

ST-403

Microsoft Azure Cloud Engineer

Hybrid - Remote

Program Syllabus



+47 412 86 050
course@siteracademy.no
www.siteracademy.no

Syllabus Plan

Fundamentals and Preparations

- Effective Use of Tools & Installations.
- Git Version Control (GitLab, GitHub).
- Foundation Video Lectures for Beginners & Non-IT Candidates.
[Operating System, Web Technologies, Software Engineering, Agile, Cloud Computing, Networking, API, Information Security, Data Structure & Algorithm, DBMS, AI Tools]

Assignment 1: Git

Cloud Development

Lesson 1: Azure Fundamentals

- Define cloud computing, cloud models, pricing models, cloud benefits and various use cases.
- Describe Azure regions, availability zones, data centers, resource groups, subscriptions and management groups.
- Compare compute types, resources and all major components used in Azure for various services.
- Describe directory services in Azure, including Microsoft Entra ID.
- Describe various authentication methods and security features in Azure.
- Describe the purpose of Azure Policy, resource locks, service trust portal and Microsoft purview.

Lesson 2: Administer Identity, Governance and Compliance

- Understand Microsoft Entra ID
- Create, Configure, and Manage Identities.
- Core Architectural Components of Azure.
- Azure Policy Initiatives
- Azure Role-Based Access Control (Azure RBAC)

Assignment 2: Azure Administrator

Lesson 3: Administer Azure Resources

- Configure Azure Resources with Azure Portal, PowerShell & the CLI
- Deploy Azure Resources with Templates.

Lesson 4: Administer Virtual Networking and NSGs.

- Configure Virtual Networks.
- Configure Network Security Groups (NSGs).
- Host Your Domain on Azure DNS.

Lesson 5: Administer Intersite Connectivity and Network Traffic

- Configure VNet Peering.
- Manage and Control Traffic Flow with Routes.
- Introduction to Azure Load Balancer.
- Introduction to Azure Application Gateway.
- Introduction to Network Watcher.

Lesson 6: Administer Azure Storage and Virtual Machines

- Configure Storage Accounts.
- Configure Blob Storage.
- Configure Storage Security.
- Configure Azure Files.
- Introduction to Azure Virtual Machines.
- Configure Virtual Machine Availability

Lesson 7: Administer Platform as a Service and Data Protection.

- Configure Azure App Service Plans.
- Configure Azure App Services.
- Configure Azure Container Instances Apps.
- Introduction to Azure Backup.
- Protect Your Virtual Machines by using Azure Backup.

Lesson 8: Administer Monitoring

- Introduction to Azure Monitor.
- Improve Incident Response with Alerting on Azure.
- Analyze your Infrastructure using Azure Monitor logs.

Lesson 9: Manage Identity and Access

- Manage Identities in Microsoft Entra ID.
- Manage Authentication by Using Microsoft Entra ID.
- Manage Authorization by Using Microsoft Entra ID.
- Manage Application Access in Microsoft Entra ID.

Assignment 3: Azure Security**Lesson 10: Secure Networking**

- Plan and Implement Security for Virtual Networks.
- Implement Security for Private Access to Azure Resources.
- Implement Security for Public Access to Azure Resources.

Lesson 11: Secure Compute, Storage and Databases

- Plan and Implement Advanced Security for Compute.
- Plan and Implement Security for Storage.
- Security for Azure SQL Database & Azure SQL Managed Instance.

Lesson 12: Manage Security Operations

- Plan, Implement and Manage Governance for Security.
- Manage Security Posture-Using Microsoft Defender-Cloud.
- Configure & Manage Threat Protection-Using Microsoft Defender- Cloud.
- Configure & Manage Security Monitoring & Automation.

Lesson 13: Implement App Service Web Apps and Azure Functions

- Explore Azure App Service
- Configure Web App Settings
- Scale Apps in Azure App Service
- Explore Azure App service deployment slots.
- Explore and Develop Azure Functions

Assignment 4: Azure Developer**Lesson 14: Develop Solutions using Blob Storage and Cosmos DB**

- Explore and work with Azure Blob storage.
- Manage the Azure blob storage life cycle.
- Explore and work with Azure Cosmos DB.

Lesson 15: Implement Containerized Solutions

- Manage container images in Azure Container Registry
- Run container images in Azure Container Instances.
- Implement Azure Container Apps.

Lesson 16: Implement User Authentication, Authorization and Secure Cloud Solutions.

- Explore the Microsoft identity platform.
- Implement authentication by using the Microsoft Authentication Library.
- Implement shared access signatures.
- Explore Microsoft Graph.
- Implement Azure Key Vault.
- Implement managed identities.
- Implement Azure App Configuration.

Lesson 17: Develop API, Event and Message Based Solutions

- Explore API Management.
- Explore Azure Event Grid and Event Hubs.
- Discover Azure Message Queues.

Lesson 18: Monitor and Optimize Solutions

- Monitor App Performance.
- Develop for Azure Cache for Redis
- Develop for Storage on CDNs.

Project 1: Cloud Project + Presentations + Review

Course Code: ST-403

Register Now



SITER
Society of IT Engineers & Researchers

Why Join Us

- Globally Recognized Certification from Europe
- Student Loan Opportunity, Visa for Onsite Program
- Study with Microsoft's AI Cloud Partnered Institute

Visit course page for more details & registration:

www.siteracademy.no/microsoft-azure-cloud-engineer

**Do you want to talk with
our Course Advisor?**

Contact !!! 😊



Contact Us

+47 412 86 050

course@siteracademy.no

CISCO SYSTEMS



Networking
Academy



Microsoft
Azure