

NIRMA UNIVERSITY

Institute:	Institute of Design
Name of Programme:	B.Des.in Communication Design, B.Des.in Industrial Design
Semester:	V
Course Code:	CDSK 314E
Course Title:	Introduction to AI
Course Type:	Institute Elective
Year of introduction:	2023

L	T	Practical component			C
		LPW	PW	W	S
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Course Learning Outcomes (CLO):

At the end of the course, the students will:

1. Comprehend the fundamentals of artificial intelligence (AI), its societal implications, and its role in communication design (BL2)
2. Critically analyze the impact of AI on design processes and its practical applications. (BL4)
3. Gain hands-on experience with AI-based design tools, enabling them to integrate AI into their own design projects. (BL5)

Syllabus:

Total Teaching hours: 60

Unit	Syllabus	Teaching hours
Unit-I	<p>Foundations of AI in Design</p> <p>1.1 Introduction to Artificial Intelligence - What is AI? Why is it important?</p> <p>1.2 AI in Everyday Life - Examples and applications of AI we interact with daily</p> <p>1.3 Understanding the impact of AI on society and ethics</p> <p>1.4 Introduction to AI in design – Discussing examples where AI impacts design: - Graphic design - Live action movies - Animation - Content creation (writing + production aspects)</p> <p>1.5 The role of AI in shaping future design practices</p>	15 hours



Unit-II	AI in Design 2.1 How AI is changing the field of Design 2.2 Impact of AI on design processes 2.3 Introduction to AI tools for design - Overview of various tools and software that utilize AI for design 2.4 Case Studies: Successful implementation of AI in Design <ul style="list-style-type: none"> • Historic data to train algorithm to produce errorless designs • Case Study with Baskin Robbins and other brands • Cuebric AI being used in Paramount Pictures 2.5 Challenges and limitations of AI in design	20 hours
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Unit-III	The Future of Design with AI 3.1 An individual design project using selected AI tools to learn hands-on 3.2 A group design project using multiple AI tools to enhance understanding and teamwork <ul style="list-style-type: none"> • Design a marketing campaign for a well-known brand for their new product/service launch or reviving an old product using photo, video, writing and music AI 3.3 A field trip for experiential learning, stimulating creativity and reinforcing the value of real-world connections <ul style="list-style-type: none"> • A virtual field trip to a Gen AI product company to give students insights about the real world application of the tools they have been learning. The trip will include the curated sessions by the founders explaining the process behind building an AI and also how to build a client base in the sector. • A physical field trip (optional) to an Ahmedabad based SAAS Company to give the students a practical demo of how AI is used in live projects. 	25 hours
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Suggested Readings/References:

1. "Artificial Intelligence: Structures and Strategies for Complex Problem Solving" by George F. Luger, Published by Addison-Wesley, 2005
2. "Artificial Intelligence: A Modern Approach" by Stuart Russell & Peter Norvig, Published by Printice Hall, 2020 Fourth Edition
3. "Design, Form, and Chaos" by Paul Rand, Published by Yale University Press; Illustrated Edition 2017
4. "The Design of Everyday Things" by Don Norman, Published by Basic Books, 1998

5. "Rise of the Robots: Technology and the Threat of a Jobless Future" by Martin Ford, Published by Basic Books, 2015
6. "Artificial Intelligence in Practice: How 50 Successful Companies Used AI and Machine Learning to Solve Problems" by Bernard Marr and Matt Ward, Published by Wiley; 1st edition, 2019
7. "Most Human Human" by Brian Christian, Published by Knopf Doubleday Publishing Group, 2011

W.e.f Academic Year 2023 and onwards

Key: L= Lecture, T= Tutorial, P= Practical, C= Credit

