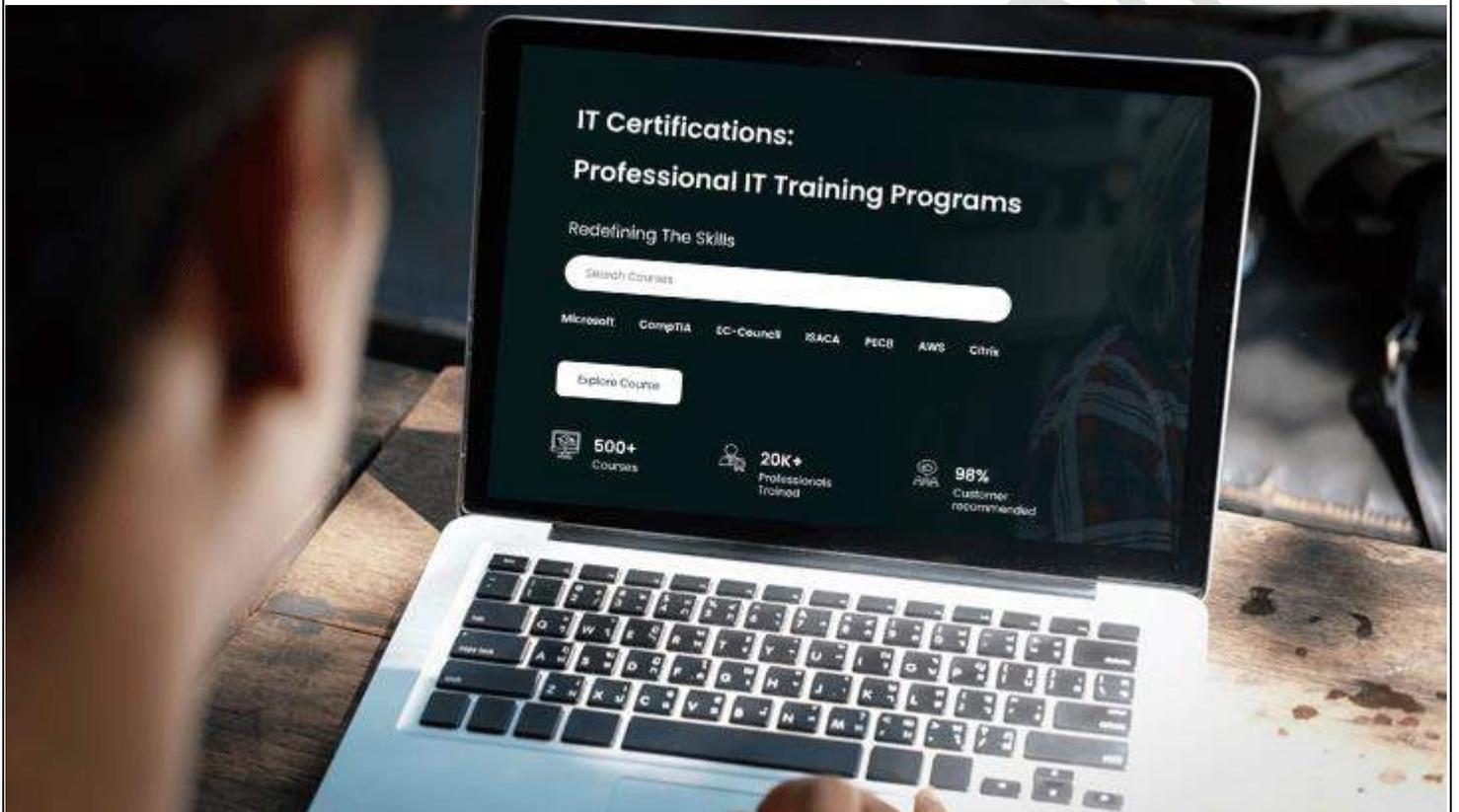




Redefining The Skills



# **55133: POWERSHELL FOR SYSTEM CENTER CONFIGURATION MANAGER ADMINISTRATORS TRAINING**

**Duration: 3 Days**

### **Course Description**

The course is offered by Microtek Learning to teach students with the necessary skills to utilize PowerShell for SCCM administration. The course provides students with insights to effectively access PowerShell cmdlets incorporated with SCCM 1802 and utilize the cmdlets to execute the primary site's configuration task.

Separate cmdlets can be used to work with various objects like Boundary Groups, Boundaries, Software Deployment, Collections, Compliance Settings, Patching, OSD task sequences and more. Scripting fundamentals are also covered so students can practice using PowerShell to work on numerous objects.

This training is designed based on the objectives of the course variant 55133C.

### **Training Exclusives**

- Live instructor-led interactive sessions with Microsoft Certified Trainers (MCT).
- Access to Microsoft Official Courseware (MOC).
- Real-time Virtual Lab Environment.
- Experience 24\*7 Learner Support.
- Self-paced learning and flexible schedules.

### **Who should attend this course?**

- The course is designed for IT pros managing daily tasks in the SCCM 1802 environment.
- However, the course will be suited more to people with some experience in handling SCCM primary sites and know basic scripting with PowerShell.

### **What you will learn**

- Delegating authority via Scopes and Roles.
- Modifying top-level site settings.
- Deploying software and updates for clients.
- Working with Task Sequences to deploy OS.
- Creating additional site system profiles or roles on new or existing servers.
- Creating and modifying Boundaries, Discovery Methods and Boundary Groups.
- Creating Collections using available membership rules.
- Installing Configuration Manager, modifying client settings, and limiting access to site systems.
- Modifying settings that administer monitoring functions including Status Settings and Alerts.
- Using cmdlets to write PowerShell scripts and scripting constructs to complete configuration tasks.

### **Curriculum**

#### **Module 1: Review of Endpoint Configuration Manager Concepts**

This module explains the main capabilities of a Endpoint Configuration Manager hierarchy. In a brief review students will learn how the various objects work together to provide the functionality delivered with ECM 2002.

- Architecture of a Microsoft Endpoint Configuration Manager 2002 Installation
- Managing Assets

- Content Delivery and Management
- Security, Monitoring, and Remote Management

**Lab:** Reviewing a Primary Site Installation

- Install SQL Server 2019
- Install Endpoint Configuration Manager 2002
- Review the Administration Workspace
- Review the Assets and Compliance Workspace
- Looking at the Software Library
- Review the Monitoring Workspace

After completing this module, students will be able to:

- Describe the key components of an Endpoint Configuration Manager installation.
- Explain the inventory and software usage monitoring functionality.
- Describe how the software distribution, software update, and operating system deployment features of ECM deliver content to devices and users.
- Show how security roles and scopes allow for distributed administration.
- Obtain detailed information about system or component status, results from deployments and overall ECM monitoring.
- Explain the remote management functionality.

**Module 2: Managing Resources**

This module explains how to use PowerShell cmdlets to work with resources. Topics include configuring discovery methods, creating and modifying Boundaries and Boundary Groups, and working with Collections. On-demand and scheduled collection membership evaluation settings will also be discussed.

- Implementing Discovery
- Organizing Resources with Collections
- Working with Boundaries

**Lab:** Configuring Discovery, Collections and Boundaries

- Configuring Discovery
- Creating Collections
- Working with Boundaries and Boundary Groups

After completing this module, students will be able to:

- Obtain details on the discovery methods configured in your site and make modifications to those methods.
- Invoke an on-demand discovery cycle.
- Create and populate device and user collections.
- Gather details on collection memberships and force immediate collection membership evaluation.
- Manually create site boundaries and configure discovery to automate boundary creation.
- Create, populate and modify boundary groups.

**Module 3: Working with Clients**

This module explains how to use PowerShell to manage devices with a Configuration Manager client. Topics include installing the client software, invoking client actions, modifying client settings and changing the status of clients. The module also describes how to set a client device variable, deploy new settings to the client, and refresh client status results.

- Installing the Configuration Manager Client

- Managing Client Settings
- Managing Client Operations
- Monitoring Client Status

**Lab:** Utilizing PowerShell to Manage Clients

- Install the Configuration Manager client
- Managing Client Settings
- Managing Client Operations
- Monitoring Client Status

After completing this module, students will be able to:

- Configure the client push installation method.
- Perform a client installation using a client push installation.
- Manage the default client settings.
- Create, modify and deploy custom client device and user settings.
- Notify clients of policy changes and manage client operations.
- Configure client status settings and refresh client status statistics.

**Module 4: Distributing Software**

This module explains how to configure the software distribution functionality, create and modify software packages and applications, establish Global Conditions for use with Requirement Rules, and work with Distribution Points and Distribution Point Groups.

- Configure the Software Distribution Components
- Working with Distribution Points
- Creating Content for Distribution
- Deploying Software Applications

**Lab:** Using Cmdlets to Publish Content

- Extending the Infrastructure
- Configuring a Legacy Package for Distribution
- Deploying a Windows Installer Application
- Implementing Additional Features of Configuration Manager

After completing this module, students will be able to:

- Configure the software distribution component.
- Create and modify on-premises distribution points.
- Create software packages and programs.
- Create applications and deployment types.
- Transfer or refresh the content on distribution points.
- Implement new features of the application model of Endpoint Configuration Manager 2002.
- Deploy software programs and applications.
- Configure a simulated application deployment.

**Module 5: Updating Systems with WSUS and ECM**

This module explains how to use the PowerShell commands to create and configure the integration of ECM and WSUS using a Software Update Point. It also describes how to create and modify Software Update Groups and Automatic Deployment Rules. Cmdlets are also used to manage Deployment Packages and their associated Deployments.

- Integrating Configuration Manager and WSUS
- Managing Updates through Software Update Groups
- Creating and Deploying Update Packages

- Working with Automatic Deployment Rules

**Lab:** Using Configuration Manager Commands to Manage Software Updates

- Preparing the Environment for Software Updates
- Deploy Updates
- Create an Automatic Deployment Rule

After completing this module, students will be able to:

- Link Windows Server Update Services and Endpoint Configuration Manager 2002 by creating a Software Update Point.
- Synchronize updates between WSUS and ECM.
- Gather information on updates and organize them into software update groups.
- Create and manage software update deployments.
- Create automatic deployment rules.

**Module 6: How PowerShell Can Manage Compliance Settings**

This module explains how to use PowerShell cmdlets to create and manage Configuration Items and Baselines. Deployment of Baselines is also discussed.

- Creating Compliance Settings Objects
- Deploying Configuration Baselines

**Lab:** How PowerShell Can Manage Compliance

- Creating Compliance Settings Objects
- Deploy and Monitor the Baseline

After completing this module, students will be able to:

- Create and modify configuration items.
- Create, populate and deploy configuration baselines.
- Establish a baseline compliance summarization schedule.
- Force an immediate baseline compliance summarization.

**Module 7: Configuring Operating System Deployment Objects**

This module explains how to take advantage of the PowerShell commands with ECM to configure the Operating System Deployment function. It also describes how to configure Drivers and Driver Packages, Boot Images, Operating System Images and Task Sequences. Deployment of Task Sequences to Collections is also covered.

- Preparing the OSD Environment
- Working with Task Sequences

**Lab:** Operating System Deployment with Windows PowerShell

- Creating Required OSD Objects
- Prepare the Task Sequence

After completing this module, students will be able to:

- Create and modify boot images.
- Import drivers into your site.
- Create and populate driver packages.
- Create operating system images and operating system installer images.
- Create, modify and deploy task sequences.

## Module 8: Working at the Site Level

This module explains how to manage site level configurations such as adding site system roles and creating Secondary sites. It also describes how to setup email notification for alerts and modify the hierarchy settings.

- Modify the Site
- Adding Site System Roles
- Adding a Secondary Site

### Lab: Modifying Site Settings

- Modifying the Site Configuration
- Adding Site System Roles

After completing this module, students will be able to:

- Modify the properties of a primary site.
- Configure Wake On LAN.
- Modify site maintenance tasks.
- Configure email notification for alerts.
- Add additional site system roles.
- Deploy a secondary site.

## Module 9: Security and Monitoring

This module explains how to use cmdlets to implement role based administration through security roles and scopes. It also describes how Endpoint Protection policies can be configured and deployed. The module also explains various monitoring functions available through PowerShell such as Alerts, Status Filter Rules, Status Summarizers, Status Message Queries and Alert Subscriptions.

- Configuring Role Based Administration
- Implementing Endpoint Protection
- Configuring Monitoring Options

### Lab: Implementing Security and Monitoring

- Configuring Role Based Administration
- Configuring Anti-Malware Protection
- Modifying Monitoring Options

After completing this module, students will be able to:

- Copy and modify security roles.
- Create security scopes.
- Create administrative users.
- Add security roles and scopes to administrative users.
- Create an Endpoint Protection Point site system role.
- Create, modify and deploy antimalware policies.
- Start an on-demand antimalware scan.
- Modify the scan results summarization schedule and force immediate summarization.
- Modify status summarizers.
- Create status filter rules.
- Create and manage in-console alerts and alert subscriptions.
- Create and manage status message queries.

## Module 10: Using PowerShell Scripting to Automate Tasks

This module explains how to use constructs such as if, switch, foreach, and for alongside commands to

- create scripts that automate various Configuration Manager tasks.
- Review of Scripting Constructs
- Introduction to the Configuration Manager WMI Classes

**Lab:** Writing Scripts for Configuration Manager Activities

- Establishing the Infrastructure
- Deploy Software
- Run the Full Script

After completing this module, students will be able to:

- Write PowerShell scripts to automate ECM tasks

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*For any query Contact Us – Microtek Learning*

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