



## AZUR 0104: Microsoft Azure Administrator (AZ-104)

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### EFFECTIVE DATE

September 2020

### DEPARTMENT

Computers - City Centre

### DESCRIPTION

In this instructor-led training, you will learn how to manage Azure subscriptions, secure identities, administer the infrastructure, configure virtual networking, connect Azure and on-premises sites, manage network traffic, implement storage solutions, create and scale virtual machines, implement web apps and containers, back up and share data, and monitor your solution. This course prepares you to write the Microsoft Certification Exam AZ-104: Azure Administrator. An Azure Administrator implements, manages, and monitors identity, governance, storage, compute, and virtual networks in a cloud environment. The Azure Administrator will provision, size, monitor, and adjust resources as appropriate.

### 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:

- Secure and manage identities with Azure Active Directory

- Implement and manage users and groups, subscriptions, and accounts; implement Azure Policy, and use RBAC to assign permissions
- Leverage Azure Resource Manager to organize resources, and use Portal, Cloud Shell, PowerShell, CLI, and ARM Templates to deploy resources
- Implement virtual networks and subnets, and configure public and private IP addressing, network security groups, Azure Firewall, and private and public DNS zones
- Configure VNet Peering and VPN gateways, and choose the appropriate intersite connectivity solution
- Configure network routing, Load Balancer, Application Gateway, and choose the appropriate network traffic solution
- Create, secure, and manage Azure storage; configure blob containers, files shares and file sync
- Create and configure virtual machines and use VM extensions
- Create an app service plan and web app; implement Container Instances and Kubernetes Service
- Backup and restore file and folders, and virtual machines
- Use Azure Monitor and Network Watcher; create Azure alerts; query using Log Analytics

## PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

## HOURS

Lecture: 12

Lab: 12

## INSTRUCTIONAL STRATEGIES

### GRADING SYSTEM

Satisfactory/Unsatisfactory

### PASSING GRADE

'S' based on 100% attendance

## EVALUATION PLAN

None

## COURSE TOPICS

- Azure Active Directory, Users, and Groups
- Subscriptions, Accounts, and Policy
- Role-based Access Control (RBAC)
- Azure Resource Manager, Portal, Cloud Shell, PowerShell, and CLI
- ARM Templates
- Virtual Networks and IP Addressing
- Network Security groups

Azure Firewall and DNS  
VNet Peering, VPN Gateway Connections, ExpressRoute, and Virtual WAN  
Network Routing and Endpoints  
Load Balancer, Application Gateway, and Traffic Manager  
Storage Accounts and Security  
Blob Storage  
Files and File Sync  
Virtual Machine Planning, Creation, Availability, and Extensions  
Azure App Service and Plans  
Container and Kubernetes Services  
Backups: File, Folder, and Virtual Machine  
Azure Monitor and Alerts  
Log Analytics and Network Watcher

## 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>.

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### Broadway campus

1155 East Broadway  
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### Downtown campus

250 West Pender Street  
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### Annacis Island campus

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