

# uCertify

## Course Outline

**CASP+ CompTIA Advanced Security Practitioner  
(CAS-004)**



30 Apr 2024

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## 1. Course Objective

Prepare for the CompTIA CASP+ exam with the course CASP+ CompTIA Advanced Security Practitioner (CAS-004). The course contains assessment questions, test sets, interactive lessons with knowledge checks and quizzes, and labs to provide a hands-on learning experience of security in a safe, online environment. It provides complete coverage of the CAS-004 exam objectives and it is designed to give you insight into the working world of IT security. It describes the types of tasks and activities that a security professional with 5–10 years of experience carries out.

## 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.



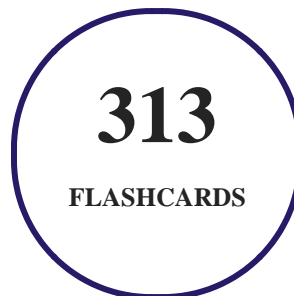
## 4. Quizzes

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.



## 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.



## 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.



## 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 CASP+ Certification Exam
- Who Should Read This Course
- What You Will Learn

- How This Course Is Organized
- How to Use This Course
- Tips for Taking the CASP+ Exam
- CompTIA CASP+ Study Guide Exam Objectives
- The CASP+ Exam Objective Map

## Chapter 2: Risk Management

- Risk Terminology
- The Risk Assessment Process
- Policies Used to Manage Employees
- Cost-Benefit Analysis
- Continuous Monitoring
- Enterprise Security Architecture Frameworks and Governance
- Training and Awareness for Users
- Best Practices for Risk Assessments
- Business Continuity Planning and Disaster Recovery
- Reviewing the Effectiveness of Existing Security Controls
- Conducting Lessons Learned and After-Action Reviews



- Creation, Collection, and Analysis of Metrics
- Analyzing Security Solutions to Ensure They Meet Business Needs
- Testing Plans
- Internal and External Audits
- Using Judgment to Solve Difficult Problems
- Summary
- Exam Essentials

### Chapter 3: Configure and Implement Endpoint Security Controls

- Hardening Techniques
- Trusted Operating Systems
- Compensating Controls
- Summary
- Exam Essentials

### Chapter 4: Security Operations Scenarios

- Threat Management
- Actor Types

- Intelligence Collection Methods
- Frameworks
- Indicators of Compromise
- Response
- Summary
- Exam Essentials

## Chapter 5: Security Ops: Vulnerability Assessments and Operational Risk

- Terminology
- Vulnerability Management
- Vulnerabilities
- Inherently Vulnerable System/Application
- Proactive Detection
- Summary
- Exam Essentials

## Chapter 6: Compliance and Vendor Risk

- Shared Responsibility in Cloud Computing
- Security Concerns of Integrating Diverse Industries

- Regulations, Accreditations, and Standards
- Contract and Agreement Types
- Third-Party Attestation of Compliance
- Legal Considerations
- Summary
- Exam Essentials

## Chapter 7: Cryptography and PKI

- The History of Cryptography
- Cryptographic Goals and Requirements
- Supporting Security Requirements
- Risks with Data
- Hashing
- Symmetric Algorithms
- Asymmetric Encryption
- Public Key Infrastructure Hierarchy
- Digital Certificates
- Implementation of Cryptographic Solutions

- Recognizing Cryptographic Attacks
- Troubleshooting Cryptographic Implementations
- Summary
- Exam Essentials

## Chapter 8: Incident Response and Forensics

- The Incident Response Framework
- Forensic Concepts
- Forensic Analysis Tools
- Summary
- Exam Essentials

## Chapter 9: Security Architecture

- Security Requirements and Objectives for a Secure Network Architecture
- Organizational Requirements for Infrastructure Security Design
- Integrating Applications Securely into an Enterprise Architecture
- Data Security Techniques for Securing Enterprise Architecture
- Security Requirements and Objectives for Authentication and Authorization Controls

- Summary
- Exam Essentials

## Chapter 10: Secure Cloud and Virtualization

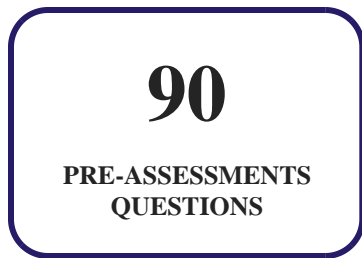
- Implement Secure Cloud and Virtualization Solutions
- How Cloud Technology Adoption Impacts Organization Security
- Summary
- Exam Essentials

## Chapter 11: Mobility and Emerging Technologies

- Emerging Technologies and Their Impact on Enterprise Security and Privacy
- Secure Enterprise Mobility Configurations
- Security Considerations for Technologies, Protocols, and Sectors
- Summary
- Exam Essentials

## 12. Practice Test

**Here's what you get**



## 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

## **Configure and Implement Endpoint Security Controls**

- Running a Security Scanner to Identify Vulnerabilities
- Bypassing Command Shell Restrictions

## **Security Operations Scenarios**

- Using the Social Engineering Toolkit
- Using WinDump
- Configuring a Standard ACL

## **Security Ops: Vulnerability Assessments and Operational Risk**

- Using Burpsuite
- Simulating a DoS Attack
- Tracking Vulnerabilities in Software
- Performing Passive Reconnaissance
- Cracking Passwords using Pwdump7 and Cain and Abel
- Conducting Vulnerability Scanning Using Nessus
- Performing Nmap Port Scanning
- Cracking a Password Using the John the Ripper Tool
- Using PuTTY
- Exploiting a Website using SQL Injection
- Conducting Cross-Site Request Forgery Attacks
- Attacking a Website using XSS Injection

## **Cryptography and PKI**

- Observing an MD5-Generated Hash Value
- Using the SHA Series Algorithm

### Incident Response and Forensics

- Using Steganography
- Observing an SHA256-Generated Hash Value
- Using TCPdump
- Using Netstat
- Using ExifTool

### Security Architecture

- Configuring Iptables
- Testing an Antivirus Program
- Creating a Firewall Rule
- Attempting a Zone Transfer
- Installing and Configuring AD DS

### Secure Cloud and Virtualization

- Installing a Virtual Machine
- Capturing Packets using Wireshark

## Here's what you get

**31**

LIVE LABS

**31**

VIDEO TUTORIALS

**01**

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.



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