

uCertify

Course Outline

CompTIA A+ (220-1101 & 220-1102)



Lesson



Practice test



Live-Lab

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Here's what you get

Features

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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.



555

EXERCISES

3. 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.



440

QUIZZES

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.



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

- What Is A+ Certification?
- What Does This Course Cover?
- The CompTIA A+ Exam Objectives
- A+ Certification Exam Objectives: 220-1101
- Objective Map
- A+ Certification Exam Objectives: 220-1102
- Objective Map

Chapter 2: Motherboards, Processors, and Memory

- Understanding Motherboards

- Understanding Processors
- Understanding Memory
- Understanding Cooling Systems
- Summary
- Exam Essentials

Chapter 3: Expansion Cards, Storage Devices, and Power Supplies

- Installing and Configuring Expansion Cards
- Understanding Storage Devices
- Understanding Power Supplies
- Summary
- Exam Essentials

Chapter 4: Peripherals, Cables, and Connectors

- Understanding Cables and Connectors
- Understanding Cables and Connectors
- Summary
- Exam Essentials

Chapter 5: Printers and Multifunction Devices

- Understanding Print Technologies and Imaging Processes
- Installing and Maintaining Printers
- Summary
- Exam Essentials

Chapter 6: Networking Fundamentals

- Understanding Networking Principles
- Identifying Common Network Hardware
- Summary
- Exam Essentials

Chapter 7: Introduction to TCP/IP

- Understanding TCP/IP
- Understanding Virtual Networks
- Summary
- Exam Essentials

Chapter 8: Wireless and SOHO Networks

- Understanding Wireless Networking Technologies
- Installing and Configuring SOHO Networks
- Summary
- Exam Essentials

Chapter 9: Network Services, Virtualization, and Cloud Computing

- Understanding Network Services
- Understanding Virtualization and Cloud Computing
- Summary
- Exam Essentials

Chapter 10: Laptop and Mobile Device Hardware

- Working with Laptop and Mobile Device Hardware
- Summary
- Exam Essentials

Chapter 11: Mobile Connectivity and Application Support

- Understanding Mobile Connectivity
- Understanding Mobile App Support
- Summary
- Exam Essentials

Chapter 12: Troubleshooting Methodology and Resolving Core Hardware Problems

- Using the Troubleshooting Best Practice Methodology
- Troubleshooting Motherboards, CPUs, RAM, and Power Problems
- Summary
- Exam Essentials

Chapter 13: Hardware and Network Troubleshooting

- Troubleshooting Storage Drives and RAID Arrays

- Troubleshooting Video, Projector, and Display Issues
- Troubleshooting Common Mobile Device Issues
- Troubleshooting Printer Problems
- Troubleshooting Networking Problems
- Summary
- Exam Essentials

Chapter 14: Operating System Basics

- Understanding Operating Systems
- Understanding Applications
- Introduction to Windows 10
- Preparing for the Exam
- Summary
- Exam Essentials

Chapter 15: Windows Configuration

- Interacting with Operating Systems
- The Windows Registry

- Disk Management
- Summary
- Exam Essentials

Chapter 16: Windows Administration

- Installing and Upgrading Windows
- Command-Line Tools
- Networking in Windows
- Summary
- Exam Essentials

Chapter 17: Working with macOS and Linux

- macOS and Linux
- Applications on macOS
- Best Practices
- Tools
- System Preferences
- Features

- Basic Linux Commands
- Linux and Windows
- Summary
- Exam Essentials

Chapter 18: Security Concepts

- Physical Security Concepts
- Physical Security for Staff
- Logical Security
- Malware
- Mitigating Software Threats
- Social Engineering Attacks, Threats, and Vulnerabilities
- Common Security Threats
- Exploits and Vulnerabilities
- Security Best Practices
- Destruction and Disposal Methods
- Summary

- Exam Essentials

Chapter 19: Securing Operating Systems

- Working with Windows OS Security Settings
- Web Browser Security
- Securing a SOHO Network (Wireless)
- Securing a SOHO Network (Wired)
- Mobile Device Security
- Summary
- Exam Essentials

Chapter 20: Troubleshooting Operating Systems and Security

- Troubleshooting Common Microsoft Windows OS Problems
- Troubleshooting Security Issues
- Best Practices for Malware Removal
- Troubleshooting Mobile OS Issues
- Troubleshooting Mobile Security Issues
- Summary

- Exam Essentials

Chapter 21: Scripting and Remote Access

- Scripting
- Remote Access
- Summary
- Exam Essentials

Chapter 22: Safety and Environmental Concerns

- Understanding Safety Procedures
- Understanding Environmental Controls
- Understanding Policies, Licensing, and Privacy
- Summary
- Exam Essentials

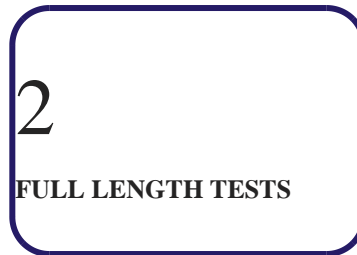
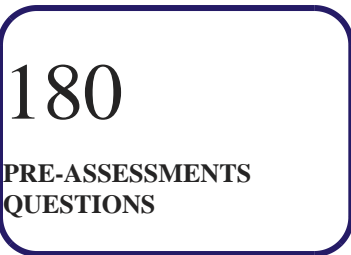
Chapter 23: Documentation and Professionalism

- Documentation and Support
- Change Management Best Practices

- Disaster Prevention and Recovery
- Demonstrating Professionalism
- Summary
- Exam Essentials
- Assessment Test questions
- Assessment Test questions
- Practice Exam 1 (Exam 220-1101)
- Practice Exam 1 (Exam 220-1102)
- Practice Exam 2 (Exam 220-1101)
- Practice Exam 2 (Exam 220-1102)
- Practice Exam 3 (Exam 220-1101)
- Practice Exam 3 (Exam 220-1102)
- Practice Exam 4 (Exam 220-1101)
- Practice Exam 4 (Exam 220-1102)

11. Practice Test

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.

12. Live Labs

Live-Lab is a real computer equipment, networked together and conveniently accessible over the internet using virtualization. A live-lab has equipments such as a computer, server, switch or router in it that a user is free to configure.

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

Motherboards, Processors, and Memory

- Setting Up a Boot Device Priority
- Accessing the BIOS Setup in Windows 10
- Installing a Processor
- Identifying the CPU Socket
- Installing Motherboard Components
- Assembling Computer Components
- Identifying a PCI-Bus Slot
- Installing a PCI Sound Card
- Enabling Hardware Virtualization
- Working with Task Manager
- Viewing the Processor Information
- Installing Memory Modules
- Verifying the RAM Usage

- Providing Cooling and Ventilation to the Motherboard

Expansion Cards, Storage Devices, and Power Supplies

- Installing an NIC
- Installing Expansion Cards on a Motherboard
- Installing a USB 3.0 PCI Express Card (2.0 x4)
- Configuring NIC Teaming
- Replacing the Battery of a Smartphone and Inserting a Memory Card
- Copying Files to a Disc Using File Explorer
- Inserting a CD on a Laptop
- Connecting the Motherboard to the Internal Hard Drive
- Installing an Optical Drive and a PCI Sound Card
- Creating a Swap Partition
- Installing SMPS and Connecting it to the Motherboard
- Replacing the Power Supply

Peripherals, Cables, and Connectors

- Connecting Speakers to a Computer
- Installing a Printer
- Configuring the Mouse Settings
- Adding a Keyboard Layout
- Connecting the Hub with Different Devices Using USB Cables
- Supplying Power to a SATA Drive
- Inserting a Pen Drive into the USB Port
- Installing FireWire Cards

Printers and Multifunction Devices

- Inserting Ink Cartridges into a Printer
- Connecting a USB Printer to a Computer

Networking Fundamentals

- Connecting Devices in a Bus Topology
- Identifying Clients and Servers
- Connecting Devices in a Peer to Peer Architecture
- Installing and Configuring a Temporary Server
- Connecting a New Workstation to the Internet
- Connecting the Cable Modem to Access the Internet
- Connecting a Router to a Laptop
- Connecting Systems to the Internet Through a Firewall Router
- Configuring Port Security on an Access Port
- Configuring a Router
- Enabling a Device Driver
- Disabling a Device Driver

Introduction to TCP/IP

- Configuring Port Address Translation
- Configuring Network Address Translation
- Understanding the IPv4 Header
- Configuring an IPv6 Address
- Adding a DNS Server
- Configuring a DHCP Server
- Creating a VLAN and Viewing its Assignment to Port Mapping
- Establishing a VPN Connection

Wireless and SOHO Networks

- Configuring an IPv4 Address
- Creating a Dial-up Connection

Network Services, Virtualization, and Cloud Computing

- Scanning Using Wireshark
- Connecting a Workstation to the LAN and Configuring IPv4 Properties

Laptop and Mobile Device Hardware

- Installing Laptop Components

Mobile Connectivity and Application Support

- Turning On the Airplane Mode of an iPhone
- Setting Up a VPN on Android
- Viewing the iOS Version of an iPhone
- Locking an iPhone With a Password
- Configuring Email in Android
- Removing an Account in Android

Hardware and Network Troubleshooting

- Configuring the Screen Resolution Setting
- Configuring a Power Plan

Operating System Basics

- Configuring Screensavers
- Enabling BranchCache
- Creating a Restore Point

Windows Configuration

- Configuring a Default Domain Password Policy
- Configuring an Audit Group Policy
- Observing the Control Panel Options from Different Views
- Uninstalling a Program
- Creating Variables
- Setting Automatic Windows Updates
- Using Task Manager to Start an Application
- Configuring Computer Management Services
- Disabling a Service

- Using Windows Event Viewer
- Displaying Windows PowerShell Snap-ins
- Adding an MMC Snap-in
- Managing NTFS Permissions
- Editing a Drive Letter
- Converting a Basic Disk to a Dynamic Disk
- Converting a FAT32 Partition to NTFS
- Mounting a Drive to a Folder
- Working with the Command Prompt

Windows Administration

- Tracing Route Using Tracert
- Using the nslookup Command
- Using the ping Command
- Using the netstat Command
- Viewing the Status of a Disk

Working with macOS and Linux

- Restoring Files
- Backing up Files
- Performing a Text Search
- Working with Directories
- Verifying the Working Directory
- Listing Files in a Directory
- Using Basic Linux Commands

Security Concepts

- Configuring Windows Defender Firewall
- Conducting a DoS Attack using Smurf Attack
- Conducting IP Spoofing
- Using an Asymmetric Encryption Algorithm
- Using a Symmetric Encryption Algorithm

- Disabling AutoPlay
- Using Windows Security

Securing Operating Systems

- Creating a New User
- Using BitLocker
- Propagating Permissions
- Stopping Permission Inheritance
- Implementing EFS File Sharing

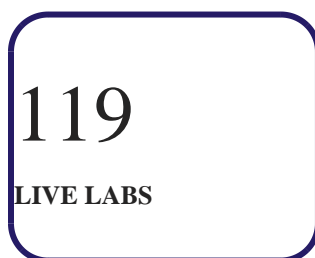
Scripting and Remote Access

- Creating and Running a ps1 File
- Executing the Basic Commands through a ps1 File
- Creating a Loop in PowerShell

Safety and Environmental Concerns

- Using a UPS to Power the Computer Components and Ensure Network Connectivity
- Setting Up a Surge-Protected Computer System

Here's what you get




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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