



Price: \$1,995
Length: 5 days

Introduction: This five day course provides students with the fundamental knowledge and skills to use Windows PowerShell 3.0 for administering and automating administration of Windows based servers. It focuses on primary Windows PowerShell command-line features and techniques, and will provide prerequisite skills supporting many different Microsoft products. This includes Windows Server, Windows Client, Exchange Server, SharePoint Server, SQL Server, System Center, and more. In keeping with that goal, this course will not focus on any one of those products, although Windows Server (which is the common platform for all of those) will serve as the example for the techniques being taught.

Target Audience: This course is intended for IT Professionals already experienced in general Windows Server and Windows Client administration or already experienced in administering and supporting Application servers and services including Exchange, SharePoint, SQL etc. It is broadly intended for students who want to use Windows PowerShell to automate administrative tasks from the command line, using any Microsoft or independent software vendor (ISV) product that supports Windows PowerShell manageability.

This course is not intended to be a scripting or programming course, and includes only basic coverage of scripting and programming topics. Students are not expected to have prior scripting or programming experience, and are not expected to have prior Windows PowerShell experience

Prerequisites:

- Previous Windows Server and Windows Client management knowledge and hands on experience.
- Experience Installing and Configuring Windows Server into existing enterprise environments, or as standalone installations.
- Knowledge and experience of network adapter configuration, basic Active Directory user administration, and basic disk configuration.
- Knowledge and hands on experience specifically with Windows Server 2012 and Windows 8 would be of benefit but is not essential.

Objectives: After completing this course, students will be able to:

- Understand the basic concepts behind Windows PowerShell
- Work with the Pipeline
- Understand how the Pipeline works
- Use PSProviders and PSDrives
- Format Output
- Use WMI and CIM
- Prepare for Scripting
- Moving from a Command to a Script to a Module
- Administer Remote Computers
- Put the various Windows PowerShell components together
- Use Background Jobs and Scheduled Jobs
- Use Advanced PowerShell Techniques and Profiles

Course Outline

I. Getting Started with Windows PowerShell

- A. Overview and Background
- B. Finding and Running Commands

II. Working with the Pipeline

- A. Working with the Pipeline
- B. Exporting, Importing, and Converting Data
- C. Filtering Objects Out of the Pipeline
- D. Enumerating Objects in the Pipeline

III. Understanding How the Pipeline Works

- A. Passing Data in the Pipeline ByValue
- B. Passing Data in the Pipeline ByPropertyName

IV. Using PSProviders and PSDrives

- A. Understanding PSProviders and PSDrives
- B. Using PSDrives



V. Formatting Output

- A. Using Basic Formatting
- B. Using Advanced Formatting
- C. Redirecting Formatted Output

VI. Using WMI and CIM

- A. Understanding WMI/CIM
- B. Querying Data with WMI/CIM
- C. Making Changes with WMI/CIM

VII. Prepare for Scripting

- A. Using Variables
- B. Scripting Security
- C. Working with Alternate Credentials

VIII. Moving from a Command to a Script to a Module

- A. Moving from Command to Script
- B. Moving from Script to Function to Module
- C. Implementing Basic Error Handling
- D. Using Basic Scripting Constructs
- E. Further Exploration in Scripting

IX. Administering Remote Computers

- A. Using Basic Remoting
- B. Using Remote Sessions
- C. Using Remoting for Delegated Administration

X. Putting it All Together

- A. Planning the Script

XI. Using Background Jobs and Scheduled Jobs

- A. Using Background Jobs
- B. Using Scheduled Jobs

XII. Using Advanced PowerShell Techniques and Profiles

- A. Using Advanced PowerShell Techniques
- B. Creating Profile Scripts