

uCertify

Course Outline

**Mobility+ Mobile Computing
Deployment and Management
(Course & Labs)**



25 Feb 2020



Lesson



Practice test



Lab

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1. Course Objective

Gain hands-on expertise in CompTIA Mobility+ certification exam with Mobility+ Mobile Computing Deployment and Management course and performance-based labs. Performance-based labs simulate real-world, hardware, software & command line interface environments and can be mapped to any text-book, course & training. This course and labs focus on the objectives covered in Mobility+ exam and provide an understanding of how computer networking technology and radio frequency technology work together to create wireless networks.

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.

57
EXERCISES

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.

100
QUIZZES

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.

425
FLASHCARDS

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.

425
GLOSSARY OF
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 assignments. 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 5 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

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: Computer Network Types, Topologies, and the OSI Model

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

Chapter 2: Common Network Protocols and Ports

- The Internet Protocol Suite
- Request for Comments (RFC)
- Common Network Protocols and Services
- Understanding Ports, Protocols, and Sockets
- Secure Sockets Layer (SSL)
- Common Protocols for File Transfer
- Common Protocols Used with Messaging
- Other Common Protocols
- Summary
- Chapter Essentials

Chapter 3: Radio Frequency and Antenna Technology Fundamentals

- Radio Frequency Fundamentals
- RF Regulatory Governing Bodies and Local Regulatory Authorities
- Radio Frequency Characteristics
- Bandwidth
- Modulation
- Radio Frequency Range and Speed

- Measurement Units of Radio Frequency
- Radio Frequency Antenna Concepts
- Antenna Types
- Minimizing the Effects of Multipath Using Antenna Diversity
- Distributed Antenna System (DAS)
- Radio Frequency Cables and Connectors
- Antenna Installation Considerations
- Summary
- Chapter Essentials

Chapter 4: Standards and Certifications for Wireless Technology

- The IEEE
- IEEE Standards for Wireless Communication
- Wireless Networking and Communications
- Interoperability Certifications
- Common IEEE 802.11 Deployment Scenarios
- Building-to-Building Connectivity Using Wireless LAN Technology
- Summary

- Chapter Essentials

Chapter 5: IEEE 802.11 Terminology and Technology

- Wireless LAN Operating Frequencies and RF Channels
- Wireless LAN Modes of Operation
- IEEE 802.11 Physical Layer Technology Types
- Wireless LAN Coverage and Capacity
- Radio Frequency Signal Measurements
- Connecting to an IEEE 802.11 Wireless Network
- The Distribution System
- Data Rates
- Throughput
- Dynamic Rate Switching
- Wireless LAN Transition or Roaming
- IEEE 802.11 Power Save Operations
- IEEE 802.11 Protection Modes and Mechanisms
- Summary
- Chapter Essentials

Chapter 6: Computer Network Infrastructure Devices

- The Wireless Access Point
- Wireless Mesh
- Wireless Bridges
- Wireless Repeaters
- Wireless LAN Controllers and Cloud-Managed Architectures
- Power over Ethernet
- Virtual Private Network (VPN) Concentrators
- Network Gateways
- Proxy Servers
- Summary
- Chapter Essentials

Chapter 7: Cellular Communication Technology

- The Evolution of Cellular Communications
- Channel Access Methods
- Circuit Switching vs. Packet Switching Network Technology
- Mobile Device Standards and Protocols
- WiMAX

- Roaming between Different Network Types
- Summary
- Chapter Essentials

Chapter 8: Site Survey, Capacity Planning, and Wireless Design

- Wireless Site Surveys
- Gathering Business Requirements
- Interviewing Stakeholders
- Gathering Site-Specific Documentation
- Identifying Infrastructure Connectivity and Power Requirements
- Understanding Application Requirements
- Understanding RF 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-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
- Chapter Essentials

Chapter 9: Understanding Network Traffic Flow and Control

- Local Area Network and Wide Area Network Traffic Flow
- Network Subnets
- IP Subnetting
- Network Traffic Shaping
- Summary

- Chapter Essentials

Chapter 10: Introduction to Mobile Device Management

- Mobile Device Management Solutions
- Common Mobile Device Operating System Platforms
- The Mobile Application Store
- Pushing Content to Mobile Devices
- MDM Administrative Permissions
- Understanding MDM High Availability and Redundancy
- MDM Device Groups
- Location-Based Services
- Mobile Device Telecommunications Expense Management
- Captive and Self-Service Portals
- Summary
- Chapter Essentials

Chapter 11: Mobile Device Policy, Profiles, and Configuration

- 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
- Chapter Essentials

Chapter 12: Implementation of Mobile Device Technology

- System Development Life Cycle (SDLC)
- Pilot Program Initiation, Testing, Evaluation, and Approval
- Training and Technology Launch
- Documentation Creation and Updates
- Mobile Device Configuration and Activation
- Wireless LAN, Cellular Data, and Secure Digital Adapters
- Mobile Device Management Onboarding and Provisioning
- Mobile Device Management Offboarding and Deprovisioning
- Summary

- Chapter Essentials

Chapter 13: Mobile Device Operation and Management Concepts

- Centralized Content, Application Distribution, and Content Management Systems
- Content Permissions, Data Encryption, and Version Control
- Mobile Device Remote Management Capabilities
- Life Cycle Operations
- Information Technology Change Management
- The Technology End-of-Life Model
- Deployment Best Practices
- Summary
- Chapter Essentials

Chapter 14: Mobile Device Technology Advancements, Requirements, and Application Configuration

- Maintaining Awareness of Mobile Technology Advancements
- Configuration of Mobile Applications and Associated Technologies
- In-House Application Requirements
- Mobile Application Types

- Configuring Messaging Protocols and Applications
- Configuring Network Gateway and Proxy Server Settings
- Push Notification Technology
- Information Traffic Topology
- Summary
- Chapter Essentials

Chapter 15: Mobile Device Security Threats and Risks

- Understanding Risks with Wireless Technologies
- Understanding Risks Associated with Software
- Understanding Risks Associated with Mobile Device Hardware
- Understanding Risks Affecting Organizations
- Summary
- Chapter Essentials

Chapter 16: Device Authentication and Data Encryption

- Access Control
- Authentication Processes

- Encryption Methods for Wireless Networking
- Cipher Methods
- Secure Tunneling
- Public Key Infrastructure (PKI) Concepts
- Physical Media Encryption
- Summary
- Chapter Essentials

Chapter 17: Security Requirements, Monitoring, and Reporting

- Device Compliance and Report Audit Information
- Third-Party Device Monitoring Applications (SIEM)
- Understanding Mobile Device Log Files
- Mitigation Strategies
- Summary
- Chapter Essentials

Chapter 18: Data Backup, Restore, and Disaster Recovery

- Network Server and Mobile Device Backup
- Backing Up Server Data

- Backing Up Client Device Data
- Disaster Recovery Principles
- Maintaining High Availability
- Restoring Data
- Summary
- Chapter Essentials

Chapter 19: Mobile Device Problem Analysis and Troubleshooting

- The Troubleshooting Process
- Understanding Radio Frequency Transmitters and Receivers
- Troubleshooting Specific Problems
- Common Over-the-Air Connectivity Problems
- Troubleshooting Common Security Problems
- Summary
- Chapter Essentials

Chapter 20: Video Tutorials

- Introduction

- Air Technologies
- Network Infrastructure
- Wireless Technology
- Mobile Device Management
- Wireless Device Management
- Security
- Encryption methods and Risks
- Wireless Troubleshooting
- Conclusion

Videos and How To

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

48

VIDEOS

08:07

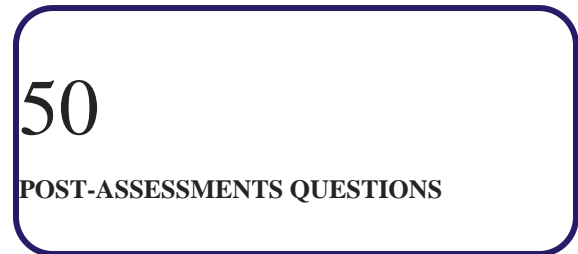
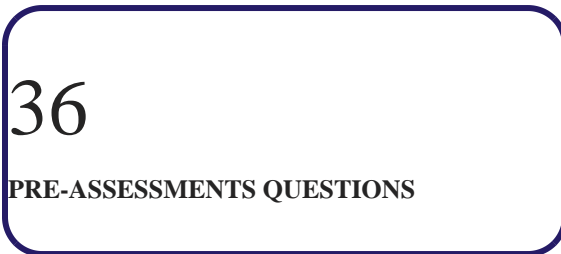
HOURS

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



Features

Full Remediation

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.

Learn, Test and Review Mode

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. Performance Based Labs

uCertify's performance-based labs are simulators that provides virtual environment. Labs deliver hands on experience with minimal risk and thus replace expensive physical labs. uCertify Labs are

cloud-based, device-enabled and can be easily integrated with an LMS. Features of uCertify labs:

- Provide hands-on experience in a safe, online environment
- Labs simulate real world, hardware, software & CLI environment
- Flexible and inexpensive alternative to physical Labs
- Comes with well-organized component library for every task
- Highly interactive - learn by doing
- Explanations and remediation available
- Videos on how to perform

Lab Tasks

- Identifying network categories
- Creating a wireless ad hoc network
- Identifying a network topology
- Identifying network topologies
- Identifying peer-to-peer network
- Identifying OSI layer functions
- Identifying OSI layers
- Identifying connectionless communication
- Understanding data encapsulation
- Identifying TCP/IP protocol layers
- Understanding RFC
- Identifying network protocols
- Viewing DHCP Information
- Understanding Ports
- Understanding SSL
- Installing FTP client software
- Installing FTP server software
- Understanding POP3 process
- Identifying port numbers
- Understanding GCM

- Identifying steps in SMTP process
- Allowing RDP connections
- Understanding radio transmission
- Identifying ITU-R administrative regions and geographic locations
- Understanding frequency
- Understanding radio frequency range
- Understanding power measurement units
- Performing a wireless site survey
- Understanding sector antennas
- Understanding passive DAS
- Understanding Impedance
- Identifying IEEE 802.11n amendment details
- Understanding wide area network
- Understanding IEEE 802.11 standard
- Connecting computers on a SOHO network to the Internet
- Understanding point to point connections
- Configuring SSID
- Identifying service set configurations
- Configuring network adapter property
- Connecting to hidden wireless networks
- Understanding spread spectrum technology
- Understanding open system authentication
- Understanding shared-key authentication
- Connecting a distribution system
- Viewing data rate
- Understanding IEEE 802.11n
- Setting power save mode
- Configuring a wireless access point
- Identifying mesh access point connection
- Understanding wireless bridge
- Understanding wireless repeater
- Examining advanced Windows Firewall settings
- Configuring NPS to provide RADIUS authentication
- Understanding PoE
- Identifying VPN protocols

- Configuring the VPN client
- Identifying 2G cellular features
- Understanding CDMA
- Creating packet switching network
- Identifying mobile device protocols
- Identifying wireless network design factors
- Using spectrum analysis tool
- Using Ekahau HeatMapper
- Installing RF3D WiFiPlanner2
- Converting decimal number to binary
- Generating subnets
- Installing YouWave Android
- Identifying areas in an Information Technology and Security Policy
- Identifying steps to reset the default applications
- Connecting an iPhone to the Wi-Fi network
- Identifying primary phases of SDLC
- Establishing a Bluetooth connection
- Connecting a digital camera to a computer
- Connecting a USB printer to a computer
- Identifying a PCI-bus slot
- Installing PCIe Cards on the Motherboard
- Identifying and installing a PCI sound card
- Installing SDIO wireless LAN card
- Installing a wireless LAN adapter
- Turning on location services
- Verifying software update
- Identifying advantages of native apps
- Identifying network protocols
- Enabling APNS on an Apple iPhone
- Identifying risk types
- Understanding android rooting
- Resetting the content in an iPhone
- Identifying types of authentication services
- Identifying VPN protocols
- Creating and encrypting a folder

- Identifying data loss prevention types
- Viewing the archive attribute
- Installing a backup program
- Replacing the power supply
- Opening the built-in network troubleshooting feature

Here's what you get

95
PERFORMANCE BASED
LAB

39
VIDEO TUTORIALS

38
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.

Have Any Query? We Are Happy To Help!

GET IN TOUCH:

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