

Microsoft Cloud & AI DevOps Master Program

Azure Administration → DevOps Engineering → AIOps Engineering | Updated 2026

🕒 Duration: 24 Weeks

📁 Tracks: AZ-104 + AZ-400 + AIOps

📋 Capstones: 3

This master program is built around one clear journey: Azure administration, DevOps delivery, and AIOps-led operations. You first learn to run Microsoft Azure environments through AZ-104, then build modern CI/CD and platform workflows through AZ-400, and finally move into AIOps Engineering with observability, incident response, automation and reliability practices.

Live Instructor-Led Sessions

AZ-104 Azure Administrator

AZ-400 DevOps Engineer

AIOps Engineering

Azure Monitor + KQL

Automation Playbooks

LMS Access

Placement Support

P1

AZ-104 — Microsoft Azure Administrator

Phase 1 of 3 — Core track for this stage of the master program

Weeks 1–8

01

MODULE 01

Introduction to Microsoft Azure

- Cloud Computing Overview
- Public, Private & Hybrid Cloud
- IaaS, PaaS, SaaS Concepts
- Azure Global Infrastructure

02

MODULE 02

Microsoft Entra ID & Governance

- Microsoft Entra ID Overview
- User & Group Management
- Role-Based Access Control (RBAC)
- Azure Policy

03

MODULE 03

Azure Virtual Machines & Compute

- Azure Virtual Machines
- Windows & Linux VM Management
- VM Availability Options
- Virtual Machine Scale Sets

04

MODULE 04

Azure Storage Services

- Azure Storage Accounts
- Blob Storage
- Azure Files
- Shared Access Signature (SAS)

05

MODULE 05

Azure Networking

- Virtual Networks (VNet)
- Subnets & IP Addressing
- Network Security Groups (NSG)
- Azure Load Balancer

06

MODULE 06

Azure Monitoring, Backup & Security

- Azure Monitor
- Log Analytics Workspace
- Azure Backup
- Microsoft Defender for Cloud

07

MODULE 07

Azure Automation & Management

- Azure Resource Manager (ARM)
- Infrastructure Deployment Basics
- Azure Automation
- Azure CLI & PowerShell Automation

08

MODULE 08

Real-World Azure Administration

- Azure Infrastructure Deployment
- Identity & Access Management
- Secure Network Configuration
- Cost Optimization

P2

AZ-400 — DevOps Engineer Expert

Phase 2 of 3 — Core track for this stage of the master program

Weeks 9–16

09

MODULE 09

DevOps Foundations & Process Design

- DevOps Culture & Practices
- Choosing Project & Team Structure
- Azure Boards & Work Items
- GitHub Projects & Issues

10

MODULE 10

Source Control Strategy

- Git Fundamentals & Enterprise Git
- Trunk-Based, GitFlow, GitHub Flow
- Branching Policies & PR Workflows
- Repository Security

11

MODULE 11

Continuous Integration Pipelines

- CI Strategy (Pipelines & Actions)
- YAML Pipelines & Templates
- Hosted vs. Self-Hosted Agents
- Automated Testing in Pipelines

12

MODULE 12

Release & Deployment Strategies

- Release Pipeline & Environment Design
- Blue-Green, Canary & Ring Deployments
- Feature Flags
- Release Gates & Approvals

13

MODULE 13

Dependency Management & IaC

- Package Management Strategy
- Azure Artifacts & GitHub Packages
- IaC with ARM, Bicep & Terraform
- Policy-as-Code

14

MODULE 14

Container Strategy

- Containerization Fundamentals
- Azure Container Registry
- Building & Publishing Images
- Deploying to AKS

15

MODULE 15

Security & Compliance Plan

- Shift-Left Security / DevSecOps
- GitHub Advanced Security
- Defender for Cloud DevOps Security
- Secrets via Azure Key Vault

16

MODULE 16

Instrumentation, SRE & Feedback

- Application Insights & Azure Monitor
- SLIs, SLOs & Error Budgets
- Alerting on Failures & Regressions
- Release Health Metrics

P3

AIOps Engineering

Phase 3 of 3 — Core track for this stage of the master program

Weeks 17–24

17

MODULE 17

Foundations of AIOps

- AIOps Philosophy & Predictive Ops
- AIOps vs. Monitoring vs. MLOps
- Core Pillars: Data, Algorithms, Automation
- Key Metrics: MTTR, MTTD

18

MODULE 18

Observability & Telemetry Engineering

- Logs, Metrics, Traces & Events
- Multi-Source Telemetry Ingestion
- Prometheus, Grafana & Elastic Stack
- Streaming with Kafka & Airflow

19

MODULE 19

Machine Learning for Anomaly Detection

- Statistical vs. ML-Based Detection
- Dynamic Thresholding
- Time-Series Forecasting
- Model Training & Evaluation

20

MODULE 20

Event Correlation & Noise Reduction

- Event Correlation Engines
- Topology-Aware Correlation
- Deduplication & Alert Grouping
- Routing to On-Call Systems

21

MODULE 21

Automated Root Cause Analysis

- RCA Fundamentals
- Graph-Based & Dependency-Aware RCA
- Log Pattern Mining
- RCA Copilots for On-Call

22

MODULE 22

Self-Healing & Automated Remediation

- Self-Healing Runbooks
- Auto-Remediation Triggers & Guardrails
- Kubernetes-Native Healing
- Closed-Loop Automation

23

MODULE 23

GenAI & LLM-Powered Operations

- LLM-Powered Incident Diagnostics
- Natural-Language Telemetry Querying
- AI Agents for On-Call Assistance
- RAG-Based Runbook Generation

AIOps Platform Engineering & MLOps

- Model CI/CD Deployment
- Model Serving & Drift Detection
- Security & Governance
- Capstone: End-to-End AIOps System

What You'll Walk Away With

A complete journey from operating Azure infrastructure to automating delivery pipelines to running AI-driven, self-healing operations — 3 capstone projects, exam-aligned prep for AZ-104 and AZ-400, and hands-on AIOps engineering skills that most single-track courses don't cover.

24 Weeks · 3 Phases

3 Capstone Projects

Live Sessions + 1-on-1 Support

LMS Access for Life