

NIRMA UNIVERSITY

Institute:	Institute of Technology, School of Technology
Name of Programme:	MTech CSE
Course Code:	6CS379ME25
Course Title:	UI-UX Design
Course Type:	Department Elective-III
Year of Introduction:	2025-26

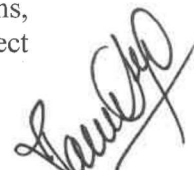
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Course Learning Outcomes (CLO):

At the end of the course, students will be able to –

1. explain the iterative user-centered design of graphical user interfaces (BL2)
2. apply the user interfaces to different devices and requirements (BL3)
3. evaluate UX design, including information modelling, requirement gathering, and content management (BL5)
4. create high-fidelity visual designs using design principles and guidelines. (BL6)

Unit	Contents	Teaching Hours (Total 45)
Unit-I	Introduction to UI/UX: What is User Interface Design (UI) -The Relationship Between UI and UX, Roles in UI/UX, A Brief Historical Overview of Interface Design, Interface Conventions, Approaches to Screen Based UI, Template vs Content, Formal Elements of Interface Design, Active Elements of Interface Design, Composing the Elements of Interface Design, UI Design Process, Visual Communication design component in Interface Design	08
Unit-II	The foundation of UX design: Good and poor design, Understanding Your Users, Designing the Experience, Elements of User Experience, Visual Design Principles, Functional Layout, Interaction design, Introduction to the Interface, Navigation Design, User Testing, Developing and Releasing Your Design, Information architecture and sitemaps, User journey maps, Interaction design: task flows, Overview of grids & page types, Developing low/high fidelity wireframes	08
Unit-III	User Research: Role of research in the UX design process, Overview of research methods, Introduction to heuristic testing, Reading user personas and empathy maps	04
Unit-IV	Visual Design and UI: Principles of visual design, including Gestalt Theory, Colour & typography for UI, Interactions and micro-interactions, understanding various sections of a screen (Web, iOS and Android), Converting wireframes into high fidelity visual design, Design for devices: understanding web & mobile	07
Unit-V	UX Strategy: Information modelling: hierarchies and relationship Gathering requirements, working with content: inventory, sorting, schema, labelling, way-finding, Overview of e-commerce platforms, Understanding mobile apps, Design process, Introduction to project management	08



Unit-VI	Brand Experience Design: Brand strategy: business goal, purpose, values, audience, persona and positioning; Elements of visual identity: typography, colour, iconography, patterns, Visual design for various page types; Introduction to design system: elements, components, patterns, pages and assets, and portfolio development.	10
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Self-Study:

The self-study contents will be declared at the commencement of the semester. Around 10% of the questions will be asked from self-study content.

Suggested Readings/ References:

1. Russ Unger and Carolyn Chandler, A Project Guide to UX Design: For user experience designers in the field or in the making, New Riders Publishing
2. Jesse James Garrett, The Elements of User Experience: User-Centred Design for the Web and Beyond, Second Edition, Pearson Education
3. Wilbert O. Galitz, The Essential Guide to User Interface Design: An Introduction to GUI Design Principles and Techniques, Wiley
4. Alan Cooper, Robert Reimann, David Cronin, and Christopher Noessel, About Face: The Essentials of Interaction Design, Wiley
5. Steve Krug, Don't Make Me Think: A Common-Sense Approach to Web Usability, New Riders Publishing
6. Don Norman, The Design of Everyday Things, Basic Books
7. Steve Portigal, Interviewing Users: How to Uncover Compelling Insights, Rosenfeld Media
8. Leah Buley, The User Experience Team of One: A Research and Design Survival Guide, Rosenfeld Media
9. Ellen Lupton, Thinking with Type: A Critical Guide for Designers, Writers, Editors, & Students, Princeton Architectural Press
10. Jaime Levy, UX Strategy: How to Devise Innovative Digital Products that People Want, O'Reilly
11. Alina Wheeler, Designing Brand Identity: An Essential Guide for the Whole Branding Team, Wiley.

Suggested List of Experiments:

Sr. No.	Name of Experiments/Exercises	Hours
1	Working on a visual design that includes lines, spaces, textures, negative spaces, spacing, Font properties, Colors, and Filling empty parts with visuals	02
2	Identify some key UX influencers and try to categorize them into one or two of the quadrants	04
3	Recreating an excellent existing design pixel-for-pixel, Filters, Sort UI	02
4	Identify and implement Content Strategy related concepts	02
5	To implement a personal learning project	02
6	To design a portfolio project using UI-UX	04
7	A real app or site. - design 1-3 screens of an app/website	02
8	To design a Product Page for an e-commerce website	04
9	To design a Portfolio Site Splash Page	04
10	To design a Pricing Page for a SaaS Startup.	04