

Course Code: CIS134**Course Name: Cloud+****Certification: CompTIA Cloud+ CV0-002****Duration: 3 months****Tuition: \$1895****Course Overview**

CompTIA Cloud+ is a vendor-neutral, performance-based certification covering technologies that help build and support a cloud infrastructure. The certification helps identify skillsets that create cloud technologies, network, compute, and storage. The knowledge gained from CompTIA Cloud+ training is also needed to identify skill expertise in data center jobs.

Course Content**Module 1 – Cloud Introduction**

- **Lesson 1: Cloud Computing Overview**

This lesson covers the following topics:

- Cloud Computing Overview
- Cloud Pros and Cons
- Cloud Service Models
- Business Case for Cloud

- **Lesson 2: Virtualization and Data Centers**

This lesson covers the following topics:

- Understanding Virtualization
- Server Virtualization Products
- Cloud Data Centers

- **Lesson 3: Storing and Managing Cloud Data**

This lesson covers the following topics:

- Cloud Storage Overview
- Cloud Storage Governance
- Cloud Standards
- Open Source and Mobile Cloud

Module 2 – Cloud Configuration and Deployment

- **Lesson 1: Migrating the Cloud**

This lesson covers the following topics:

- Service Oriented Architecture
- Analyzing Your Infrastructure
- Migration Candidates
- Alternatives to Public Clouds

- **Lesson 2: Planning Cloud Migrations and Extensions**

This lesson covers the following topics:

- Preparing to Migrate Workloads to the Cloud
- Challenges of Migrating Workloads
- Cloud Migration Types
- Migration vs Extension to the Cloud
- Hybrid Cloud Security Elements
- Infrastructure Elements and Hybrid Cloud

- **Lesson 3: Planning Cloud Compute Resources**

This lesson covers the following topics:

- Virtualization Memory Allocation Technologies
- Assigning Memory in the Cloud
- Virtualization CPU Allocation Technologies
- Assigning CPU Resources in the Cloud
- Hidden Costs of Cloud Compute Resource Allocation

Module 3 – Cloud Security

- **Lesson 1: Cloud Security**

This lesson covers the following topics:

- Cloud Security
- Security Risks
- IT Infrastructure Security
- Securing Cloud Data

- **Lesson 2: Security Configurations and Compliance Controls**

This lesson covers the following topics:

- Creating a Trustworthy Cloud
- Public Key Infrastructure and the Cloud
- Tunneling Protocols to Cloud Resources
- Security Hardening and the Cloud
- Security Choices Based on Cloud Models
- Cloud Identification and Authentication
- Cloud Access Control Methods
- Authorizing Access to Cloud Objects
- Secure Cloud Resources
- Managing the Account Life Cycle in the Cloud
- Configuring Cloud Policy Settings

- **Lesson 3: Security Technologies and Automation Techniques**

This lesson covers the following topics:

- Implementing Data Classification in the Cloud
- Securing Cloud Resources with Segmentation
- Securing Cloud Resources with Encryption
- Securing Cloud Resources with Auditing

- Enabling Multifactor Authentication in the Cloud
- Enabling Security Services in the Cloud
- Automating Cloud Security Configuration
- Exploring the Impact of Cloud Security
- Troubleshooting Authentication
- Troubleshooting Cloud PKI
- Troubleshooting Cloud ACLs
- Troubleshooting Cloud Security Vulnerabilities

Module 4 – Cloud Maintenance

- **Lesson 1: System Patching and Maintenance**

This lesson covers the following topics:

- Cloud Resources That Need Patching
- Cloud Patching Methodologies
- Patching Cloud Resources
- Types of Updates for Cloud Resources
- Automating Patching of Cloud Resources
- Maintenance of Cloud Resources
- Maintenance Scheduling of Cloud Resources
- Automating Cloud Maintenance

- **Lesson 2: Planning Cloud Storage Resources**

This lesson covers the following topics:

- Allocating Storage for Cloud Environments
- Cloud Storage Protocols and Tiers
- Cloud Storage Efficiencies
- Cloud Storage Object Provisioning Types
- Working with Cloud Storage
- Cloud Storage Redundancy Mechanisms
- Enabling Cloud Storage Redundancy
- Cloud Storage Security Mechanisms
- Securing Cloud Storage

- **Lesson 3: Disaster Recovery**

This lesson covers the following topics:

- Cloud Backup Types
- Cloud Backup Targets
- Cloud Backup Guidelines
- Cloud Restore
- Governance of Cloud Disaster
- Cloud Disaster Recovery Techniques
- Maintaining Business Continuity in the Cloud
- Enabling Cloud Recovery Services

Module 5 – Cloud Management

- **Lesson 1: Identity, Presence, and Privacy**

This lesson covers the following topics:

- Identity and Access Management
- Federation and Access Control
- Identity as a Service
- Cloud Presence
- Cloud Privacy

- **Lesson 2: Performance Management**

This lesson covers the following topics:

- Monitoring Cloud Environments
- Using Alerts and Events to Monitor Cloud Resources
- Allocating Cloud Resources Correctly
- Triggering Resource Provisioning
- Ensuring Cloud Resources Meet Baseline Requirements
- Adjusting Cloud Resource Allocation
- Reporting Metrics to meet SLA Requirements

- **Lesson 3: Planning Cloud Networking**

This lesson covers the following topics:

- Virtual Networking in the Cloud
- Cloud Deployment Models and Networking
- Virtual Network Ports and Protocols
- Configuring Cloud Virtual Networking
- Securely Connecting to Cloud Resources
- Integrating and Connecting On-Premise and Cloud Networks
- Troubleshooting Common Cloud Connectivity Issues
- Tools for Troubleshooting Cloud Connectivity
- Using Tools to Troubleshoot Cloud Connectivity

Module 6 – Cloud Troubleshooting

- **Lesson 1: Troubleshooting Deployments**

This lesson covers the following topics:

- Using a Troubleshooting Methodology
- Troubleshooting Cloud Deployments
- Recognizing Cloud Deployment Issues
- Troubleshooting Cloud VM Storage Capacity Issues
- Troubleshooting Cloud VM vCPU Capacity Issues
- Troubleshooting Cloud Automation Issues
- Viewing Cloud Virtual Machine Logs

- **Lesson 2: Planning Cloud Deployments**

This lesson covers the following topics:

- Moving to the Cloud
- Choosing Cloud Deployment Models
- Executing the Deployment
- Plan
- Choosing What to Test in a Pilot Cloud Deployment
- Validating Pilot Cloud Testing
- Deploying a Cloud Project