



AZUR 0304: Microsoft Azure Architect Design (AZ-304)

EFFECTIVE DATE

September 2020

DEPARTMENT

Computers - City Centre

DESCRIPTION

Learn how to translate business requirements into secure, scalable, and reliable solutions. Course topics include design considerations related to logging, cost analysis, authentication and authorization, governance, security, storage, high availability, and migration. The role of an Azure Solution Architect requires decisions in multiple areas that affect an overall design solution. This course prepares you to write the Microsoft Certification Exam AZ-304: Azure Architect Design. This course is ideal for IT Professionals with expertise in designing and implementing solutions running on Microsoft Azure. You would gain most from this course if you have a broad knowledge of IT operations, including networking, virtualization, identity, security, business continuity, disaster recovery, data platform, budgeting, and governance. Azure Solution Architects use the Azure Portal and as they become more adept they use the Command Line Interface. Candidates must have expert-level skills in Azure administration and have experience with Azure development processes and DevOps processes.

CREDITS

0.0

YEAR OF STUDY

Continuing Professional Development

PREREQUISITES

Highly recommended: Understanding of on-premises virtualization technologies, including: VMs, virtual networking, and virtual hard disks. Understanding of network configuration, including TCP/IP, Domain Name System (DNS), virtual private networks (VPNs), firewalls, and encryption technologies. Understanding of Active Directory concepts, including domains, forests, domain controllers, replication, Kerberos protocol, and Lightweight Directory Access Protocol (LDAP). Understanding of resilience and disaster recovery, including backup and restore operations. Optional: Microsoft Azure Fundamentals (AZ-900) course

COREQUISITES

None

COURSE LEARNING OUTCOMES

Upon successful completion of this course, students will be able to:

- Recommend solutions to minimize costs
- Recommend a solution for Conditional Access, including multi-factor authentication
- Recommend a solution for a hybrid identity including Azure AD Connect and Azure AD Connect
- Recommend a solution for using Azure Policy
- Recommend a solution that includes KeyVault and Azure AD Managed Identities
- Recommend a storage access solution
- Design and Azure Site Recovery solution
- Recommend a solution for autoscaling, containers, and network security
- Recommend a solution for migration of applications, VMs, and databases

PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

HOURS

Lecture: 16

Lab: 16

INSTRUCTIONAL STRATEGIES

GRADING SYSTEM

Satisfactory/Unsatisfactory

PASSING GRADE

'S' based on 100% attendance

EVALUATION PLAN

None

COURSE TOPICS

- Cost Management and Viewpoints for Minimizing Costs
- Azure Monitoring Services
- Multi-Factor Authentication and Single-Sign On (SSO)
- Five Steps for Securing Identity Infrastructure
- Hybrid Identity and B2B Integration
- Infrastructure Protection
- Management Groups, Subscriptions and Resource Groups
- Azure Policy, Blueprint, and KeyVault

Azure AD Managed Identities
Azure Data Storage
Database Service Tier Sizing
Scaling Azure SQL Database and Azure SQL Managed Instances
Encrypting Data at Rest, Transmission, and In Use
Data Flow and Data Integration
Storage Tiers, Access, and Management Tools
Hybrid and On-Premises Workloads
Azure Site Recovery, Regions, Backup Management
Data Archiving and Retention
Application, Workload Redundancy, and Autoscaling
Resources and Storage Types for High Availability
Geo-Redundancy, and Compute Provisioning and Technologies
Containers and Automating Compute Management
Network Addressing, Provisioning, Security, and Name Resolution
Internet Connectivity and On-Premises Networks
Automating Network Management, Load Balancing and Traffic Routing
Microservices Architecture
Orchestration Solution for Deployment of Applications
API Integration
On-Premises Servers and Applications for Migration
Migration of Applications, VMs, and Databases

LEARNING RESOURCES

None

Notes:

- Course contents and descriptions, offerings and schedules are subject to change without notice.
- Students are required to follow all College policies including ones that govern their educational experience at VCC. Policies are available on the VCC website at:
<https://www.vcc.ca/about/governance--policies/policies/>.
- To find out how this course transfers, visit the BC Transfer Guide at <https://www.bctransferguide.ca>.

V5T 4V5

Downtown campus

250 West Pender Street
Vancouver, B.C. Canada
V6B 1S9

Annacis Island campus

1608 Cliveden Avenue
Delta, B.C. Canada
V3M 6P1

604.871.7000

VCC.ca

Generated at: 9:29 pm on Jan. 15, 2021