**Suggested Readings:**


7. Goel, A, *"Computer Fundamentals*" Pearson.
8. Linda Foulkes (2020). *"Learn Microsoft Office 2019"* Packt Publishing.
9. Jain, H. C. & Tiwari, H. N. *"Computer Applications in Business*" Taxmann.
10. Lambert, J. (2019). *"Microsoft Word 2019 Step by Step"* Pearson Education.


**Notes:**

3. Suggested readings shall be updated and uploaded on the college website from time to time.
4. Examination scheme and mode shall be as prescribed by the Examination branch, University of Delhi from time to time.

Semester- VII

Discipline Specific Elective- DSE- I 7.2

## Fundamentals of Prompt Engineering
Offered by Computer Science Department, College of Vocational Studies

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Credits | Lecture | Tutorial | Practical/Practice | Eligibility Criteria | Pre-requisite |
|---|---|---|---|---|---|
| 4 | 2 | 0 | 2 | 12th Pass | Nil |

Learning Objective

To equip learners with foundational skills in prompt engineering, empowering them to interact effectively with large language models and generate purposeful, ethical AI outputs.

Learning Outcomes

1. Define key terms and components of prompt engineering.
2. Distinguish between different prompt types (instructional, question-based, few-shot).
3. Construct effective prompts for tasks like summarization, Q&A, and translation.

4. Demonstrate proficiency using AI tools such as ChatGPT.
5. Analyze ethical considerations and identify misuse of AI output.

SYLLABUS OF DSE-7.2

**Unit 1: Introduction to Prompt Engineering (8 Hours)**

- Definition, scope, and significance
- History of language models: from rule-based to transformer models (BERT, GPTs, T5, etc.)
- Communication role of prompts in LLMs
- Limitations of AI: hallucinations, ambiguity, and factuality issues

**Unit 2: Prompt Types and Structures (7 Hours)**

- Instructional vs. informational prompts
- Completion-style, chat-based formats
- Zero-shot vs. few-shot prompting
- Identifying and avoiding poor prompt practices

**Unit 3: Prompt Crafting Techniques (10 Hours)**

- Writing clear prompts using framing and context windows
- Output control: tone, verbosity, format
- Prompt refinement and feedback loops

**Unit 4: A) Applications & Tools (10 Hours)**

- Prompts for writing, summarization, translation
- Tools: ChatGPT, Claude, Bard
- Lab exercises on prompt design for academic and creative use
- Ethical usage: plagiarism, deepfakes, disinformation

**B) Prompting in Daily Life (10 Hours)**

- Productivity: resumes, agendas, emails
- Creative expression and storytelling
- Learning aids: flashcards, AI tutoring
- AI as personal assistant and learning companion

Practical Exercises:-

1. Convert vague tasks into clear prompts.
2. Compare model outputs using the same prompt.
3. Role-play simulations with human-AI interaction.
4. Mini hackathon: develop a prompt-based chatbot.

Suggested Readings


- Liang, Percy, et al. (2022). Prompt Programming for Large Language Models. Stanford University.
- White, Tom. (2023). Prompt Engineering for Generative AI: A Guide for Building with ChatGPT and Beyond. O'Reilly Media.
- Chase, Nathan Hunter. (2023). The Art of Prompt Engineering with ChatGPT: Crafting Effective Prompts for Better AI Outputs.
- OpenAI Documentation – https://platform.openai.com/docs
- Zamfirescu-Pereira, I. et al. (2023). Teaching with Prompt Engineering: Practical Tools and Theories. MIT Press.
- Sebastian Raschka. (2023). LLMs from Scratch: Language Models and Prompting Fundamentals.
- LangChain Docs – https://docs.langchain.com