CompTIA

The Official CompTIA

CASP+
Student Guide

Exam CAS-004

CASP+

Official CompTIA Content Series for CompTIA Performance Certifications

Official CompTIA learning resources
for Instructor-Led Training:

CompTIA
CASP+

Official CompTIA learning resources for Instructor-Led Training are designed with the instructor in mind, providing insights and tools for successfully training learners pursuing their CompTIA CASP+ certification.

OVERVIEW

The Official CompTIA CASP+ Instructor and Student Guides (CAS-004) have been developed by CompTIA for the CompTIA CASP+ candidate. Rigorously evaluated to validate coverage of the CompTIA CASP+ (CAS-004) exam objectives, The Official CompTIA CASP+ Instructor and Student Guides teach the knowledge and skills to understand security architecture, security operations, security engineering and cryptography, governance, risk and compliance, and prepare candidates to take the CompTIA CASP+ certification exam.

OFFICIAL LEARNING RESOURCES
- CompTIA CertMaster Learn
- CompTIA CertMaster Labs
- CompTIA CertMaster Learn integrated with CertMaster Labs
- CompTIA CertMaster Practice
- The Official CompTIA Instructor Guide / Student Guide
- The Official CompTIA Study Guide

NEW FEATURES

· **Content Updates for the CompTIA CASP+ (CAS-004) Exam**
The courseware has been refocused into a smaller number of topics than the previous version of the course with the aim of restricting the size of each topic to no more than ten subject headings. By creating smaller chunks of reading, learners have an easier time reading and recalling the material. Learners are also presented with more opportunities to interact with the content and answer questions based on the reading.

· **Easily Implemented in Classroom Environments**
The content and resources have been reworked to make them more flexible to suit a variety of classroom formats, whether there are 5 days or 16 weeks to teach the material, or something in between:

> · **Lengthy on-premises Lab Activities that require organizations to setup and maintain equipment have been removed from the eBook.** Instead, graded labs (CertMaster Labs) are available hosted on the Skillable platform. These modular labs require only a modern browser and internet connection, saving organizations hours of setup time. Their short durations of 10-30 minutes allow for labs to be more easily integrated in coursework. As a result, instructors will no longer see the setup guide in the Instructor Resources.

> · **Reworked Presentation Tools:** The PowerPoint lecture slides have been enhanced with support notes. In addition, the presentations planner has been created as a separate document and includes information on labs, topics and PBQs to make it easier for instructors to plan lectures and use classroom time effectively.

· **Alignment and Consistency Across Book, Labs and Assessment**
The book, labs and assessment all work together with a similar approach and voice ensuring that instructors and students have a cohesive "single-sourced" solution for their CASP+ courses. The presentation of course topics is supplemented with regular opportunities for hands-on labs, which are delivered via CertMaster Labs. Each lesson has exam-style multiple choice assessments, available via the CompTIA Learning Center. There is also a final assessment synthesizing concepts from all lessons.

· **Engaging Video Program**
Videos embedded within the lessons complement the instructional content by presenting real-world cybersecurity scenarios from experts experience. The videos help provide context of how the concepts learned in the course will be applied on-the-job.

· **Robust Assessment**
Practice questions for each lesson and a final assessment covering all Lessons, more than 300 questions in total, are available in the CompTIA Learning Center to help students practice and demonstrate what they have learned.

ENHANCED LEARNING RESOURCES

The Official CompTIA CASP+ Guides include the accompanying resources:

Comprehensive **INSTRUCTOR** resources ensure successful course delivery by providing:	Comprehensive **STUDENT** resources engage students by providing:
• **Course-specific delivery tips** provide the instructor with additional insights to deliver the course successfully.	• **eBook:** An interactive online version of the book, along with secure PDF and downloadable versions
• **Facilitator notes** in instructor guide	• **Files:** Any course files available to download
• **Solutions** to activities and discussions	• **Videos:** Brief videos that are organized by Lesson and Topic provide demonstrations of key activities and topics in the course. Videos can be shown in class to engage students or reviewed later to reinforce important topics.
• **PowerPoint slides:** A complete set of slides to facilitate the class including lists, tables, diagrams, illustrations, annotated screens and summaries.	
• **Presentation Planners** help plan and schedule courses based on different course lengths.	• **Assessment:** A series of different assessments for each lesson as well as an overall self-assessment
• **Solutions:** Instructors have solutions to Activities and Discussion Questions embedded within the Instructor Guide.	• **PowerPoint slides**
	• **Solutions** to activities and discussions
• **Transition Guides:** Documents designed to help users transition from CAS-003 to CAS-004 version of the content. Resources include: table of contents, course setup changes, exam mapping guide, activities and more.	• **Strengths and Weaknesses Dashboard:** Students assessments results are aggregated in the Strengths and Weaknesses dashboard to provide an indicator of their overall performance in the course.

CERTMASTER LEARN OVERVIEW

CertMaster Learn is a comprehensive eLearning experience that helps learners gain the knowledge and practical skills necessary to be successful on CompTIA certification exams, and in their IT careers.

Instructional lessons are combined with videos, practice questions, and performance-based questions to provide hours of engaging and interactive content aligned with the CompTIA exam objectives. A Learning Plan helps learners stay on track with their studies, while robust analytics bring awareness of strengths and weaknesses.

When used in a classroom environment, CertMaster Learn empowers instructor and administrator success by providing easy-to-use course management tools, a comprehensive suite of instructor resources, and reporting and analytics options which make tracking individual student and group progress simple and efficient.

CERTMASTER LABS OVERVIEW

Graded Hands-on Practice with CertMaster Labs

CompTIA CertMaster Labs for CASP+ (CAS-004) enable hands-on practice and skills development using real equipment and software accessed through a remote, browser-based lab environment. Aligned with Official CompTIA courseware and the CompTIA CASP+ (CAS-004) exam objectives, CertMaster Labs make it easy for learners to practice and apply their skills in real workplace scenarios in preparation for the certification exam. All lab activities include gradable assessments, offer feedback and hints, and provide a score based on learner inputs, ultimately guiding learners to the most correct and efficient path through job tasks and, in a classroom environment, providing instructors with meaningful insight into student performance.

New Features:

Graded Labs
All lab activities within the CASP+ course include gradable assessments, offer feedback and hints, and provide a score based on learner inputs, providing an accurate assessment of a learners ability to correctly and efficiently perform tasks.

There are two types of labs in the course:
- **Assisted Labs** guide the learner step-by-step through tasks, offering assessment and feedback throughout a 10-15 minute experience, allowing the learner to correct any misunderstandings as they proceed through the activity.

- **Applied Labs** present a series of goal-oriented scenarios in a 20-30 minute experience covering multiple topics, scoring the learners work at the end of the activity based on their ability to successfully complete each scenario. As a result, learners are forced to think critically about how to approach problems without a prescribed set of steps.

Easily Implemented in Classroom Environments
The labs within the CASP+ course are modular (not dependent on each other) and can be completed in any order. Additionally, learners can save their work in the labs for 48 hours. This flexibility along with the short durations of 10-30 minutes allow for labs to be easily integrated in coursework.

Integrated with CertMaster Learn
When integrated with CertMaster Learn, CertMaster Labs are displayed as Study Tasks within the CertMaster Learn Learning Plan. As a result, learners experience both knowledge acquisition and hands-on skills attainment through a single login and seamless workflow. Additionally, organizations who purchase the integrated course will be able to review student and group lab scores in the CertMaster Learn Boost Dashboard and hold students accountable for lab work.

EXAM PREP OPTION

CompTIA CertMaster Practice is an online knowledge assessment and remediation tool designed to help learners feel more confident and prepared for the CompTIA exam

COURSE OVERVIEW

CASP+ is an advanced-level cybersecurity certification covering technical skills in security architecture andsenior security engineering in traditional, cloud, and hybrid environments, governance, risk, andcompliance skills, assessing an enterprises cybersecurity readiness, and leading technical teams to implement enterprise-wide cybersecurity solutions.

Successful candidates will have the knowledge required to:
- Architect, engineer, integrate, and implement secure solutions across complex environments to support a resilient enterprise.
- Use monitoring, detection, incident response, and automation to proactively support ongoing security operations in an enterprise environment.
- Apply security practices to cloud, on-premises, endpoint, and mobile infrastructure, while considering cryptographic technologies and techniques.
- Consider the impact of governance, risk, and compliance requirements throughout the enterprise

The CASP+ exam covers four major domains:
- Security Architecture (29%)
- Security Operations (30%)
- Security Engineering and Cryptography (26%)
- Governance, Risk and Compliance (15%)

JOB ROLES

- Security Architect
- Senior Security Engineer
- SOC Manager
- Security Analyst
- IT cybersecurity Specialist/ INFOSECSpecialist
- Cyber Risk Analyst

CompTIA
CASP+

COURSE OUTLINE

To view the course outline for CASP+ (CAS-004) visit:
https://s.comptia.org/3uPhx28

TABLE OF CONTENTS

Lesson 1: Perform Risk Management Activities
Topic 1A: Explain Risk Assessment Methods
Topic 1B: Summarize the Risk Lifecycle
Topic 1C: Assess & Mitigate Vendor Risk

Lesson 2: Summarizing Governance & Compliance Strategies
Topic 2A: Identifying Critical Data Assets
Topic 2B: Compare and Contrast Regulations, Accreditations, and Standards
Topic 2C: Explain Legal Considerations & Contract Types

Lesson 3: Implementing Business Continuity & Disaster Recovery
Topic 3A: Explain the Role of Business Impact Analysis
Topic 3B: Assess Disaster Recovery Plans
Topic 3C: Explain Testing and Readiness Activities

Lesson 4: Identifying Infrastructure Services
Topic 4A: Explain Critical Services
Topic 4B: Explain Defensible Network Design
Topic 4C: Implement Durable Infrastructures

Lesson 5: Performing Software Integration
Topic 5A: Explain Secure Integration Activities
Topic 5B: Assess Software Development Activities
Topic 5C: Analyze Access Control Models & Best Practices
Topic 5D: Analyze Development Models & Best Practices

Lesson 6: Explain Virtualization, Cloud and Emerging Technology
Topic 6A: Explain Virtualization and Cloud Technology
Topic 6B: Explain Emerging Technologies

Lesson 7: Exploring Secure Configurations and System Hardening
Topic 7A: Analyze Enterprise Mobility Protections
Topic 7B: Implement Endpoint Protection

Lesson 8: Understanding Security Considerations of Cloud and Specialized Platforms
Topic 8A: Understand Impacts of Cloud Technology Adoption
Topic 8B: Explain Security Concerns for Sector-Specific Technologies

Lesson 9: Implementing Cryptography
Topic 9A: Implementing Hashing and Symmetric Algorithms
Topic 9B: Implementing Appropriate Asymmetric Algorithms and Protocols

Lesson 10: Implementing Public Key Infrastructure (PKI)
Topic 10A: Analyze Objectives of Cryptography and Public Key Infrastructure (PKI)
Topic 10B: Implementing Appropriate PKI Solutions

Lesson 11: Architecting Secure Endpoints
Topic 11A: Explore Threat and Vulnerability Management Concepts
Topic 11B: Explain Vulnerability and Penetration Test Methods
Topic 11C: Explain Technologies Designed to Reduce Risk

Lesson 12: Summarizing IIoT & IoT Concepts
Topic 12A: Analyzing and Mitigating Vulnerabilities
Topic 12B: Identifying and Responding to Indicators of Compromise
Topic 12C: Exploring Digital Forensic Concepts

Appendix A: Mapping Course Content to CompTIA CASP+ (CAS-004)
Solutions
Glossary
Index

PURCHASE EVERYTHING IN ONE PLACE

Official CompTIA learning resources are available on the CompTIA Store at https://store.comptia.org/, which means partners will be able to obtain Official CompTIA learning resources, CompTIA CertMaster products and exam vouchers all in one place. Please contact your CompTIA business development representative for more information.

CompTIA.