

Microsoft Azure

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and Endlessly Reliable



AZ – 305

Designing Microsoft Azure Infrastructure

Overview

The AZ-305: Designing Microsoft Azure Infrastructure Solutions course is designed for IT professionals who aspire to become Azure solution architects. This advanced-level course empowers you to design, implement, and manage complex Azure infrastructure solutions, tailored to meet organizational requirements. The curriculum covers a wide range of Azure services, including computing, networking, security, and storage, enabling you to build secure, scalable, and resilient cloud architectures.

Course Objectives

By the end of this course, participants will be able to:

- Design identity, governance, and monitoring solutions
- Design data storage solutions
- Design business continuity solutions
- Design infrastructure solutions

Prerequisites

- Working knowledge of networking technologies including connectivity services, application delivery services, and network architectures.
- Working knowledge of storage technologies including relational and non-relational data solutions.
- Working knowledge of compute technologies including virtual machines, containers, and PaaS compute solutions.
- Experience architecting solutions including security, migration, and business continuity.

Audience Profile

Successful students have experience and knowledge in IT operations, including networking, virtualization, identity, security, business continuity, disaster recovery, data platforms, and governance. Students also have experience designing and architecting solutions. Before attending this course, students must have previous experience deploying or administering Azure resources and strong conceptual knowledge of:

- Azure compute technologies such as VMs, containers and serverless solutions
- Azure virtual networking to include load balancers
- Azure Storage technologies (unstructured and databases)
- General application design concepts such as messaging and high availability

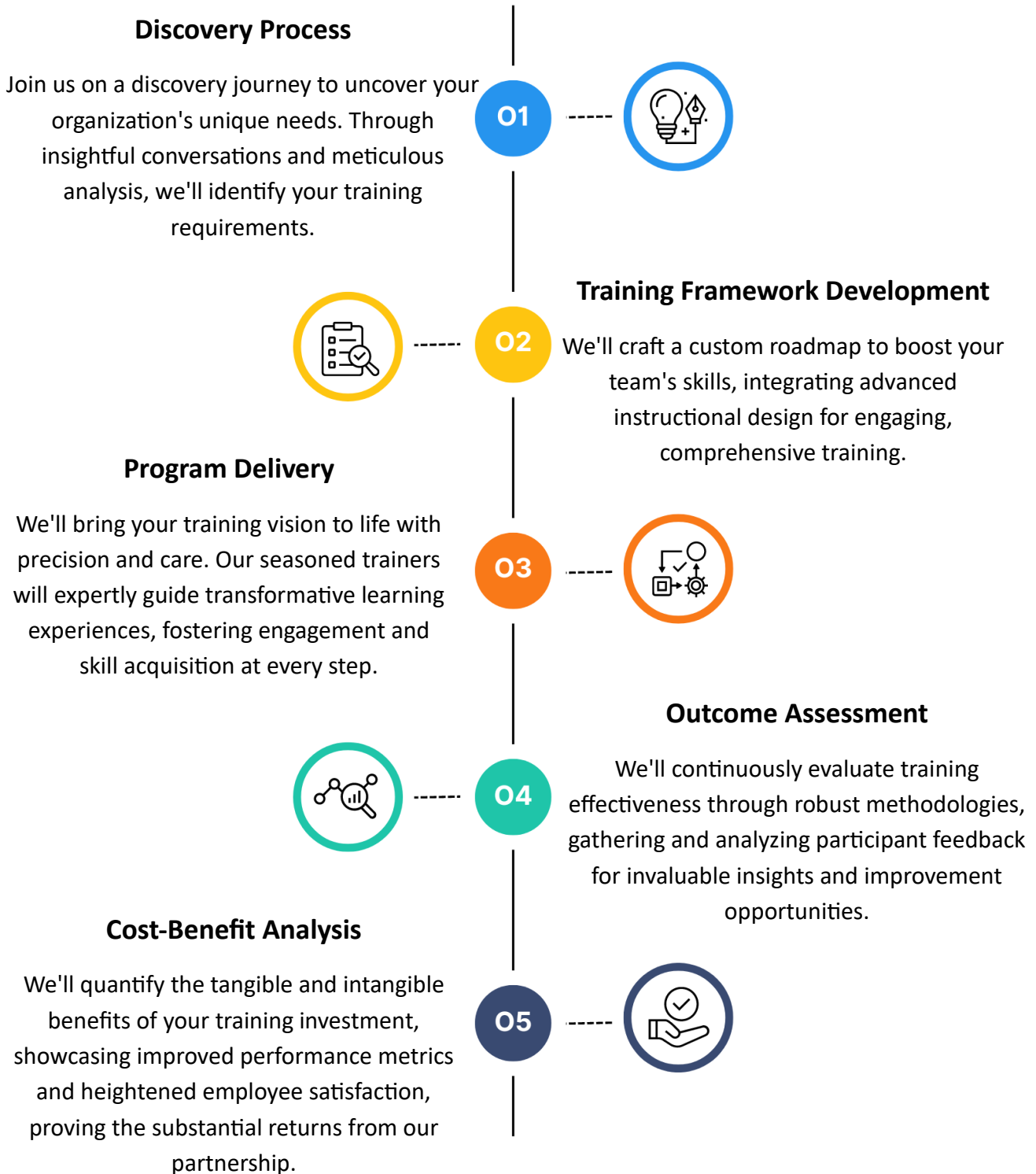
Course Level

- Advanced

Course Duration

- 4 Days – 32 Hours

Creating Tailor - Made Training Programs to Meet Your **Specific Goals**



Course Outline

This course teaches Azure Solution Architects how to design infrastructure solutions. Course topics cover governance, compute, application architecture, storage, data integration, authentication, networks, business continuity, and migrations. The course combines lecture with case studies to demonstrate basic architect design principles.

Module 1: Design a governance solution

- Lesson: Design for governance
- Lesson: Design for management groups
- Lesson: Design for Azure subscriptions
- Lesson: Design for resource groups
- Lesson: Design for resource tagging
- Lesson: Design for Azure Policy and RBAC
- Lesson: Design for Azure Landing Zones
- **Case study**
- **Learning recap**

Module 2: Design a compute solution

- Lesson: Choose a compute service
- Lesson: Design for Azure virtual machine solutions
- Lesson: Design for Azure Batch solutions
- Lesson: Design for Azure App Services solutions
- Lesson: Design for Azure Container Instances solutions
- Lesson: Design for Azure Kubernetes Service solutions
- Lesson: Design for Azure Function solutions
- Lesson: Design for Azure Logic App solutions
- **Case study**
- **Learning recap**

Module 3: Design a non-relational data storage solution

- Lesson: Design for data storage
- Lesson: Design for Azure storage accounts
- Lesson: Design for data redundancy
- Lesson: Design for Azure blob storage
- Lesson: Design for Azure files
- Lesson: Design an Azure disk solutions
- Lesson: Design for storage security
- **Case study**
- **Learning recap**

Module 4: Design a data storage solution for relational data

- Lesson: Design for data storage
- Lesson: Design for Azure SQL databases
- Lesson: Recommend a solution for database scalability
- Lesson: Recommend a solution for database availability
- Lesson: Design security for data at rest, data in transmission, and data in use
- Lesson: Design for Azure SQL Edge
- Lesson: Design for Azure Cosmos DB and tables
- **Case study**
- **Learning recap**

Module 5: Design a data integration solution

- Lesson: Design a data integration solution with Azure Data Factory
- Lesson: Design a data integration solution with Azure Data Lake
- Lesson: Design a data integration and analytics solution with Azure Databricks
- Lesson: Design a data integration and analytics solution with Azure Synapse Analytics
- Lesson: Design Azure Stream Analytics solution for Data Analysis
- Lesson: Design a strategy for hot/warm/cold data path
- **Case study**
- **Learning recap**

Module 6: Design an application architecture solution

- Lesson: Describe message and event scenarios
- Lesson: Design a messaging solution
- Lesson: Design an event solution (Event Hub and Event Grid)
- Lesson: Design an application optimization solution
- Lesson: Design application lifecycle
- **Case study**
- **Learning recap**

Module 7: Design Authentication and Authorization Solutions

- Lesson: Design for identity and access management
- Lesson: Design for Microsoft Entra ID
- Lesson: Design for Microsoft Entra B2B
- Lesson: Design for Azure Active Directory B2C
- Lesson: Design for conditional access
- Lesson: Design for identity protection
- Lesson: Design for access reviews
- Lesson: Design service principals for applications
- Lesson: Design for Azure key vault
- **Case study**
- **Learning recap**

Module 8: Design a solution to log and monitor Azure resources

- Lesson: Design for Azure Monitor data sources
- Lesson: Design for Log Analytics
- Lesson: Design for Azure workbooks and Azure Insights
- Lesson: Design for Azure Data Explorer
- **Case study**
- **Learning recap**

Module 9: Design a network infrastructure solution

- Lesson: Recommend a network architecture solution based on workload requirements
- Lesson: Design for Azure network connectivity services
- Lesson: Design for on-premises connectivity to Azure virtual networks
- Lesson: Design for application delivery services
- Lesson: Design for application protection services
- **Case study**
- **Learning recap**

Module 10: Design a business continuity solution

- Lesson: Design for backup and recovery
- Lesson: Design for Azure Backup
- Lesson: Design for Azure blob backup and recovery
- Lesson: Design for Azure Files backup and recovery
- Lesson: Design for Azure virtual machine backup and recovery
- Lesson: Design for Azure SQL backup and recovery
- Lesson: Design for Azure Site Recovery
- **Learning recap**

Module 11: Design a migration solution

- Lesson: Evaluate migration with the Cloud Adoption Framework
- Lesson: Describe the Azure Migration Framework
- Lesson: Assess your workloads
- Lesson: Compare migration tools
- Lesson: Migrate your databases
- Lesson: Select an online storage migration tool
- Lesson: Select an offline storage migration tool
- **Learning recap**

Indus Tech Services

Who We Are....

Indus Tech Services is an IT company that specializes in providing comprehensive training, consulting & implementation services for software solutions designed to address the diverse business challenges faced by organizations today. With a passion for technology and a deep understanding of business processes, Indus Tech is committed to empowering businesses to optimize their operations, boost productivity, and drive sustainable growth.

Indus Tech Services and Microsoft Partnership

As a proud **Microsoft Partner**, **Indus Tech Services** is uniquely equipped to deliver top-tier training and certification programs designed to meet the evolving needs of today's workforce. Our partnership with Microsoft allows us to offer direct access to the latest tools, resources, and industry insights, ensuring that our courses are aligned with the most current technology trends. This collaboration enables us to provide unparalleled support to our students, helping them gain the skills and knowledge required to excel in their careers. By choosing Indus Tech Services, you're not just learning; you're gaining a competitive edge with Microsoft-backed expertise and certification.

Why Choose Us...

From time to time, life serves up a profound nudge, urging us to step beyond our routines and make a difference in the world. Indus Tech Services emerged from one such compelling wake-up call. We are not just a company; we are a dedicated force with a belief in providing solutions to organizations, regardless of their size, and we infuse a human touch into everything we do.

Our Expertise

With over 25 years of collective experience navigating the intricacies of daily business transactions, irrespective of geographical, cultural, time zone, or language barriers, our team has honed their expertise to meet any challenge head-on. This wealth of experience has armed our resources with an unparalleled understanding and skill set to tackle a broad spectrum of obstacles.

Training

With two decades of unwavering commitment and a global footprint, our company is a true pioneer in the fields of linguistic, transactional, technical, and behavioural training for some of the world's largest corporate entities. Our unparalleled expertise has been refined through years of dedication and innovation, making us the go-to choice for businesses seeking transformative training solutions.

Consulting

Our company has been at the forefront of providing world-class IT consulting services to organizations spanning the globe. With an extensive and proven track record, we have honed our expertise to meet the ever-evolving technological needs and challenges faced by businesses, regardless of their scale or industry.

Implementation

Our experience covers a broad spectrum of IT implementation services, including system integration, software deployment, network architecture, cloud migration, and infrastructure setup. We understand that the successful execution of IT projects is pivotal to an organization's growth and efficiency. Therefore, we bring a depth of knowledge and a commitment to delivering results that set us apart.

To know more contact us at info@industechservices.com or call us at +91 - 99961 61170.