AUTOMATING ADMINISTRATION WITH POWERSHELL (AZ-040T00)

Course Code: 821427

Gain fundamental knowledge and skills to use PowerShell for administering and automating administration of Windows servers

This course provides students with the fundamental knowledge and skills to use 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 Azure, and Microsoft 365. 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.

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Microsoft Azure Certification Video

What You'll Learn

Students will learn to,

- Get started with Windows PowerShell
- Maintain system administration tasks in Windows PowerShell
- Work with the Windows PowerShell pipeline
- Work with PowerShell providers and PowerShell drives in Windows PowerShell
- Query management information by using Common Information Model and

Windows Management Instrumentation
- Use variables, arrays, and hash tables in Windows PowerShell scripts
- Create and modify scripts by using Windows PowerShell
- Administer remote computers by using Windows PowerShell
- Manage cloud resources by using Windows PowerShell
- Manage Microsoft 365 services by using Windows PowerShell
- Create and manage background jobs and scheduled jobs in Windows PowerShell

Who Needs to Attend

This course is intended for IT Professionals who are already experienced in general Windows Server, Windows client, Azure, and Microsoft 365 administration, and who want to learn more about using Windows PowerShell for administration. No prior experience with any version of PowerShell or any scripting language is assumed. This course is also suitable for IT Professionals already experienced in server administration, including Microsoft Exchange Server, Microsoft SharePoint Server, and Microsoft SQL Server.

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CLASSROOM LIVE	$2,995 CAD	5 Day

Classroom Live Outline

Module 1: Get started with Windows PowerShell

- Review Windows PowerShell
- Understand the command syntax in Windows PowerShell
- Find commands and Get-Help in Windows PowerShell

Module 2: Maintain system administration tasks in Windows PowerShell

- Manage Active Directory Domain Services using PowerShell cmdlets
- Manage network service settings for Windows devices using PowerShell cmdlets
- Manage Windows Server settings using PowerShell cmdlets
- Manage settings for a local Windows machine using PowerShell cmdlets

Module 3: Work with the Windows PowerShell pipeline

- Understand the Windows PowerShell pipeline
- Select, sort, and measure objects using the pipeline
- Filter objects out of the pipeline
- Enumerate objects in the pipeline
- Send and pass data as output from the pipeline
- Pass pipeline objects

Module 4: Work with PowerShell providers and PowerShell drives in Windows PowerShell

- Connect with data stores using PowerShell providers
- Use PowerShell drives in PowerShell

Module 5: Query management information by using Common Information Model and Windows Management Instrumentation

- Review CIM and WMI

- Query configuration information by using CIM and WMI
- Query and manipulate repository objects by using CIM and WMI methods

Module 6: Use variables, arrays, and hash tables in Windows PowerShell scripts

- Manage variables in Windows PowerShell scripts
- Work with arrays and hash tables in Windows PowerShell scripts

Module 7: Create and modify scripts by using Windows PowerShell

- Create and run scripts by using Windows PowerShell
- Work with scripting constructs in Windows PowerShell
- Import data in different formats for use in scripts by using Windows PowerShell cmdlets
- Use methods to accept user inputs in Windows PowerShell scripts
- Troubleshoot scripts and handle errors in Windows PowerShell
- Use functions and modules in Windows PowerShell scripts

Module 8: Administer remote computers by using Windows PowerShell

- Manage single and multiple computers by using Windows PowerShell remoting
- Use advanced Windows PowerShell remoting techniques
- Manage persistent connections to remote computers by using Windows PowerShell sessions

Module 9: Manage cloud resources by using Windows PowerShell

- Review Azure PowerShell module
- Review the features and tools for Azure Cloud Shell
- Manage Azure resources with Windows PowerShell

Module 10: Manage Microsoft 365 services by using Windows PowerShell

- Manage users, groups, and licenses in Microsoft Entra ID by using Windows PowerShell
- Manage Exchange Online by using Windows PowerShell
- Manage SharePoint Online by using Windows PowerShell
- Manage Microsoft Teams by using Windows PowerShell

Module 11: Create and manage background jobs and scheduled jobs in Windows PowerShell

- Create and manage background jobs using Windows PowerShell
- Create and manage scheduled jobs using Windows PowerShell

Classroom Live Labs

Lab : Configuring Windows PowerShell, and finding and running commands

- Configuring the Windows PowerShell console application
- Configuring the Windows PowerShell ISE application
- Finding and running Windows PowerShell commands
- Using About files

Lab : Performing local system administration with PowerShell

- Creating and managing Active Directory objects
- Configuring network settings on Windows Server
- Creating a website

Lab : Using PowerShell pipeline

- Selecting, sorting, and displaying data
- Filtering objects

Lab : Using PowerShell pipeline

- Enumerating objects
- Converting objects

Lab : Using PSProviders and PSDrives with PowerShell

- Creating files and folders on a remote computer
- Creating a registry key for your future scripts
- Create a new Active Directory group

Lab : Making changes by using CIM and WMI Querying information by using WMI

- Querying information by using CIM
- Invoking methods

Lab : Working with variables, arrays, and hash tables

- Working with variable types
- Using arrays
- Using hash tables

Lab : Using scripts with PowerShell

- Signing a script
- Processing an array with a For Each loop
- Processing items by using If statements
- Creating users based on a CSV file
- Querying disk information from remote computers
- Updating the script to use alternate credentials

Lab : Performing remote administration with PowerShell

- Enabling remoting on the local computer
- Performing one-to-one remoting
- Performing one-to-many remoting
- Using implicit remoting

Lab : Azure resource management with PowerShell

- Activating the Azure subscription and installing the PowerShell Az module
- Using Azure Cloud Shell
- Managing Azure resources with Azure PowerShell

Lab : Managing Microsoft 365 with PowerShell

- Managing users and groups in Azure AD
- Managing Exchange Online
- Managing SharePoint Online
- Managing Microsoft Teams

Lab : Jobs management with PowerShell

- Starting and managing jobs
- Creating a scheduled job

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VIRTUAL CLASSROOM LIVE	$2,995 CAD	5 Day

Virtual Classroom Live Outline

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Aug 25 - 29, 2025 | 9:00 AM - 5:00 PM EDT

Sep 15 - 19, 2025 | 9:00 AM - 5:00 PM EDT

Oct 6 - 10, 2025 | 9:00 AM - 5:00 PM EDT

Oct 13 - 17, 2025 | 9:00 AM - 5:00 PM EDT

Nov 17 - 21, 2025 | 9:00 AM - 5:00 PM EST

Dec 1 - 5, 2025 | 9:00 AM - 5:00 PM EST

Jan 12 - 16, 2026 | 12:00 - 8:00 PM EST

Jan 19 - 23, 2026 | 9:00 AM - 5:00 PM EST

Feb 23 - 27, 2026 | 9:00 AM - 5:00 PM EST

Mar 9 - 13, 2026 | 9:00 AM - 5:00 PM EDT

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PRIVATE GROUP TRAINING	5 Day

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.