

COURSE OBJECTIVES:

1. To learn Design Thinking and understand empathy in business perspective.
2. To empower students with creative thinking and a systematic approach to problem solving.
3. To prepare student to identify opportunity and generative innovative idea.
4. To evaluate the idea to establish a problem-solution fit and proceed with effective prototyping.
5. To apply design thinking approach to any discipline, service and robust business models.

Unit I Understanding the basics of Design Thinking

6

Design Thinking and its applications - Comparison of Models and analysis: Human-centred design - Designing with Empathy - Framework: Empathise, Define, Ideate, Imagine, Test - Techniques and Tools: Ethnographic research questionnaire; Hypothesis designing (RAT- Riskiest Assumptions to Test).

Unit II Ideation

6

Identifying the customer needs - Ideation techniques and types - Conducting design research and tools - Data collection and interpretation - Defining the customer - Idea board for every customer archetype - Story preparation and value pitch for customer types; Field work- Surveys - Customer journey mapping - Empathy maps - Value proposition canvas - Idea evaluation and Brainstorming.

Unit III Evaluation of Prototyping

6

Visual thinking to storyboard ideas - Prototyping methodologies - Low- Fidelity and High-Fidelity type of prototyping - Proof of Concept (PoC) - Understanding the Minimum Value Proposition - Iterative Prototyping - Establish success-criteria for prototype testing - SWOT Analysis.

Unit IV Product Development

6

New Product Development Processes - Design Thinking approach for Sustainability - Design for Products - Lean Product Design - Successful Businesses based on or inspired by Design thinking.

Unit V Innovation and Entrepreneurship

6

Types of Innovation - role of design Technology Impact on Innovation - Project Life Cycle - Innovation Management Intrapreneurship and Entrepreneurship - Innovation Strategies in big firms.

TOTAL: 30 PERIODS**COURSE OUTCOMES:****Students able to**

- CO1 Develop human-centric useful innovative prototypes.
- CO2 Understand how innovation paves way for new product development and growth.
- CO3 Involve and inspire for a design thinking culture so as to drive innovation.
- CO4 Provide innovative solutions.
- CO5 Create and test prototypes that are innovative and have high impact.

TEXT BOOKS:

1. Michael G. Luchs, Scott Swan, Abbie Griffin, Design Thinking: New Product Development Essentials from the PDMA, Wiley, 2015
2. Jeanne Liedtka and Tim Ogilvie, Designing for Growth: A Design Thinking Tool Kit for Managers, Columbia University Press, 2011

REFERENCES:

1. Robert Curedale, Design Thinking Process & Methods 5th Edition, Design Community College Incorporated, 2019
2. Michael Lewrick, Patrick Link, Larry Leifer, The Design Thinking Playbook – Mindful Digital Transformation of Teams, Products, Services, Businesses and Ecosystems, Wiley, 2018
3. Stephen Wunker, Jessica Wattman and David Farber, Jobs to Be Done: A Roadmap for Customer-Centered Innovation, AMACOM, 2016
4. Roger Martin, The Design of Business: Why Design Thinking Is the Next Competitive Advantage, Harvard Business Review Press, 2009
5. Alexander Osterwalder, Yves Pigneur, Patricia Papadacos, Gregory Bernarda, Value Proposition Design: How to Create Products and Services Customers Want, Wiley, 2014