uCertify

Course Outline

Cisco Certified Support Technician (CCST) Cybersecurity 100-160

18 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.

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: 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	2	40
PRE-ASSESSMENTS QUESTIONS	FULL LENGTH TESTS	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

41

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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