uCertify

Course Outline

CCNA Cyber Ops SECFND (210-250)



28 Mar 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: Introduction

   Chapter 2: Fundamentals of Networking Protocols and Networking Devices

   Chapter 3: Network Security Devices and Cloud Services

   Chapter 4: Security Principles

   Chapter 5: Introduction to Access Controls

   Chapter 6: Introduction to Security Operations Management

   Chapter 7: Fundamentals of Cryptography and Public Key Infrastructure (PKI)

   Chapter 8: Introduction to Virtual Private Networks (VPNs)

   Chapter 9: Windows-Based Analysis

   Chapter 10: Linux- and Mac OS X—Based Analysis

   Chapter 11: Endpoint Security Technologies

   Chapter 12: Network and Host Telemetry

   Chapter 13: Security Monitoring Operational Challenges

   Chapter 14: Types of Attacks and Vulnerabilities

   Chapter 15: Security Evasion Techniques

   Videos and How To
9. Practice Test

   Here's what you get

Features

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Lab Tasks

Here's what you get

11. Post-Assessment

1. Course Objective

Become a certified Cisco CCNA Cyber Ops professional with the CCNA Cyber Ops SECFND 210-250 course and lab. The lab provides a virtual environment for users to explore and learn. The course and lab cover CCNA Cyber Ops exam objectives and help in understanding security principles, network security devices, cloud services, access controls, endpoint security technologies, and more. This training course has the best CCNA Cyber Ops practice tests to help you master the skills required for passing the 210-250 SECFND exam.

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.



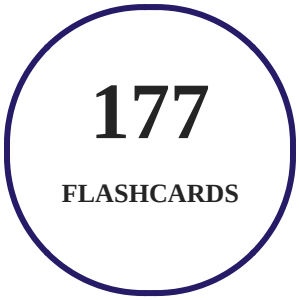
4. Quizzes

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: Introduction

- About the 210-250 CCNA Cyber Ops SECFND Exam

Chapter 2: Fundamentals of Networking Protocols and Networking Devices

- TCP/IP and OSI Model
- Layer 2 Fundamentals and Technologies
- Internet Protocol and Layer 3 Technologies
- Internet Control Message Protocol (ICMP)
- Domain Name System (DNS)
- IPv6 Fundamentals
- Transport Layer Technologies and Protocols
- Review All Key Topics
- References and Further Reading

Chapter 3: Network Security Devices and Cloud Services

- Network Security Systems
- Security Cloud-based Solutions
- Cisco NetFlow
- Data Loss Prevention
- Review All Key Topics

Chapter 4: Security Principles

- The Principles of the Defense-in-Depth Strategy

- What Are Threats, Vulnerabilities, and Exploits?
- Confidentiality, Integrity, and Availability: The CIA Triad
- Risk and Risk Analysis
- Personally Identifiable Information and Protected Health Information
- Principle of Least Privilege and Separation of Duties
- Security Operation Centers
- Forensics
- Review All Key Topics

Chapter 5: Introduction to Access Controls

- Information Security Principles
- Subject and Object Definition
- Access Control Fundamentals
- Access Control Process
- Information Security Roles and Responsibilities
- Access Control Types
- Access Control Models
- Access Control Mechanisms

- Identity and Access Control Implementation
- Review All Key Topics
- References and Additional Reading

Chapter 6: Introduction to Security Operations Management

- Introduction to Identity and Access Management
- Security Events and Logs Management
- Assets Management
- Introduction to Enterprise Mobility Management
- Configuration and Change Management
- Vulnerability Management
- Patch Management
- References and Additional Readings
- Review All Key Topics

Chapter 7: Fundamentals of Cryptography and Public Key Infrastructure (PKI)

- Cryptography
- Fundamentals of PKI

- Review All Key Topics

Chapter 8: Introduction to Virtual Private Networks (VPNs)

- What Are VPNs?
- Site-to-site vs. Remote-Access VPNs
- An Overview of IPsec
- SSL VPNs
- Review All Key Topics

Chapter 9: Windows-Based Analysis

- Process and Threads
- Memory Allocation
- Windows Registration
- Windows Management Instrumentation
- Handles
- Services
- Windows Event Logs
- Review All Key Topics
- References and Further Reading

Chapter 10: Linux- and Mac OS X—Based Analysis

- Processes
- Forks
- Permissions
- Symlinks
- Daemons
- UNIX-Based Syslog
- Apache Access Logs
- Review All Key Topics
- References and Further Reading

Chapter 11: Endpoint Security Technologies

- Antimalware and Antivirus Software
- Host-Based Firewalls and Host-Based Intrusion Prevention
- Application-Level Whitelisting and Blacklisting
- System-Based Sandboxing
- Review All Key Topics

Chapter 12: Network and Host Telemetry

- Network Telemetry
- Host Telemetry
- Review All Key Topics

Chapter 13: Security Monitoring Operational Challenges

- Security Monitoring and Encryption
- Security Monitoring and Network Address Translation
- Security Monitoring and Event Correlation Time Synchronization
- DNS Tunneling and Other Exfiltration Methods
- Security Monitoring and Tor
- Security Monitoring and Peer-to-Peer Communication
- Review All Key Topics

Chapter 14: Types of Attacks and Vulnerabilities

- Types of Attacks
- Types of Vulnerabilities
- Review All Key Topics

Chapter 15: Security Evasion Techniques

- Encryption and Tunneling
- Resource Exhaustion
- Traffic Fragmentation
- Protocol-Level Misinterpretation
- Traffic Timing, Substitution, and Insertion
- Pivoting
- Review All Key Topics
- References and Further Reading

Videos and How To

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

97	09:27
VIDEOS	HOURS

12. Practice Test

uCertify provides full length practice tests. These tests closely follow the exam objectives and are designed to simulate real exam conditions. Each course has a number of test sets consisting of hundreds of items to ensure that learners are prepared for the certification exam.

Here's what you get

60	2	60
PRE-ASSESSMENTS QUESTIONS	FULL LENGTH TESTS	POST-ASSESSMENTS QUESTIONS

Features

uCertify provides video training courses that contain videos and test set questions based on the exam. These courses are interactive and engaging and the learners can view the content at their own pace, in their own time, and on any device. Learners can easily track the engagement levels so they immediately know which course components are easy to understand and which are more difficult. Test set in the courses closely follow the exam objectives and are designed to simulate real exam conditions.

Each pre and post assessment comes with interactive questions which help users in better understanding of the subject matter.

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. 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

Fundamentals of Networking Protocols and Networking Devices

- Configuring a Static TCP/IP Address
- Using the Process Explorer to View Specific Details About Running Processes on the System
- Preventing Zone Transfers

Network Security Devices and Cloud Services

- Enabling Intrusion Prevention and Detection
- Configuring a Perimeter Firewall

Security Principles

- Running a Security Scan to Identify Vulnerabilities
- Remediating Vulnerabilities on the Local Workstation
- Remediating Vulnerabilities on the Network

Introduction to Security Operations Management

- Consulting a Vulnerability Database
- Scanning the Rootkit
- Performing Reconnaissance on a Network
- Identifying Search Options in Metasploit
- Performing the Initial Scan
- Conducting Vulnerability Scans

Fundamentals of Cryptography and Public Key Infrastructure (PKI)

- Observing MD5 Hash
- Using OpenSSL to Create a Public/Private Key Pair
- Adding a Certificate to MMC

Introduction to Virtual Private Networks (VPNs)

- Configuring Remote Access VPN
- Installing Remote Access Services
- Installing the Web Server IIS Server Role
- Configuring the SSL Port Setting

Windows-Based Analysis

- Assigning Permissions to Folders
- Verifying Network Services
- Working with Task Manager
- Using Network Monitoring
- Exporting your Windows logs

Linux- and Mac OS X—Based Analysis

- Viewing Running Processes on a Linux-based Machine
- Retrieving a Real-Time List of Running Processes
- Initiating an SSH Session from your Windows 10 Client to your Windows Server
- Enabling Debug Logging on the DNS Server

- Making Syslog Entries Readable
- Installing Splunk on the Server

Network and Host Telemetry

- Working with Wireshark's Interface
- Analyzing the Capture File to Find the Attack(s)
- Generating Network Traffic and Using Filters
- Examining the traffic between client and server
- Assessing the impact of malware
- Downloading and Installing Wireshark and WinPcap
- Analyzing Protocols with Wireshark
- Starting a Live Packet Capture
- Confirming the Spoofing Attack in Wireshark
- Observing Traffic Patterns Using Wireshark
- Collecting network-based security intelligence

Types of Attacks and Vulnerabilities

- Spoofing MAC Address with SMAC
- Performing for ARP Spoofing
- Responding to social engineering
- Simulating a DoS Attack

Here's what you get

47	41	59
LIVE LABS	VIDEO TUTORIALS	MINUTES

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.

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