Course Overview

Hello, and welcome to the **Agentic AI with LangGraph, CrewAI, AutoGen, and BeeAI** course.

This course provides a structured approach to designing AI-powered systems using agentic design principles, multi-agent frameworks, and proven workflow patterns.

You will begin by exploring the fundamentals of agentic frameworks and multi-agent systems, with a focus on implementing workflow patterns using LangGraph. Then, you'll explore CrewAI, a framework for orchestrating agents, tasks, and tools to build structured and modular AI workflows. Finally, you will explore alternative agentic frameworks such as IBM's BeeAI and AG2 (formerly AutoGen) to create intelligent agents and conversation-driven interactions.

Through hands-on labs and real-world use cases, you will gain the skills needed to build scalable, maintainable, and efficient AI applications by selecting and combining the right frameworks and design patterns.

This course is part of the [IBM RAG and Agentic AI Professional Certificate](#) ↗, designed to provide you with the practical skills and knowledge to excel in developing advanced AI applications that leverage RAG, multimodal AI, and agentic AI systems.

Prerequisites

Python programming skills and experience are essential for this course, as you will immediately start building AI agents. Additionally, familiarity with core AI concepts and the LangChain framework is highly recommended.

Here are some recommended courses if you are not familiar with the prerequisites:

- [Python for Data Science, AI & Development](#) ↗

- [Develop Generative AI Applications: Get Started](#) ↗

- [Agentic AI with LangChain and LangGraph](#) ↗

Objectives

After completing this course, you will be able to:

- Design optimized AI systems by selecting and combining appropriate agentic frameworks and architectural patterns