

## 10961 Automating Administration with Windows PowerShell

### Overview

This course provides students with the fundamental knowledge and skills to use Windows PowerShell for administering and automating administration of Windows based servers.

### Prerequisite Comments

Experience with Windows networking technologies and implementation.  
 Experience with Windows Server administration, maintenance, and troubleshooting.  
 Experience with Windows Client administration, maintenance, and troubleshooting  
 Students who attend this training can meet the prerequisites by obtaining equivalent knowledge and skills through practical experience as a Windows system administrator. No prerequisite courses are required.

### Target Audience

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

### Course Objectives

After completing this course, students will be able to:  
 Describe the functionality of Windows PowerShell and use it to run and find basic commands.  
 Identify and run cmdlets for server administration.  
 Work with Windows PowerShell pipeline.  
 Describe the techniques Windows PowerShell pipeline uses.  
 Use PSProviders and PSDrives to work with other forms of storage.  
 Query system information by using WMI and CIM.  
 Work with variables, arrays, and hash tables.  
 Write basic scripts in Windows PowerShell.  
 Write advanced scripts in Windows PowerShell.  
 Administer remote computers.  
 Use background jobs and scheduled jobs.

[Register Online](#)

### Schedule

Class Length: 5 Days

G2R = "Guaranteed to Run" | OLL = "Online LIVE"  
 ILT = "Instructor-Led-Training" | HDL = "Hosted Distance Learning"

11/02/20	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
11/02/20	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
11/16/20	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
11/16/20	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
11/30/20	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
11/30/20	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
12/07/20	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
12/07/20	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
12/14/20	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
12/14/20	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
01/11/21	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
01/11/21	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
01/25/21	G2R	8:00AM - 4:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
01/25/21	G2R	8:00AM - 4:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00

Use advanced Windows PowerShell techniques.

## Course Outline

### 1 - Getting Started with Windows PowerShell

Overview and Background  
 Understanding command syntax  
 Finding commands  
 Lab : Configuring Windows PowerShell  
 Lab : Finding and Running Basic Commands

### 2 - Cmdlets for administration

Active Directory administration cmdlets  
 Network configuration cmdlets  
 Other server administration cmdlets  
 Lab : Windows Administration

### 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  
 Lab : Using the Pipeline  
 Lab : Filtering Objects  
 Lab : Enumerating Objects  
 Lab : Sending output to a file

### 4 - Understanding How the Pipeline Works

Passing the pipeline data  
 Advanced considerations for pipeline data  
 Lab : Working with Pipeline Parameter Binding

02/08/21	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
02/08/21	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
02/22/21	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
02/22/21	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
03/01/21	G2R	8:00AM - 4:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
03/01/21	G2R	8:00AM - 4:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
03/08/21	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
03/08/21	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
03/22/21	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
03/22/21	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
04/05/21	G2R	8:00AM - 4:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
04/05/21	G2R	8:00AM - 4:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
04/12/21	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00

### 5 - Using PSProviders and PSDrives

Using PSProviders  
 Using PSDrives  
 Lab : Using PSProviders and PSDrives

### 6 - Querying Management Information by Using WMI and CIM

Understanding WMI and CIM  
 Querying Data with WMI and CIM  
 Making changes with WMI/CIM  
 Lab : Working with WMI and CIM

### 7 - Working with variables, arrays, and hash tables

Using variables  
 Manipulating variables  
 Manipulating arrays and hash tables  
 Lab : Working with variables

### 8 - Basic scripting

Introduction to scripting  
 Scripting constructs  
 Importing data from files  
 Lab : Basic scripting

### 9 - Advanced scripting

Accepting user input  
 Overview of script documentation  
 Troubleshooting and error handling  
 Functions and modules  
 Lab : Accepting data from users  
 Lab : Implementing functions and modules

### 10 - Administering Remote Computers

Using basic Windows PowerShell remoting  
 Using advanced Windows PowerShell remoting techniques  
 Using PSSessions  
 Lab : Using basic remoting  
 Lab : Using PSSessions

04/12/21	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
04/19/21	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
04/19/21	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
05/03/21	G2R	8:00AM - 4:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
05/03/21	G2R	8:00AM - 4:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
05/10/21	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
05/10/21	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
05/17/21	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
05/17/21	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
06/07/21	G2R	8:00AM - 4:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
06/07/21	G2R	8:00AM - 4:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
06/14/21	G2R	6:00AM - 2:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00
06/14/21	G2R	6:00AM - 2:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
06/21/21	G2R	8:00AM - 4:00PM	Online LIVE - Remote Learning (Pacific Time)	OLL	\$2,975.00
06/21/21	G2R	8:00AM - 4:00PM	HDL - All Locations (Pacific Time)	HDL	\$2,975.00

## 11 - Using Background Jobs and Scheduled Jobs

Using Background Jobs

Using Scheduled Jobs

Lab : Using Background Jobs and Scheduled Jobs

## 12 - Using advanced Windows PowerShell techniques

Creating profile scripts

Using advanced techniques

Lab : Practicing advanced techniques

Lab : Practicing script development (optional)

## Related Courses, Certifications, Exams ---

- 10962 Advanced Automated Administration with Windows PowerShell®
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