

Operating Systems Support

Scope and Sequence

Version 1.0

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Target Audience

The Cisco® IT Operating Systems Support course is designed for Cisco Networking Academy® learners in upper secondary schools, technical schools, and colleges or universities who want to pursue careers in IT support. The target audience includes:

Aspiring IT Support Technicians - Individuals looking to start a career in IT support, particularly in entry-level roles such as help desk or technical support.

High School Graduates and Post-K12 Learners - Learners transitioning from high school or pursuing post-secondary education who want to gain foundational IT and customer service skills.

Career Changers - Professionals from non-technical fields who are looking to pivot into IT and need an introduction to IT support concepts and troubleshooting processes.

Current IT Professionals Seeking to Enhance Customer Service Skills - IT workers in technical roles who wish to refine their customer service and help desk skills to improve interactions with end users.

Community College or Vocational Training Learners - Learners enrolled in certificate or degree programs in IT or technology support who need a focused curriculum on customer service and troubleshooting techniques.

Entry-Level IT Certification Seekers - Individuals preparing for certifications like CompTIA IT Fundamentals (ITF+), CompTIA A+, or similar introductory-level certifications where customer service and troubleshooting are important components.

Small Business or Startup Staff - Employees who manage IT support tasks in smaller companies and need structured guidance on handling troubleshooting and customer interactions effectively.

Remote Support Professionals - Individuals aiming for roles in remote IT support or virtual help desks who need to understand remote access tools, AI integration, and application troubleshooting.

This audience spans from learners in educational settings to working professionals looking for career growth or transition into IT support roles.

Prerequisites

There are no prerequisites for this course.

Certification Alignment

The IT Customer Support Basics course aligns with the following learning objectives for the

[Cisco CCST-IT Support certification](#):

4.1. Assist users in resolving Windows operating system issues.

- 4.2. Assist users in resolving MacOS operating system issues.
- 4.3. Assist users in resolving mobile device issues.
- 4.4. Describe virtualization and cloud terminology.
- 4.5. Assist users in resolving common application issues.

Additional skills such as interpersonal skills are also taught including professional communication, active listening, technical concept explanation, and communicating effectively.

Course Description

This course provides foundational knowledge and practical skills for individuals seeking to start or enhance their careers in IT support. This course equips learners with the essential skills to troubleshoot and resolve issues for Windows, macOS, and mobile operating systems. Learners will learn how to assist users in diagnosing and fixing common system errors, connectivity problems, and performance issues. The course provides content and real-world troubleshooting scenarios to develop problem-solving expertise.

Learners will explore common application issues, ensuring they can assist users in resolving software crashes, installation failures, and compatibility issues. The course also introduces virtualization and cloud computing concepts, providing a foundational understanding of modern IT infrastructures. By the end of the course, participants will be prepared to support a wide range of users in professional IT environments.

Designed for IT support technicians, this course blends theoretical knowledge with practical application. Whether troubleshooting a desktop OS or addressing mobile device issues, learners will gain confidence in resolving technical challenges efficiently. This comprehensive training serves as a strong foundation for roles in help desk support, IT administration, and customer service.

Cisco Packet Tracer® activities are designed for use with the latest version of Packet Tracer.

Course Objectives

This comprehensive course equips aspiring IT Support Technicians with the knowledge and skills to provide exceptional technical assistance in diverse computing environments. Designed to align with industry needs, this program focuses on the essential competencies required to support, troubleshoot, and maintain various computer systems, networks, and devices. By the end of this course, learners will possess the technical expertise and problem-solving abilities needed to excel in entry-level IT support roles.

Learning Objectives:

Assist users in resolving Windows operating system issues - Learn to troubleshoot Windows problems, including boot failures, driver conflicts, system crashes, and network issues using built-in tools and system settings.

Assist users in resolving Linux and macOS operating system issues - Gain skills to diagnose and fix macOS issues, such as software conflicts, system updates, file system errors, and hardware connectivity problems.

Assist users in resolving mobile device issues - Troubleshoot common iOS and Android problems, including app crashes, connectivity issues, security settings, and storage management.

Describe virtualization and cloud terminology - Understand key virtualization and cloud concepts, including VMs, hypervisors, cloud service models (IaaS, PaaS, SaaS), and deployment types.

Assist users in resolving common application issues - Learn to fix software crashes, installation failures, compatibility issues, and performance problems using troubleshooting techniques and system logs.

Who Should Enroll

This course is ideal for individuals seeking entry-level positions in IT support, career changers interested in technology, and learners preparing for IT certifications such as CompTIA A+. No prior experience in IT is required.

Course Format

This course uses interactive lectures to provide a well-rounded learning experience. Learners will engage in practical exercises and simulations to reinforce their understanding and build confidence in IT support tasks.

Outcomes

Upon completion, learners will be able to:

- Diagnose and resolve common issues in Windows, Linux, and macOS, including computer crashes, boot failures, and software conflicts.
- Troubleshoot mobile device problems with iOS and Android, such as app crashes, connectivity issues, and security settings.
- Assist users with software installation, compatibility issues, and application troubleshooting across multiple platforms.
- Explain virtualization and cloud computing concepts, including virtual machines, cloud service models, and deployment types.
- Provide effective IT support by utilizing system tools, logs, and troubleshooting techniques to resolve technical issues efficiently.

Course Outline

The table below details the modules and associated competencies. Each module is an integrated unit of learning that consists of content, activities, and assessments that target a specific set of competencies. The size of the module depends on the depth of knowledge and skill needed to master each competency.

Module Titles and Objectives

Module / topic	Goals/Objectives
1. Troubleshooting the Windows Operating System	Assist users in resolving common problems with the Windows operating system.
1.1 Troubleshooting Display and Power Issues	Assist users in troubleshooting display and power issues.
1.2 Assisting Users with Accessibility Features	Assist users with accessibility features.
1.3 Securing and Maintaining Windows System Integrity	Assist users in securing and maintaining Windows security integrity.
1.4 Assisting Users with Cloud-Based Backup Tools	Assist users with cloud-based backup tools.
1.5 Troubleshooting Boot and Startup Issues	Assist users in resolving Windows boot and startup issues.
2. Troubleshooting Linux and macOS	Assists Users in resolving common problems with the Linux and Apple Operating Systems.
2.1 Linux and macOS Tools and Features	Describe tools and features of the Linux and Mac operating systems.
2.2 Linux and macOS Best Practices	Describe Linux and macOS best practices.
2.3 Linux Virtualization	Install a Linux virtual machine.
2.4 Basic Linux Commands Used in Troubleshooting	Use basic Linux troubleshooting commands.
2.5 Troubleshooting macOS	Assist users in troubleshooting the macOS.
3. Troubleshooting Mobile Operating Systems and Applications	Assists users in resolving common problems with mobile devices and software.
3.1 Mobile Device Features	Explain how to enable mobile device features.
3.2 Troubleshooting Process for Mobile Devices	Explain the troubleshooting process for mobile devices.
3.3 Managing Mobile OS Security	Explain how to manage and enable mobile device security.
3.4 Common Issues and Solutions for Mobile Devices	Implement a mobile device hotspot.
3.5 Mobile Device Apps	Configure mobile device application permissions.
3.6 Troubleshooting Mobile Device App Issues	Explain how to troubleshoot common mobile device application issues.

Module / topic	Goals/Objectives
3.7 The Cloud	Explain the characteristics of cloud and cloud services.