INNOVATION AND DESIGN THINKING			
Course Code	**22MBA402**	**CIE Marks**	**50**
Teaching Hours/Week (L:P:SDA)	**2:2:0**	**SEE Marks**	**50**
Total Hours of Pedagogy	**40**	**Total Marks**	**100**
Credits	**03**	**Exam Hours**	**03**

Course Learning objectives:

- To familiarise Design Thinking (DT) and its phases
- To enable the students to become aware of the evolution, concepts & models of Design Thinking.
- To enable learners with the context, methods and mindsets pertaining to Design Thinking.
- To equip students to the opportunities to ideate and find solutions by applying DT.

Module-1 (6 Hours)

Introduction, Design Thinking as a Solution, The Value of Design Thinking, A Look at the History of Design Thinking, A Look at the History of Design Thinking, Four Core Principles of Successful Innovation, A Model of the Design Innovation Process, Seven Modes of the Design Innovation Process, Understanding Methods.

Module-2 (9 Hours)

Sense Intent: Mindsets, Sensing Changing Conditions, Seeing Overviews, Foreseeing Trends, Reframing Problems, Forming an Intent, Sense Intent: Methods, Buzz Reports, Popular Media Scan, Key Facts, Innovation Sourcebook, Trends Expert Interview, Keyword Bibliometrics, Ten Types of Innovation Framework, Innovation Landscape, Trends Matrix, Convergence Map, From To Exploration, Initial Opportunity Map, Offering-Activity-Culture Map, Intent Statement.

Know Context: Mindsets, Knowing Context History, Understanding Frontiers, Seeing System Overviews, Understanding Stakeholders, Using Mental Models, Know Context: Methods, Contextual Research Plan, Popular Media Search, Publications Research, Eras Map, Innovation Evolution Map, Financial Profile, Analogous Models, Competitors- Complementors Map, Ten Types of Innovation Diagnostics, Industry Diagnostics, SWOT Analysis, Subject Matter Experts Interview, Interest Groups Discussion.

Module-3 (6 Hours)

Know People: Mindsets, Observing Everything, Building Empathy, Immersing in Daily Life, Listening Openly, Looking for Problems and Needs.

Know People: Methods, Research Participant Map, Research Planning Survey, User Research Plan, Five Human Factors, POEMS, Field Visit, Video Ethnography, Ethnographic Interview, User Pictures Interview, Cultural Artifacts, Image Sorting, Experience Simulation, Field Activity, Remote Research, User Observations Database.

Module-4 (7 Hours)

Frame Insights: Mindsets, Exploring Systems, Looking for Patterns, Constructing Overviews, Identifying Opportunities, Developing Guiding Principles.

Frame Insights: Methods, Observations to Insights, Insights Sorting, User Observation Database

Queries, User Response Analysis, ERAF Systems Diagram, Descriptive Value Web, Entities Position Map, Venn Diagramming, Tree/Semi-Lattice Diagramming, Symmetric Clustering Matrix, Asymmetric Clustering Matrix, Activity Network, Insights Clustering Matrix, Semantic Profile, User Groups Definition, Compelling Experience Map, User Journey Map, Summary Framework, Design Principles Generation, Analysis Workshop.
Module-5 (7 Hours)
Explore Concepts: Challenging Assumptions, Standing in the Future, Exploring Concepts at the Fringes, Seeking Clearly Added Value, Narrating Stories about the Future. Explore Concepts: Methods, Principles to Opportunities, Opportunity Mind Map, Value Hypothesis, Persona Definition, Ideation Session, Concept-Generating Matrix, Concept Metaphors and Analogies, Role-Play Ideation, Ideation Game, Puppet Scenario, Behavioral Prototype, Concept Prototype, Concept Sketch, Concept Scenarios, Concept Sorting, Concept Grouping Matrix, Concept Catalog.
Module-6 (6 Hours)
Frame solutions: Mindsets, Conceiving Holistic Solutions, Conceiving Options, Making Value Judgments, Envisioning Scenarios, Structuring Solutions, Frame solutions: Methods, Morphological Synthesis, Concept Evaluation, Prescriptive Value Web, Concept-Linking Map, Foresight Scenario, Solution Diagramming, Solution Storyboard, Solution Enactment, Solution Prototype, Solution Evaluation, Solution Roadmap, Solution Database, Synthesis Workshop. Realize Offerings: Mindsets, Reiterating Prototypes, Evaluating in Reality, Defining Strategies, Implementing in Reality, Communicating Vision, Realize Offerings: Methods, Strategy Roadmap, Platform Plan, Strategy Plan Workshop, Pilot Development and Testing, Implementation Plan, Competencies Plan, Team Formation Plan, Vision Statement, Innovation Brief.

Assessment Details (both CIE and SEE)

The weightage of Continuous Internal Evaluation (CIE) is 50% and for Semester End Exam (SEE) is 50%. The minimum passing marks for the CIE is 50% of the maximum marks. Minimum passing marks in SEE is 40% of the maximum marks of SEE. A student shall be deemed to have satisfied the academic requirements (passed) and earned the credits allotted to each course if the student secures not less than 50% in the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together.

Continuous Internal Evaluation:

There shall be a maximum of 50 CIE Marks. A candidate shall obtain not less than 50% of the maximum marks prescribed for the CIE.

CIE Marks shall be based on:

a) Tests (for 25Marks) and

b) Assignments, presentations, Quiz, Simulation, Experimentation, Mini project, oral examination, field work and class participation etc., (for 25 Marks) conducted in the respective course. Course instructors are given autonomy in choosing a few of the above based on the subject relevance and should maintain necessary supporting documents for same.

Semester End Examination:

The SEE question paper will be set for 100 marks and the marks scored will be proportionately reduced to 50.

- The question paper will have 8 full questions carrying equal marks.
- Each full question is for 20 marks with 3 sub questions.
- Each full question will have sub question covering all the topics.
- The students will have to answer five full questions; selecting four full questions from question number one to seven in the pattern of 3, 7 & 10 Marks and question number eight is compulsory.

Suggested Learning Resources:

Books

1. Design Thinking for Strategy – Innovating towards Competitive Advantage by Claude Diderich, Springer, 2020.
2. 101 Design Methods – A Structured Approach to Driving Innovation in your Organization by Vijay Kumar, John Wiley & Sons,2013.
3. The Design of Business – Why Design Thinking is the next Competitive Advantage by Roger Martin, Harvard Business Press, 2009.
4. Design Thinking – Integrating innovation, Customer experience, & Brand Value by Thomas Lockwood, Allworth Press, 2009.
5. Design Thinking Methodology by Emrah Yayici, ArtBizTech, 2016.

Web links and Video Lectures (e-Resources):

- https://onlinecourses.nptel.ac.in/noc22_mg75/preview
- https://www.ideou.com/pages/design-thinking-resources
- https://www.innovationtraining.org/stanford-design-thinking-resources/
- https://www.teachthought.com/pedagogy/45-design-thinking-resources-for-educators/
- https://theaccidentaldesignthinker.com/design-thinking-tools-resources/

Note: The aforesaid links and study materials are suggestive in nature, they may be used with due regards to copy rights, patenting and other IPR rules.

Skill Development Activities Suggested

- Visit Startups to comprehend prototype development.
- Observe the innovation and technology synchronisation for creative Design Thinking.
- Conduct interview with the social entrepreneurs and develop the social sustainable prototypes.
- Learn to be a critical thinker and respond to the societal needs.

Course outcome

At the end of the course the student will be able to:

Sl. No.	Description	Blooms Level
CO1	Understand the Design Thinking process from business management perspective.	L1
CO2	Apply the knowledge and skills of DT in prototype development for product/service innovations.	L3
CO3	Analyse sustainable and societal challenges and find solutions.	L2
CO4	Evaluate the pros and cons for sustainable development by applying DT.	L4

Mapping of COs and POs

	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4
CO1	2	1			2			2	
CO2			2			3			
CO3				3			3	2	
CO4		2	3	2			3		3

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