



Information Technology

Advanced Automated Administration with Windows PowerShell

Course Introduction

Expand and build upon the knowledge already acquired in course 10961B and focus on building more scalable and usable Windows PowerShell scripts for use in your organization by building your own Windows PowerShell tools. This course is a follow-on course from the 10961B: Automating Administration with Windows PowerShell course and is built on Windows Server 2012 R2 and Windows 8.1 and while it is specifically focused on Windows PowerShell v4.0, is also relevant in v2.0 and v3.0 Windows PowerShell environments.

The course will cover topics on the creation of advanced functions, script modules, advanced parameters attributes and controller scripts, use of Windows PowerShell cmdlets with .NET Framework, configuring Windows Servers using Desired State Configuration and providing an understanding of Windows PowerShell workflow.

Target Audience

This training course is designed 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 applications such as Exchange, SharePoint, and SQL. System, Infrastructure and Application Administrators working in a Windows or Windows hybrid environment will all find this course relevant to their day to day jobs and future career and skills development.

Learning Objectives

- Create Advanced Functions
- Use Cmdlets and Microsoft .NET Framework in Windows PowerShell
- Write Controller Scripts
- Handle Script Errors

- Use XML Data Files
- Manage Server Configurations by Using Desired State Configuration
- Analyze and Debugging Scripts
- Understand Windows PowerShell Workflow

Course Outline

• Day 01

Module 1: Creating Advanced Functions

- Converting a Command into an Advanced Function
- Creating a Script Module
- Defining Parameter Attributes and Input Validation
- Writing Functions that use Multiple Objects
- Writing Functions that Accept Pipeline Input
- Producing Complex Function Output
- Documenting Functions by using Content-Based Help
- Supporting -Whatif and -Confirm

• Day 02

Module 2: Using Cmdlets and Microsoft .NET Framework in Windows PowerShell

- Running Windows PowerShell Commands
- Using Microsoft .NET Framework in Windows PowerShell

Module 3: Writing Controller Scripts

- Understanding Controller Scripts
- Writing Controller Scripts that Show a User Interface

• Day 03

Module 4: Handling Script Errors

- Understanding Error Handling
- Handling Errors in a Script

Module 5: Using XML Data Files

- Reading, Manipulating and Writing Data in XML

• Day 04

Module 6: Managing Server Configurations by Using Desired State Configuration

- Understanding Desired State Configuration
- Creating and Deploying a DSC Configuration

Module 7: Analyzing and Debugging Scripts

- Debugging in Windows PowerShell
- Analyzing and Debugging and Existing Script

• Day 05

Module 8: Understanding Windows PowerShell Workflow

- Understanding Windows PowerShell Workflow

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
April 7, 2025	April 11, 2025	5 days	2150.00 \$	Virtual - Online

FROM	TO	DURATION	FEES	LOCATION
July 14, 2025	July 18, 2025	5 days	4950.00 \$	Spain - Madrid
Nov. 10, 2025	Nov. 14, 2025	5 days	4250.00 \$	UAE - Dubai