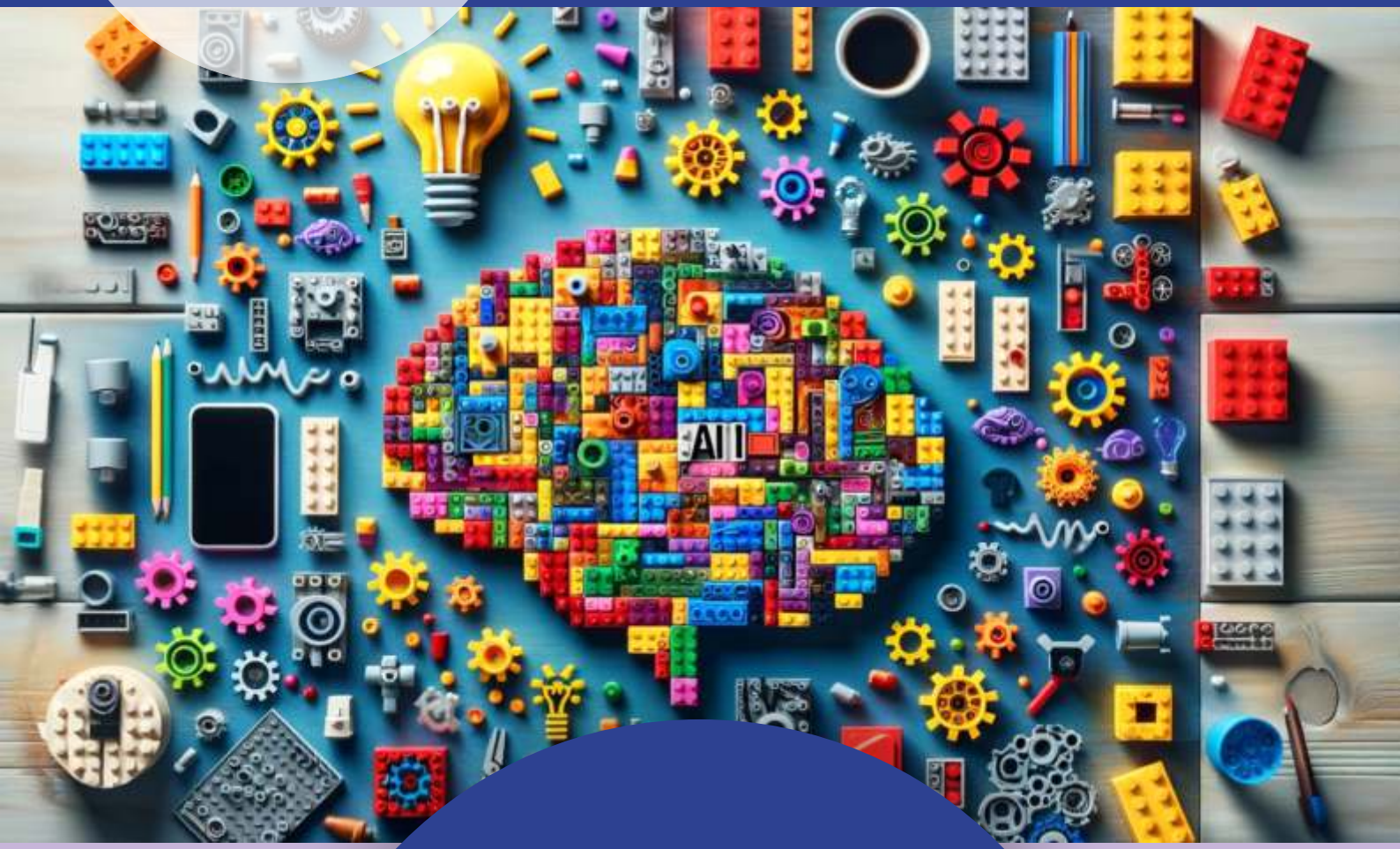
SHARDA UNIVERSITY
Beyond Boundaries

NAAC A+ ACCREDITED

SHARDA SCHOOL OF ENGINEERING & TECHNOLOGY



COURSE

INTRODUCTION TO PROMPT ENGINEERING (NVI0101)

VALUE ADDED COURSE BROCHURE-30 HRS

2024-25

ABOUT THE UNIVERSITY

Sharda University envisions to serve the society by being a global University of higher learning in pursuit of academic excellence, innovation and nurturing entrepreneurship. It has 13,000+ students from 95+ countries, 29 states, and Union Territories, providing cultural diversity and global exposure to students. It has 26000+ alumni who are today leaders in their realms. Sharda University is **NAAC A+** University with Overall **NIRF Rank of 86**. Teaching Learning Center at Sharda University is to equip the faculty members with the expertise, skills and knowledge they need for capacity building of students. Teaching as a profession requires highly specialized skills and knowledge to impact significantly on student learning and therefore teachers must refine their conceptual and pedagogical skills.

ABOUT SCHOOL

Sharda School of Engineering and technology is an open platform for diverse voices where teaching runs parallel to the real world and students are groomed to join the global workforce. SSET is distinguished as one of the top-ranked engineering schools in India. The students at SSET benefit through the professional grooming of renowned faculty and industry experts having experience of tackling pressing engineering problems. Students discover their passion in one of the various offered Engineering majors at the School of Engineering and technology.

VALUE ADDED COURSE (VAC)

Introduction: Prompt engineering is the practice of designing and refining prompts—questions or instructions—to elicit specific responses from AI models. Think of it as the interface between human intent and machine output. In the vast realm of AI, where models are trained on enormous datasets, the right prompt can be the difference between a model understanding your request or misinterpreting it. Prompt engineering, while a relatively recent discipline, is deeply rooted in the broader history of Natural Language Processing (NLP) and machine learning. Understanding its evolution provides context to its current significance. This course introduces students to the essential concepts and practical skills of prompt engineering, focusing on creating effective prompts for AI models. It covers the basics of prompt design, advanced techniques, practical applications, and ethical considerations. Through hands-on exercises and real- world examples, students will learn to craft, optimize, and deploy prompts across various AI domains, making prompt engineering accessible and applicable to their academic and professional pursuits.

COURSE SCHEDULE

Week	Topic	Duration Hrs.
1	Introduction to Generative AI	2
2	Key Concepts in Generative AI	2
3	Applications of Generative AI	2
4	Contextual prompts: incorporating context to enhance performance	2
5	Dynamic and adaptive prompts: creating flexible and responsive prompts	2
6	Evaluation and iteration: methods for evaluating and improving prompts	2
7	Writing Essentials: Boosting Skills with AI	2
8	Understanding Digital Personas	2
9	Portfolio Development	2
10	Excel Basics for Data Analysis	2
11	Advanced Excel Techniques	2
12	Google App Script for Automation	2
13	Using prompts in real-world scenarios: case studies and hands-on exercises	2
14	Ethical considerations in prompt engineering: bias detection and mitigation	2
15	Special applications: creative writing, customer support, and code generation	2

RESOURCE PERSON

Mr. Akash Shah, Assistant professor, CSA | Dr . Mohd Tajamul, Assistant professor, CSA | Mr. Md Khalid Jamal, Assistant professor, CSA | Ms. Himani Tyagi, Assistant professor, CSA | Dr. Tanya Liyaqat, Assistant professor, CSA | Ms. Aina Mehta, Assistant professor, CSA | Ms Madhavi Tripathi, Assistant professor, CSA | Mr. Virendra Kumar, Assistant professor, CSA | Mr. Bhavesh Kumar Sharma, Assistant professor, CSA

School: SSET	**Batch:** 2022-24, 2023-26, 2022 -25, 2023-27, 2022-26
Program: MCA/M.Sc. , BCA/ B.Sc. (CS/IT)/ BCA (AIML/CCIOT)/ B.Sc. (AIML), B. Tech. (IT)	
Branch: ALL	**Current Academic Year:** 2024-25 **Semester:** II

1. Course Code	NVI0101	
2. Course Title	**Introduction to Prompt Engineering**	
3. Credits	Non-Credit	
4. Contact Hours (L-T-P)	30 Hours	
Course Type	Value added course	
5. Course Objective	To introduce students to foundational AI concepts, focusing on practical skills in prompt engineering, digital persona creation, and data analysis applicable to diverse domains such as creative industries, healthcare, and education.	
6. Course Outcomes	CO1: Understand foundational concepts of Generative AI, including key models, applications, and ethical considerations. CO2: Develop and apply prompt engineering techniques for AI-driven solutions in real-world scenarios. CO3: Enhance personal branding and digital presence using AI tools. CO4: Analyze and visualize data using Excel and other tools to derive actionable insights. CO5: Explore domain-specific AI applications and emerging trends in the field.	
7. Course Description	This course provides a comprehensive introduction to Generative AI and its applications in multiple domains. Students will gain hands-on experience in prompt engineering, personal branding, and data analysis, with a focus on understanding ethical implications and future trends.	
8. Outline syllabus		CO Mapping
Unit 1	**Foundations of Generative AI**	
A	Introduction to Generative AI	CO1
B	Key Concepts in Generative AI	CO1
C	Applications of Generative AI	CO1, Co4
Unit 2	**Advanced Prompting Techniques**	
A	Contextual prompts: incorporating context to enhance performance	CO2
B	Dynamic and adaptive prompts: creating flexible and responsive prompts	CO2
C	Evaluation and iteration: methods for evaluating and improving prompts	CO2, CO3
Unit 3	**Writing Essentials and Digital Persona Creation**	
A	Writing Essentials: Boosting Skills with AI	CO1, CO3
B	Understanding Digital Personas	CO3
C	Portfolio Development	CO3
Unit 4	**AI-Assisted Research and Data Analysis**	
A	Excel Basics for Data Analysis	CO2
B	Advanced Excel Techniques	CO2
C	Google App Script for Automation	Co4
Unit 5	**Domain-Specific Applications and Future Trends**	
A	Using prompts in real-world scenarios: case studies and hands-on exercises	CO4
B	Ethical considerations in prompt engineering: bias detection and mitigation	CO5
C	Special applications: creative writing, customer support, and code generation	Co5
Mode of examination	Jury/Practical/Viva	
Weightage Distribution	CA MTE ETE 75% 0 25%	
Text book/s*	1.Artificial Intelligence: A Modern Approach by Stuart Russell and Peter Norvig 2.Machine Learning by Tom M. Mitchell 3.Speech and Language Processing by Daniel Jurafsky and James H. Martin The Art of Prompt Engineering with ChatGPT: A Hands-on Guide (learn AI Tools the Fun Way!) by Nathan Hunter	