



# AZ-2005: Develop AI agents using Azure OpenAI and the Semantic Kernel SDK

Course ID #: 7000-979-ZZ-Z

Hours: 7

## Course Content

### Course Description:

Learn how to use the Semantic Kernel SDK to build intelligent applications that automate tasks and perform natural language processing.

### Prerequisites:

Experience programming in C#.

Visual Studio Code IDE installed.

Familiarity with Azure and the Azure portal.

Access to Azure OpenAI Services.

### Target Audience:

Developers

### Topics:

#### Lesson 1: Build your kernel

- Introduction
- What is semantic kernel
- Why use semantic kernel
- How to build your kernel
- Exercise - Build a kernel object
- Module assessment
- Summary

#### Lesson 2: Run prompts with Semantic Kernel

- Introduction
- Optimize language model prompts
- Use semantic kernel prompt templates
- Use Handlebars prompt templates
- Store chat history
- Exercise - Run Semantic Kernel prompts
- Module assessment
- Summary

#### Lesson 3: Create Semantic Kernel plugins

- Introduction
- Understand native plugins
- Configure function choices
- Exercise - Create Semantic Kernel plugins
- Module assessment
- Summary

#### Lesson 4: Apply filters on functions

- Introduction
- Understand prompt injections
- Filter invoked functions
- Exercise - Apply Semantic Kernel function filters
- Module assessment
- Summary



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## **Lesson 5: Guided project - Create a DevOps Assistant with the Semantic Kernel SDK**

- Introduction
- Exercise - Create a DevOps Assistant with the Semantic Kernel SDK
- Module assessment
- Summary

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## NASBA Information

**Level:** Intermediate

**Attendance Requirement:** To be awarded the full credit hours, you must sign in and attend the entire course.

**Fields:** Computer Software & Applications

**CPEs:** 14

### **Policies: Course Registration, Cancellation, Refund and Complaint Resolution**

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