

Course duration

- 4 days

Course Benefits

- Describe considerations for AI-enabled application development
- Create, configure, deploy, and secure Azure Cognitive Services
- Develop applications that analyze text
- Develop speech-enabled applications
- Create applications with natural language understanding capabilities
- Create QnA applications
- Create conversational solutions with bots
- Use computer vision services to analyze images and videos
- Create custom computer vision models
- Develop applications that detect, analyze, and recognize faces
- Develop applications that read and process text in images and documents
- Create intelligent search solutions for knowledge mining

Microsoft Certified Partner

Webucator is a Microsoft Certified Partner for Learning Solutions (CPLS). This class uses official Microsoft courseware and will be delivered by a Microsoft Certified Trainer (MCT).

Course Outline

1. Introduction to AI on Azure
 1. Introduction to Artificial Intelligence
 2. Artificial Intelligence in Azure
2. Developing AI Apps with Cognitive Services
 1. Getting Started with Cognitive Services
 2. Using Cognitive Services for Enterprise Applications
 3. Lab: Get Started with Cognitive Services
 4. Lab: Manage Cognitive Services Security
 5. Lab: Monitor Cognitive Services
 6. Lab: Use a Cognitive Services Container
3. Getting Started with Natural Language Processing
 1. Analyzing Text
 2. Translating Text
 3. Lab: Analyze Text

4. Lab: Translate Text
4. Building Speech-Enabled Applications
 1. Speech Recognition and Synthesis
 2. Speech Translation
 3. Lab: Recognize and Synthesize Speech
 4. Lab: Translate Speech
5. Creating Language Understanding Solutions
 1. Creating a Language Understanding App
 2. Publishing and Using a Language Understanding App
 3. Using Language Understanding with Speech
 4. Lab: Create a Language Understanding App
 5. Lab: Create a Language Understanding Client Application
 6. Lab: Use the Speech and Language Understanding Services
6. Building a QnA Solution
 1. Creating a QnA Knowledge Base
 2. Publishing and Using a QnA Knowledge Base
 3. Lab: Create a QnA Solution
 4. Use QnA Maker to create a knowledge base
 5. Use a QnA knowledge base in an app or bot
7. Conversational AI and the Azure Bot Service
 1. Bot Basics
 2. Implementing a Conversational Bot
 3. Lab: Create a Bot with the Bot Framework SDK
 4. Lab: Create a Bot with Bot Framework Composer
 5. Use the Bot Framework SDK to create a bot
 6. Use the Bot Framework Composer to create a bot
8. Getting Started with Computer Vision
 1. Analyzing Images
 2. Analyzing Videos
 3. Lab: Analyze Images with Computer Vision
 4. Lab: Analyze Video with Video Indexer
 5. Use Video Indexer to analyze videos
9. Developing Custom Vision Solutions
 1. Image Classification
 2. Object Detection
 3. Lab: Classify Images with Custom Vision
 4. Lab: Detect Objects in Images with Custom Vision
 5. Use the Custom Vision service to implement image classification
 6. Use the Custom Vision service to implement object detection
10. Detecting, Analyzing, and Recognizing Faces
 1. Detecting Faces with the Computer Vision Service
 2. Using the Face Service
 3. Lab: Detect, Analyze, and Recognize Faces
11. Reading Text in Images and Documents
 1. Reading text with the Computer Vision Service
 2. Extracting Information from Forms with the Form Recognizer service
 3. Lab: Read Text in Images

4. Lab: Extract Data from Forms
12. Creating a Knowledge Mining Solution
 1. Implementing an Intelligent Search Solution
 2. Developing Custom Skills for an Enrichment Pipeline
 3. Creating a Knowledge Store
 4. Lab: Create an Azure Cognitive Search solution
 5. Lab: Create a Custom Skill for Azure Cognitive Search
 6. Lab: Create a Knowledge Store with Azure Cognitive Search

Class Materials

Each student will receive a comprehensive set of materials, including course notes and all the class examples.

Class Prerequisites

Experience in the following *is required* for this Azure class:

- Knowledge of Microsoft Azure and ability to navigate the Azure portal.
- Knowledge of either C# or Python.
- Familiarity with JSON and REST programming semantics.