

### Nutanix Kubernetes Platform Administration (NKPA)

OEM: Nutanix • Duration: 5 Days (40 hrs) • Code: NCP-CN

#### COURSE MODULES & TOPICS

##### Module 1: Getting Started with NKP

- Introduction to NKP
- NKP Concepts, Terms, and Components
- Installation Prerequisites
- Installing NKP in an Air-Gapped Nutanix Environment
- Licensing an NKP Cluster
- Lab: Validating NKP Bootstrap Host Configuration
- Lab: Adding NKP Images to a Local Registry
- Lab: Creating a Bootstrap Kubernetes-in-Docker (KIND) Cluster
- Lab: Building a Machine Image Using NIB
- Lab: Creating a Management Cluster
- Lab: Applying a License

##### Module 2: Multi-cluster Lifecycle Management

- Configuring Infrastructure
- Using Workspaces
- Creating and Managing Workload Clusters with NKP
- Working with Projects
- Upgrading NKP
- Lab: Creating a Workspace
- Lab: Creating a Workload Cluster Using the UI
- Lab: Creating a Project
- Lab: Implementing Continuous Deployment
- Lab: Creating a Workload Cluster Using the CLI
- Lab: Attaching, Detaching, and Deleting Clusters
- Lab: Scaling Clusters

##### Module 3: Configuring and Managing Access Control

- Working with Identity Providers
- Using Access Control
- Lab: Adding an Identity Provider

- Lab: Configuring Identity Provider Groups
- Lab: Creating Role Bindings
- Lab: Creating a Dedicated Login URL and Testing UI Access
- Lab: Configuring and Testing CLI Access

## Module 4: Working with Platform Applications

- Understanding Platform Applications
- Dependencies and Requirements
- Reviewing Deployed Platform Applications
- Deploying Platform Applications
- Lab: Reviewing Deployed Platform Applications
- Lab: Using the CLI to Deploy Platform Applications
- Lab: Using the UI to Deploy Platform Applications
- Lab: Customizing Platform Application Deployments

## Module 5: Protecting Clusters and Applications

- Using Velero for Backup and Recovery
- Checking the Status of the Velero Service
- Installing the Velero CLI
- Creating a Backup Schedule
- Creating an On-Demand Backup
- Restoring a Cluster from a Backup
- Lab: Installing the Velero CLI
- Lab: Reviewing Backups
- Lab: Creating a Backup
- Lab: Restoring from a Backup

## Module 6: Configuring and Managing Cluster Storage (Logging)

- Logging in NKP
- Logging Architecture
- Enabling the Logging Stack
- Customizing the Logging Stack
- Viewing Cluster-level Log Data
- Admin-level Logs
- Lab: Enabling Logging Stack Applications
- Lab: Viewing Logs
- Lab: Restricting Logging to Specific Namespaces
- Lab: Scaling the Logging Stack
- Lab: Creating a Support Bundle

## Module 7: Monitoring and Alerts

- Metrics
- Cost Monitoring
- Alerts
- Lab: Viewing Metrics
- Lab: Adding a Custom Dashboard
- Lab: Configuring Alerts
- Lab: Monitoring Applications