

# Red Hat OpenShift Administration II: Operating a Production Kubernetes Cluster (DO280)

Duration 3 Days

## COURSE DESCRIPTION

**Red Hat OpenShift Administration II: Operating a Production Kubernetes Cluster (DO280)** teaches you how to configure, troubleshoot, and manage Red Hat® OpenShift® Container Platform. This hands-on, lab-based course shows you how to verify the successful installation of a cluster, manage it on a day-to-day basis, and troubleshoot the deployment of containerized applications.

This course is based on Red Hat® Enterprise Linux® 8.2 and OpenShift Container Platform 4.6.

## COURSE OBJECTIVES

Students should be able to demonstrate the following skills:

- Describe the Red Hat OpenShift Container Platform cluster installation and update processes
- Troubleshoot application deployments
- Configure authentication using local users
- Control access to projects using role-based access control (RBAC)
- Expose applications to clients external to the cluster using TLS encryption
- Configure network isolation between services and applications using network policies
- Configure application scheduling using labels and selectors
- Limit compute resource usage of applications with resource limits and quotas
- Manage a cluster and deployed applications with the Web Console
- Install Kubernetes Operators with the Web Console

## COURSE OUTLINE

- **Describe the Red Hat OpenShift Container Platform**  
Describe the architecture of the Red Hat OpenShift Container Platform (RHOCP).
- **Verify the health of a cluster**  
Describe OpenShift installation methods and verify the health of a newly installed cluster.
- **Configure authentication and authorization**  
Configure authentication with the HTTPasswd identity provider and assign roles to users and groups.
- **Configure application security**  
Restrict permissions of applications using security context constraints and protect access credentials using secrets.
- **Configure OpenShift networking for applications**  
Troubleshoot OpenShift software-defined networking (SDN) and configure network policies.
- **Control pod scheduling**  
Control which nodes a pod runs on.
- **Describe cluster updates**  
Describe how to perform a cluster update.
- **Manage a cluster with the web console**  
Manage a Red Hat OpenShift cluster using the web console.

**PREREQUISITES**

- Become a Red Hat Certified System Administrator, or demonstrate equivalent Red Hat Enterprise Linux system administration experience
- Complete Red Hat OpenShift I: Containers & Kubernetes (DO180), or demonstrate equivalent experience with containers, Kubernetes, and OpenShift basics
- Take our free assessment to gauge whether this offering is the best fit for your skills.

**WHO SHOULD ATTEND**

This course is designed for system administrators, system architects, and developers who want to install and configure Red Hat OpenShift Container Platform.

- System and Software Architects interested in understanding features and functionality of an OpenShift cluster.
- System Administrators interested in the ongoing management of clusters and containerized applications.
- Cluster Operators interested in managing access to cluster resources by users and applications.
- Site Reliability Engineers interested in the ongoing maintenance and troubleshooting of a cluster.