

# uCertify

## Course Outline

**Cisco Certified Support Technician (CCST)  
Cybersecurity 100-160**



19 May 2024

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: Introduction  
Chapter 2: Security Principles  
Chapter 3: Common Threats, Attacks, and Vulnerabilities  
Chapter 4: Access Management  
Chapter 5: Cryptography  
Chapter 6: Introduction to Networking, Addressing, and TCP/IP Protocols  
Chapter 7: Network Infrastructure  
Chapter 8: Controlling Network Access  
Chapter 9: Wireless SOHO Security  
Chapter 10: Operating Systems and Tools  
Chapter 11: Endpoint Policies and Standards  
Chapter 12: Network and Endpoint Malware Detection and Remediation  
Chapter 13: Risk and Vulnerability Management  
Chapter 14: Threat Intelligence  
Chapter 15: Disaster Recovery and Business Continuity  
Chapter 16: Incident Handling  
Chapter 17: Final Preparation  
Chapter 18: Practice Set A  
Chapter 19: Practice Set B

Chapter 20: Practice Set C

Chapter 21: Practice Set D

Videos and How To

8. Practice Test

Here's what you get

Features

9. Live labs

Lab Tasks

Here's what you get

10. Post-Assessment

## 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.



## 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.

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**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.

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**FLASHCARDS**

#### 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.

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**GLOSSARY OF  
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: Introduction

- Goals and Methods
- Who Should Read This Course?
- Strategies for Exam Preparation

- How This Course Is Organized
- Certification Exam Topics and This Course
- Taking the CCST Cybersecurity Certification Exam
- Tracking Your Status
- How to Prepare for an Exam
- Assessing Exam Readiness
- Cisco Cybersecurity Certifications in the Real World
- Exam Registration
- Course Content Updates

## Chapter 2: Security Principles

- The CIA Triad
- Common Security Terms
- Types of Attackers and Their Reasons for Attacks
- Code of Ethics
- Summary
- Review All Key Topics

## Chapter 3: Common Threats, Attacks, and Vulnerabilities



- Malware Variants
- IoT Vulnerabilities
- Distributed Denial of Service
- On-Path Attacks
- Insider Threats
- Social Engineering Tactics
- Physical Attacks
- Advanced Persistent Threats (APTs)
- Summary
- Review All Key Topics

## Chapter 4: Access Management

- Introduction to AAA
- Authentication
- Authorization
- Accounting
- RADIUS
- Summary

- Review All Key Topics

## Chapter 5: Cryptography

- Cryptography Overview
- Symmetric Cryptography
- Asymmetric Cryptography
- Using Symmetric and Asymmetric Cryptography
- Types of Ciphers
- Certificates and PKI
- Hashing
- Cryptography in the Real World
- Cisco Next-Generation Cryptography
- Summary
- Review All Key Topics

## Chapter 6: Introduction to Networking, Addressing, and TCP/IP Protocols

- The TCP/IP Stack
- Common TCP/IP Protocols and Their Vulnerabilities

- Network Addressing and Its Impact on Security
- Summary
- Review All Key Topics

## Chapter 7: Network Infrastructure

- The Network Security Architecture
- Screened Subnets, Virtualization, and the Cloud
- Proxy Servers
- Honeypots
- Intrusion Detection/Prevention Systems
- Summary
- Review All Key Topics

## Chapter 8: Controlling Network Access

- Virtual Private Networks
- Firewalls
- Access Control Lists
- Network Access Control
- Summary

- Review All Key Topics

## Chapter 9: Wireless SOHO Security

- Hardening Wireless Routers and Access Points
- Wireless Encryption Standards
- Wireless Authentication
- Wi-Fi Protected Setup, SSIDs, and MAC Address Filtering
- Common Wireless Network Threats and Attacks
- Summary
- Review All Key Topics

## Chapter 10: Operating Systems and Tools

- Host Security Features
- Windows
- Linux
- macOS
- Tools
- Summary

- Review All Key Topics

## Chapter 11: Endpoint Policies and Standards

- Asset Management
- Program Deployment
- Backups
- Bring Your Own Device (BYOD)
- Regulatory Compliance
- Summary
- Review All Key Topics

## Chapter 12: Network and Endpoint Malware Detection and Remediation

- Monitoring and Detection
- Malware Remediation Best Practices
- Summary
- Review All Key Topics

## Chapter 13: Risk and Vulnerability Management

- The Vocabulary of Risk

- Vulnerabilities
- Risk
- Summary
- Review All Key Topics

## Chapter 14: Threat Intelligence

- Threat Intelligence
- Vulnerabilities Databases and Feeds
- Additional Sources of Threat Intelligence
- How and Why to Proactively Share Threat Intelligence
- Summary
- Review All Key Topics

## Chapter 15: Disaster Recovery and Business Continuity

- Disaster Recovery Plans
- Business Impact Analyses (BIAs)
- Business Continuity Plans
- Disaster Recovery Versus Business Continuity
- Summary

- Review All Key Topics

## Chapter 16: Incident Handling

- Events and Incidents
- Incident Response
- Attack Frameworks and Concepts
- Evidence and Artifacts
- Compliance Frameworks
- Summary
- Review All Key Topics

## Chapter 17: Final Preparation

- Tools and Resources
- Study Tips
- Summary

## Chapter 18: Practice Set A

- question

## Chapter 19: Practice Set B

- question

## Chapter 20: Practice Set C

- questions

## Chapter 21: Practice Set D

- questions

## 11. Practice Test

### Here's what you get

**34**

PRE-ASSESSMENTS  
QUESTIONS

**2**

FULL LENGTH TESTS

**40**

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.

## 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

### Security Principles

- Using the Ansible Tool

### Common Threats, Attacks, and Vulnerabilities

- Analyzing Malware
- Performing DoS Attacks with a SYN Flood
- Performing a Phishing Attack

## **Cryptography**

- Performing Symmetric Information
- Examining Asymmetric Encryption
- Examining PKI Certificates
- Observing an SHA256-Generated Hash Value
- Observing an MD5-Generated Hash Value

## **Introduction to Networking, Addressing, and TCP/IP Protocols**

- Using TCP/IP Protocols in Linux
- Configuring an FTP Server
- Configuring NAT on the ISA Gateway (Windows Server)
- Viewing the MAC Address on Different Interfaces
- Configuring a Class A IP Address

## **Network Infrastructure**

- Setting up a Demilitarized Zone
- Installing the Proxy Server Feature
- Setting Up a Honeypot
- Enabling Intrusion Detection and Prevention

## **Controlling Network Access**

- Configuring a VPN
- Using Windows Firewall
- Configuring a Standard ACL
- Enabling an Access Control List

## **Wireless SOHO Security**

- Configuring SOHO-Grade Access Points
- Configuring a Wireless AP
- Configuring WPA2 Enterprise Security
- Using a Wireless AP for MAC Address Filtering

- Detecting a Brute Force Attack

### **Operating Systems and Tools**

- Configuring the Windows Defender Settings
- Using Windows Event Viewer
- Managing NTFS Permissions
- Using the dig Command on Linux
- Using the nslookup Command
- Using the netstat Command on Linux
- Capturing a Packet Using Wireshark
- Using the netstat Command

### **Endpoint Policies and Standards**

- Creating a Backup

### **Network and Endpoint Malware Detection and Remediation**

- Creating YARA Rules

### **Risk and Vulnerability Management**

- Performing Nmap SYN Scan
- Conducting Vulnerability Scanning Using Nessus

### **Threat Intelligence**

- Studying CVSS Exercises with the CVSS Calculator
- Consulting a Vulnerability Database

**Here's what you get**

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LIVE LABS

### 13. 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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