GSDC Agentic AI Professional

Duration: 40 hours

Course Overview

The Agentic AI Professional Training Program is a step-by-step agentic AI course developed to help professionals understand, design, and implement autonomous and goal-driven AI systems. This course on agentic AI covers core concepts, including agentic AI fundamentals, multi-agent architectures, autonomy planning, tool orchestration, decision flows, and real-world enterprise use cases that leverage agentic workflows.

Delivered as a flexible, agentic AI course online, the program welcomes both beginners and seasoned professionals. Whether you're starting with an agentic AI course for beginners online or advancing your expertise through an applied agentic AI training course, the program offers a clear learning path with hands-on exposure and practical application.

This agentic AI training program emphasizes "learning by doing": learners will build, test, and refine autonomous AI agents, design multi-agent systems, and experiment with tool-based agent pipelines. Upon successful completion, you'll have finished a robust, applied agentic AI training that builds transferable skills relevant across various platforms, industries, and business functions.

For professionals evaluating different AI-upskilling pathways, this program stands out as a top applied agentic AI course online, combining theory, practical training, and industry-aligned workflows. It is well-suited for those seeking one of the best agentic AI courses for future-ready AI skills.

Course Pre-requisites

- Basic understanding of Artificial Intelligence concepts, Machine learning and Generative AI
- Familiarity with how AI is used in business or technical workflows
- Comfort with using web-based tools and platforms
- Functional knowledge of Python and programming concepts
- Awareness of Large language models.

Course Agenda

Module 1: Introduction to Agentic AI

- Defining Agentic AI and AI agents: characteristics and autonomy
- Understanding goal-oriented behavior
- Importance and potential of Agentic AI
- Overview of AI agents collaborating in systems
- Ethical implications and considerations
- Basic introduction to Large Language Models (LLMs) and their role

Module 2: Understanding AI Agents

- Defining AI Agents and distinguishing characteristics

- Capabilities and functionalities of AI Agents
- Comparing Agentic AI with other AI forms (traditional AI, Chatbots)
- Chatbots vs. AI Agents: similarities and differences
- Real-world applications and practical examples of Agentic AI (virtual assistants, automation)

Module 3: Foundations of Agentic AI Frameworks and Architectures

- Principles, goals, and introduction to Agentic AI architectures
- Core architectural components: agents, environment, knowledge base, communication, control
- Architectural patterns for autonomous systems: centralized, distributed, hybrid
- Role of LLMs within Agentic AI architecture
- Design considerations: scalability, reliability, security, and maintainability
- AI agent workflows and interaction patterns

Module 4: Core Technologies – LLMs and Agent Frameworks

- Detailed understanding of Large Language Models (LLMs)
- Overview of top Generative AI (GenAI) Agent frameworks
- Introduction to LangChain and LangGraph for agent creation
- Practical overview: Creating basic agents using LangChain
- Introduction and use of AutoGen for multi-agent collaboration
- Understanding vector databases and Retrieval-Augmented Generation (RAG)
- Developing Agentic RAG systems

Module 5: Practical Applications and Sector-specific Use Cases

- Exploring various real-world use cases across multiple sectors (business, healthcare, education, etc.)
- Sector-specific examples illustrating effective implementation
- Detailed case studies and scenario-based learning

Module 6: Implementing Agentic AI for Non-Technical Teams

- Step-by-step guide to successfully implementing Agentic AI without deep technical expertise
- Overview and evaluation of available tools and platforms
- Best practices for implementation in non-technical teams
- Role of non-technical professionals in driving Agentic AI adoption

Module 7: Preparing Organizations for Agentic AI Adoption

- Assessing organizational readiness and fostering necessary cultural shifts
- Strategies to effectively integrate Agentic AI into existing business processes
- Developing internal capabilities and competencies in Agentic AI

Module 8: Ethical Considerations, Risks, and Safeguards

- Identifying and understanding common challenges and pitfalls
- Potential risks and ethical concerns associated with Agentic AI
- Practical strategies and safeguards for effective risk management
- Promoting responsible and ethical AI development

Module 9: Building Powerful AI Agents—No Coding Required

- Drag-and-Drop Workflow Design
- Pretrained AI Components
- Customizable Business Rules
- One-Click Deployment & Monitoring
- Collaborative Iteration & Governance

Module 10: Future Trends and Closing Insights

- Exploring future trends, advancements, and innovations in Agentic AI
- Recommendations and guidance for future-proofing AI strategies
- Concluding insights and actionable next steps for continued learning and development in Agentic AI