

AI-3008: EXTRACT INSIGHTS FROM VISUAL DATA ON AZURE



DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	TRAINING CREDITS
1 Day	Intermediate	Azure	Instructor-led / VILT	N/A

INTRODUCTION

This 1-day course focuses on building intelligent applications that can see, interpret, and reason over images and documents using different multimodal models and agent-based tools. Learners explore how visual and document inputs can be combined with language models to enable structured extraction, analysis, and decision-making workflows. The course emphasizes practical patterns for extracting information, orchestrating tools, and grounding model responses in visual data.

Use generative AI, computer vision, and Content Understanding capabilities in Azure to extract insights from visual data, supporting scenarios like:

- Image analysis
- Image and video generation
- Content Understanding and enrichment
- Visual search and classification
- Digital asset management (DAM)
- Multimodal AI solutions

AUDIENCE PROFILE

This course is designed for developers, AI engineers, and technical professionals who want to build applications that work with images and documents using multimodal, agent-driven approaches. It's best suited for learners with basic programming experience and a general understanding of cloud or AI concepts.

PREREQUISITES

- Familiarity with Azure and Microsoft Foundry.
- Programming experience.

COURSE OBJECTIVES

After completing this course, students will be able to:

- Generate images with AI
- Generate videos with Microsoft Foundry
- Analyze images with Azure Content Understanding.
- Use prebuilt and custom models to automate document processing.
- Unlock the hidden insights in your data with Azure AI Search.

COURSE CONTENT

Module 1: Develop a vision-enabled generative AI application

A picture says a thousand words, and multimodal generative AI models can interpret images to respond to visual prompts. Learn how to build vision-enabled chat apps.

Lessons:

- Introduction
- Use a vision-capable model in the Microsoft Foundry portal

- Develop a vision-based chat app
 - Exercise - Develop a vision-enabled chat app
 - Module assessment
 - Summary
- After completing this module, students will be able to:
- Deploy a vision-enabled generative AI model in Microsoft Foundry.
 - Test an image-based prompt in the chat playground.

- Create a chat app that submits image-based prompts.

Module 2: Generate images with AI

In Microsoft Foundry, you can use image generation models to create original images based on natural language prompts.

Lessons:

- Introduction
- What are image-generation models?

- Explore image-generation models in Microsoft Foundry portal
- Create a client application that uses an image generation model
- Exercise - Generate images with AI
- Module assessment
- Summary

After completing this module, students will be able to:

- Describe the capabilities of image generation models
- Use the Images playground in Microsoft Foundry portal
- Integrate image generation models into your apps

Module 3: Generate videos with Microsoft Foundry

Learn how to generate videos from text prompts with Sora 2 in Microsoft Foundry.

Lessons:

- Introduction
- Deploy a video generating model
- Generate video from a prompt
- Generate video in Python
- Exercise - Generate video with Sora 2 in Microsoft Foundry
- Module assessment
- Summary

After completing this module, students will be able to:

- Deploy a video-generating AI model in Microsoft Foundry.
- Test a video-based prompt in the chat playground.
- Use the Azure OpenAI SDK to generate and remix videos in Python.

Module 4: Analyze images with Content Understanding

Learn how to analyze images with Azure Content Understanding.

Lessons:

- Introduction
- What is Content Understanding?
- Analyze images with Content Understanding
- Exercise - Analyze images with Content Understanding
- Module assessment
- Summary

After completing this module, students will be able to:

- Deploy a content-understanding AI model in Microsoft Foundry.
- Test an image-based prompt in the chat playground.

- Use the Azure OpenAI SDK to analyze images in Python.

Module 5: Create a multimodal analysis solution with Azure Content Understanding

Use Azure Content Understanding for multimodal content analysis and information extraction.

Lessons:

- Introduction
- What is Azure Content Understanding?
- Create a Content Understanding analyzer
- Use the Content Understanding API
- Exercise - Extract information from multimodal content
- Module assessment
- Summary

After completing this module, you will be able to:

- Describe capabilities of Azure Content Understanding.
- Use Azure Content Understanding to build a content analyzer.
- Consume a Content Understanding analyzer by using the API.

Module 6: Create an Azure Content Understanding client application

Use the Azure Content Understanding API for multimodal content analysis and information extraction.

Lessons:

- Introduction
- Prepare to use the AI Content Understanding API
- Create a Content Understanding analyzer
- Analyze content
- Exercise - Develop a Content Understanding client application
- Module assessment
- Summary

After completing this module, you will be able to:

- Use the Azure Content Understanding API to build a content analyzer
- Use the Azure Content Understanding API to consume an analyzer

Module 7: Extract data with Azure Document Intelligence

Azure Document Intelligence uses OCR and deep learning models to extract text, key-value pairs, tables, and structured data from forms and

documents. Learn how to use prebuilt and custom models to automate document processing.

Lessons

- Introduction
- What is Azure Document Intelligence?
- Use the Document Intelligence Studio
- Use prebuilt models
- Train and use custom models
- Exercise - Analyze documents with Document Intelligence
- Module assessment
- Summary

After completing this module, you will be able to:

- Describe the capabilities and components of Azure Document Intelligence.
- Use the Document Intelligence Studio to explore and test models.
- Use prebuilt models to extract data from common document types.
- Train and use custom models for industry-specific forms.

Module 8: Create a knowledge mining solution with Azure AI Search

Unlock the hidden insights in your data with Azure AI Search. In this module, you'll learn how to implement a knowledge mining solution that extracts and enriches data, making it searchable and ready for deeper analysis.

Lessons

- Introduction
- What is Azure AI Search?
- Extract data with an indexer
- Enrich extracted data with AI skills
- Search an index
- Persist extracted information in a knowledge store
- Exercise - Create a knowledge mining solution
- Module assessment
- Summary

After completing this module, you will be able to:

- Implement indexing with Azure AI Search
- Use AI skills to enrich data in an index
- Search an index to find relevant information
- Persist extracted information in a knowledge store

ASSOCIATED CERTIFICATIONS & EXAM

None.