Azure Security Engineer (AZ-500)

Secure Azure identities, networks, compute, data and security operations, aligned to AZ-500.

DURATION	FORMAT	LEVEL	LABS
56 hours	Onsite, online or hybrid	Intermediate	Cloud sandbox included

About this programme

A hands-on programme for engineers who secure Azure environments: Microsoft Entra ID and privileged access, network protection, compute, storage and database security, and security operations with Defender for Cloud and Microsoft Sentinel, with preparation for the AZ-500 exam.

Who it is for: Security engineers, Azure administrators and cloud engineers

What your team will be able to do

- Secure identities with Entra ID, MFA, Conditional Access and PIM
- Protect networks with NSGs, private endpoints, Azure Firewall, WAF and DDoS protection
- Harden VMs, containers, storage and SQL with encryption and Key Vault
- Manage security posture and threat protection with Defender for Cloud
- Detect threats and automate response with Microsoft Sentinel

Before you start

- Azure administration experience (AZ-104 level)
- Identity and networking basics

Course outline

1. Manage identity and access

- Users, groups and external identities in Microsoft Entra ID
- MFA, passwordless authentication, SSO and Conditional Access
- App registrations, permissions, service principals and Application Proxy
- Azure role-based access control
- Privileged Identity Management for just-in-time access

2. Secure networking

- Virtual networks, NSGs and application security groups
- Private endpoints and service endpoints
- Azure Firewall, Web Application Firewall and DDoS protection
- VPN connectivity, ExpressRoute encryption and secure routing
- Network Watcher and NSG flow logs

3. Secure compute, storage and databases

- Securing VMs, AKS, Container Instances and Container Apps
- Disk encryption options
- Storage access keys, shared access signatures and threat protection
- Azure SQL: Entra authentication, auditing, masking, TDE and Always Encrypted
- Azure Key Vault and dedicated HSM options

4. Manage security operations

- Governance enforcement with Azure Policy
- Security posture and compliance with Microsoft Defender for Cloud
- Threat protection with Defender for Servers, Databases and Storage
- DevOps security for GitHub, Azure DevOps and GitLab
- Microsoft Sentinel: connectors, analytics rules, incidents and automation

Sample schedule

7 days onsite, or 14 half-day sessions online. We fit days and session lengths to your team's calendar.

Day 1	8 h	Manage identity and access
Day 2	8 h	Manage identity and access (continued); Secure networking
Day 3	8 h	Secure networking (continued)
Day 4	8 h	Secure networking (continued); Secure compute, storage and databases
Day 5	8 h	Secure compute, storage and databases (continued)
Day 6	8 h	Secure compute, storage and databases (continued); Manage security operations
Day 7	8 h	Manage security operations (continued)

Assessment and certification

How learning is checked

- A short knowledge check on day one and again at the end, so you can see each person's progress
- Graded hands-on labs in every module, reviewed by the trainer
- A final exercise that applies the programme to a problem like your team's own
- A timed practice exam in the format of the real one, with a review of every answer

Certificate and exams

- Participants who complete the programme receive a Cognitive Networks AI certificate of completion.
- Prepares your team for the Microsoft AZ-500 exam. Exam vouchers are not included: each participant books the exam with Microsoft.

Formats and cohort size

- Onsite: At your office or a venue you choose, in full days.
- Online, live: Instructor-led over video, usually in half-day sessions so people can keep up with work.
- Hybrid: Some days in a room together, the rest online. Useful when a team works across cities.

Cohort size: 15 to 25 people per trainer. Larger teams run as parallel cohorts on the same outline, so everyone learns the same thing.

Pricing: We quote per cohort, based on duration, format and number of cohorts. There is no per-seat price list: tell us your team and we send a proposal within one business day.

Bring this programme to your team

Request a proposal at cognitivenetworks.ai/contact?programme=az-500

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