

## About the Course

Cloud computing has transformed the way organizations design, deploy, and manage IT infrastructure. Modern enterprises rely on cloud platforms to deliver scalable applications, flexible infrastructure, and on-demand services that support business innovation and digital transformation.

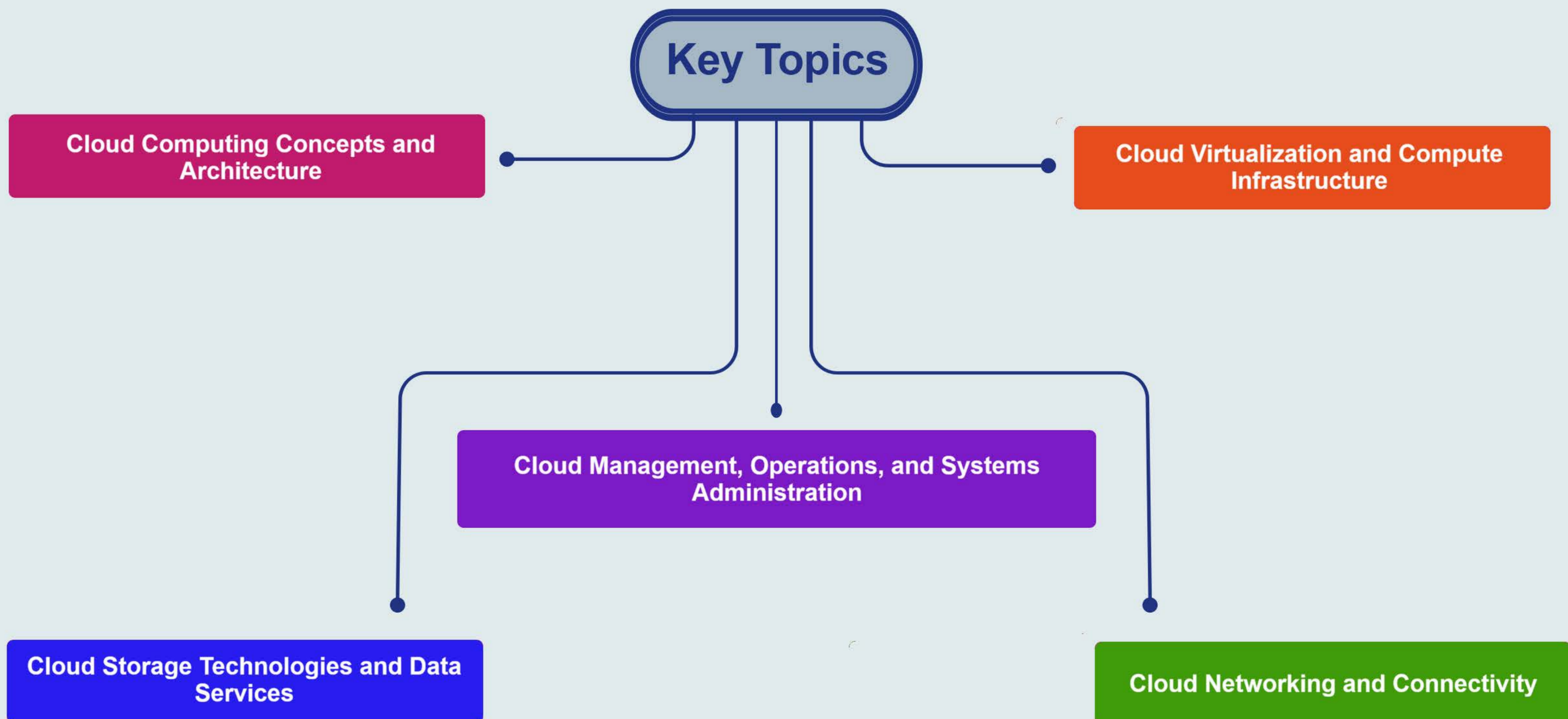
This course provides a comprehensive foundation in cloud computing concepts, architectures, service models, and operational principles. Participants will explore how cloud technologies enable modern infrastructure delivery, resource virtualization, scalable storage, and cloud networking.

The course emphasizes core cloud concepts, architecture, and operational models while remaining vendor-neutral. It prepares learners to understand enterprise cloud environments and provides the conceptual foundation required for advanced topics such as cloud security, cloud architecture, and DevOps.

## Learning Objectives



## Key Topics



## Pre Requisites

Participants should have:

- Basic knowledge of computer networking
- Familiarity with operating systems
- Understanding of IT infrastructure concepts
- Basic experience with virtualization or system administration

Prior cloud experience is not required.

## What You Will Receive



## Who Should Attend

This course is intended for:

- IT professionals transitioning to cloud technologies
- System and network administrators
- Infrastructure engineers
- Cloud architects and solution designers
- IT managers and technical decision makers
- Students pursuing careers in cloud computing



## Syllabus



### Cloud Computing Concepts and Architecture

- Evolution of computing models
- Cloud computing definition and principles
- Essential cloud characteristics
- Cloud service models (IaaS, PaaS, SaaS, Serverless)
- Cloud deployment models
- Cloud ecosystem and service providers
- Cloud architecture layers
- Benefits and challenges of cloud adoption



### Cloud Virtualization and Compute Infrastructure

- Role of virtualization in cloud computing
- Hypervisors and virtualization platforms
- Virtual machines and compute abstraction
- Containerization and microservices concepts
- Cloud compute resources
- Resource pooling and elasticity
- High availability and scalability concepts
- Compute provisioning models



### Cloud Storage Technologies and Data Services

- Cloud storage architecture
- Storage types: object, block, and file storage
- Storage provisioning and allocation
- Data replication and distribution
- Storage scalability
- Data lifecycle management
- Data access models
- Storage performance considerations



### Cloud Storage Technologies and Data Services

- Cloud networking fundamentals
- Virtual networks and network segmentation
- Software-defined networking (SDN) concepts
- IP addressing in cloud environments
- Load balancing concepts
- Hybrid cloud connectivity
- Virtual private cloud (VPC) concepts

## Syllabus



### **Cloud Management, Operations, and Systems Administration**

- Cloud resource provisioning
- Infrastructure orchestration concepts
- Cloud monitoring and logging
- Capacity planning and resource optimization
- Automation and infrastructure as code concepts
- Systems management in cloud environments
- Service lifecycle management
- Operational best practices



### **Cloud Governance, Security Concepts, and Business Continuity**

- Cloud governance models
- Shared responsibility model
- Identity and access management concepts
- Compliance and regulatory considerations
- Cloud risk management concepts
- Backup and recovery strategies
- Disaster recovery concepts
- Business continuity planning in cloud environments

## Hands-on Training



- **Exploring Cloud Platforms**
- **Deploying Cloud Compute Resources**
- **Working with Cloud Storage**
- **Cloud Networking**
- **Cloud Monitoring and Resource Management**
- **Business Continuity in the Cloud**