# Course name: Cloud Orchestration and Extensibility (EDU-VCOE61)

## Course code: CLOUD-OE61-EN

## Introduction

This hands-on training course explores the use of VMware vCenter™ Orchestrator™ 5.5 and VMware vCloud® Automation Center™ 6.1 for the automation of VMware cloud infrastructure and IT processes. The course focuses on extensibility and advanced administration through the use of vCenter Orchestrator workflows in vCloud Automation Center. Students will gain practical experience through the completion of hands-on labs.

To learn more about vCenter Orchestrator and vCloud Automation Center, go to [www.vmware.com/education](www.vmware.com/education) for other course options.

## Participant profile

- Experienced VMware administrators
- Automation and orchestration specialists
- System integrators
- Private cloud and public cloud administrators

## Goal description

- Describe the features, benefits, components, and integration of vCenter Orchestrator and vCloud Automation Center and the role of vCenter Orchestrator workflows and content elements in automation
- Use the vCenter Orchestrator client to access and navigate the vCenter Orchestrator platform and to import and run library vCenter Orchestrator workflows
- Design, develop, and run custom reusable vCenter Orchestrator workflows
- Use VMware APIs in vCenter Orchestrator workflow scripts
- Integrate vCloud Automation Center with vCenter Orchestrator instances to extend infrastructure-as-a-service (IaaS) machine lifecycle processes and enhance and deliver custom IT services
- Use the Advanced Service Designer in vCloud Automation Center to integrate vCenter Orchestrator workflows with external systems and build automation solutions
- Export, package, and apply version control to vCloud Orchestrator workflows
- Configure a vCenter Orchestrator environment for server availability using built-in clustering

## Course duration and form

- 35 hours (5 days x 7 hours), including lectures and exercises.

# Course plan

1. Course Introduction
    a. Introduction and course logistics
    b. Course objectives
2. Cloud Orchestration and Extensibility Overview
    a. Features, benefits, and components of vCenter Orchestrator and vCloud Automation Center
    b. vCenter Orchestrator and vCloud Automation Center integration, prerequisites, and deployment
3. vCenter Orchestrator
    a. vCenter Orchestrator client
    b. vCenter Orchestrator content elements and vCenter Orchestrator inventory
4. Using vCenter Orchestrator Workflow Components
    a. vCenter Orchestrator workflow elements
    b. Building and debugging vCenter Orchestrator workflows
5. vCenter Orchestrator Workflow Development Concepts
    a. vCenter Orchestrator workflow editor UI
    b. vCenter Orchestrator workflow components
    c. Information flow in vCenter Orchestrator workflows and parameter binding
6. Developing Complex vCenter Orchestrator Workflows
    a. Advanced vCenter Orchestrator workflow elements
    b. Configuration and resource elements
    c. Exception handling and user interactions
    d. vCenter Orchestrator workflow input presentation
7. Using VMware Infrastructure APIs with vCenter Orchestrator
    a. vSphere automation and developer tools
    b. VMware vCenter Server™ inventory structure
8. Integrating vCenter Orchestrator with External Systems
    a. vCenter Orchestrator integration strategy
    b. vCenter Orchestrator plug-ins
9. vCloud Automation Center IaaS Extensibility
    a. vCloud Automation Center IaaS extensibility overview
    b. vCloud Automation Center plug-in for vCenter Orchestrator
    c. vCloud Automation Center plug-in functionality
10. vCloud Automation Center XaaS
    a. Overview of vCloud Automation Center anything as a service (XaaS)
    b. Advanced Service Designer configuration
    c. Custom resources
    d. vCloud Automation Center XaaS blueprints
11. Enhanced IT Service Delivery
    a. IaaS and XaaS actions
    b. Advanced Service Designer input presentation
    c. Delivering a service solution
12. Delivering vCenter Orchestrator Workflows
    a. Transferring vCenter Orchestrator content elements to other vCenter Orchestrator servers
    b. Synchronizing workflows among vCenter Orchestrator servers
    c. Exporting and packaging workflows
13. Installing and Configuring vCenter Orchestrator
    a. Installing vCenter Orchestrator
    b. Configuring vCenter Orchestrator
14. vCenter Orchestrator Server Availability
    a. vCenter Orchestrator availability
    b. vCenter Orchestrator clusters
    c. Availability of vCenter Orchestrator workflows