

# uCertify

## Course Outline

**CASP-Advanced Security Practitioner V2.0 (Course & Lab)**



10 Apr 2024

1. Course Objective

2. Pre-Assessment

3. Exercises, Quizzes, Flashcards & Glossary

Number of Questions

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

Syllabus

Chapter 1: Cryptographic Tools and Techniques

Chapter 2: Comprehensive Security Solutions

Chapter 3: Securing Virtualized, Distributed, and Shared Computing

Chapter 4: Host Security

Chapter 5: Application Security and Penetration Testing

Chapter 6: Risk Management

Chapter 7: Policies, Procedures, and Incident Response

Chapter 8: Security Research and Analysis

Chapter 9: Enterprise Security Integration

Chapter 10: Security Controls for Communication and Collaboration

Videos and How To

9. Practice Test

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Features

10. Performance Based labs

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11. Post-Assessment

## 1. Course Objective

Gain hands-on expertise in the CompTIA CASP certification exam with CASP Advanced Security Practitioner V2.0 course and 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. The study guide provides complete coverage of the CompTIA CASP CAS-002 exam objectives and includes topics such as risk impact analysis, responding to security incidents, translating business needs into security requirements, and many more. The CompTIA CASP course is designed for advanced-level IT security professionals to conceptualize, design, and engineer secure solutions across complex enterprise environments.

## 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.

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**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.

**269**

**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.

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**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: Cryptographic Tools and Techniques

- The History of Cryptography
- Cryptographic Services
- Symmetric Encryption

- Asymmetric Encryption
- Hybrid Encryption
- Hashing
- Digital Signatures
- Public Key Infrastructure
- Implementation of Cryptographic Solutions
- Cryptographic Attacks
- Summary
- Exam Essentials

## Chapter 2: Comprehensive Security Solutions

- Advanced Network Design
- TCP/IP
- Secure Communication Solutions
- Secure Facility Solutions and Network Infrastructure Design
- Summary
- Exam Essentials

## Chapter 3: Securing Virtualized, Distributed, and Shared Computing



- Enterprise Security
- Cloud Computing
- Virtualization
- Virtual LANs
- Virtual Networking and Security Components
- Enterprise Storage
- Summary
- Exam Essentials

## Chapter 4: Host Security

- Firewalls and Network Access Control Lists
- Trusted Operating System
- Endpoint Security Software
- Anti-malware
- Host Hardening
- Asset Management
- Data Exfiltration
- Intrusion Detection and Prevention

- Network Management, Monitoring, and Security Tools
- Summary
- Exam Essentials

## Chapter 5: Application Security and Penetration Testing

- Application Security Testing
- Specific Application Issues
- Application Sandboxing and Application Security Framework
- Secure Coding Standards
- Application Exploits
- Cookie Storage and Transmission
- Malware Sandboxing
- Process Handling at the Client and Server
- Security Assessments and Penetration Testing
- Summary
- Exam Essentials

## Chapter 6: Risk Management

- Risk Terminology
- Identifying Vulnerabilities
- Operational Risks
- The Risk Assessment Process
- Summary
- Exam Essentials

## Chapter 7: Policies, Procedures, and Incident Response

- A High-Level View of Documentation
- Business Documents Used to Support Security
- Documents and Controls Used for Sensitive Information
- Auditing Requirements and Frequency
- The Incident Response Framework
- Incident and Emergency Response
- Summary
- Exam Essentials

## Chapter 8: Security Research and Analysis

- Apply Research Methods to Determine Industry Trends and Impact to the Enterprise

- Analyze Scenarios to Secure the Enterprise
- Summary
- Exam Essentials

## Chapter 9: Enterprise Security Integration

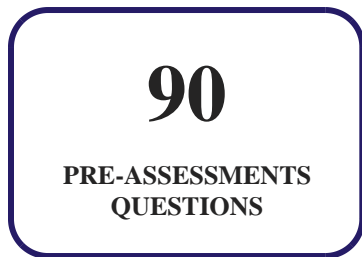
- Integrate Enterprise Disciplines to Achieve Secure Solutions
- Integrate Hosts, Storage, Networks, and Applications into a Secure Enterprise Architecture
- Summary
- Exam Essentials

## Chapter 10: Security Controls for Communication and Collaboration

- Selecting the Appropriate Control to Secure Communications and Collaboration Solutions
- Integrate Advanced Authentication and Authorization Technologies to Support Enterprise Objectives
- Implement Security Activities across the Technology Life Cycle
- 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. Performance Based Labs

uCertify's performance-based labs are simulators that provides virtual environment. Labs deliver hands on experience with minimal risk and thus replace expensive physical labs. uCertify Labs are cloud-based, device-enabled and can be easily integrated with an LMS. Features of uCertify labs:

- Provide hands-on experience in a safe, online environment
- Labs simulate real world, hardware, software & CLI environment
- Flexible and inexpensive alternative to physical Labs
- Comes with well-organized component library for every task

- Highly interactive - learn by doing
- Explanations and remediation available
- Videos on how to perform

## Lab Tasks

- Understanding cryptographic terms
- Identifying symmetric algorithms
- Identifying symmetric and asymmetric encryptions
- Identifying asymmetric encryption algorithms
- Identifying sequence of sender's process for hybrid encryption
- Identifying hashing algorithms
- Identifying sequence of sender's process for digital signatures
- Identifying attributes of symmetric and asymmetric encryption
- Identifying public key infrastructure components
- Launching Windows certificates manager
- Identifying encryption types
- Identifying the handshake process for CHAP
- Understanding steganography
- Creating a user password
- Identifying cryptographic attacks
- Creating and configuring a network
- Identifying network authentication methods
- Identifying 802.11 standards
- Identifying the network topology
- Identifying remote access methods
- Configuring NPS network policy
- Configuring NPS to provide RADIUS authentication
- Creating a remote access VPN connection
- Arranging the VoIP protocols in the protocol stack
- Performing a wireless site survey
- Using Windows remote access

- Configuring a VPN client
- Spoofing MAC addresses with SMAC
- Identifying TCP/IP protocol layers
- Identifying TCP/IP layers
- Identifying IPV4 and IPV6 differences
- Configuring IPv4 address
- Configuring and testing IPv6 addresses
- Understanding the ipconfig command
- Analyzing the TCP/IP configuration with netstat
- Identifying IPv4 classful address ranges
- Identifying IPv4 header
- Identifying IPv6 header
- Identifying protocols security issues
- Analyzing network paths with tracert
- Using the netsh command
- Releasing and renewing an IP address
- Testing the existence of other hosts
- Identifying drawbacks of Kerberos authentication
- Filtering entries in Event Viewer
- Configuring Internet settings on a router
- Setting up a DMZ on a SOHO router
- Understanding software-defined networking
- Identifying cloud services model
- Identifying cloud-augmented security services
- Identifying virtual network components
- Creating a virtual PC machine
- Setting VLAN ID on a network adapter
- Working with a host-based IDS
- Identifying traffic command syntax formats
- Identifying Information models
- Identifying evaluation assurance levels
- Identifying endpoint security solutions
- Installing security software
- Installing MBSA
- Running the MBSA tool

- Running a security scanner to identify vulnerabilities
- Using the Windows command-line interface (CLI)
- Identifying the change management process
- Identifying data exfiltration methods
- Identifying IDS components
- Identifying Intrusion detection key terms
- Identifying sequence in which the IDS instructs the TCP to reset connections
- Identifying application test types
- Understanding cross-site scripting
- Understanding application sandboxing
- Understanding SDLC activities
- Identifying secure coding tests
- Viewing cookies and temporary files in IE
- Identifying DoS tools
- Identifying password cracking ways
- Identifying penetration testing steps
- Identifying port scanning techniques
- Identifying fuzzing tools
- Identifying tracking vulnerabilities in software
- Identifying information security laws
- Identifying quantitative analysis
- Identifying information security policy components
- Identifying employee controls
- Understanding incident response plan
- Identifying incident responses models
- Identifying XSS vulnerabilities
- Identifying biometric systems
- Cracking encrypted passwords
- Exploring the Nagios tool
- Identifying security solution performances
- Identifying stages of building security controls
- Identifying security governance plan
- Identifying employee controls uses
- Identifying risk tests
- Using TeamViewer to connect two computers



- Understanding SOAP
- Identifying TCSEC divisions levels

## Here's what you get

**98**

PERFORMANCE BASED  
LAB

**33**

VIDEO TUTORIALS

**22**

MINUTES

## 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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