

10961BC

Automating Administration with Windows PowerShell

5 DAYS

This course provides students with the fundamental knowledge and skills to use Windows PowerShell for administering and automating administration of Windows servers. This course provides students the skills to identify and build the command they require to perform a specific task. In addition, students learn how to build scripts to accomplish advanced tasks such as automating repetitive tasks and generating reports. This course provides prerequisite skills supporting a broad range of Microsoft products, including Windows Server, Windows Client, Microsoft Exchange Server, Microsoft SharePoint Server, Microsoft 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 products, will serve as the example for the techniques this course teaches.

Module 1: Getting started with Windows PowerShell

- Overview and background of Windows PowerShell
- Understanding command syntax
- Finding commands

Module 2: Cmdlets for administration

- Active Directory administration cmdlets
- Network configuration cmdlets
- Other server administration cmdlets

Module 3: Working with the Windows PowerShell pipeline

- Understanding the pipeline
- Selecting, sorting, and measuring objects
- Filtering objects out of the pipeline
- Enumerating objects in the pipeline
- Sending pipeline data as output

Module 4: Understanding how the pipeline works

- Passing the pipeline data
- Advanced considerations for pipeline data

Module 5: Using PSProviders and PSDrives

- Using PSProviders
- Using PSDrives

Module 6: Querying system information by using WMI and CIM

Understanding WMI and CIM

Querying data by using WMI and CIM

Making changes with WMI/CIM

Module 7: Working with variables, arrays, and hash tables

Using variables.

Manipulating variables.

Manipulating arrays and hash tables.

Module 8: Basic scripting

Introduction to scripting

Scripting constructs

Importing data from files

Module 9: Advanced scripting

Accepting user input

Overview of script documentation

Troubleshooting and error handling

Functions and modules

Module 10: Administering Remote Computers

Using basic Windows PowerShell remoting

Using advanced Windows PowerShell remoting techniques

Using PSSessions

Module 11: Using background jobs and scheduled jobs

Using background jobs

Using scheduled jobs

Module 12: Using advanced Windows PowerShell techniques

Creating profile scripts

Using advanced techniques