

# uCertify

## Course Outline

### Cyberspace and Cybersecurity



24 Apr 2025

1. Pre-Assessment
2. Exercises, Quizzes, Flashcards & Glossary  
Number of Questions
3. Expert Instructor-Led Training
4. ADA Compliant & JAWS Compatible Platform
5. State of the Art Educator Tools
6. Award Winning Learning Platform (LMS)
7. Chapter & Lessons  
Syllabus  
Chapter 1: Preface  
Chapter 2: Vulnerabilities in Information Systems  
Chapter 3: Vulnerabilities in the Organization  
Chapter 4: Risks in Information Systems Infrastructure  
Chapter 5: Secure Information Systems  
Chapter 6: Cybersecurity and the CIO  
Chapter 7: Building a Secure Organization  
Chapter 8: Cyberspace Intrusions  
Chapter 9: Cyberspace Defense  
Chapter 10: Cyberspace and the Law  
Chapter 11: Cyber Warfare and Homeland Security  
Chapter 12: Digital Currencies  
Chapter 13: Transformation of Traditional Crime into Cybercrime  
Videos and How To
8. Practice Test  
Here's what you get  
Features
9. Live labs  
Lab Tasks

Here's what you get

## 1. 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.

## 2. 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.

**90**  
EXERCISES

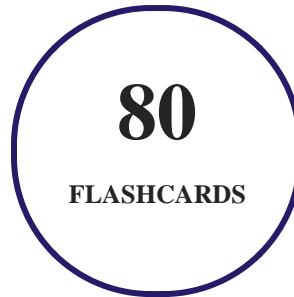
## 3. Quiz

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.

**83**  
QUIZ

## 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: Preface

- The Modern World
- Purpose and Audience
- The Course

#### Chapter 2: Vulnerabilities in Information Systems

- Introduction
- Causes of Vulnerability
- Measuring Vulnerability

- Avoiding Vulnerabilities through Secure Coding
- Mistakes Can Be Good
- Threats Classification
- Threat Modeling Process
- Security Starts at Home
- Security in Applications
- Introducing Countermeasures
- International Awareness
- Exercises

### Chapter 3: Vulnerabilities in the Organization

- Introduction
- Common Organizational Vulnerabilities
- Access Authorization and Authentication
- Human Factors
- Security Services
- External Technologies
- Vulnerabilities in Networks



- Wireless Networks
- Bluetooth
- Wireless Fidelity
- Worldwide Interoperability Microwave Access
- Cloud Computing
- Internet of Things
- Automotive Cybersecurity
- Vulnerability Assessment Tools
- Exercises

## Chapter 4: Risks in Information Systems Infrastructure

- Introduction
- Risks in Hardware
- Risks in Software
- Risks in People
- Risks in Laptops
- Risks in Cyberspace
- Risks in Legacy Infrastructure

- Risks in Mobile Telephony
- Risk Insurance in Cyberspace
- Exercises

## Chapter 5: Secure Information Systems

- Introduction
- Assets Identification
- Assets Communication
- Assets Storage
- Resource Access Control Facility
- Securing the Email Communications
- Information Security Management
- Encryption Options in Emails
- Steganography
- Exercises

## Chapter 6: Cybersecurity and the CIO

- Introduction

- CIO: Personality
- CIO: Education
- Continuing Education and Skills Acquisition
- CIO: Experience
- CIO: Responsibilities
- CIO: Information Security
- CIO: The Changing Role
- Adding Business Value through Cybersecurity
- Exercises

## Chapter 7: Building a Secure Organization

- Introduction
- Business Continuity Planning
- System Access Control
- System Development and Maintenance
- Physical and Environmental Security
- Compliance
- Personnel Security

- Security Organization
- Computer and Network Management
- Asset Classification and Control
- Security Policy
- Encryption Key Management
- EKM Features
- Key Selection
- Algorithms
- Exercises

## Chapter 8: Cyberspace Intrusions

- Introduction
- IDPS Configuration
- IDPS Capabilities
- IDPS Management
- IDPS Classification
- IDPS Comparison
- Predicting Cybersecurity Attacks

- Cybersecurity Trends
- Ransomware
- Exercises

## Chapter 9: Cyberspace Defense

- Introduction
- File Protection Applications
- PC Performance Applications
- Protection Tools
- Exercises

## Chapter 10: Cyberspace and the Law

- Introduction
- International Laws
- Cyber-Related Laws in the United States
- Cybercrime
- Cybercrime in Banking
- Cybercrime in e-Commerce
- Cybersecurity in Maritime

- Exercises

## Chapter 11: Cyber Warfare and Homeland Security

- Introduction
- Cyber Warfare
- Homeland Security
- Cybersecurity Preparedness
- Distributed Defense
- Warfare Information in an Information Warfare Terrain
- Developing a National Strategy for Cybersecurity
- Exercises

## Chapter 12: Digital Currencies

- Introduction
- The Blockchain Concept
- Cryptocurrencies
- Bitcoin
- Cryptocurrency Wallet

- Cybercrime in the Cryptocurrencies Domain
- Purchasing Cryptocurrencies
- Exercises

## Chapter 13: Transformation of Traditional Crime into Cybercrime

- Introduction
- Electronic Crime
- Forms of Cybercrime
- Investigating Electronic Crimes
- Hackers and Crackers
- Investigating Cybercrimes
- Financial Cyber Scams
- Chat Rooms
- Trends in Cybercrime
- Conclusion
- Exercises

## **Videos and How To**

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

**2**  
VIDEOS

**01**  
MINUTES

## 11. Practice Test

**Here's what you get**

**1**  
FULL LENGTH TESTS

### **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

#### **Vulnerabilities in Information Systems**

- Displaying Network Information

#### **Vulnerabilities in the Organization**

- Connecting an iPhone to a Laptop via Bluetooth
- Configuring a VPN
- Connecting an iPhone to Wi-Fi

#### **Secure Information Systems**

- Encrypting Folder and Sub Folder
- Implementing Symmetric Encryption
- Adding a Digital Certificate

- Configuring Network Firewall

### Building a Secure Organization

- Implementing Physical Security

### Cyberspace Intrusions

- Implementing IDPS Topology with Passive Sensing
- Implementing IDPS Topology with In-line Sensing
- Simulating a DoS Attack
- Implementing an Intrusion Detection System
- Hosting-Based IDPS

### Cyberspace Defense

- Creating a File Backup
- Scanning the Computer Using MBSA Tool
- Cracking Passwords Using Cain and Abel

## Here's what you get

**17**

LIVE LABS

**17**

VIDEO TUTORIALS

**17**

MINUTES

You can't stay away! Get