CompTIA A+ 220-902

Course Overview

CompTIA A+ 220-902 is a one-semester course that covers the objectives of the CompTIA A+ 220-902 exam. This course begins by describing Windows operating systems. The course also covers concepts such as virtualization and the cloud. This course helps you identify security threats and describe various prevention methods. You will explain the theory of troubleshooting, and then describe how to troubleshoot operating systems, security problems, and mobile application problems.

Course Goals

By the end of this course, you will:

- Describe the different versions of the Windows operating systems.
- Explain how to install a Windows operating system and perform common maintenance procedures.
- Describe and use an operating system command line and administrative tools.
- Describe how to install Windows networking on a client.
- Describe common features and tools of Mac operating systems and Linux.
- Explain concepts related to servers, cloud computing, and virtualization.
- Describe mobile operating systems, network connectivity, and data synchronization.
- Describe common security threats, prevention methods, and data disposal methods.
- Describe operating system security settings, best practices for workstation security, and methods to secure mobile devices.
- Explain how to secure wireless and wired SOHO networks.
- Explain privacy, licensing, safety procedures, and environmental controls.
- Identify the steps in the troubleshooting process.
- Identify and troubleshoot issues related to operating systems and security.
- Identify and troubleshoot common issues related to mobile operating systems, applications, and security.

General Skills

To participate in this course, you should be able to do the following:

- Complete basic operations with word-processing software.
- Perform online research using various search engines and library databases.
- Communicate through email and discussion boards.

For a complete list of general skills that are required for participation in online courses, refer to the Prerequisites section of the Student Orientation document, found at the beginning of this course.

Credit Value

CompTIA A+ 220-902 is a 0.5-credit course.

Course Materials

- notebook
- computer desktop
- computer laptop
- projector
- printer
- smartphone

Software Requirements

- word processing software
- Windows (Vista, 7, 8, or 8.1)

Credit Information

Windows screenshots courtesy Microsoft Windows.

Course Pacing Guide

This course description and pacing guide is intended to help you stay on schedule with your work. Note that your course instructor may modify the schedule to meet the specific needs of your class.

Unit 1: Windows Operating Systems

Summary

In this unit, you will describe the different versions of Windows operating systems and their features. You will also explain how to install the Windows operating system and perform common maintenance procedures. Additionally, you will describe and use various command line and administrative tools. You will explain how to adjust your computer settings using the Control Panel. Finally, you will describe concepts related to Windows networking.

Day	Activity/*Objective*	Type
1 day: 1	**Syllabus and Student Orientation** *Review the Student Orientation and Course Syllabus at the beginning of this course.*	Course Orientation
4 days: 2–5	**Microsoft Operating Systems** *Describe the different versions of the Windows operating systems.*	Lesson
4 days: 6–9	**Install and Maintain Windows Operating System** *Explain how to install a Windows operating system and perform common maintenance procedures.*	Lesson
4 days: 10–13	**Tools and Commands** *Describe and use an operating system command line and administrative tools.*	Lesson
4 days: 14–17	**Control Panel Utilities** *Explain how to adjust your computer settings using the Control Panel.*	Lesson
4 days: 18–21	**Windows Networking** *Describe how to install Windows networking on a client.*	Lesson
4 days: 22–25	**Unit Activity and Discussion—Unit 1**	Unit Activity Discussion
1 day: 26	**Posttest—Unit 1**	Assessment

Unit 2: Other Operating Systems and Technologies

Summary

In this unit, you will identify common Mac OS features. You will describe basic Linux commands. You will also explain the role of servers and concepts related to cloud computing and virtualization. Finally, you will describe mobile operating systems, mobile features, network connectivity, and data synchronization.

Day	Activity/*Objective*	Type
4 days: 27–30	**Mac Operating System and Linux** *Describe common features and tools of Mac operating system and Linux.*	Lesson
4 days: 31–34	**Network Services, Virtualization, and Cloud** *Explain concepts related to servers, cloud computing, and virtualization.*	Lesson
4 days: 35–38	**Mobile Operating Systems and Network Connectivity** *Describe mobile operating systems, network connectivity, and data synchronization.*	Lesson
4 days: 39–42	**Unit Activity and Discussion—Unit 2**	Unit Activity Discussion
1 day: 43	**Posttest—Unit 2**	Assessment

Unit 3: Security and Operational Procedures

Summary

In this unit, you will identify common security threats and their prevention methods. You will describe physical destruction methods and recycling best practices of drives. You will also describe operating system security settings. You will describe password best practices and methods to secure mobile devices. Additionally, you will explain wired and wireless security options. You will explain software licensing, safety procedures, and environmental controls. Finally, you will demonstrate proper communication skills and work ethics.

Day	Activity/*Objective*	Type
4 days: 44–47	**Security Threats and Prevention Methods** *Describe common security threats, prevention methods, and data disposal methods.*	Lesson

Day	Activity/*Objective*	Type
4 days: 48–51	**Operating System, Workstation, and Mobile Device Security** *Describe operating system security settings, best practices for workstation security, and methods to secure mobile devices.*	Lesson
4 days: 52–55	**SOHO Wireless and Wired Network Security** *Explain how to secure wireless and wired SOHO networks.*	Lesson
4 days: 56–59	**Privacy, Safety Procedures, and Environmental Controls** *Explain privacy, licensing, safety procedures, and environmental controls.*	Lesson
4 days: 60–63	**Communication Techniques and Professionalism** *Demonstrate proper communication skills and work ethics.*	Lesson
4 days: 64–67	**Unit Activity and Discussion—Unit 3**	Unit Activity Discussion
1 day: 68	**Posttest—Unit 3**	Assessment

Unit 4: Software Troubleshooting

Summary

In this unit, you will identify and describe the steps in the troubleshooting process. You will also identify and troubleshoot issues related to operating systems. You will use various troubleshooting tools. You will identify and troubleshoot issues related to security. Finally, you will identify and troubleshoot common mobile OS and application issues.

Day	Activity/*Objective*	Type
4 days: 69–72	**Troubleshooting Theory** *Identify the steps in the troubleshooting process.*	Lesson
4 days: 73–76	**Troubleshooting Operating System Problems** *Identify and troubleshoot issues related to operating systems.*	Lesson
4 days: 77–80	**Troubleshooting Security Problems** *Identify and troubleshoot issues related to security.*	Lesson
4 days: 81–84	**Troubleshooting Mobile Application Problems** *Identify and troubleshoot common issues related to mobile operating systems, applications, and security.*	Lesson
3 days: 85–87	**Unit Activity and Discussion—Unit 4**	Unit Activity Discussion
1 day:	**Posttest—Unit 4**	Assessment

Day	Activity/*Objective*	Type
88		
1 day: 89	**Semester Review**	
1 day: 90	**CompTIA A+ 220-902 Practice Test**	Assessment