



Advanced Prompt Engineering & AI Workflow Design

6 – 10 June 2027
Cairo (Egypt)



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Introduction

This Advanced Prompt Engineering & AI Workflow Design course provides a structured understanding of advanced prompt engineering for modern AI systems. It focuses on designing high-quality prompts that improve the performance of large language models. Participants will explore how AI workflow design supports scalable and repeatable automation processes. The program connects generative AI techniques with real-world business and technical applications. It emphasizes developing efficient AI prompt-design strategies to improve output accuracy and consistency. Learners will develop the ability to integrate prompt engineering into end-to-end AI workflows.

Targeted Groups

This Advanced Prompt Engineering & AI Workflow Design training targets professionals seeking knowledge and skills:

- AI developers work with large language models and generative AI systems.
- Content creators optimize AI prompt writing for digital platforms.
- SEO specialists improve AI-driven content generation and keyword targeting.
- Data analysts using AI workflow automation for insights and reporting.
- Business managers implement AI workflow design for operational efficiency.
- Trainers and educators integrate ChatGPT prompt engineering into learning environments.
- Technology enthusiasts explore structured prompt engineering techniques for practical use.

Course Objectives

Participants will achieve the following objectives by completing the Advanced Prompt Engineering & AI Workflow Design course:

- Understand core principles of prompt engineering for AI systems and LLMs.
- Design effective prompts that improve accuracy, relevance, and response quality.
- Apply advanced prompt engineering techniques to execute complex tasks.
- Build structured AI workflow design models for automation and scalability.
- Evaluate generative AI prompts for consistency and performance optimization.
- Integrate ChatGPT prompt engineering into business and content workflows.
- Develop strategies for optimizing AI workflows in real operational environments.
- Enhance decision-making using AI-powered prompt systems and structured outputs.
- Improve efficiency in content generation, analysis, and task automation processes.

Targeted Competencies

Participants will gain the following competencies during the Advanced Prompt Engineering & AI Workflow Design program:

- Advanced prompt structuring for large language models and generative AI systems.
- Ability to design scalable AI workflow automation pipelines for business processes.
- Optimize AI prompt design for accuracy and contextual relevance.
- Skill in evaluating AI outputs for quality control and performance improvement.
- The capability to integrate ChatGPT prompt engineering into daily operations.
- Understand AI workflow optimization to enhance productivity.
- Ability to troubleshoot prompt failures and refine input strategies.
- Knowledge of structured reasoning techniques for AI-driven systems.
- Competence in aligning AI outputs with business and technical goals.

Studying Scenarios

In this Advanced Prompt Engineering & AI Workflow Design training, participants develop skills through the following scenarios:

- Designing prompts for automated content generation systems in marketing environments.
- Building AI workflow design models for customer support automation.
- Optimizing generative AI prompts for SEO content production at scale.
- Improving prompt accuracy for data analysis and reporting tasks.
- Integrating ChatGPT prompt engineering into business decision workflows.
- Refining AI responses for multi-step reasoning and structured outputs.
- Creating workflow automation pipelines for repetitive organizational tasks.

Course Content

Unit 1: Foundations of Prompt Engineering in AI Systems

- Understand core principles of prompt engineering for AI systems.
- Explore the structure of effective prompts for large language models.
- Learn how context affects generative AI prompt performance.
- Identify key elements of ChatGPT prompt engineering design.
- Analyze how AI interprets natural language instructions.
- Study the relationship between input clarity and output accuracy.
- Recognize limitations of basic prompt construction techniques.
- Build foundational skills for improving AI prompt design.

Unit 2: Advanced Prompt Engineering Techniques and Optimization

- Apply advanced prompt engineering strategies for complex tasks.
- Use role-based prompting for improved AI response control.
- Design multi-step reasoning prompts for structured outputs.
- Optimize generative AI prompts for higher contextual accuracy.
- Implement constraint-based prompt design to achieve precise outputs.
- Refine prompts using iterative testing and feedback cycles.
- Enhance ChatGPT prompt engineering for specialized domains.
- Improve performance through prompt variation and comparison methods.

Unit 3: AI Workflow Design and Automation Systems

- Understand principles of AI workflow design and automation.
- Map business processes into structured AI-driven workflows.
- Integrate prompt engineering into automated decision pipelines.
- Design scalable AI workflow automation for enterprise use.
- Connect generative AI tools with operational systems.
- Build step-by-step workflow optimization frameworks for tasks.
- Identify bottlenecks in AI-driven workflow execution processes.
- Improve efficiency through structured AI orchestration models.

Unit 4: Large Language Models and Performance Optimization

- Analyze the behavior of large language models in AI systems.
- Evaluate output quality using structured performance metrics.
- Improve AI response accuracy through prompt refinement cycles.
- Optimize generative AI prompts for consistency and reliability.
- Reduce hallucinations through controlled prompt engineering methods.
- Align AI outputs with business objectives and requirements.
- Test AI workflow design for scalability and robustness.
- Apply evaluation techniques to improve the model continuously.

Unit 5: Enterprise Applications of Prompt Engineering and AI Workflows

- Apply prompt engineering in enterprise-level business environments.
- Design AI workflow automation for marketing and operations.
- Implement ChatGPT prompt engineering for customer engagement systems.
- Scale generative AI prompts for SEO content production workflows.
- Integrate AI systems into data-driven decision-making processes.
- Enhance productivity through structured AI workflow optimization models.
- Develop governance approaches for the safe implementation of AI.
- Align AI workflows with organizational performance goals.



Final Insights & Key Takeaways

Advanced prompt engineering and structured AI workflow design are essential for maximizing large language model performance. Mastering these skills enables scalable, efficient, and accurate AI-driven systems across modern digital environments.