

AZ-305: Designing Microsoft Azure Infrastructure Solutions

Turn business requirements into defensible Azure designs and prepare for the AZ-305 Solutions Architect Expert exam.

DURATION

4 days · 32 hours

LEVEL

Advanced

CURRICULUM

13 modules · 9 labs

DELIVERYLive online, Onsite,
Corporate

Course overview

An Azure architect is rarely asked how to create a resource. The real questions are which combination of services meets a set of requirements, what it will cost, how it fails and how it will be governed in two years. This four-day course develops that design judgement through structured case studies rather than click-through demonstrations.

Day one covers identity, governance and monitoring design: management group hierarchies, landing zones, policy strategy, Microsoft Entra ID integration and a logging approach that serves both operations and security. Day two focuses on data — choosing between relational, non-relational and analytical stores, and designing storage and integration patterns that hold up under growth.

Day three addresses business continuity: backup strategy, disaster recovery, high availability, and how to translate recovery time and recovery point objectives into concrete designs. Day four brings it together with compute, application architecture, networking and migration, before a dedicated session on case-study technique.

Each design topic ends with a workshop where you work through requirements, sketch a solution and defend it against the trainer's questions. Short validation labs let you confirm key behaviours, such as failover or policy enforcement, in a real subscription.

The course is aligned to the AZ-305 exam. The Azure Solutions Architect Expert certification also requires an associate-level prerequisite (currently AZ-104); confirm the latest requirements on Microsoft Learn before booking.

Highlights

- 32 hours of live, scenario-led sessions
- Design workshops built around realistic case studies
- Covers all four AZ-305 design areas
- Trade-off discussions on cost, resilience and security
- Case-study practice with full answer review

What's included

- Design workshops based on realistic business scenarios
- Reference architectures discussed and critiqued in class
- Validation labs for failover, policy and networking behaviour
- Well-Architected Framework used as a review lens
- Cost estimation exercises for each design
- Case-study strategy session with practice questions
- 30 days of post-training doubt support

Who this course is for

Who should attend

- Azure administrators moving into architecture roles
- Solution and cloud architects designing Azure workloads
- Senior engineers who lead migration projects
- Pre-sales consultants producing Azure proposals
- AZ-104 holders working towards an expert certification

Prerequisites

- Hands-on Azure administration experience (AZ-104 level)
- Understanding of networking, identity, storage and virtualisation
- Familiarity with high availability and disaster recovery concepts

Detailed curriculum — 4 days, 32 hours, 13 modules, 9 hands-on labs

Day 1 Identity, Governance and Monitoring Design

8 hours

1.1 Governance design

- Management group and subscription strategy
- Policy and initiative design
- Compliance reporting
- Azure landing zones
- Tagging and cost allocation

LAB Build a management group hierarchy with policy assignments · 45 min

1.2 Identity and access design

- Microsoft Entra ID tenancy and B2B/B2C scenarios
- Managed identities and workload identities
- Conditional Access and privileged identity design
- Secrets management with Key Vault

LAB Design workshop: identity for a merged organisation · 50 min

1.3 Logging and monitoring design

- Log Analytics workspace topology
- Routing logs to Microsoft Sentinel and storage
- Azure Monitor and alerting strategy

Day 2 Data Storage Design

8 hours

2.1 Relational data

- Azure SQL Database, Managed Instance and SQL on VMs
- Data protection and encryption options
- Service tiers, scaling and elastic pools
- Read scale-out and geo-replication

LAB Configure an auto-failover group for Azure SQL · 45 min

2.2 Non-relational and unstructured data

- Storage account design and redundancy
- Data lake design for analytics
- Azure Cosmos DB APIs and consistency
- Choosing a data store from requirements

LAB Design workshop: data platform for a retail chain · 50 min

2.3 Data integration

- Azure Data Factory and Microsoft Fabric pipelines
- Data integration security
- Batch vs streaming ingestion

Day 3 Business Continuity Design

8 hours

3.1 Backup and recovery

- Defining RTO and RPO with the business
- Immutable vaults and soft delete
- Azure Backup for VMs, files and databases
- Backup for PaaS services

LAB Back up and restore a VM and file share · 40 min

3.2 High availability and disaster recovery

- Availability zones and region pairs
- Active-active vs active-passive patterns
- Azure Site Recovery
- HA options for compute, storage and databases

LAB Fail over a VM to a secondary region with Site Recovery · 55 min

3.3 Continuity design workshop

- Mapping workloads to tiers of resilience
- Testing and runbooks
- Costing a DR strategy

LAB Design workshop: tiered DR for a financial services client · 45 min

Day 4 Infrastructure Design and Exam Readiness

8 hours

4.1 Compute and application architecture

- Choosing between VMs, App Service, AKS, Container Apps and Functions
- API Management and caching
- Messaging and event architectures
- Application configuration and deployment strategy

LAB Design workshop: modernise a three-tier application · 45 min

4.2 Network design

- Hub-and-spoke and Virtual WAN topologies
- Private endpoints and DNS design
- Hybrid connectivity: VPN and ExpressRoute
- Load balancing and application delivery options

LAB Validate private endpoint DNS resolution in a hub-spoke network · 40 min

4.3 Migrations

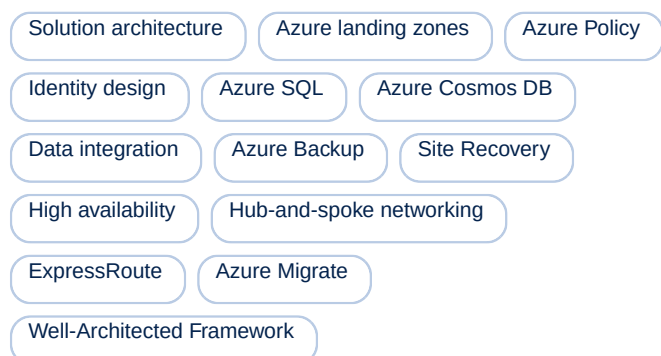
- Cloud Adoption Framework migration approach
- Migrating databases and unstructured data
- Azure Migrate assessment and tooling

4.4 Exam readiness

- Reading case studies efficiently
- Practice case study with full review
- Eliminating plausible but wrong designs

Skills and tools

Skills you will build



Tools used in class



Certification exam

This course is aligned to the exam below and prepares you for it. The exam itself is booked and taken with the vendor.

Exam	Microsoft Certified: Azure Solutions Architect Expert
Exam code	AZ-305
Duration	100 minutes
Passing score	700 / 1000 (scaled)
Format	Multiple choice, Multiple response, Drag and drop, Case study
Delivery	Online proctored, Test centre
Validity	1 year (free online renewal assessment)
Official page	https://learn.microsoft.com/credentials/certifications/exams/az-305/

Exam skill areas covered

Design, implement, and monitor solutions

Exam details are pending verification. Confirm the current exam code, format and fee on the official vendor page before booking.

Frequently asked questions

Should I take AZ-104 before AZ-305?

Yes, ideally. AZ-305 assumes administration experience, and the expert certification requires an associate prerequisite — check Microsoft Learn for the current list.

Is this course mostly theory?

It is design-focused, but each day includes validation labs and workshops where you produce and defend your own designs.

How are case studies handled in class?

You practise them throughout the course and in a dedicated final session, learning how to extract requirements quickly and rule out weaker options.

What happens if Microsoft updates the AZ-305 exam?

We map the curriculum to the current published skills outline and revise it when Microsoft changes the exam. Always check the latest outline on Microsoft Learn before booking.

Do you run weekend batches?

Yes. Weekend batches cover the same 32 hours across consecutive Saturdays and Sundays, with timings in IST that also suit learners in the Gulf.

Can you run a private batch for our team?

Yes. We run private online or onsite batches for corporate teams, and we can weight the labs towards your organisation's target architecture. Request a corporate quote with your team size and preferred dates.

Book a batch or talk to an advisor

Course page: aceskillsconsulting.com/course/az-305-designing-microsoft-azure-infrastructure-solutions · Email: info@aceskillsconsulting.com

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