



Course Outline

Maintaining and Troubleshooting Windows Vista Computers

Course 5118: Three days; Instructor-Led

Introduction

Elements of this syllabus are subject to change.

This three-day instructor-led course provides students with the knowledge and skills to successfully maintain and troubleshoot Windows Vista computers.

It will provide them with the knowledge and skills necessary to identify technical problems that can occur in organizations client computers. The course will focus on five main troubleshooting areas: Operating system, hardware, networking, security, applications.

It will also provide the knowledge and skills necessary to monitor and maintain Windows Vista client computers.

Audience

The audience of this course is experienced enterprise level IT Professionals who focus on a broad range of desktop operating system, desktop application, mobile device, networking, and hardware support issues. As working professionals, students must combine technical expertise with problem solving and decision making skills and a deep understanding of their business and technical environments to quickly resolve support issues. They consider all variables, justify resolutions with a logical troubleshooting approach, and relate tradeoffs to business and technical requirements and constraints.

Students will have used Windows XP-SP2 and may have experience with Windows server operating systems. Their job requires them to stay knowledgeable and skilled on new versions and updates of technology as defined by the business environment.

At Course Completion

After completing this course, students will be able to:

- Plan and apply a troubleshooting methodology for their own organization.
- Describe how the Windows Vista platform helps address troubleshooting requirements for important technical areas.
- Identify the most appropriate method to troubleshoot Windows Vista computers.
- Identify Windows Vista tools that can be used to help in the troubleshooting process.
- Identify important maintenance tools that will be used as part of IT operations for their organization.
- Describe how monitoring and optimization tools in Windows Vista can be used to assist in troubleshooting and keep the computer performing optimally.

Prerequisites

Before attending this course, students must have:

- Experience supporting previous versions of the Windows operating system.
- Familiarity with an I.T. helpdesk ticketing system.
- Experience researching online and local knowledge bases.



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- Experience running commands from a command window. For example, DOS command prompt.
- Familiarity with PC hardware and devices. For example, ability to use Windows device manager and look for unsupported devices.
- Basic TCP/IP knowledge. For example, that you need to have a valid IP address.
- Basic Windows and Active Directory knowledge. For example, domain user accounts, domain vs. local user accounts, user profiles, and group membership.
- Fundamentals of applications. For example, client/server applications (how client communicates with the server).
- Experience reviewing logs. Know that there is a chronology, sequential order, severity, etc.

In addition, it is recommended, but not required, that students have completed:

- 5115A: Installing and Configuring the Windows Vista Operating System
- 5116A: Configuring Windows Vista Applications and Tools
- 5117A: Configuring Windows Vista Mobile Computing

Important: This learning product will be most useful to people who intend to use their new skills and knowledge on the job immediately after training.

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Module 1: A Troubleshooting Methodology

This module explains what a troubleshooting methodology is and its role in an enterprise and how it can be used to improve the support function within and organization.

Lessons

- Overview of a Troubleshooting Methodology
- Overview of Troubleshooting Stages
- Troubleshooting Component Areas

Lab: Preparing for Remote Troubleshooting

- Obtaining Information Remotely from Windows Vista
- Using the System Information Tool Remotely

After completing this module, students will be able to:

- Describe what a troubleshooting methodology is and its role in an enterprise.
- Identify the users of the troubleshooting methodology.
- Identify the most important troubleshooting component areas.
- Determine issues that directly affect the troubleshooting process.



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Module 2: Troubleshooting Operating Systems

This module explains how to identify and troubleshoot issues that affect the operating systems ability to boot and the services that it is running.

Lessons

- Overview of the Windows Vista Startup Process
- Troubleshooting the Windows Vista Startup Process with WinRE
- Troubleshooting Operating System Services

Lab: Troubleshooting the Operating System

- Gathering System Information and Developing a Plan of Action
- Implementing a Plan of Action
- Clean Booting Windows Vista

After completing this module, students will be able to:

- Identify the available recovery options in Windows Vista.
- Determine the capabilities of each recovery option.
- Troubleshoot operating system services.

Module 3: Troubleshooting Hardware

This module explains how to troubleshoot hardware related problems and how to use Windows Vista tools to troubleshoot device problems.

Lessons

- Overview of Troubleshooting Hardware
- Dealing with Physical Failures
- Dealing with Device Driver Failures
- Troubleshooting Print Devices
- Troubleshooting BitLocker Protected Computers

Lab : Troubleshooting Hardware

- Gathering Customer Information and Determine a Plan of Action
- Resolve Printing Problems
- Checking for Signed Device Drivers

After completing this module, students will be able to:

- Identify basic types of hardware related troubleshooting problems.
- Determine problems related to hardware failures
- Determine problems that are caused by device drivers
- Identify the recovery options for computers protected by BitLocker.



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Module 4: Troubleshooting Networks

This module explains how to identify the most likely cause of network problems in a number of given network scenarios.

Lessons

- Determining Network Settings
- How to Troubleshoot Network Connections

Lab : Troubleshooting Networks

- Gathering Customer Information
- Gathering Relevant Computer Information
- Resolving the Problem

After completing this module, students will be able to:

- Obtain information to help in the network troubleshooting process.
- Explain how to use Network Diagnostics Framework to troubleshoot network problems.
- Identify the solutions to common network problems.

Module 5: Troubleshooting Security Issues

After completing this module, students will be able to troubleshoot issues that are caused by security related configurations such as User Account Control (UAC) and Windows Firewall.

Lessons

- Overview of User Account Control
- Troubleshooting User Account Control
- Troubleshooting Windows Firewall
- Troubleshooting Windows Defender

Lab: Troubleshooting Security Related Issues

- Gathering Customer and System Information and Develop a Plan of Action
- Implementing a Plan of Action
- Additional Security Checks

After completing this module, students will be able to:

- Explain the UAC architecture.
- Apply best practices for working with UAC.
- Troubleshoot UAC related problems.
- Troubleshoot Windows Firewall related issues.
- Configure Windows Firewall via group policy.
- Troubleshoot Windows Defender related issues.
- Configure Windows Defender by using group policy.



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Module 6: Troubleshooting Applications

After completing this module, students will be able to troubleshoot issues that are caused by applications that are causing problems running on Windows Vista.

Lessons

- Overview of Application Troubleshooting
- Web Application Troubleshooting

Lab : Troubleshooting Applications

- Analyzing Collected Information and Identifying Probable Causes
- Implementing a Plan of Action
- Troubleshooting Word 2003

After completing this module, students will be able to:

- Troubleshoot Windows application problems.
- Troubleshooting Web application problems.

Module 7: Maintaining and Optimizing Windows Vista

After completing this module, students will be able to identify tools that can be used to maintain a healthy operating system and optimize its performance.

Lessons

- Maintaining Windows Vista
- Optimizing Windows Vistas Performance
- Monitoring Windows Vista

Lab: Maintaining and Optimizing Windows Vista

- Analyzing Collected Information and Identifying Probable Causes
- Implementing a Plan of Action
- View and Interpret Logs in Performance Monitor

After completing this module, students will be able to:

- Identify Windows Vista maintenance tasks.
- Identify Windows Vista optimization tools.
- Explain the Windows Vista monitoring process.