	भारतीय सूचना प्रौद्योगिकी संस्थान, नागपुर
	Indian Institute of Information Technology, Nagpur
	An Institution of National Importance by an Act of Parliament
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Department of Computer Science and Engineering
Syllabus

Course Name & Code	UI and UX Design (CSL 306)		
Semester	V		
Type	DC		
Academic Year	2024-2025		
Course Coordinator			
Credits 4	L	T	P
	3	0	2

Course Contents:

Module 1: UX introduction: Design thinking, user centered design principles, Role, requirement & ROI, feature prioritization, process model – waterfall, Agile, Scrum

Research – user experience research methods, user persona, scenario creation, empathy mapping and affinity mapping, interviews – user, stakeholder. Conducting survey

Module 2: Analysis – competitor analysis, user centered analysis, Heuristic analysis, task flow evaluation, attributes, goals, perspectives & Pain points, Google analytics, human computer interface,

Design strategy – intuitive & persuasive designing, design user flows, entry points, effective content strategy, low fidelity sketching, paper prototype, site maps, informational architecture, navigational models, mental models, early usability testing

Module 3: Sketching, framing & prototype – customer experience framework, low and high fidelity models, workflows, prototype – web, mobile & tablet, interactive prototype, rapid prototype – sprint, error handling, minimum viable product (MVP), tools – Axure, Balsamiq, Invision

Testing – Usability testing, remote usability testing, task grids, feedback analysis, reiterate

Module 4: Elementor and its powerful plugins. Build a website without a single code. Learn how to build a landing page. Using various plugin to organise and generate leads. Typography and colours in digital design. Composition & Contrast. Create Pages and Add to menu. Build custom header & Footer. Composition: make your website responsive to all screens (table, mobile) Animation in web design. Integrate a Blog onto website. Using SEO in our blog and Website. Connecting the website to google consol and Google Analytics

Module 5: Basics of User interface design – UI design process, design psychology, web, Mobile & Tablet visual designing, human factors & Ergonomics

Visual Design – storyboards creation, product design, colour theory, layouts, Typography, infographics, iconography, branding design, image editing, web template design, creating UI elements, UI Kits & Image widgets

Google Map Designing, Visual design output & documentation, High impact presentation

Text Books:
1) Joel Marsh, "UX for Beginners", O'Reilly , 2022
2) Jon Yablonski, "Laws of UX using Psychology to Design Better Product & Services" O'Reilly 2021
3) Everett N McKay, UI is Communication: How to Design Intuitive, User Centered Interfaces by Focusing on Effective Communication, 2013.
4) Don Norman, The Design of Everyday Things: Revised and Expanded Edition, 2013.
5) Steve Krug, Don't Make Me Think: A Common Sense Approach to Web Usability, 2nd ed., 2005
6) Jesse James Garrett, The Elements of User Experience: User-Centered Design for the Web and Beyond, 2nd ed, 2010.

Reference Books:

1. Russ Unger, A Project Guide to UX Design: For user experience designers in the field or in the making, 2nd ed., 2012.
2. Jeff Johnson, Designing with the Mind in Mind: Simple Guide to Understanding User Interface Design Guidelines, 2014
3. Chris Nodder, Evil by Design: Interaction Design to Lead Us into Temptation, 2013. 4. Jon Yablonski, Laws of UX: Using Psychology to Design Better Products & Services 1st Edition, 2020.
5. Andrew Couldwell, Laying The Foundations: How to Design Websites and Products Systematically, 2020.
6. Jenifer Tidwell, Charles Brewer, Aynne Valencia, "Designing Interface" 3 rd Edition, O'Reilly 2020
7. Steve Schoger, Adam Wathan "Refactoring UI", 2018.
8. Steve Krug, "Don't Make Me Think, Revisited: A Commonsense Approach to Web & Mobile", Third Edition, 2015.
9. https://www.nngroup.com/articles/ 10. https://www.interaction-design.org/literature.