Professional Prompt Engineering & Management Course Outline

Module 1: Introduction to Prompt Engineering

- What is Prompt Engineering?
- The Role of Prompts in AI & NLP Models
- Understanding Large Language Models (ChatGPT, Google Bard, Claude)
- Use Cases of Prompt Engineering in Various Industries

Module 2: Foundations of Prompt Writing

- Structure of an Effective Prompt
- Types of Prompts: Direct, Open-Ended, Instructional
- Understanding AI Bias & Ethical Prompting
- Common Prompting Mistakes & How to Avoid Them

Module 3: Advanced Prompting Techniques

- Zero-Shot, One-Shot, & Few-Shot Learning in Prompts
- Chain of Thought (CoT) Prompting for Complex Reasoning
- Role-Playing & Contextual Prompting
- Using System Prompts for AI Customization

Module 4: Optimizing Prompts for Specific Applications

- Prompt Design for Content Creation (Blogs, Ads, Marketing)
- Optimizing Prompts for Coding & Debugging
- Using Prompts for Data Analysis & Research
- AI-Assisted Writing & Brainstorming Techniques

Module 5: AI Model-Specific Prompting

- Crafting Prompts for ChatGPT, Google Bard, Claude, & LLaMA
- Differences Between Various AI Models & Their Prompting Needs
- Leveraging API-Based AI Models for Automation
- Comparing AI Response Quality Across Models

Module 6: Prompt Management & Automation

- Using Prompt Templates for Scalability
- Automating AI Workflows with Python & APIs
- Integrating Prompt Engineering in Chatbots & Virtual Assistants
- A/B Testing & Evaluating Prompt Effectiveness

Module 7: AI Ethics & Responsible Prompting

- Bias, Misinformation, & Hallucination Handling
- Security & Privacy Considerations in AI Prompting
- AI Compliance & Responsible AI Guidelines
- Case Studies of Ethical vs. Unethical Prompt Use

Final Module: Capstone Project & Certification

- Hands-on Project: Designing Effective Prompts for a Real-World Use Case
- Optimizing AI Interactions for a Business Application
- Portfolio Development & Best Practices
- Course Completion Certification