### SVKM's NMIMS Deemed-to-be University Mukesh Patel School of Technology Management and Engineering

CSE(DS) 3	B Tech All Pr 11 (VT), MBA grated (All Pr	ograms [excep A Tech All Pro cogram)	Semester: I/ II /V	/ VI	
Course: Design Thinking				Code: 702BS0C011	
Teaching Scheme			Evaluation Scheme		
Lecture (Hours per week)	Practical (Hours per week)	Tutorial (Hours per week)	Credit	Internal Continuous Assessment (ICA) (Marks -50)	Term End Examinatio ns(TEE)
2	0	0	0	Marks Scaled to 50	

#### Pre-requisite: -

### **Course Objective**

The objective of this course is to understand the concept of Design thinking through engaging the students in projects/ assignments that illustrate the various pillars of Design thinking. Imbibe the higherorder skill of Design thinking which they will be able to apply in various projects during their course, to create new products & services.

#### **Course Outcomes**

After completion of the course, students will be able to-

- 1. Develop a human-centric approach towards problem solving
- 2. Apply design thinking principles to come up with innovative solutions to problems and challenges

Detail	Detailed Syllabus				
Unit	Descriptions	Duration			
1.	Introduction to Design Thinking				
	-Design Thinking as 'Experience Innovation'	02			
	- Concepts of Customer Desirability, Technological Feasibility,				
	Business Viability and their significance				
2.	Case Study: Discussion on HBR article Design Thinking by Tim	02			
	Brown (Pre-Read based analysis of all four case studies covered in article)				
3.	Mindset Creation				
	- Growth Mindset vs. Fixed Mindset	02			
	<ul><li>Essential elements of Design Thinking Mindset</li><li>Case Study: Jeff Bezos-Amazon's approach of being Customer Obsessed</li></ul>				



(Prepared by Corned Faculty/HOD)

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4.	<ul><li>Pillars of Design Thinking</li><li>Introduction to Stages of Design Thinking based on Stanford d. School</li></ul>	02
5.	Case Study for Application of Design Thinking IDEO Shopping Cart (Case Video followed by debrief/class discussion)	02
6.	Empathy [A] -Introduction to empathy -Decoding Customer Behaviour using DT (using case study method)	02
7.	Empathy [B] -Tools: Understanding Consumer's Unmet Needs & Pain Points: (Observation, Focused Interviews, Shadowing, Journey Mapping) - Rules and tips for each specific tool	04
8.	(Class activity based learning for each tool)  Empathy [C]  Debrief of Class Activity for Journey  Mapping Empathy Case Study:  'Embrace- Infant Incubator'	02
9.	Define -Analysis of data gathered from Empathy stage through tools like Clustering & Affinity Diagrams -Building Problem Statements & understanding POV -Tools: Framing problems as 'How Might We?' questions	02
10.	Ideate -Concept of Semi-structured approach to Ideation in DT -Rules of Ideation -Tools: Brainstorming, Brainwriting, Dot Voting	02
11.	Ideate -Class Activity to demonstrate Brainstorming & Dot Voting - Case Study for Out of the Box Idea Generation: Steelcase	02
12.	Prototype -Introduction to concept of prototyping & basic techniques of rapid prototyping -Introduction to Low fidelity vs. High fidelity prototypes and their significance in the Design Thinking process -General information on user testing & MVPs - Case Study for Prototyping & User Testing: Nordstorm Innovation Lab	02





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13.	Term End Group Project	
	Analysis of Design Thinking success stories from across various	04
	domains - Students are expected to build a presentation based	
	on the design thinking led	
	success story of their chosen company/organization	
	Total	30
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#### **Textbook and Reference Books**

1. Idris Mootee , Design Thinking for Strategic Innovation, Wily, 2014.



