

10962CC

**Advanced Automated
Administration With
Windows PowerShell**

3 DAYS

This is a three-day course that will teach students how to automate administrative tasks using Windows PowerShell 5.1. Students will learn core scripting skills such as creating advanced functions, writing controller scripts, and handling script errors. Students will learn how to work with Windows PowerShell Workflow, the REST API and XML and JSON formatted data files. Students will also learn how to use new administration tools such as Desired State Configuration (DSC) and Just Enough Administration (JEA) to configure and secure servers.

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 accept pipeline input
- Producing complex pipeline output
- Documenting functions by using comment-based help
- Supporting -WhatIf and -Confirm

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

- Using Microsoft .NET Framework in Windows PowerShell
- Using REST API in Windows PowerShell

Module 3: Writing controller scripts

- Introducing controller scripts
- Writing controller scripts that display a user interface
- Writing controller scripts that produce reports

Module 4: Handling script errors

- Understanding error handling
- Handling errors and timeouts in a script

Module 5: Using XML, JSON, and custom-formatted data

- Reading, manipulating, and writing XML-formatted data
- Reading, manipulating, and writing JSON-formatted data
- Reading and manipulating custom-formatted data

Module 6: Enhancing server management with Desired State Configuration and Just Enough Administration

Understanding Desired State Configuration

Creating and deploying a DSC configuration

Implementing Just Enough Administration

Module 7: Analyzing and debugging scripts

Debugging in Windows PowerShell

Analyzing and debugging an existing script

Module 8: Understanding Windows PowerShell Workflow

Understanding Windows PowerShell Workflow

Creating and running a Windows PowerShell Workflow