



COURSE SYLLABUS

COURSE TITLE: 752552 PowerShell 5.0 Basics
FORMAT: Instructor-Led
CERTIFICATION EXAMS: None

This course syllabus should be used to determine whether the course is appropriate for the students, based on their current skills and technical training needs. Course content, prices, and availability are subject to change without notice.

ELEMENTS OF THIS SYLLABUS ARE SUBJECT TO CHANGE.

ABOUT THE COURSE

This one-day instructor-led course is targeted at new administrators, power users, and developers to gain an understanding that PowerShell will enable them to control and automate nearly everything they do with Windows, freeing up time and reducing errors.

AUDIENCE

This course is intended for IT Professionals, Developers, and Power Users.

AT COURSE COMPLETION

After completing this course, students will be able to:

- Understand the evolution of PowerShell.
- Understand and utilize the PowerShell environment.
- Understand and utilize the all-important Help System.
- Understand and utilize PowerShell.
- Understand and utilize working with the file system.
- Understand and utilize parameters.
- Understand and utilize user-defined variables.
- Understand and utilize arrays.
- Understand and utilize hash tables.
- Understand and execute cmdlets.
- Understand and utilize the pipeline.
- Understand how to control the output with formatting.
- Understand background jobs.
- Understand aliases.
- Understand and utilize loops.
- Understand and utilize While loops.
- Understand and utilize Do While loops.
- Understand and utilize Do Until loops.
- Understand and utilize For loops.
- Understand and utilize ForEach loops.
- Understand altering loop execution.
- Understand and utilize scripting.
- Understand functions and filters.
- Understand the basics of script design.
- Understand scripting pitfalls.



PREREQUISITES

Before attending this course, students must have:

- None

ADDITIONAL READING

To help you prepare for this class, review the following resources:

- None

MODULE 1: COURSE OVERVIEW

This module explains how the class will be structured and introduces course materials and additional administrative information.

Lessons

- Introduction
- Course Materials
- Facilities
- Prerequisites
- What We'll Be Discussing

Lab 1: COURSE OVERVIEW

- None

After completing this module, students will be able to:

- Successfully log into their virtual machine.
- Have a full understanding of what the course intends to cover.

MODULE 2: INTRODUCTION TO POWERSHELL

In this module, we will examine the evolution of PowerShell, explore the interfaces of both the console and the PowerShell ISE, and cover utilizing the help system.

Lessons

- Examining the Evolution of PowerShell
- Exploring your PowerShell Environment
- Understanding the All-Important Help System

Lab 1: INTRODUCTION TO POWERSHELL

- The Console
- The PowerShell Integrated Scripting Environment (ISE)
- Updating Help
- Utilizing Help

After completing this module, students will be able to:

- Understand the evolution of PowerShell.
- Understand and utilize the PowerShell environment.
- Understand and utilize the all-important Help System.

MODULE 3: UTILIZING POWERSHELL

In this module, we will explore utilizing PowerShell and running commands.

Lessons

- Using PowerShell
- Working with the File System
- Understanding Basics of Objects and OOP

Lab 1: UTILIZING POWERSHELL



- Utilizing PowerShell
- Working with the File System
- Parameters
- User-Defined Variables
- Arrays
- Hash Tables

After completing this module, students will be able to:

- Understand and utilize PowerShell.
- Understand and utilize working with the file system.
- Understand and utilize parameters.
- Understand and utilize user-defined variables.
- Understand and utilize arrays.
- Understand and utilize hash tables.

MODULE 4: THE PIPELINE

In this module, we will cover the concepts needed to understand pipelines. We'll also create a few pipelines and examine options for formatting the output, then we'll discuss the benefits of running background jobs, and explain aliases.

Lessons

- Executing Cmdlets
- Exploring the Concept of the Pipeline
- Controlling the Output with Formatting
- Explaining Background Jobs
- Understanding Aliases

Lab 1: THE PIPELINE

- Creating a Pipeline
- Passing Data Through the Pipeline

After completing this module, students will be able to:

- Understand and execute cmdlets.
- Understand and utilize the pipeline.
- Understand how to control the output with formatting.
- Understand background jobs.
- Understand aliases.

MODULE 5: PROCESSING DATA WITH LOOPS

In this module, we will examine and execute loops, then discuss ways to alter the loop execution.

Lessons

- Working with Loops
- Utilizing While Loops
- Utilizing Do While Loops
- Utilizing Do Until Loops
- Utilizing For Loops
- Utilizing ForEach Loops
- Altering Loop Execution

Lab 1: PROCESSING DATA WITH LOOPS

- While Loops
- Do While Loops
- Do Until Loops
- For Loops



- ForEach Loops

After completing this module, students will be able to:

- Understand and utilize loops.
- Understand and utilize While loops.
- Understand and utilize Do While loops.
- Understand and utilize Do Until loops.
- Understand and utilize For loops.
- Understand and utilize ForEach loops.
- Understand altering loop execution.

MODULE 6: SCRIPTING AND FUNCTIONS

In this module, we will introduce you to scripting, examine functions and filters, then explain the basics of script design. Lastly we briefly discuss scripting pitfalls to be aware of.

Lessons

- Scripting Introduction
- Using Functions and Filters
- Exploring the Basics of Script Design
- Scripting Pitfalls

Lab 1: SCRIPTING AND FUNCTIONS

- Scripting

After completing this module, students will be able to:

- Understand and utilize scripting.
- Understand functions and filters.
- Understand the basics of script design.
- Understand scripting pitfalls.

