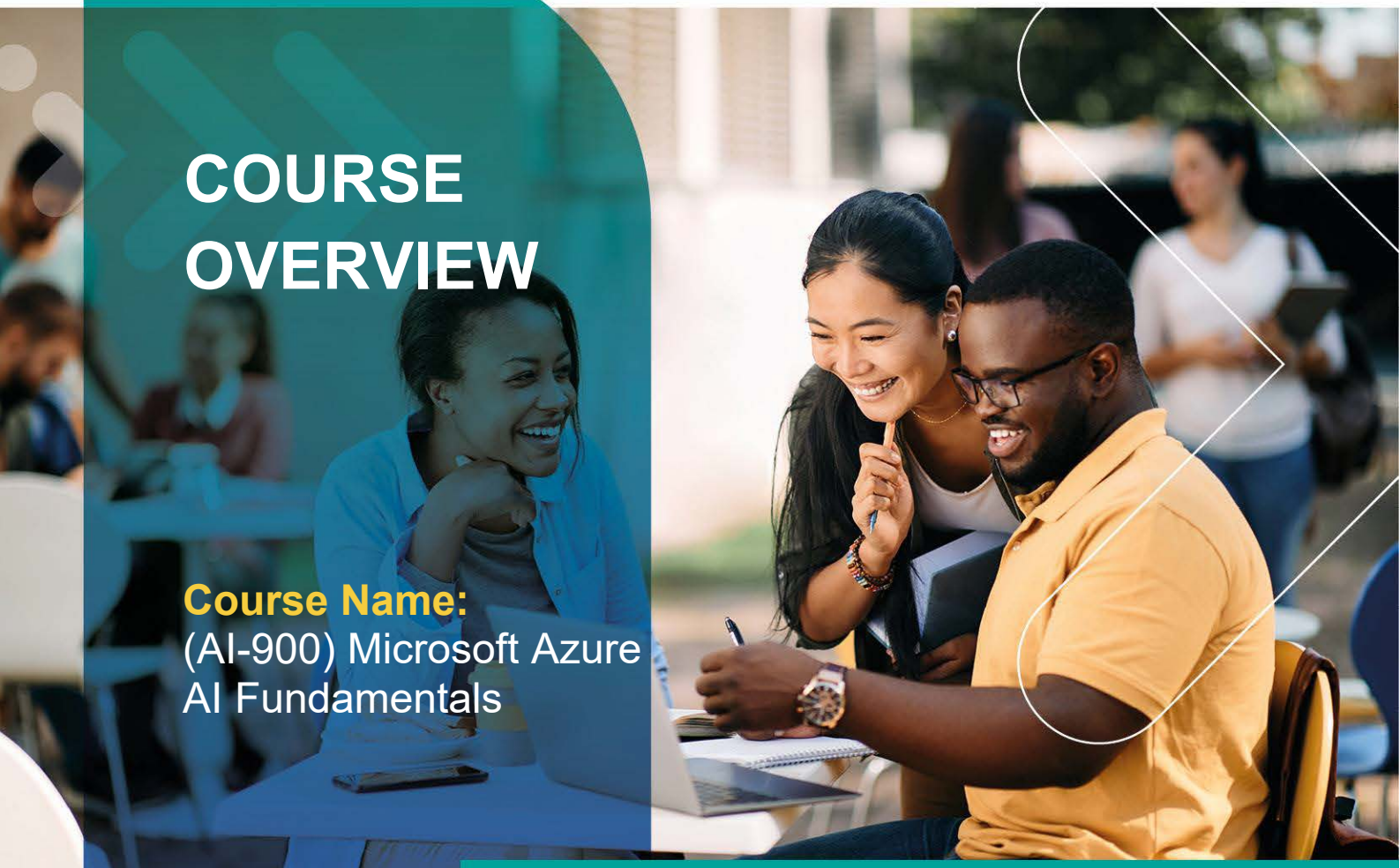
COURSE OVERVIEW



Course Name:
(AI-900) Microsoft Azure AI Fundamentals

COURSE DURATION: 1 Day

Gauteng:
3rd Floor, 34 Whitely Road
Melrose Arch
Johannesburg
2196

Gauteng:
192 on Bram
192 Bram Fischer Drive
Ferndale, Randburg
Johannesburg
2160

Cape Town:
3rd Floor, Thomas Pattullo Building
19 Jan Smuts St
Cape Town
8000

Durban:
9 Mountview Close
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Mount Edgecombe
Durban
4302

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INTRODUCTION

This course is designed for candidates looking to demonstrate foundational-level knowledge of machine learning (ML) and artificial intelligence (AI) concepts, and related Microsoft Azure services. You will learn how to use Azure services to create machine learning, computer vision, and natural language processing solutions through hands-on activities.

DELIVERY METHOD

Our courses have flexible delivery options:

- In-person classroom training at the Impactful training facilities
  - Johannesburg, Durban, Cape Town
- Virtual instructor-led training
- Nationally: on-site at the client

IMPACTFUL
Powered by LRMG

INTENDED AUDIENCE

The course is intended for candidates with both technical and non-technical backgrounds. Data science and software engineering experience are not required; however, awareness of cloud basics and client-server applications would be beneficial.

PREREQUISITES

Prerequisite certification is not required before taking this course. Successful Azure AI Fundamental students start with some basic awareness of computing and internet concepts, and an interest in using Azure AI services.

Specifically:

- Experience using computers and the internet.
- Interest in use cases for AI applications and machine learning models.
- A willingness to learn through hands-on exploration.

COURSE CONTENT

The various objectives and chapters that will be covered include:

Module 1: Get started with AI on Azure

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.

Module 2: Use Automated Machine Learning in Azure Machine Learning

Training a machine learning model is an iterative process that requires time and compute resources. Automated machine learning can help make it easier.

Module 3: Create a regression model with Azure Machine Learning designer

Regression is a supervised machine learning technique used to predict numeric values. Learn how to create regression models using Azure Machine Learning designer.

Module 4: Create a classification model with Azure Machine Learning designer

Classification is a supervised machine learning technique used to predict categories or *classes*. Learn how to create classification models using Azure Machine Learning designer.

Module 5: Create a clustering model with Azure Machine Learning designer

Clustering is an unsupervised machine learning technique used to group similar entities based on their features. Learn how to create clustering models using Azure Machine Learning designer.

Module 6: Analyze images with the Computer Vision service

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

Module 7: Classify images with the Custom Vision service

Image classification is a common workload in artificial intelligence (AI) applications. It harnesses the predictive power of machine learning to enable AI systems to identify real-world items based on images.

Module 8: Detect objects in images with the Custom Vision service

Object detection is a form of computer vision in which artificial intelligence (AI) agents can identify and locate specific types of object in an image or camera feed.

Module 9: Detect and analyze faces with the Face service

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

Module 10: Read text with the Computer Vision service

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 11: Analyze receipts with the Form Recognizer service

Processing invoices and receipts is a common task in many business scenarios. Increasingly, organizations are turning to artificial intelligence (AI) to automate data extraction from scanned receipts.

Module 12: Analyze text with the Language service

Explore text mining and text analysis with the Language service's Natural Language Processing (NLP) features, which include sentiment analysis, key phrase extraction, named entity recognition, and language detection.

Module 13: Recognize and synthesize speech

Learn how to recognize and synthesize speech by using Azure Cognitive Services.

Module 14: Translate text and speech

Automated translation capabilities in an AI solution enable closer collaboration by removing language barriers.

Module 15: Create a language model with Conversational Language Understanding

In this module, we'll introduce you to Conversational Language Understanding, and show how to create applications that understand language.

Module 16: Build a bot with the Language Service and Azure Bot Service

Bots are a popular way to provide support through multiple communication channels. This module describes how to use a knowledge base and Azure Bot Service to create a bot that answers user questions.