypt

Security Operations and Monitoring

- Downloading and Installing Wireshark

Analyzing Indicators of Compromise

- Configuring Snort
- Simulating the DDoS Attack
- Confirming the Spoofing Attack in Wireshark
- Capturing a Packet Using Wireshark
- Performing a Memory-Based Attack
- Examining Audited Events
- Enabling Logging for Audited Objects

Performing Forensic Analysis and Techniques

- Using the MD5 Hash Algorithm
- Using Apktool to Decode and Analyze the apk file

Here's what you get

30	30	01:39
LIVE LABS	VIDEO TUTORIALS	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.