

## **Designing the Cisco Cloud - On Demand (CLDDES 1.1)**

**Modality: Self-Paced Learning**

**Duration: 40 Hours**

**SATV Value:**

**CLC: 15 Units**

**NATU:**

**SUBSCRIPTION: No**

The courses of e-learning target around a range of Cisco innovations to set you up for Cisco certification tests, and to pick up Cisco product information. The e-learning contributions are made to be engaging and interactive for students who like self-study.

Some Self-paced courses of Cisco give access to hands-on virtual lab works out, allowing you the chance to practice troubleshooting and configuration on real Cisco platforms.

### **Course Outline:**

#### **Module 1: Translate Requirements into Automation Designs**

- Cloud overview
  - Computing
  - Characteristics
  - Models
  - Deployment models
  - Benefits
  - Adoption
- Key business requirements for cloud
- Automation
  - Cloud APIs
  - IaaS
  - PaaS
  - SaaS
  - Design
- Cisco cloud portfolios overview
  - ONE Enterprise cloud suite
  - PSC
  - UCS director
  - Virtual application cloud segmentation (VACS)
  - Intercloud fabric
  - PNSC
- Automation tasks

- PSC stack designer with PaaS

## **Module 2: Design a Private Cloud Infrastructure**

- Pod designs
  - vBlock
  - FlexPod
  - VSPEX
  - Scalability
  - UCS director
- Cloud design storage considerations
- Storage connectivity types
- Thin vs. thick provisioning
- Storage provisioning methods
- Cloud network service automation tools
  - APIC (ACI)
  - Nexus data broker
  - Metapod

## **Module 3: Design a Hybrid Cloud Infrastructure**

- Public cloud architectures
  - Amazon Web Services
  - Microsoft Azure
  - IBM SoftLayer
  - Cisco Intercloud Ecosystem
- Cisco Intercloud Fabric director
- Cisco Prime Service catalog
- Site-to-site and remote access VPN
- MPLS technology

## **Module 4: Secure the Cloud Infrastructure**

- Administrative access
- RBAC
- Centralized authentication
- Secure multitenant capabilities
- Infrastructure security components

## **Module 5: Virtualization and Virtual Network Services for Private and Hybrid Clouds**

- Hypervisor ecosystem
  - VM-mobility
  - Disaster recovery
  - High availability vs. fault tolerance
  - Memory ballooning
- Workload dependencies
- VM migration

- VM format conversion
- VM lifecycle management

**Labs:**

- Creating a UCS Director Workflow for Baremetal Provisioning
- Design and Create Cisco UCS Director Catalog Entries for Discovered VM Templates
- Design Prime Service Catalog Storefront for UCS Director
- Creating an Application Template in the Cisco Stack Designer
- Provision VACS Container
- Choosing a Hybrid Cloud Solution
- RBAC and LDAP Integration in Cisco UCS Director
- Plan for ICF Cloud Requirements and Deployment
- Design Hybrid Cloud Connectivity and Security
- Design for VM Lifecycle and Cisco ICFD Integration in the Hybrid Cloud