

Code: BCA 4008T	SEC-V	Design Thinking and Innovation	2L+T:0P	2 Credits (30 hours theory)
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Max Marks: 100; Theory: 100 (Int: 25; Ext: 75)

Course Outcomes:

- CO1:** Propose real-time innovative product designs and choose appropriate frameworks, strategies, techniques during prototype development.
CO2: Observe and assimilate unstructured information to well framed solvable problems.
CO3: Know wicked problems and how to frame them in a consensus manner that is agreeable to all stake holders using appropriate frameworks, strategies, techniques during prototype development.
CO4: Analyze emotional experience and inspect emotional expressions to better understand users while designing innovative products

Unit	Topics	Proposed Lectures
I	Basics of Design Thinking: Concept of Innovation and its Significance in Business, Creative Thinking Process and Problem Solving Approaches, Design Thinking Approach and its Objective, Design Thinking and Customer Centricity – Real World Examples of Customer Challenges, Use of Design Thinking to Enhance Customer Experience. Parameters of Product Experience, Alignment of Customer Expectations with Product, Discussion on Global Success Stories like Airbnb, Apple, Ideo, Netflix etc., Four Stages of Design Thinking Process – Empathize, Define, Ideate, Prototype, Implement.	8
II	Learning to Empathize and Define the Problem: Know the Importance of Empathy in Innovation Process – How can students Develop Empathy Using Design Tool ?, Observing and Assimilating Information, Individual Differences & Uniqueness Group Discussion and Activities to Encourage the Understanding, Acceptance and Appreciation of Individual Differences, Wicked Problems, Identification of Wicked Problems around us and the Potential Impact of their Solutions.	7
III	Ideate, Prototype, and Implement: Templates of Ideation like Brainstorming, Systems Thinking, Concept of Brainstorming–How to Reach Consensus on Wicked Problems?, Mapping	8

	Customer Experience for Ideation, Know the Methods of Prototyping, Purpose of Rapid Prototyping, Implementation.	
IV	Feedback, Re-Design & Re-Create: Feedback Loop, Focus on User Experience, Address Ergonomic Challenges, User Focused Design, Final Concept Testing, Final Presentation – Solving Problems through Innovative Design Concepts & Creative Solution	7

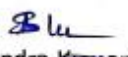
Text Books:

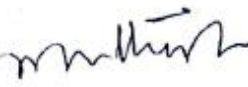
1. Brown, Tim. *Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation*. Harvard Business Review Press, 2008.
2. Krishnan, R. T., and V. Dabholkar. *8 Steps to Innovation*. Collins Publishing, 2013.
3. Balaguruswamy, E. *Developing Thinking Skills (The Way to Success)*. Khanna Book Publishing Company, 2023.


Reference Book:

1. Cross, Nigel. *Design Thinking*. Bloomsbury, 2011.

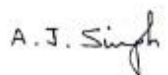

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