1. General Information

Course Subject	IIMT
Course Number	3623
Course Title	Design Thinking: Concepts and Applications
Academic Years	2024-2025
Grading Method	Letter

2. Instructors

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Subclasses: 1A

4. Course Description

Course Description	**(Overall IIMT 3623 & IIMT 3624)** The course aims at developing the students' design mentality and their understanding in design thinking methodologies, emphasizing on 1, how concepts are being developed and implemented, 2, the process driven by design thinking champions with the awareness and consideration of related stakeholders, and 3, empathy – in order to unleash potential for projects through iterative multi-layered problem solving, or to deliver a new vision. The course is conducted through theory lectures plus concurrent problem-based studios with cross-disciplinary approach. Design related topics will serve as the media on the learning in the design exploration and developments. Students will be given comprehensive introductions to design thinking overview and sample templates, powered also by architectural and other design literacy. The courses are tailored for professional or non-professional degree students to acquire skills germane to the creative process of design thinking and to an understanding of the role of innovation manager and designers across different industries in the 21st century. Our focus is to look at designs, challenges and innovations on programmatic, functional and operational aspects, while the more spatial 2D/3D arrangements will support the materialization of any design and project developments. The two courses IIMT 3623 and 3624 are complementary. IIMT 3623 provides theoretical foundations and knowledge necessary to the workshop (IIMT 3624); while the studio is the backbone to any designer/architect's practice – trials, experiments and deliveries, all of which bring the theories learnt to life. By tackling a series of projects in graduating complexity in 'Studio', students learn to sharpen their visual, spatial and ideological acuities and to develop sensitivities to critical project issues. **(IIMT3623 (Theory))** Design thinking is an enhancement in the business environments. It is closely related to the innovation process within different industry context. This course aims at developing students' design thinking mentality and skillsets - idea conceptualisation, concept development, design process and implementation, as well as project planning with business plan model and innovation management under the VUCA environment. Case studies will be examined to solidify understanding of why and where creative solutions, digital transformation included, are achieved in industries like fintech, retail, education, office workplace, art and cultural, as well as entertainment business. This course will discuss respective historical background and theory behind the innovations introduced – which includes the latest innovative technology in Blockchain development and applications. Students will be challenged to take cross-disciplinary approach to creatively achieve business, social and communal goals in their projects. Studies of innovation will cover product and service design, sales and marketing, branding development and change management.

5. Course Objectives

1. The course provides introduction to design thinking principles and approaches, of which the students will be guided to see the potential of creativity one could bring to different project types. Curiosity and courage in trials, experiments and explorations will be encouraged.

Through both case studies and cross-disciplinary design proposals, the courses are to challenge students' thinking in a multi-layers way on a multi-disciplinary level (business/corporate/design) – bringing forward potential individual changes, organizational changes or system changes.

These courses will be to build students' skillsets in capturing inspiration, observation, analysis, creativity and communication. While these skills will also be required and further trained in IIMT 3624 studio, the students will learn and practise hybrid capabilities as analyst, creative designer and design manager in the courses.

During our studies of design thinking applications and creative propositions, we will look into the definition of creativity, the role of history/experience/convention, considerations of the conditions, as well as the effects to the systems and their transformations

6. Faculty Learning Goals

Goal 1: Acquisition and internalization of knowledge of the programme discipline

Goal 2: Application and integration of knowledge

Goal 3: Inculcating professionalism

Goal 4: Developing global outlook

Goal 5: Mastering communication skills

Goal 6: Cultivating leadership

7. Course Learning Outcomes

Course Teaching and Learning Activities	Aligned Faculty Learning Goals					
	1	2	3	4	5	6
CLO1. Acquire basic knowledge in: Design thinking methodologies – To develop innovative ideas. Application of 'Empathy' Fundamentals in multi-disciplinary design considerations Concepts of 'Green' and 'smart' design Development and Implementation process from design to management International design and management trends and their effects	✔	✔	✔	✔		
CLO2. Ability to present project specifics lucidly					✔	
CLO3. Ability to work efficiently individually and in teams			✔		✔	✔
CLO4. Identify objective(s) and problem(s) at different phases	✔	✔	✔			
CLO5. Use relevant information vis-à-vis context (e.g. historic; users; cultural; environmental; technical) towards design solution(s)	✔	✔	✔	✔		
CLO6. Formulate creative/appropriate design concepts	✔	✔	✔			
CLO7. Test concepts in multi-media prototype (drawings, physical and /or digital models)	✔	✔	✔			
CLO8. Develop selected approach to highest degree of resolution	✔	✔	✔			
CLO9. Effectively articulate/communicate solution to different groups			✔		✔	✔

8. Course Teaching and Learning Activities

Course Teaching and Learning Activities #	Expected Study Hours	Study Load (% of study)
T&L1. Lecture with interactive presentation	12	10
T&L2. Reading, case-based study and analysis	30	25
T&L3. Workshop and discussions (individual and group)	6	5
T&L4. Individual and group project development	66	55
T&L5. Presentation and inter-teams/individual responses	6	5
	Total: 120	Total: 100

9. Assessment Methods

Assessment Methods	Description	Weight %	Aligned Course Learning Outcomes
A1. Learning from different perspectives with ability to evaluate inputs and observations.	Assignment 1: Reports on 2 Exhibition and Public Lecture attended of students' choice on related topics.	10%	1,3,9
A2. Analysis of existing situations and the changes that happened, incl. the process and impacts.	Assignment 2: Case Studies	10%	1,3,9
A3. Critical + 'Lateral' thinking + Action on specific tasks with particular design skillset	Assignment 3: Exercises on particular skillsets of different design thinking stages	30%	2,3,4,5,6,7,9
A4. Putting knowledge acquired from the courses to practice – to apply design thinking and solutions to achieve specific goals and requirements.	Assignment 4: Aspirations on multi-disciplinary design and selected topics	40%	2,3,4,5,6,7,8,9
A5. Practice in group discussions and dynamics; Class engagements	Overall contribution to class; individual digital portfolio	10%	2,3,4,6,9

10. Course Grade Descriptors

A+,A,A-	Candidate has consistently demonstrated a thorough understanding and original view of the subject as evidenced by exceptionally astute analysis and synthesis. Authentic style has been established and shown in the project development – with innovative and creative idea supported by sufficient trial and experiment to achieve more than expected by the project brief.
B+,B,B-	Candidate frequently demonstrated a substantial understanding of the subject and has demonstrated his/her effort in achieving the project brief and requirement.
C+,C,C-	Some of the responses are well organized, clear but with insufficient elaboration – there is significant room for improvement to achieve a more satisfactory level to the project course or project requirement.
D+,D	Solutions to questions and problems containing unstructured but relevant observations. Candidate has shown marginally interest in the subject.

10. Course Grade Descriptors

	F	Little evidence of basic familiarity with the subject, nor demonstration of sufficient effort to basic project and course requirement.

11. Course Content and Tentative Teaching Schedule

Topic/ Session	Content
1	Overview of Design Thinking. Design Thinking and Design Doing
2	Design Thinking global/local application cases & trend
3	Workshop vs Desk top studies vs On site
4	Empathy: Input format, analysis & synthesis, UI/UX (incl. gamifications)
5	VUCA
6	Discover – A. Stakeholders; B. Mapping; C. Pain-points; D. Pain-points evaluation
7	Define – A. Critical problem definition; How might we question
8	Develop – A. Ideation; B. Ideas evaluation; C. Prototype; D. Test
9	+ - x /
10	Deliver – A. Project implementation; B. Commercialization; C. Presentation
11	Design Thinking and A. Digital transformation; B. Smart cities; C. Digital rural developments
12	Design Thinking and Business Model

12. Required/Recommended Readings & Online Materials

Reading	Website of Unleash Hong Kong and Ideo
	Paul N. Friga, 2009, The McKinsey Engagement: A Powerful Toolkit for More Efficient & Effective Team Problem Solving, McGraw-Hill
	John Kenneth Galbraith, 1958, The Affluent Society, Houghton Mifflin Co.
	Rem Koolhaas 1997, S,M,L,XL. Monacelli Press; Subsequent edition, New York Rem Koolhaas 1978, Delirious New York: A Retroactive Manifesto for Manhattan: Thames & Hudson, London
	Le Corbusier, 2000, The Modular, Birkhauser
	Littlefield, D, 2012, Metric Handbook, Planning and Design Data (Architectural Press)
	Kevin Lynch, 1960, Image of the City, MIT Press, Cambridge
	Colin Rowe, Robert Slutzky, Transparency: Literal and Phenomenal
	Peter G. Rowe, 1991, Design Thinking, MIT Press
	David Grahame Shane, 2005, Recombinant Urbanism: Conceptual Modeling in Architecture, Urban Design, and City Theory, John Wiley & Sons
	Robert J. Sternberg, 1988, The Nature of Creativity: Contemporary Psychological Perspectives, Cambridge University Press
	Bernard Tschumi, 1994, Event-Cities, MIT Press, Cambridge Bernard Tschumi, The Manhattan Transcript
	Zumthor, P 1998, Thinking Architecture (Baden Switzerland: Lars Muller Pubs)

13. Means / Processes for Student feedback on Course

✔	Conducting mid-term survey in additional to SETL around the end of the semester
	Online response via Moodle site
	Others

14. Course Policy

General requirements in plagiarism, academic honesty and attendance apply. Any lateness or absence to the class needs to have the lecturer(s) officially informed with sound reason – otherwise penalty in the form of mark deduction might apply.

15. Additional Course Information

Further to what has been described in the assessment section, participation and engagement in the class and tutorial is required in this course. Lecturers will help students to see into their own work and to assist to bring it into its fullest manifestation, through an effective and interactive learning.