Course: Post Graduate Diploma in User Experience

Duration: One Year

What is User Experience?

With person's perception and responses that result from the use or anticipated use of product, system or service is called user experience. It includes users' emotions, beliefs, perception, responses, preferences, behaviors that occur during the use or after the use.
The ISO list three factors that influence user experience system. User and the context of the use.

Recent Advances in Mobile, Computing technologies have moved human computer interaction into practically all areas of human activity. This has led to shift from usability engineering to a richer concept of user experience, where users emotions, motivations and values are given as much if not more focus than efficiency, effectiveness and basic subjective satisfaction. The field of user experience represents an expansion of the field of usability. The focus is on pleasure and value as well as on performance.

Learning Outcomes:-
1. Gather useful information about users and activities through asking, looking, learning, and trying
2. Organize information about users into useful summaries with affinity diagrams
3. Convey user research findings with personas and scenarios
4. Learn and appreciate the skill of sketching as a process for user experience design
5. Learn to give and accept critiques of design ideas in a constructive manner
6. Demonstrate skills for low-fidelity prototyping and describe the strengths and weaknesses of a variety of prototyping methods
7. Appreciate the process of user experience design as a cyclical, iterative process
8. Understand the differences between usability and user experience
9. Analyze an interaction design problem and propose a user-centered process, justifying the process and identifying the trade-offs
10. Prepare high quality, professional documentation and artifacts relating to the design process for preparation for a professional portfolio

Eligibility Criteria:-

Having graduation degree from recognized university with 50% marks (Designer, Project Manager, Software engineer, Entrepreneur, Marketer, and Stakeholder etc.)

Benefits of UX Design:-

1. Digitalization is taking place at large scale to enhance transparency. UX designers are required for the same.
2. Very few universities are imparting UX Design course in India till date.
3. Shortage of UX designers in India and Abroad.
4. Average salary of UX designers 30% higher than that of engineers
5. Better Promotion and Growth in comparison with others.
6. Students from any field can become UX designers.

PGDM - UX Design Course Structure

Year 1	Code	Semester 1	Credit	Hours	Delivery Type
Subject 1	ID	Introduction to Design	2	30	IXPT
Subject 2	FOUD	Fundamentals of UX Design	3	45	IXPT
Subject 3	ET	Empathy & its Tools	2	30	IXPT
Subject 4	DUS	Defining UX Solutions	3	45	IXPT
Subject 5	DCV	Design Communication and Visualizing Ideas	3	45	IXPT
Subject 6	PRJ1	Minor Project	6	90	IXPT
			19	285	

Year 1	Code	Semester 2	Credit	Hours	Delivery Type
Subject 1	WP	Wireframing and Prototyping	3	45	IXPT
Subject 2	HMI	Human & Machine Interface	3	45	IXPT
Subject 3	ID	Interaction Design	3	45	IXPT
Subject 4	UT	Usability Testing	2	30	IXPT
Subject 5	UDF	User Design for futuristic Technology	3	45	IXPT
Subject 6	PRJ2	Major Project	10	150	IXPT
			24	360	
		Total	43	645	

Course Contents

Semester – 1

Subject - 1	**Introduction to design**
CODE	<mark>**CODE: ID	CREDITS: 3	HOURS: 45**</mark>
LEARNING OUTCOME	**Learning Outcomes:** • Be able to understand elements and principles of design • Able to grasp stage model of action cycle • Be able to understand design laws and their importance in design field • To comprehend various rules of composition of design • To gain hands-on experience of fundamentals of
	design
CONTENT	Introduction to elements and principles of design. Learning basics of design – dot, line, shape, form as fundamental design components. Principles of design – simplicity, unity, proportion, emphasis, rhythm and balance. Learning design laws such as Gestalt's law. Project work on elements and principles of design.
REFERENCE BOOKS	**Reference Books:** 1. Designing for Digital Age: How to create humancentred products and services - Kim Goodwin 2. Sketching the User experiences - Bill Buxton 3. The design of everyday things - Don Norman 4. The elements of user experience- Jesse James Garrett

Subject - 2	**Fundamentals of UX design**
CODE	<mark>**CODE: FOUD	CREDITS: 3	HOURS: 45**</mark>
LEARNING OUTCOME	**Learning Outcomes:** • To understand the concept of UX design and how it has evolved • Able to understand UX design process and methodology • Able to understand how UX industry works • To know the job, roles and responsibilities in UX industry • To understand the importance of UX in digitalization and different types of industries
CONTENT	Understand the evolution of UX design as an industry practice and learning about UX industry experts. Understanding UX design processes and methodologies – user centred design, 5S model. Job roles and responsibilities in the UX industry. UX industry trends.
REFERENCE BOOKS	**Reference Books:** 1. Designing for Digital Age: How to create humancentred products and services - Kim Goodwin 2. Sketching the User experiences - Bill Buxton 3. The design of everyday things - Don Norman 4. The elements of user experience- Jesse James Garrett

Subject - 3	**Empathy and its tools**
CODE	<mark>**CODE: ET	CREDITS: 3	HOURS: 45**</mark>
LEARNING OUTCOME	**Learning Outcomes:** • To understand the concept of empathy and empathizing with users effectively • Discern the facts after dully analyzing the information received from the user • To learn how to define the problem on the basis of facts • To grasp various empathy techniques and tools • To practice various tools to comprehend root cause of the problem leading to correct definition
CONTENT	Learn how to understand users, techniques to empathize with users and identify key user problems. Learn how to gain insights from empathy and define problems statements.
REFERENCE BOOKS	**Reference Book:** 1. Empathy: Why it matters, how to get it - Roman Kizanie 2. The Art of Empathy: A complete Guide to life's most essential skill - Karla McLaren

Subject - 4	**Defining UX solutions**
CODE	<mark>**CODE: DUS	CREDITS: 3	HOURS: 45**</mark>
LEARNING OUTCOME	**Learning Outcomes:** • Create mobile, tablet and web user-experience designs based on industry UXD principles. • Critique existing user experience designs. • Create effective and useable mobile, tablet and web applications and designs. • Justify mobile, tablet and web application design decisions based on the solid UXD principles. Use and develop industry standard user-experience design processes and tools, such as Twitter. Bootstrap framework, HTML and CSS.
CONTENT	IT helps To Improve User Experience, Start by Observing Customers Interact with Your Product. User experience (UX) design focuses on enhancing user satisfaction by improving how we interact with the websites, applications and devices in our lives
REFERENCE BOOKS	**Reference Books:** 1. A Project Guide to UX Design, Second Edition Russ Unger and Carolyn Chandler

Subject – 5	**Design communication and visualizing ideas**
CODE	**CODE: DCV | CREDITS: 3 | HOURS: 45**
LEARNING OUTCOME	**Learning Outcomes** • Deliver information more directly • More flexible than verbal communication • More attention-grabbing and engaging ▯ Makes an impact on the audience • Increase the credibility of your message
CONTENT	Learning visualization techniques through - visual identity design, metamorphism visualization techniques, brainstorming and mind mapping. Information visualization through infographics and designing brand communication. Documenting and communicating design ideas through presentations, role play and group activities. Project in design communication and visualization
REFERENCE BOOKS	**Reference Books:** **1.** Envisioning Information, by Edward Tufte. **2.** *Universal Principles of Design,* by Lidwell, Holden, and Butler. **3.** *he Non-Designer's* Series, by Robin Williams (not the actor) **4.** Visual Rhetoric in a Digital World, by Carolyn Handa.

Subject – 6	**Minor Project**
CODE	**CODE: PRJ1 | CREDITS: 9 | HOURS: 90**
LEARNING OUTCOME	
CONTENT	bjects reports are to be submitted in a set format and mentors are assigned to each student for guidance through the project. The project is evaluated as the end-term examination in the form of a jury conducted by an industry and academic panel. Based on Paper
	I,II,III,IV and V of Sem-I
REFERENCE BOOKS	-

Semester – 2

Subject – 1	**Wireframing and prototyping**
CODE	**CODE: WP | CREDITS: 3 | HOURS: 45**
LEARNING OUTCOME	**Learning Outcomes:** 1. Wireframes and prototypes differ in terms of functionality, but both serve as useful tools that allow product teams to create better products. 2. To learn The key to successful product design is to invest in the design process and leverage Wireframing and prototyping 3. To comprehend as an integral part of your workflow it helps in designing the correct design and experience for the customer and interaction
CONTENT	Practice based module to learn the tools required to design wireframes and prototypes. Design wireframes on paper and translate paper concepts into digital wireframes and Understand and practice the techniques involved in designing digital wireframes for web, mobile, wearable, HMI and other digital screens. Understand and practice the techniques involved in creating digital prototypes. Tools to be taught – AxureRP, invision
REFERENCE BOOKS	**Reference Books:** 1. Prototyping for Designers: Developing the Best Digital and Physical Products 2. Sketching User Experiences: The Workbook 3. Prototyping: A Practitioner's Guide

Subject – 2	**Human & Machine interface**
CODE	<mark>**CODE: HMI| CREDITS: 3	HOURS: 45**</mark>
LEARNING OUTCOME	**Learning Outcomes:** • Learning HMI (Human Machine Interface) is a User Interface where interaction between a human and a manufacturing or process control system occurs. • The HMI provides graphics-based visualization of a control system. • The outcome of interaction with an HMI is effective operation and control of a process.
CONTENT	Definition of HMI, designing for machines, designing for wearables, designing for automotive, implementation of Interaction design to HMI, the importance of visual design for HMI, factory of the future. Projects like creating the HMI of a smart mirror.
REFERENCE BOOKS	**Reference Books:** 1. Multimodal Interface For Human-machine Communication (ebook) 2. Human-Machine Interface Design for Process Control Applications

Subject – 3	**Interaction Design**
CODE	<mark>**CODE: ID| CREDITS: 3	HOURS: 45**</mark>
LEARNING OUTCOME	**Learning Outcomes:** 1. The graduate has an in-depth understanding of human factors and end-users' needs, user-centered strategies and methodologies and can discuss and reflect upon needs and requirements in the design of user interfaces and interactive environments. 2. The graduate is able to apply this knowledge to design and optimize the usability of products, services and interactive environments. 3. The graduate is able to analyze, choose and use appropriate methods for professional systems development usability engineering. 4. The graduate is able to analyze, choose and use appropriate

	methods for research on usability. 5. The graduate is able to plan, initiate, manage and execute usability and user-centered development in an independent manner. 6. The graduate is able to plan, initiate, manage and execute usability and user-centered research in an independent manner.
CONTENT	Importance of Interaction design, User cantered design, design of interactive products, understanding micro interactions, analyse and critique interaction design, the scope of interaction design, methods of interaction design, tools for interaction design, sketching and paper wireframing.
REFERENCE BOOKS	**Reference Books:** 1. Johnson, Jeff (2014) Designing with the Mind in Mind. 2nd ed., Elsevier Science. ISBN: 9780124079144 2. Rogers, Yvonne, Helen Sharp, Jenny Preece (2015) Interaction Design: Beyond Human-Computer Interaction, 4rd ed., J. Wiley & Sons

Subject – 4	**Usability Testing**
CODE	**CODE: UT| CREDITS: 3	HOURS: 45**
LEARNING OUTCOME	**Learning Outcomes:** • formulate a real-world enquiry in usability context; • demonstrate knowledge and understanding in usability testing by selecting appropriate methods and techniques in a variety of contexts; • plan, organise and conduct usability testing for a range of interactive media products (IMP); • apply descriptive and inferential statistical analysis and interpret results with respect to user behaviour to ensure the quality of an IMP; • formulate and make recommendations to inform decision making in terms of design and development of an IMP
CONTENT	Learn the process of conducting usability tests for digital products – planning, executing, information gathering and documentation.

	Learn how to create questionnaires, test cases and test moderation. Usability testing methodologies – task based user testing, A/B testing, lab based user testing, remote user testing, moderated & unmoderated user testing.
	Project – students will pick up a real-life digital application and conduct end-to-end usability testing on the product and submit a report for evaluation.
REFERENCE BOOKS	**Reference Books:** 1. Albert, W., and Tullis, T. (2013), Measuring the user experience: collecting, analyzing, and presenting usability metrics. Newnes. 2. Rubin, J., and Chisnell, D. (2008), Handbook of usability testing: how to plan, design and conduct effective tests. 3. John Wiley & Sons. Sauro, J., and Lewis, J.R. (2012), Quantifying the user experience: Practical statistics for user research. Elsevier. 4. Diamond, I., and Jefferies, J. (2001), Beginning Statistics. SAGE Publications. 5. Field, A., (2013), Discovering Statistics Using SPSS Statistics. SAGE Publications.

Subject – 5	**User Design for Futuristic Technology**
CODE	**CODE: UDF| CREDITS: 3	HOURS: 45**
LEARNING OUTCOME	**Learning Outcomes:** • While technologies like AI will shift many designers away from the tactical to the more strategic, narrative, and psychological domains, • 2. the foundational skills you possess – those of holistic "right-brain" thinkers – will position you to successfully lead in the future. And for those who wish • to understand "tactical," the physical world, enabled by smart materials and other technologies, • to have long-term thinking and keen narrative design skills, especially as AI systems take over digital communication channels.

CONTENT	Designing UX for AR, VR, IoT. Implementation of designing IoT for different industry segments. Case study of experience design for IoT in retail, case study of experience design for IoT in manufacturing.
REFERENCE BOOKS	**Reference Books:**
	1. Learning Deep Architectures for AI. Yoshua Bengio 2. The Design of Everyday Things by Don Norman 3. Creativity Inc. by Ed Catmull 4. **Internet of Things with the Arduino Yún By: Marco Schwartz** 5. **Getting Started with the Internet of Things- By: Cuno Pfister**

Subject – 6	**Major Project**
CODE	**CODE: PRJ2	CREDITS: 10	HOURS: 150**
LEARNING OUTCOME	
CONTENT	dustry project to be completed in semester 2 as an internship. Projects reports are to be submitted in a set format and mentors are assigned to each student for guidance through the project. The project is evaluated as the end-term examination in the form of a jury conducted by an industry and academic panel. Implement complete design and user experience process.
REFERENCE BOOKS	-