COURSE OUTLINE

Microsoft
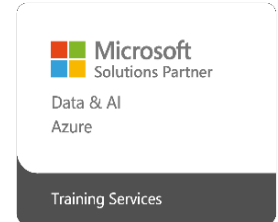Solutions Partner

Data & AI
Azure

Training Services

Course Code: AI-900T00

Course Name: Mirosoft Azure AI Fundamentals

DURATION	SKILL LEVEL	DELIVERY METHOD	TRAINING CREDITS	TECHNOLOGY
1 days	Beginner	VILT/ILT	N/A	Azure

Course Overview

This course introduces fundamentals concepts related to artificial intelligence (AI), and the services in Microsoft Azure that can be used to create AI solutions. The course is not designed to teach students to become professional data scientists or software developers, but rather to build awareness of common AI workloads and the ability to identify Azure services to support them. The course is designed as a blended learning experience that combines instructor-led training with online materials on the Microsoft Learn platform (https://azure.com/learn). The hands-on exercises in the course are based on Learn modules, and students are encouraged to use the content on Learn as reference materials to reinforce what they learn in the class and to explore topics in more depth.

Target Audience

The Azure AI Fundamentals course is designed for anyone interested in learning about the types of solution artificial intelligence (AI) makes possible, and the services on Microsoft Azure that you can use to create them. You don't need to have any experience of using Microsoft Azure before taking this course, but a basic level of familiarity with computer technology and the Internet is assumed. Some of the concepts covered in the course require a basic

understanding of mathematics, such as the ability to interpret charts. The course includes hands-on activities that involve working with data and running code, so a knowledge of fundamental programming principles will be helpful.

Job role:	Exam Requirements
AI Engineer	AI-900

Prerequisites

Before starting this module, you should have:

- A basic knowledge of mathematics
- Familiarity with Microsoft Azure and cloud computing

Topics

Module 1: Fundamental AI Concepts

With AI, we can build solutions that seemed like science fiction a short time ago; enabling incredible advances in health care, financial management, environmental protection, and other areas to make a better world for everyone.

- Introduction to AI
- Understand machine learning.
- Understand computer vision.
- Understand natural language processing.
- Understand document intelligence and knowledge mining.
- Understand geneative AI.
- Challenges and risks with AI
- Understand Responsible AI
- Knowledge check
- Summary

Module 2: Fundamentals of machine learning

Machine learning is the basis for most modern artificial intelligence solutions. A familiarity with the core concepts on which machine learning is based is an important foundation for understanding AI.

- Describe core concepts of machine learning.

- Identify different types of machine learning
- Describe considerations for training and evaluating machine learning models.
- Describe core concepts of deep learning.
- Use automated machine learning in Azure Machine Learning service.

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Module 3: Fundamentals of Azure AI services

In this module, you learn the fundamentals of how Azure AI services can be used to build applications.

- Understand applications Azure AI services can be used to build.
- Understand how to access Azure AI services in the Azure portal.
- Understand how to use Azure AI services keys and endpoint for authentication.
- Create and use an Azure AI services resource in a Content Safety Studio setting.

Module 4: Fundamentals of Computer Vision

Azure AI Vision service enables software engineers to create intelligent solutions that extract information from images; a common task in many artificial intelligence (AI) scenarios.

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Module 5: Fundamentals of Facial Recognition

Face detection, analysis, and recognition are important capabilities for artificial intelligence (AI) solutions. Azure AI Face service in Azure makes it easy integrate these capabilities into your applications.

Module 6: Fundamentals of optical character recognition

Optical character recognition (OCR) enables artificial intelligence (AI) systems to read text in images, enabling applications to extract information from photographs, scanned documents, and other sources of digitized text.

Module 7: Fundamentals of Text Analysis with the Language Service

Explore Azure AI Language's natural language processing (NLP) features, which include sentiment analysis, key phrase extraction, named entity recognition, and language detection.

Module 8: Fundamentals of question answering with the Language Service

Create a custom question answering knowledge base with Azure AI Language and create a bot with Azure AI Bot Service that answers user questions.

Module 9: Fundamentals of conversational language understanding

In this module, we introduce you to conversational language understanding, and show how to create applications that understand language with Azure AI Language.

Module 10: Fundamentals of Azure AI Speech

Learn how to recognize and synthesize speech by using Azure AI Speech.

- Learn about speech recognition and synthesis.
- Learn how to use Azure AI Speech

Module 11: Fundamentals of Azure AI Document Intelligence

Document processing is a common task in many business scenarios. Organizations can use Azure AI Document Intelligence to automate data extraction across document types, such as receipts, invoices, and more.

Module 12: Fundamentals of Knowledge Mining with Azure Cognitive Search

Use Azure Cognitive Search to make your data searchable.

- Explore Azure Cognitive Search
- Create an Azure Cognitive Search index.
- Import data to the index.
- Query the Azure Cognitive Search index.

Module 13: Fundamentals of Generative AI

In this module you'll explore the way in which large language models (LLMs) enable AI applications and services to generate original content based on natural language input. You'll also learn how generative AI enables the creation of AI-powered copilots that can assist humans in creative tasks.

- Understand generative AI's place in the development of artificial intelligence.
- Understand large language models and their role in intelligent applications.
- Describe how Azure OpenAI supports intelligent application creation.
- Describe examples of copilots and good prompts

Module 14: Fundamentals of Azure OpenAI Service

Get to know the connection between artificial intelligence (AI), Responsible AI, and text, code, and image generation. Understand how you can use Azure OpenAI to build solutions against AI models within Azure.

- Describe Azure OpenAI workloads and access the Azure OpenAI Service
- Understand generative AI models.
- Understand Azure OpenAI's language, code, and image capabilities.
- Understand Azure OpenAI's responsible AI practices and limited access policies.

Module 15: Fundamentals of Responsible Generative AI

Generative AI enables amazing creative solutions but must be implemented responsibly to minimize the risk of harmful content generation.

- Describe an overall process for responsible generative AI solution development.

- Identify and prioritize potential harms relevant to a generative AI solution.

- Measure the presence of harms in a generative AI solution.

- Mitigate harms in a generative AI solution.

- Prepare to deploy and operate a generative AI solution responsibly.

Exams and Certifications

A Certificate of completion is issued at the end of the Course.

Schedule your Microsoft exam here: Microsoft :: Pearson VUE

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