



AZ300 - Version: 1  
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# Microsoft Azure Architect Technologies



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 **5 days Course**

## Description:

This 5-days course is comprised of 5 separate 1- day courses. This course will help you prepare to the Microsoft AZ-300 exam. You can review the daily syllabuses in the links below

Day 1:Deploying and Configuring Infrastructure

<http://scc.sela.co.il/Syl/Syllabus/Info?courseCode=AZ300T01&branchName=165>

Day 2:Implementing Workloads and Security

<http://scc.sela.co.il/Syl/Syllabus/Info?courseCode=AZ300T02&branchName=165>

Day 3:Understanding Cloud Architect Technology Solutions

<http://scc.sela.co.il/Syl/Syllabus/Info?courseCode=AZ300T03&branchName=165>

Day 4:Creating and Deploying Apps

<http://scc.sela.co.il/Syl/Syllabus/Info?courseCode=AZ300T04&branchName=165>

Day 5:Developing for the Cloud

<http://scc.sela.co.il/Syl/Syllabus/Info?courseCode=AZ300T06&branchName=165>

## Intended audience:

Successful Azure Solutions Architects start this role with experience on operating systems, virtualization, cloud infrastructure, storage structures, billing, and networking.

## Prerequisites:

## Objectives:

Managing Azure Subscriptions and Resources  
Implementing and Managing Storage

Deploying and Managing VMs  
Configuring and Managing Virtual Networks  
Managing Identities using Azure Active Directory  
Evaluating and Performing Server Migration to Azure  
Implementing and Managing Application Services  
Implementing Advanced Virtual Networking.  
Securing Identities using Azure AD.  
Design and Connectivity Patterns  
Hybrid Networking  
Address Durability of Data and Caching  
Measure Throughput and Structure of Data Access  
Use shell commands to create an App Service Web App  
Create Background Tasks  
Use Swagger to document an API  
Create a reliable service  
Create a Reliable Actors app  
Hands-on with Reliable collections  
Understand the Azure Container Registry  
Use Azure Container instances  
How to configure a message-based integration architecture  
Understand how to Develop for Asynchronous Processing  
Begin creating apps for Autoscaling  
Understand Azure Cognitive Services Solutions

## Topics:

### Day 1

- Module 1: Managing Azure Subscriptions and Resources
- Module 2: Implementing and Managing Storage
- Module 3: Deploying and Managing Virtual Machines (VMs)
  - Create Virtual Machines (VM)s within the Azure Portal
  - Create Virtual Machines (VM)s using Azure PowerShell
  - Create Virtual Machines (VM)s using ARM templates
  - Deploy Linux Virtual Machines (VM)s
  - Monitor Virtual Machines (VM)s Additionally



- Module 4- Configuring and Managing Virtual Networks
  - Network routing using routing tables and algorithms
  - Inter-site connectivity using VNet-to-VNet connections and VPNs
  - Virtual network peering for regional and global considerations
  - Gateway transit
- Module 5- Managing Identities
  - Role-Based Access Control (RBAC)
  - built-in roles
  - Self-Service Password Reset (SSPR)
  - authentication methods for password reset

## Day 2

- Module 1- Evaluating and Performing Server Migration to Azure
- Module 2- Implementing and Managing Application Services
  - Deploying Web Apps
  - Managing Web Apps
  - App Service Security
  - Serverless Computing Concepts
  - Managing Event Grid
  - Managing Service Bus
  - Managing Logic App
- Module 3- Implementing Advanced Virtual Networking
  - Azure Load Balancer
  - Azure Application Gateway
  - Site-to-Site VPN Connections
- Module 4- Securing Identities
  - Azure AD Identity Protection
  - Azure Domains and Tenants
  - Azure Users and Groups
  - Azure Roles

## Day 3

- Module 1- Selecting Compute and Storage Solutions
  - Azure Architecture Center

- Cloud design patterns
- Competing consumers pattern
- Cache-aside pattern
- Module 2- Hybrid Networking
  - Site-to-site connectivity
  - Point-to-site connectivity
  - Combining site-to-site and point-to-site connectivity
  - Virtual network-to-virtual network connectivity
- Module 3- Measuring Throughput and Structure of Data Access
  - DTUs – Azure SQL Database
  - RUs – Azure Cosmos DB
  - Structured and unstructured data
  - Using structured data stores

## Day 4

- Module 1- Creating Web Applications using PaaS
  - Using shell commands to create an App Service Web App
  - Creating Background Tasks
  - Using Swagger to document an API As well as an explanation of how Logic Apps help to build solutions that integrate apps, data, systems, and services across enterprises or organizations by automating tasks and business processes as workflows.
- Module 2- Creating Apps and Services Running on Service Fabric
  - Creating a reliable service
  - Creating a Reliable Actors app
  - Working with Reliable collections
- Module 3- Using Azure Kubernetes Service This module focuses on the Azure
  - Azure Container Registry
  - Azure Container Instances

## Day 5

- Module 1- Developing Long-Running Tasks and Distributed Transactions
  - Implementing large-scale, parallel, and high-performance apps using batches
  - HPC using Microsoft Azure Virtual Machines

- Implementing resilient apps by using queues
- Module 2- Configuring a Message-Based Integration Architecture Lessons
  - Configure an app or service to send emails
  - Configure an event publish and subscribe model
  - Configure the Azure Relay service
  - Configure apps and services with Microsoft Graph
- Module 3- Developing for Asynchronous Processing Lessons
  - Implement parallelism, multithreading, and processing
  - Implement Azure Functions and Azure Logic Apps
  - Implement interfaces for storage or data access
  - Implement appropriate asynchronous computing models
  - Implement autoscaling rules and patterns
- Module 4- Developing for Autoscaling Lessons
  - Implementing autoscaling rules and patterns
  - Implementing code that addresses singleton application instances
  - Implementing code that addresses a transient state
- Module 5- Developing Azure Cognitive Services Solutions Lessons
  - Developing Solutions using Computer Vision
  - Developing solutions using Bing Web Search
  - Developing solutions using Custom Speech Service
  - Developing solutions using QnA Maker