Title of the Course	Design Thinking- Practitioner's Perspective

Credits	T	P	E	C
	3	1	0	4
Course Type (Theory/Practical/Integrated)	Integrated			
Course Category	Core Discipline			
Pre-Requisite	1. Basic proficiency in surfing the Internet **2.** Working knowledge of the English language			
Learning Objectives	1. Understand the fundamentals of design thinking and its role in data-driven problem solving. 2. Apply business hypothesis mapping and research techniques to identify customer needs. 3. Analyze and synthesize qualitative and quantitative data to derive actionable insights. 4. Develop innovative solutions using structured ideation and prototyping approaches. 5. Evaluate and refine solutions through testing, feedback, and business impact assessment.			

Course Outcomes & Bloom's Level

CO Code	Course Outcome Statement	Bloom Level
CO1	Explain the principles of design thinking, business context, and customer-centric problem framing	L2
CO2	Apply hypothesis mapping, stakeholder analysis, and research methods for need identification	L3
CO3	Analyze research data using mapping techniques to derive insights and redefine problems	L4
CO4	Develop innovative solutions through ideation, creativity techniques, and prototyping	L5
CO5	Evaluate solutions using testing methods, feedback analysis, and usability principles	L5
CO6	Design implementation strategies incorporating KPIs, risk assessment, and business impact	L6

Course Elements

Course Element	Coverage Level
Skill Development	High
Entrepreneurship	High
Employability	High

	Professional Ethics	Moderate
	Gender	Moderate (Indirect)
	Human Values	High
	Environment & Sustainability	Moderate
SDG (Goals)	SDG 4: Quality Education	
Total Hours of Pedagogy	45 hours Theory (15 hours Self-paced content + 30 hours lecture) 30 hours Practical	

Module#	Content	Pedagogy
M-1	**Welcome & Introduction to Course** Onboarding process: Welcome and Course Resources; What is Design Thinking: Introduction, Process, Modes; It's importance in socio-economic context: WHY - Challenges, Awareness and Impact; Design thinking broader business picture: Broader aspects and impact, Multiple points of Interactions; The Product Form and the content	Self-paced content, Lecture, Modular Assignment
M-2	**Business Hypothesis Mapping: Need Analysis** Business Goals, Design Vision & Stakeholder mapping; What is hypothesis: Business Context and market analysis; Archetype Creation: Persona and Customer Journey mapping questionnaire; Market research vs. Design research; Types of research, Research scenario (Business Hypothesis Mapping)	Self-paced content, Lecture, Modular Assignment
M-3	**Customer Perspective: Identifying Customer need: Empathizing** What is Empathy, Difference between Sympathy & Empathy; Customer Perspectives, Recruitment process; Research (Ethnographic) methods: Observe. Immerse. Interact; Research Synthesis/Field work: observation & interview techniques; Archetype Creation: Persona, Customer Journey Mapping preparation; Various observation & empathy frameworks; Supporting conceptual Models. User Models	Self-paced content, Lecture, Modular Assignment
M-4	**Design Challenge: Analysis & Synthesis** Research data prioritization/mapping; Data mapping (root cause) tools & techniques; Data interpretation. Developing insights; Reframe challenge based on customer need and hypothesis validation; Design Challenge Summary: Final challenge, SCOPE and HMW; Developing contextual conclusions, developing design response	Self-paced content, Lecture, Modular Assignment
M-5	**Ideation** Creativity, Invention, Innovation; Various Thinking approaches for enhancing creativity; Ideation tools; Transformation, Brainwriting Methods; Conceptualization: Prioritising ideas; Product Goals and Profile. User Experience Goals. Parameters and Weightage Perceptual Appropriation of Design Solution. Relevance and Validity; Design implications, product positioning; Sustainable design solution, standards, heuristics, affordance, principles	Self-paced content, Lecture, Modular Assignment
M-6	**Prototyping** Prototyping Introduction, Iteration - Mindset for prototyping; Types of prototyping; Prototyping tools and techniques; Information	Self-paced content, Lecture,

	architecture and design; Low and high-fidelity prototypes, handling complexity with simplicity	Modular Assignment
M-7	**Testing** Testing methods; Testing mindset: Planning and conducting User Testing; Heuristic evaluation; Expert usability testing; Feedback analysis and iteration; Revisiting Design Criterion, Preparing Guidelines, Recommendations	Self-paced content, Lecture, Modular Assignment
M-8	**Business Launch: Impact Delivery** Revisiting entire process and project; Business goals and impact delivery; KPIs and Risk Prediction; Change Management; Devising a preliminary Implementation Plan; What and How are we Delivering: Product, Service, Experience	Self-paced content, Lecture, Modular Assignment

List of DIY Modular Assignments

1. Identifying Customer Needs and Business Hypothesis Mapping
2. Conducting User Interviews & Creating User Personas
3. Problem Framing and POV (Point of View)
4. Ideation Tools and Techniques
5. Low-Fidelity Prototype
6. Feedback Round – Test Your Prototype
7. Usability Testing and Design Refinement
8. Design Iteration and Refinement

Modular Assignment Mapping

S. No.	***DIY Assignment Title***	***Mapped CO(s)***	***Bloom Level***
1	Identifying customer needs and business hypothesis mapping	CO2	L3
2	Conducting user interviews & creating user personas	CO2, CO3	L3, L4
3	Problem Framing & POV (Point of View)	CO3	L4
4	Ideation tools & techniques	CO4	L5
5	Low-fidelity prototype	CO5	L6
6	Feedback Round – test your prototype	CO6	L5
7	Usability testing & design refinement	CO6	L5
8	Design iteration & refinement	CO5, CO6	L6

Reference Books	1. Change by Design, Tim Brown, 1st Edition, Harper Business, 2009. 2. The Design of Everyday Things, Don Norman, Revised & Expanded Edition, Basic Books, 2013. 3. Design Thinking: Integrating Innovation, Customer Experience, and Brand Value, Thomas Lockwood, 1st Edition, Allworth Press, 2010. 4. The Lean Startup, Eric Ries, 1st Edition, Crown Business, 2011. 5. Sprint: How to Solve Big Problems and Test New Ideas in Just Five Days, Jake Knapp, 1st Edition, Simon & Schuster, 2016.

Course Articulation Matrix

CO \ PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	2	1	–	–	–	2	1	2	–	1	–	2

CO2	2	3	2	3	2	2	1	2	2	2	–	2
CO3	2	3	2	3	2	2	–	2	2	2	–	2
CO4	1	2	3	2	2	2	2	2	2	2	1	2
CO5	1	2	3	2	3	2	2	1	2	2	2	2
CO6	1	3	3	3	2	3	2	3	2	3	2	2