Course Ou

CWS and CW



28 Mar 2024

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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. 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.



3. 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.



4. 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.



5. 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.

6. 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.

7. 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.

8. 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

9. 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 CWNP®
- CWNP Learning Resources
- How to Become a CWS
- How to Become a CWT
- Who Should Get This Course?
- CWS and CWT Exam Objectives

Chapter 2: Computer Networking Fundamentals

- Network Types
- Network Topologies
- The OSI Model
- Device Addressing
- Summary
- Exam Essentials

Chapter 3: Wireless Local Area Networking, Standards, and Certifications

- The Wireless Computer Network
- Building-to-Building Connectivity Using Wireless LAN Technology
- Radio Frequency Regulatory Domain Governing Bodies and Local Regulatory Authorities
- The IEEE
- Interoperability Certifications
- Common Wireless Local Area Network Deployment Scenarios
- Summary
- Exam Essentials

Chapter 4: Infrastructure and Client Devices Used with Wireless Networking

- The Wireless Access Point
- Wireless Mesh
- Wireless Bridges
- Wireless Repeaters/Range Extenders
- Wireless LAN Controllers and Cloud-Managed Architectures
- Power over Ethernet
- Radio Hardware Used with Wireless LAN Technology
- USB 1.0, USB 1.1, USB 2.0, and USB 3.0

- Peripheral Component Interconnect
- Mini-PCI, Mini-PCIe, and Half Mini-PCIe
- Wireless Workgroup Bridges
- Client Device Drivers
- Client Utility Software
- Summary
- Exam Essentials

Chapter 5: Radio Frequency Fundamentals for Wireless Networking

- Understanding Radio Frequency
- Wireless LAN Coverage and Capacity
- Radio Frequency Range and Speed
- Wi-Fi and Non–Wi-Fi Interference
- Basic Units of Radio Frequency Measurement
- Summary
- Exam Essentials

Chapter 6: Antenna Technology for Wireless Networking

- Basic Radio Frequency Antenna Concepts
- Wireless LAN Antenna Types
- Radio Frequency Cables and Connectors
- Factors in Antenna Installation
- Minimizing the Effects of Multipath Using Antenna Diversity
- Combating Effects of Wind and Lightning in Wireless LAN Installations
- Installation Safety
- Antenna Mounting
- Maintaining Clear Communications
- Summary
- Exam Essentials

Chapter 7: Communication for Wireless Networking

- Wireless LAN Operation Methods
- Connecting to an IEEE 802.11 Wireless Network
- The Distribution System
- Data Rates
- Throughput

- Dynamic Rate Switching
- Wireless LAN Transitioning/Roaming
- IEEE 802.11 Power Save Operations
- IEEE 802.11 Protection Mechanisms
- Summary
- Exam Essentials

Chapter 8: Modulation Technology for Wireless Networking

- Network Access Methods
- Spread-Spectrum Technology
- IEEE 802.11g Extended Rate Physical
- IEEE 802.11n High Throughput
- IEEE 802.11a, 802.11g, 802.11n, and 802.11ac OFDM
- Summary
- Exam Essentials

Chapter 9: Security Fundamentals for Wireless Networking

- Introducing IEEE 802.11 Wireless LAN Security
- Wireless LAN Threats and Intrusion

- IEEE 802.11 Standard Security
- Early Wireless LAN Security Methods
- MAC Address Filtering
- IEEE 802.11 Authentication and Data Encryption
- IEEE 802.11 SOHO and Enterprise Security Technologies
- Wi-Fi Protected Access and WPA2 Personal Security
- WPA and WPA2 Enterprise Security
- IEEE 802.1X/EAP
- IEEE 802.11 Encryption Methods
- Role-Based Access Control
- Virtual Private Networking
- The Wireless Intrusion Prevention System
- The Captive Portal
- Wireless Network Management and Monitoring Systems
- Industry Regulatory Compliance
- Summary
- Exam Essentials

Chapter 10: Design for Wireless Networking

- Wireless Site Surveys
- Gathering Business Requirements
- Interviewing Stakeholders
- Gathering Site-Specific Documentation
- Identifying Infrastructure Connectivity and Power Requirements
- Understanding Application Requirements
- Understanding Radio Frequency Coverage and Capacity Requirements
- Client Connectivity Requirements
- Antenna Use Considerations
- The Physical Radio Frequency Site Survey Process
- Radio Frequency Spectrum Analysis
- Received Signal Strength
- Performing a Manual Radio Frequency Wireless Site Survey
- Performing a Predictive Modeling Site Survey
- Performing a Post-Deployment Site Survey
- Protocol Analysis

- RF Coverage Planning
- Infrastructure Hardware Selection and Placement
- Testing Different Antennas
- Wireless Channel Architectures
- Wireless Device Installation Limitations
- Site Survey Report
- Summary
- Exam Essentials

Chapter 11: Mobile Device Management and BYOD Fundamentals

- Mobile Device Management Solutions
- Common Mobile Device Operating System Platforms
- The Mobile Application Store
- Pushing Content to Mobile Devices
- Mobile Device Management Administrative Permissions
- Understanding Mobile Device Management High Availability and Redundancy
- Mobile Device Management Device Groups
- Location-Based Services

- Mobile Device Telecommunications Expense Management
- Captive and Self-Service Portals
- General Technology Network and Security Policy
- Information Technology and Security Policy Implementation and Adherence
- Backup, Restore, and Recovery Policies
- Operating System Modifications and Customization
- Technology Profiles
- Understanding Group Profiles
- Policy and Profile Pilot Testing
- Summary
- Exam Essentials

Chapter 12: Troubleshooting for Wireless Networking

- Identifying Wireless LAN Problems
- Wireless LAN Connectivity—Coverage and Capacity Problems
- Application Performance Problems
- Optimizing Wireless Networks
- Summary

- Exam Essentials

Chapter 13: Appendix A

10. Practice Test

Here's what you get

60	3	60
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.

11. 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

Computer Networking Fundamentals

- Connecting Devices in Bus Topology
- Connecting Devices in a Peer- To- Peer Architecture
- Obtaining the Hardware Information of a Network Adapter
- Obtaining an IP Version of the Network Adapter
- Obtaining Information about an IP version
- Obtaining the ARP Cache
- Obtaining IP Route Information from the IP Routing Table
- Obtaining Information about the Net Firewall Profile
- Getting the TCP Settings
- Getting Information about the Current Connection Statistics of TCP
- Getting Information about the TCP Ports
- Getting the UDP Settings
- Getting Information about the Current Connection Statistics of UDP
- Getting Information about the UDP Ports
- Getting Information about the DNS
- Finding the Logical Address of a LAN Adapter
- Finding the Physical Address of a LAN Adapter

- Finding the Host Name of a Machine
- Configuring Network Address Translation
- Configuring a Class A IP Address
- Configuring a Class B IP Address
- Configuring a Class C IP Address
- Adding an IPv6 Address
- Viewing the device address information

Wireless Local Area Networking, Standards, and Certifications

- Connecting a New Workstation to the Internet
- Connecting Cable Internet Access for your Network
- Connecting a Workstation to the LAN and Configuring IPv4 Properties

Infrastructure and Client Devices Used with Wireless Networking

- Configuring a Wireless AP
- Configuring Autonomous Access Points
- Inserting a Pen Drive into the USB Port
- Installing a USB 3.0 PCI Express Card (2.0 x4)
- Installing a Loopback Adapter Driver
- Viewing network adapter advanced properties
- Creating a network manually
- Configuring a Wireless Client

Communication for Wireless Networking

- Setting up an ad hoc network
- Checking the network adapter speed
- Turning Off the Power Save Mode
- Enabling power save mode

Modulation Technology for Wireless Networking

- Configuring SSID

Security Fundamentals for Wireless Networking

- Using a Wireless AP for MAC Address Filtering
- Changing Passwords for the Router
- Configuring WPA2 Enterprise Security
- Creating a VPN Connection
- Configuring a Virtual Private Network Server
- Setting up a VPN connection
- Establishing and configuring a VPN client

Design for Wireless Networking

- Using Spectrum Analysis Tools for Wi-Fi Networks
- Installing Ekahau HeatMapper

Mobile Device Management and BYOD Fundamentals

- Installing the Android Emulator Software
- Installing the YouWave Android emulator
- Removing an Account in Android
- Resetting the Default Application in Android

Troubleshooting for Wireless Networking

- Disabling APIPA
- Diagnosing Networking Issues
- Connecting to a Password Protected Network
- Starting the AutoConfig Service
- Upgrading a Device Driver
- Upgrading a driver manually

Here's what you get

59	59	01:32
LIVE LABS	VIDEO TUTORIALS	HOURS

12. 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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