uCertify

Course Outline

CompTIA A+ (220-1102)

15 May 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: Operating System Basics

   Chapter 3: Windows Configuration

   Chapter 4: Windows Administration

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   Chapter 6: Security Concepts

   Chapter 7: Securing Operating Systems

   Chapter 8: Troubleshooting Operating Systems and Security

   Chapter 9: Scripting and Remote Access

   Chapter 10: Safety and Environmental Concerns

   Chapter 11: Documentation and Professionalism

   Videos and How To
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   Here's what you get

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10. Live labs

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11. Post-Assessment

1. Course Objective

The CompTIA A+ (220-1102) course equips you with the essential skills and knowledge necessary for success in the dynamic world of Information Technology. The course covers key modules such as Hardware Essentials, Operating Systems, Networking Fundamentals, Security Best Practices and Troubleshooting Techniques which are essential for IT proficiency. Upon completion of this course, you'll be well-prepared to ace the CompTIA A+ (220-1102) 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

- What Is A+ Certification?
- The CompTIA A+ Exam Objectives
- A+ Certification Exam Objectives: 220-1102

- Objective Map

Chapter 2: Operating System Basics

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

Chapter 3: Windows Configuration

- Interacting with Operating Systems
- The Windows Registry
- Disk Management
- Summary
- Exam Essentials

Chapter 4: Windows Administration

- Installing and Upgrading Windows

- Command?Line Tools
- Networking in Windows
- Summary
- Exam Essentials

Chapter 5: 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 6: 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 7: 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 8: 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 9: Scripting and Remote Access

- Scripting
- Remote Access
- Summary
- Exam Essentials

Chapter 10: Safety and Environmental Concerns

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

Chapter 11: Documentation and Professionalism

- Documentation and Support
- Change Management Best Practices
- Disaster Prevention and Recovery
- Demonstrating Professionalism
- Summary
- Exam Essentials

Videos and How To

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

130	19:50
VIDEOS	HOURS

12. Practice Test

Here's what you get

99	2	95
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.

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

Operating System Basics

- Configuring Screen Savers
- 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 a Variable
- Setting Automatic Windows Updates
- Using the 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 the tracert Command
- 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 the AutoPlay Feature
- Using Windows Security in Windows Defender Settings

Securing Operating Systems

- Creating a New User
- Using BitLocker
- Propagating Permissions
- Stopping Permission Inheritance
- Implementing EFS File Sharing
- Configuring a SOHO Network - Packet Tracer Lab
- Setting the Passcode Lock on an iPhone

Troubleshooting Operating Systems and Security

- Creating and Binding an SSL Certificate to a Website
- Adding a Digital Certificate

Scripting and Remote Access

- Running an if-else script in PowerShell
- Running a while loop script in PowerShell
- Creating and Running a ps1 File
- Executing the Basic Commands Through a ps1 File
- Creating a Loop in PowerShell
- Configuring an SSH Server

Safety and Environmental Concerns

- Protecting a Computer Using a UPS
- Setting Up a Surge Protected Computer System

Documentation and Professionalism

- Enabling the Shadow Copies feature in Windows

Here's what you get

58	54	01:07
LIVE LABS	VIDEO TUTORIALS	HOURS

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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