



MICROSOFT TRAINING

Advanced Azure AI Foundry

Master Advanced Azure AI Foundry to build and deploy cutting-edge AI solutions. Accelerate your career in AI development with Microsoft Azure.

DURATION

32 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

The Advanced Azure AI Foundry course is meticulously designed for AI professionals seeking to master the complexities of building, deploying, and managing enterprise-grade artificial intelligence solutions on Microsoft Azure. This comprehensive program delves into the sophisticated capabilities of Azure AI services, with a particular focus on leveraging foundational models, large language models (LLMs), and advanced MLOps practices. Participants will gain deep insights into orchestrating complex AI workflows, ensuring scalability, security, and responsible AI implementation within real-world business contexts. This course moves beyond basic model training to cover the end-to-end lifecycle of sophisticated AI projects.

By completing this certification, you will be equipped with the expertise to architect highly scalable and robust AI solutions, integrate cutting-edge models into existing systems, and drive significant innovation within your organization. The curriculum emphasizes practical application, hands-on labs, and best practices for creating AI solutions that are not only powerful but also ethical and maintainable. You will learn to navigate the advanced features of Azure AI Foundry to optimize model performance, manage diverse data sources, and implement continuous integration/continuous deployment (CI/CD) pipelines for AI, ultimately transforming data into strategic business advantage.

Duration	32 hours
Level	Intermediate
Vendor	Microsoft

COURSE CURRICULUM

01 Module 1: Introduction to Azure AI Foundry and Foundational Models

- Overview of Azure AI Foundry architecture and components
- Understanding Foundational Models and their role in enterprise AI
- Exploring Azure AI Studio and its advanced features
- Setting up development environments for large-scale AI projects
- Ethical considerations and responsible AI principles for foundational models

02 Module 2: Advanced Prompt Engineering and LLM Orchestration

- Mastering advanced prompt engineering techniques for LLMs
- Implementing Retrieval Augmented Generation (RAG) patterns
- Tools and frameworks for LLM orchestration (e.g., Semantic Kernel, LangChain on Azure)
- Fine-tuning and customization of foundational models on Azure
- Evaluating and testing LLM outputs for quality and safety

03 Module 3: MLOps for Enterprise AI Foundry Solutions

- Designing MLOps pipelines for foundational and custom models
- Automated model versioning, registration, and deployment on Azure
- Monitoring model performance, drift, and data quality in production
- Implementing CI/CD for AI applications using Azure DevOps/GitHub Actions
- Strategies for reproducible AI workflows and artifact management

04 Module 4: Responsible AI, Security, and Governance

- Advanced Responsible AI toolkit in Azure AI Foundry
- Implementing fairness, transparency, and accountability in AI systems
- Data privacy and compliance considerations for AI solutions (e.g., GDPR, HIPAA)

- Securing AI deployments with Azure security services (Azure Key Vault, Azure Private Link)
- Establishing AI governance frameworks and policies

05 Module 5: Integrating and Scaling AI Foundry Solutions

- Integrating AI Foundry models with enterprise applications and data sources
- Scaling AI workloads with Azure Kubernetes Service (AKS) and Azure Container Apps
- Leveraging Azure Data Factory and Synapse Analytics for AI data pipelines
- Building custom AI agents and copilots with Azure AI Studio
- Optimizing cost and resource utilization for large-scale AI deployments

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Azure AI Solutions Architect**
- > **Senior MLOps Engineer (Azure)**
- > **Enterprise AI Platform Specialist**

FREQUENTLY ASKED QUESTIONS

Q: What are the core prerequisites for enrolling in the Advanced Azure AI Foundry course?

This course is designed for professionals with a solid foundation in Azure Machine Learning, Python programming, and general AI/ML concepts. While not strictly mandatory, prior experience with Azure AI Services (like Azure OpenAI, Azure Cognitive Services) and an understanding of MLOps principles would be highly beneficial. It's an intermediate-to-advanced level course, assuming participants are comfortable with cloud environments and data science fundamentals.

Q: How does this course uniquely prepare participants to work with large foundational models and LLMs in an enterprise context?

This course goes beyond basic prompt engineering by focusing on advanced techniques for integrating, fine-tuning, and orchestrating foundational models and LLMs within robust enterprise architectures. You'll gain expertise in Retrieval Augmented Generation (RAG), MLOps specific to large models, ensuring data privacy and security, and building scalable applications with Azure AI Studio, which are critical skills for deploying production-ready, responsible LLM solutions.

Q: What practical, real-world skills will I gain that are immediately applicable to my career as an AI professional?

You will acquire hands-on skills in architecting and implementing end-to-end AI solutions using Azure AI Foundry, including designing scalable MLOps pipelines for foundational models, mastering advanced prompt engineering and LLM orchestration, and integrating responsible AI practices from conception to deployment. You will be able to lead the development of secure, high-performing, and ethical AI systems, making you an invaluable asset in any organization leveraging cutting-edge AI.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

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