

# uCertify

## Course Outline

### CISSP Study Guide, Seventh Edition



20 May 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: Security Governance Through Principles and Policies

Chapter 2: Personnel Security and Risk Management Concepts

Chapter 3: Business Continuity Planning

Chapter 4: Laws, Regulations, and Compliance

Chapter 5: Protecting Security of Assets

Chapter 6: Cryptography and Symmetric Key Algorithms

Chapter 7: PKI and Cryptographic Applications

Chapter 8: Principles of Security Models, Design, and Capabilities

Chapter 9: Security Vulnerabilities, Threats, and Countermeasures

Chapter 10: Physical Security Requirements

Chapter 11: Secure Network Architecture and Securing Network Components

Chapter 12: Secure Communications and Network Attacks

Chapter 13: Managing Identity and Authentication

Chapter 14: Controlling and Monitoring Access

Chapter 15: Security Assessment and Testing

Chapter 16: Managing Security Operations

Chapter 17: Preventing and Responding to Incidents

Chapter 18: Disaster Recovery Planning

Chapter 19: Incidents and Ethics

Chapter 20: Software Development Security

Chapter 21: Malicious Code and Application Attacks

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10. Performance Based labs

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## 1. Course Objective

Gain hands-on expertise in (ISC2) CISSP Certification Exam with CISSP 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 course and performance-based labs cover all the objectives of (ISC2) CISSP Exam which include security and risk management, security engineering, communications and network security, identity and access management, software development security and so on.

## 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.

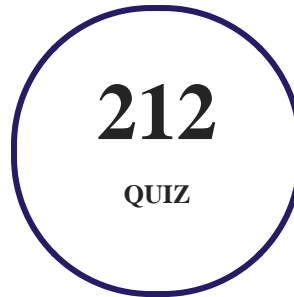
## 3. Exercises

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.



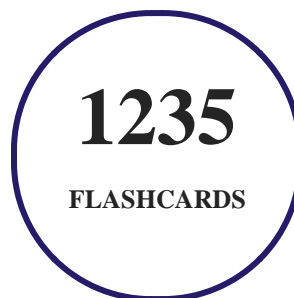
## 4. Quiz

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: Security Governance Through Principles and Policies

- Understand and Apply Concepts of Confidentiality, Integrity, and Availability
- Apply Security Governance Principles
- Develop and Implement Documented Security Policy, Standards, Procedures, and Guidelines



- Understand and Apply Threat Modeling
- Integrate Security Risk Considerations into Acquisition Strategy and Practice
- Summary
- Exam Essentials
- Written Lab

## Chapter 2: Personnel Security and Risk Management Concepts

- Contribute to Personnel Security Policies
- Security Governance
- Understand and Apply Risk Management Concepts
- Establish and Manage Information Security Education, Training, and Awareness
- Manage the Security Function
- Summary
- Exam Essentials
- Written Lab

## Chapter 3: Business Continuity Planning

- Planning for Business Continuity

- Project Scope and Planning
- Business Impact Assessment
- Continuity Planning
- Plan Approval and Implementation
- Summary
- Exam Essentials
- Written Lab

## Chapter 4: Laws, Regulations, and Compliance

- Categories of Laws
- Laws
- Compliance
- Contracting and Procurement
- Summary
- Exam Essentials
- Written Lab

## Chapter 5: Protecting Security of Assets

- Classifying and Labeling Assets

- Identifying Data Roles
- Protecting Privacy
- Summary
- Exam Essentials
- Written Lab

## Chapter 6: Cryptography and Symmetric Key Algorithms

- Historical Milestones in Cryptography
- Cryptographic Basics
- Modern Cryptography
- Symmetric Cryptography
- Cryptographic Life Cycle
- Summary
- Exam Essentials
- Written Lab

## Chapter 7: PKI and Cryptographic Applications

- Asymmetric Cryptography

- Hash Functions
- Digital Signatures
- Public Key Infrastructure
- Asymmetric Key Management
- Applied Cryptography
- Cryptographic Attacks
- Summary
- Exam Essentials
- Written Lab

## Chapter 8: Principles of Security Models, Design, and Capabilities

- Implement and Manage Engineering Processes Using Secure Design Principles
- Understand the Fundamental Concepts of Security Models
- Select Controls and Countermeasures Based on Systems Security Evaluation Models
- Understand Security Capabilities of Information Systems
- Summary
- Exam Essentials
- Written Lab

## Chapter 9: Security Vulnerabilities, Threats, and Countermeasures

- Assess and Mitigate Security Vulnerabilities
- Client-Based
- Server-Based
- Database Security
- Distributed Systems
- Industrial Control Systems
- Assess and Mitigate Vulnerabilities in Web-Based Systems
- Assess and Mitigate Vulnerabilities in Mobile Systems
- Assess and Mitigate Vulnerabilities in Embedded Devices and Cyber-Physical Systems
- Essential Security Protection Mechanisms
- Common Architecture Flaws and Security Issues
- Summary
- Exam Essentials
- Written Lab

## Chapter 10: Physical Security Requirements

- Apply Secure Principles to Site and Facility Design

- Design and Implement Physical Security
- Implement and Manage Physical Security
- Summary
- Exam Essentials
- Written Lab

## Chapter 11: Secure Network Architecture and Securing Network Components

- OSI Model
- TCP/IP Model
- Converged Protocols
- Wireless Networks
- General Wi-Fi Security Procedure
- Cabling, Wireless, Topology, and Communications Technology
- Summary
- Exam Essentials
- Written Lab

## Chapter 12: Secure Communications and Network Attacks

- Network and Protocol Security Mechanisms
- Secure Voice Communications
- Multimedia Collaboration
- Manage Email Security
- Remote Access Security Management
- Virtual Private Network
- Virtualization
- Network Address Translation
- Switching Technologies
- WAN Technologies
- Miscellaneous Security Control Characteristics
- Security Boundaries
- Prevent or Mitigate Network Attacks
- Summary
- Exam Essentials
- Written Lab

## Chapter 13: Managing Identity and Authentication

- Controlling Access to Assets
- Comparing Identification and Authentication
- Implementing Identity Management
- Managing the Identity and Access Provisioning Life Cycle
- Summary
- Exam Essentials
- Written Lab

## Chapter 14: Controlling and Monitoring Access

- Comparing Access Control Models
- Understanding Access Control Attacks
- Summary
- Exam Essentials
- Written Lab

## Chapter 15: Security Assessment and Testing

- Building a Security Assessment and Testing Program
- Performing Vulnerability Assessments
- Testing Your Software



- Implementing Security Management Processes
- Summary
- Exam Essentials
- Written Lab

## Chapter 16: Managing Security Operations

- Applying Security Operations Concepts
- Provisioning and Managing Resources
- Managing Configuration
- Managing Change
- Managing Patches and Reducing Vulnerabilities
- Summary
- Exam Essentials
- Written Lab

## Chapter 17: Preventing and Responding to Incidents

- Managing Incident Response
- Implementing Preventive Measures

- Logging, Monitoring, and Auditing
- Summary
- Exam Essentials
- Written Lab

## Chapter 18: Disaster Recovery Planning

- The Nature of Disaster
- Understand System Resilience and Fault Tolerance
- Recovery Strategy
- Recovery Plan Development
- Training, Awareness, and Documentation
- Testing and Maintenance
- Summary
- Exam Essentials
- Written Lab

## Chapter 19: Incidents and Ethics

- Investigations
- Major Categories of Computer Crime

- Incident Handling
- Ethics
- Summary
- Exam Essentials
- Written Lab

## Chapter 20: Software Development Security

- Introducing Systems Development Controls
- Establishing Databases and Data Warehousing
- Storing Data and Information
- Understanding Knowledge-Based Systems
- Summary
- Exam Essentials
- Written Lab

## Chapter 21: Malicious Code and Application Attacks

- Malicious Code
- Password Attacks

- Application Attacks
- Web Application Security
- Reconnaissance Attacks
- Masquerading Attacks
- Summary
- Exam Essentials
- Written Lab

Chapter 22: Appendix A

Chapter 23: Appendix B

## 12. Practice Test

**Here's what you get**

**85**

PRE-ASSESSMENTS  
QUESTIONS

**4**

FULL LENGTH TESTS

**100**

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.

## 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

- Identifying protection mechanisms
- Identifying security management plans

- Identifying steps in a classification scheme
- Identifying risk actions
- Understanding elements of risk
- Identifying steps in quantitative risk analysis
- Understanding agents
- Identifying phases in BCP process
- Identifying man-made threats
- Identifying CFAA provisions
- Checking the integrity of messages through MAC values
- Identifying asymmetric algorithms
- Backing up an encryption certificate and key
- Identifying Information models
- Identifying TCSEC categories
- Identifying terms associated with power issues
- Identifying primary stages of fire
- Identifying physical access control mechanisms
- Identifying application layer protocols
- Identifying steps in the encapsulation/decapsulation process
- Identifying OSI layer functions
- Identifying OSI layers
- Identifying connectionless communication
- Identifying abbreviations for various Internet layer protocols
- Identifying TCP/IP protocol layers
- Identifying TCP/IP layers
- Identifying flag bit designator
- Configuring IPv4 address
- Configuring SSID
- Creating and configuring a network
- Identifying gateway firewalls
- Identifying hardware devices
- Connecting Systems to the Internet Through a Firewall Router
- Identifying network topologies
- Identifying UTP categories
- Identifying steps in CSMA technology
- Identifying LAN sub technologies

- Identifying types of cable
- Identifying components of a coaxial cable
- Identifying secure communication protocols
- Identifying authentication protocols
- Identifying phreaker tools
- Identifying security solutions
- Connecting to a server using Remote Desktop Connection
- Creating a dial-up connection
- Creating a remote access VPN connection
- Identifying VPN protocols
- Installing Windows Virtual PC
- Creating a virtual PC machine
- Understanding NAT
- Identifying switching technology properties
- Identifying specialized protocols
- Understanding transparency
- Understanding security boundaries
- Creating a password for account
- Configuring password policies
- Enabling and disabling password expiration
- Configuring NPS network policy
- Identifying drawbacks of Kerberos authentication
- Identifying components of the Kerberos authentication protocol
- Identifying authentication services
- Configuring NPS to provide RADIUS authentication
- Identifying responsibilities
- Identifying authorization mechanisms
- Viewing password hashes
- Identifying steps within an effective patch management program
- Identifying security reviews
- Identifying steps in incident response management
- Configuring audit policies
- Viewing different event details
- Identifying log types
- Filtering entries in Event Viewer

- Identifying processing sites in disaster recovery plan
- Identifying disaster recovery plan tests
- Identifying computer crime types
- Identifying stages in a waterfall lifecycle model
- Identifying generations of languages
- Understanding object-oriented programming terms
- Identifying levels in Software Capability Maturity Model
- Identifying testing methods
- Identifying keys in a database
- Identifying storage types
- Installing the AVG antivirus and scanning a drive
- Understanding application attacks
- Identifying types of viruses

## Here's what you get



## 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.

**GET IN TOUCH:**