

## UCSAPS v2.2 - UCS Administration with Power Shell, v2.2

### Course Outline

#### **Module 1: Introduction to PowerShell, Object Oriented Programming and the Cisco UCS Platform Emulator**

- Introduction to PowerShell
- Installing PowerShell and Power GUI
- Installing Cisco UCS Platform Emulator
- Using the Cisco UCS Platform Emulator to create a development environment
- Using the help system
- PowerShell interactive shell
- Commands and command pipelines
- Formatting output
- Cisco UCS Management Information Model
- Cisco UCS Managed Objects
- UCS cmdlets

#### **Module 2: Scripting with PowerShell**

- Capturing and reusing output from the Cisco UCS Manager
- Scripting
- Input and Output
- Variables
- Arrays, Branches, Loops
- Functions
- Error and exception handling
- Formatting
- Filtering and comparisons

#### **Module 3: Pools and Policies with PowerShell**

- Using the PowerShell switch statement
- Creating and working with pools in PowerShell
- Creating policies
- Creating a Menu User Interface

#### **Module 4: Service Profile Templates with PowerShell**

- Handling script arguments with PowerShell
- Creating UCS service profile templates with PowerShell

- Creating vNic templates with PowerShell
- Creating a boot policy with PowerShell

## **Module 5: Service Profile Administration with PowerShell**

- Reading and external CSV with PowerShell
- Working with hashes with PowerShell
- Managing and monitoring service profiles with PowerShell

## **Module 6: Backup Operations with PowerShell**

- Debugging PowerShell scripts
- Performing UCS full-state and configuration backups with PowerShell

## **Module 7: UCS Firmware upgrades with PowerShell**

- String manipulation with PowerShell
- Performing UCS server firmware upgrades with PowerShell

## **Module 8: Advanced Topics in PowerShell**

- Creating PowerShell libraries
- Filter options with PowerShell
- Regular Expressions with PowerShell

## **Lab Outline**

Lab 1: Setting up your Cisco UCS Platform Emulator and PowerShell environment. Work with the PowerShell help system.

Lab 2: Using PowerShell to Create VLANs in multiple UCS domains

Lab 3: Use PowerShell to create a Menu System user interface to create UCS Identity Pools

Lab 4: Use PowerShell to create policies and service profile templates

Lab 5: User PowerShell to manage service profiles and monitor service profile association

Lab 6: Create UCS full state and configuration backup with PowerShell

Lab 7: Perform server firmware updates with PowerShell