# VMware vSphere: Fast Track [V6.0] H9P79S

## Course Overview

This intensive, extended-hours course combines instructor training with hands-on labs to focus on how to install, configure, manage, and troubleshoot VMware vSphere® 6, including VMware ESXi™ 6 and VMware vCenter Server™ 6.

This course combines the content of the VMware vSphere: Install, Configure, Manage course with training in the troubleshooting skills needed for maintaining highly available and scalable vSphere environments. Students gain practical experience with these concepts through the completion of hands-on labs.

| | |
|---|---|
| **Price** | USD $6,200 |
| **Links to local schedules, pricing and registration** | **US/Canada** <br> **Mexico/Latin America** <br> **Brazil** |
| **Course title** | VMware vSphere: Fast Track [V6.0] |
| **HP course #** | H9P79S |
| **Category** | VMware |
| **Duration** | 5 days |

## Audience

- System administrators
- Systems engineers
- Architect
- Advanced
- Professional

## Prerequisites

- System administration experience on Microsoft Windows or Linux operating systems
- Understanding of concepts presented in the VMware Data Center Virtualization Fundamentals course for VCA-DCV certification

## Course objectives

By the end of the course, you should be able to meet the following objectives:
- Deploy an ESXi host and create virtual machines
- Deploy a vCenter Server instance or VMware vCenter™ Server Appliance™
- Configure and manage the vSphere infrastructure with VMware vSphere® Client™ and VMware vSphere® Web Client
- Configure vSphere standard and distributed switches
- Describe and use a content library
- Migrate virtual machines and storage with VMware vSphere® vMotion® and VMware vSphere® Storage vMotion®

- Use VMware vRealize™ Operations Manager™ to identify and solve issues through analytics and alerts
- Manage VMware vSphere® High Availability and VMware vSphere® Fault Tolerance
- Use VMware vSphere® Replication™ and VMware vSphere® Data Protection™ to replicate virtual machines and perform data recovery
- Use VMware vSphere® Distributed Resource Scheduler™ clusters to improve host scalability
- Use VMware vSphere® Update Manager™ to apply patches
- Perform basic troubleshooting of ESXi hosts, virtual machines, vCenter Server, virtual networking, virtual storage, and other vSphere operations

## Course outline

### Module 1: Course Introduction
- Introductions and course logistics
- Course objectives

### Module 2: Software-Defined Data Center
- Introduce virtualization and vSphere components
- Explain the concepts of server, network, and storage virtualization
- Describe where vSphere fits into the cloud architecture
- Install and use vSphere user interfaces
- Describe the ESXi architecture and configure various ESXi settings

### Module 3: Creating Virtual Machines
- Introduce virtual machines, virtual machine hardware, and virtual machine files
- Deploy a single virtual machine
- Explain the importance of VMware Tools™
- Describe how to import an OVF template

### Module 4: vCenter Server
- Introduce vCenter Server architecture
- Introduce vCenter Server Appliance
- Install and configure vCenter Server Appliance
- Use vSphere Web Client
- Configure VMware vCenter™ Single Sign-On™ and VMware Platform Services Controller™
- Manage vCenter Server inventory objects and licenses

### Module 5: Troubleshooting vSphere
- Use a structured approach to troubleshoot issues in vSphere
- Discuss options for running vSphere commands
- Locate and use important vSphere log files

## Module 6: Configuring and Managing Virtual Networks
- Describe, create, and manage a standard switch
- Describe and modify standard switch properties
- Describe the NIC teaming of a standard switch port group
- Describe, create, and manage a distributed switch
- Troubleshoot virtual networking

## Module 7: Configuring and Managing Virtual Storage
- Introduce storage protocols and device names
- Configure ESXi with iSCSI, NFS, and Fibre Channel storage
- Create and manage VMware vSphere® VMFS datastores
- Introduce VMware Virtual SAN™ datastores
- Troubleshoot virtual storage

## Module 8: Virtual Machine Management
- Use templates and cloning to deploy virtual machines
- Modify and manage virtual machines
- Create and manage virtual machine snapshots
- Perform vSphere vMotion and vSphere Storage vMotion migrations
- Create vApps
- Describe the types of content libraries
- Troubleshoot virtual machines and snapshots

## Module 9: Resource Management and Monitoring
- Introduce virtual CPU and memory concepts
- Describe methods for optimizing CPU and memory usage
- Configure and manage resource pools
- Use vCenter Server performance graphs and alarms to monitor resource usage
- Use vRealize Operations Manager to manage a software-defined data center

## Module 10: vSphere HA and vSphere Fault Tolerance
- Explain the vSphere HA architecture
- Configure and manage a vSphere HA cluster
- Set vSphere HA advanced parameters
- Enable vSphere Fault Tolerance on a virtual machine
- Describe vSphere Replication and vSphere Data Protection
- Troubleshoot vSphere HA

## Module 11: Host Scalability
- Describe the functions of a vSphere DRS cluster
- Create a vSphere DRS cluster
- View information about a vSphere DRS cluster
- Troubleshoot vSphere DRS clusters

## Module 12: vSphere Update Manager and Host Maintenance
- Describe, install, and configure vSphere Update Manager
- Describe and use host profiles
- Use baselines and remediate ESXi hosts
- Perform patch management

**Module 13: Installing vSphere Components**

- Describe how to install ESXi interactively
- Identify the basic requirements for an ESXi host to boot from SAN
- Identify system requirements to install vCenter Server
- Install vCenter Server on a supported Windows system
- Troubleshoot ESXi and vCenter Server

**Learn more at**
**hp.com/us/training/americas**