



JK LAKSHMIPAT UNIVERSITY
Institute of Design

HANDBOOK

B. DES IN INTERACTION DESIGN

BATCH: 2019-2023 (4 YEARS)

COURSE STRUCTURE AND DETAILED SYLLABUS

JK LakshmiPat University, Jaipur
Institute of Design
B Des in Interaction Design (Batch 2019-2023)
Course Structure for Foundation (Semester I – II)

Semester	Courses						
I	Freehand Drawing	Digital Drawing	Material Explorations	Geometry & Construction 2D	Elements of Composition		25 Credits
	FD1101 (4 credits)	DD1102 (2 credits)	MX1103 (3 credits)	GC1104 (3 credits)	EC1105 (3 Credits)		
	Culture Studies	Personal Growth	Fundamentals of Communication	Elective – I Film Appreciation	Elective – I Animation		
	CU1107 (2 Credits)	US1106 (2 credits)	CC1101 (2 credits)	FL1110 (2 Credit)	AN1109 (2 Credit)		
II	Colour	Visual Documentation	Geometry & Construction 3D	Habitat Studies	Design process/ Problem Solving		25 Credits
	CL1115 (3 credits)	VD1117 (4 credits)	GC1114 (2 credits)	HS1112 (2 credits)	DE1116 (4 credits)		
	Craft Study	Coding 101/HTML CSS	History of Design	Elective – II Semiotics	Elective – II Biomimicry	Critical Thinking and Storytelling	
	CR1113 (2 credits)	CD1111 (2 credits)	HD1118 (2 credits)	SE1119 (2 credits)	BM1120 (2 credits)	CC1102 (2 credits)	
						Total Credit	50

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JK LakshmiPat University, Jaipur
Institute of Design
B. Des in Interaction Design (Batch 2019-2023)
Course Structure of Semester III-VIII

Semester	Courses									Credits
III	Introduction to Interaction Design	User Studies	Introduction to UI Wireframing	Visual Design Basics and Tools	Introduction to programming	DP 1: Web-based project	Presentation Skills	Perspectives on Contemporary Issues	Elective – III	26
	ID1154 (3 credits)	US1157 (3 credits)	WF1155 (3 credits)	VD1156 (3 credits)	PS1160 (2 credits)	DE1159 (6 credits)	PS1160 (2 credits)	CC1103 (2 credits)	2 credits	
IV	Graphical User Interface Design (GUI)	Rapid Prototyping and Testing	Cognitive Ergonomics and Human Factors	Technology in UXD	DP 2: Design of an app-based product	Proposal Writing	Communication and identity	Elective – IV		24
	GD1161 (3 credits)	PT1162 (3 credits)	CE1163 (3 credits)	TN1264 (3 credits)	DP1265 (6 credits)	PW1166 (2 credits)	CC1104 (2 credits)	(2 credits)		
V	Information Architecture	Usability Fundamentals and Evaluation	Accessibility and Inclusive Design	Hardware Prototyping	Machine Learning, AI	DP 3: IoT Product with PD	Understanding and Managing Conflict	Elective – V		24
	IA1167 (3 credits)	UF1168 (3 credits)	AS1170 (3 credits)	AO1141 (3 credits)	ML1171 (2 credits)	DP1272 (6 credits)	CC1105 (2 credits)	(2 credits)		
VI	Interactive data visualization and Information Design	Emotional Design, Addictive Interfaces	Ethnography Research		Design for AR, VR and creating immersive experiences	DP 4: Human Machine Interface Design		Entrepreneurship	Elective –VI	22
	DV1173 (3 credits)	ED1174 (3 credits)	ER1175 (3 credits)		IE1176 (3 credits)	MI1277 (6 Credits)		ET1178 (2 Credits)	(2 credits)	
VII	Industrial Internship II12120 (4 to 6 Weeks Duration) - 8 Credits									
	Imaging	Data Analytics and UX	Final Design Project: Systems design		Leadership	Elective – VII			23	
IM1179 (3 credits)	DA1180 (4 credits)	DE1281 (12 credits)		DL1182 (2 credits)	2 credits					
VIII	Graduation Project GP1183 (18 credits)									18
Total Credits (Semester III – VIII)									145	

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JK LAKSHMIPAT UNIVERSITY
Institute of Design

BATCH: 2019-2023 (4 YEAR)

B. DES IN INTERACTION DESIGN PROGRAMME

FOUNDATION SEMESTER - I



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INSTITUTE OF DESIGN

B. Des in Interaction Design Programme

Course Title: **Freehand Drawing**

Course Code: **FD1101**

Credits: 4.0

Course Description & Content

This course fosters understanding of drawing and sketching as a tool for ideation and presentation. The contents of this course includes, overview of drawing systems for ideation, rendering and presentation, Introduction to basic elements of visual design – line, texture, colour, size, proportion, etc., introduction to drawing objects, human forms and spaces, basic hand and body movements in drawing, using pencils of different grades, freehand plotting and layout, perspective study and drawing of basic solids (cubes/cones/spheres), sketching of natural and human figures, capturing the overall form through finer details of depth, light and shade and simple perspectives of spaces.

Learning Outcomes

- Students can observe and represent images, ideas and concepts.
- Students get to improve coordination of hands and eyes.
- Students get to explore pencil as a media.
- Students can understand drawing and sketching as technique for ideation, rendering and presentation.

Methodology

- Lectures, Demonstrations and Presentations.
- Assignments.
- Analysis and feedback.

Evaluation Criteria

S. No	Components	Weightage
1	Communication/Presentation	Nil
2	Skills	20%
3	Process and management	Nil
4	Application of concepts	Nil
5	Understanding & clarity of concepts	20%
6	Attitude towards learning	Nil
7	Levels of improvement	10%
8	Levels of thinking & Reflection	Nil
9	Overall output	10%
10	Innovation & creativity	Nil
11	Research & analysis	Nil
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	Nil
15	Jury	40%
	Total	100%

Suggested Readings

1. Perspective, A new system for Designers, by Jay Doblin.

Websites

1. Sketch A Day.com, hedesignsketchbook.com , sketchaway.wordpress.com
2. <http://www.simkom.com/sketchsite/> . Skeren YouTube
3. <https://vimeo.com/idsketching>



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INSTITUTE OF DESIGN

B. Des in Interaction Design Programme

Course Title: **Digital Drawing**

Course Code: **DD1102**

Credits: 2.0

Course Description & Content

This course fosters understanding of using computers and relevant software to do drawing and sketching as a tool for ideation and presentation. The contents of the course include overview of drawing software for ideation, rendering and presentation, introduction to drawing objects, human forms and spaces on screens, basic hand and body movements in drawing, using devices of different types, digital plotting and layout, drawing of basic solids (cubes/cones/spheres). Drawing a variety of solid forms derived from basic solids, getting comfortable with various software elements and tools, capturing the overall form through finer details of depth, light and shade, simple perspectives of spaces.

Learning Outcomes

- Students get to observe and represent images, ideas and concepts.
- Students can improve coordination of hands and eyes.
- Students will explore inputting devices like trackpads, mouse and digital pencils as media.
- Students understand drawing and sketching as technique for ideation, rendering and presentation.

Methodology

- Lectures, demonstrations and presentations.
- Lab working.
- Assignments.
- Discussions and feedback

Evaluation Criteria

S. No	Components	Weightage
1	Communication/Presentation	Nil
2	Skills	20%
3	Process and management	Nil
4	Application of concepts	Nil
5	Understanding & clarity of concepts	20%
6	Attitude towards learning	Nil
7	Levels of improvement	10%
8	Levels of thinking & Reflection	Nil
9	Overall output	10%
10	Innovation & creativity	Nil
11	Research & analysis	Nil
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	Nil
15	Jury	40%
	Total	100%

Suggested Readings

1. Daniel Simons Books.
2. Product Sketching and Rendering by Koos Eisen.

Websites

1. <http://www.simkom.com/sketchsite/> . Skeren YouTube, Car Design News,
2. <https://vimeo.com/idsketching>



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B. Des in Interaction Design Programme

Course Title: Material Explorations

Course Code: MX1103

Credits: 3.0

Course Description & Content

This exploratory course helps students in understanding the properties of different materials that are used in products. It helps student understand the basic nature of tools and material relationship, the contents of the course includes study of wood, metal, plastic and bamboo as basic materials, Exploration of basic forms of materials, exploration of basic processes and form generation, combination of materials.

Learning Outcomes

- Students will understand the different materials and their properties.
- Students get to explore the properties of materials through the use of various hand tools.
- Students get introduced to various hand tools and machinery used in the workshops.

Methodology

- Lectures, demonstrations and presentations.
- Hands-on experience in workshops and studios.
- Assignments.
- Discussions and feedback.

Evaluation Criteria

S. No	Components	Weightage
1	Communication/Presentation	Nil
2	Skills	20%
3	Process and management	10%
4	Application of concepts	Nil
5	Understanding & clarity of concepts	Nil
6	Attitude towards learning	10%
7	Levels of improvement	Nil
8	Levels of thinking & Reflection	Nil
9	Overall output	10%
10	Innovation & creativity	Nil
11	Research & analysis	Nil
12	Class participation	Nil
13	Teamwork	10%
14	Observation and perception	Nil
15	Jury	40%
	Total	100%

Suggested Reading

1. A Compendium of Chinese Bamboo.
2. Handmade in India, A Geographical Encyclopedia of Indian hand crafts (Sir MP Ranjan & Aditi Ranjan).
3. Bamboo in Japan, (Nancy Moore Bess with Bibi Wein).
4. Objects & Furniture Design Charles & Ray Eames (Ediciones Poligrafe).
5. Bamboo Craft Design (A.G. Rao & Madhavi Koli).
6. Dutch Design meets Bamboo (Pablo Van der Lugt).
7. Chinese Bamboo (Zhang Qisheng Chang Weishan).



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B. Des in Interaction Design Programme

Course Title: **Geometry & Construction 2D**

Course Code: **GC1104**

Credits: 3.0

Course Description

This Course helps the student to appreciate geometrical patterns in natural forms and understand geometrical relations. The contents of this course includes geometry and its relevance to design, drawing instruments and their usage, methodology of geometric construction: perpendiculars, divisions, parallels, etc., straight and curved lines, squares and grids, construction of regular polygons and ellipse, study of properties of geometric forms in nature through visual analysis, introduction to golden proportion, tessellations .

Learning Outcomes

- Students get to inculcate skills and precision in drawing with instruments.
- Students get to understand the basic geometrical patterns on two-dimensional surfaces.
- Students understand to stimulate imagination based on the fundamentals of geometric logic.

Methodology

- Lectures, Demonstrations and Presentations.
- Assignments.
- Analysis and feedback.

Evaluation Criteria

S. No	Components	Weightage
1	Communication/Presentation	10%
2	Skills	10%
3	Process and management	Nil
4	Application of concepts	10%
5	Understanding & clarity of concepts	10%
6	Attitude towards learning	10%
7	Levels of improvement	Nil
8	Levels of thinking & Reflection	10%
9	Overall output	Nil
10	Innovation & creativity	Nil
11	Research & analysis	Nil
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	Nil
15	Jury	40%
	Total	100%

Suggested Reading

1. Gail Greet Hannah, Elements of Design, Princeton Architectural Press 2002.
2. Lauer, David; Design Basics, Wadsworth Publishing, 1999.
3. W.Wong; Principles of Two Dimensional Design, John Wiley and Sons, 1972.
4. J.Bowers; Introduction to Two.
5. Dimensional Design: Understanding Form and Function, John Wiley & Sons 1999.
6. Proctor, R.M.; The Principles of pattern, Dover Publications, 1990.
7. Elam, Kimberly; Geometry of Design: Studies in Proportion and Composition, Princeton Architectural Press, 2001.



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B. Des in Interaction Design Programme

Course Title: **Elements of Composition**

Course Code: **EC1105**

Credits: 3.0

Course Description & Content

This course is essential for students to understand the basic elements and principles of visual composition this course contents are Basic elements of composition, manipulation of elements in two dimensions to induce specific effects, concepts of harmony, rhythm, balance, contrast and movement, Gestalt theory. The course also takes into consideration new developments in social media content compositional strategies and looks into that as a specialized segment.

Learning Outcomes

- Students develop visual perception ability among students.
- Students can understand the visual dynamics that exists between elements.
- Students will create compositions using basic elements of point, line, plane, volume, etc. and use the same to communicate ideas.

Methodology

- Lectures, demonstrations and presentations.
- Assignments.
- Analysis and feedback.

Evaluation Criteria.

S. No	Components	Weightage
1	Communication/Presentation	Nil
2	Skills	20%
3	Process and management	10%
4	Application of concepts	Nil
5	Understanding & clarity of concepts	10%
6	Attitude towards learning	Nil
7	Levels of improvement	10%
8	Levels of thinking & Reflection	Nil
9	Overall output	10%
10	Innovation & creativity	Nil
11	Research & analysis	Nil
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	Nil
15	Jury	40%
	Total	100%

Suggested Readings

1. Gail Greet Hannah, Elements of Design, Princeton Architectural Press, 2002.
2. Lauer, David; Design Basics, Wadsworth Publishing, 1999.
3. W. Wong; Principals of Two Dimensional Design, John Wiley and Sons, 1972.
4. J.Bowers; Introduction Design: Understanding of form and function, John Wiley & Sons 1999.
5. L. Hotzschue; Understanding Colour, VNR, 1995.
6. Itten, Johannes; The Art of Color: The Subjective Experience and Objective Rationale of Color, Wiley Publications, 1997.
7. Proctor, R.M.; The Principles of Pattern, Dover Publications, 1990.



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B. Des in Interaction Design Programme

Course Title: **Culture Studies**

Course Code: **CU1107**

Credits: 2.0

Course Description & Content

This course introduces the students to the visual culture of India, the deep rooted Indian traditions, values and cultural practices. This course contents are cultural traditions of India, design as a reflection of culture, globalization and its effects on cultural traditions.

Methodology

- Lectures.
- Reading Assignments.
- Field Visits to craft clusters and museums.
- Group discussions and feedback.

Evaluation Criteria:

S. No	Components	Weightage
1	Communication/Presentation	20%
2	Skills	Nil
3	Process and management	Nil
4	Application of concepts	20%
5	Understanding & clarity of concepts	20%
6	Attitude towards learning	Nil
7	Levels of improvement	Nil
8	Levels of thinking & Reflection	Nil
9	Overall output	Nil

10	Innovation & creativity	Nil
11	Research & analysis	Nil
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	Nil
15	Jury	40%
	Total	100%

Suggested Readings

1. Village India by Stephen P. Huyler.
2. Daughters of India by Stephen Huyler.
3. Introducing Anthropology by (writer) Meryll Wyn Davies. Piero (Illustrator).
4. Mankind Behaving Human needs & Material Culture by James K. Feible.
5. Tribes of India The Struggle for Survival by Christopher Van Furer – Haimendorf).
6. Handmade in India A Geographic Encyclopedia of Indian hand crafts by Sir M.P Ranjan and Aditi Ranjan.



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INSTITUTE OF DESIGN

B. Des in Interaction Design Programme

Course Title: **Personal Growth**

Course Code: **US1106**

Course Title: Personal Growth

Course Instructor: R.L. Raina

Credits: 2.0

Number of hours: 20 Hrs.

Duration of the course: Aug-Oct 2019

Course Description & Content:

Personal growth is something that we all want to achieve, whether we know it or not. It is about our journey towards continuous improvement and seeing life from a different perspective. Personal growth is guided by principles such as purpose, vision, belief, commitment and knowing oneself. Ultimately, personal growth is about understanding exactly how you think, why you do things the way you do, having clarity around your purpose and direction in life and taking steps towards continual learning and development to evolve and enhance yourself. It is not something that is achieved overnight, but rather something that each and every one of us strive towards in our journey of life, fostering a more satisfying, successful, happier and fulfilling life.

Course Objectives:

In line with the above backdrop, this course on 'Personal Growth' focuses on the development of self from a holistic perspective. It aims to enhance self-awareness, expand capacity of self-management and self-development. The course is designed for students to learn more about themselves by taking them on a journey of self-discovery and self-reflection. It guides them on the strategies and skills that will make them shine and thrive in their personal as well as professional lives.

Course Pedagogy:

It will involve mix of lectures, discussions, group assignments and reflective exercises.

Course Learning Outcomes:

Students will be able to explore, identify, understand, demonstrate, and relate to the following:

- Their core personal strengths and values.
- Their capacity of development.
- A positive mind set and a humanistic attitude to human actions.

Course Content:

- Overview of course
- Self-Understanding
- Personal Vision and Purpose
- Self-Discipline
- Positive Attitude
- Overcoming Fears
- Balance in Life
- Contribution to Others
- Achieving Success
- Achieving Happiness

Evaluation Scheme:

Components	Weightage
1. Continuous Evaluation (Exercises, Quizzes, Assignments, Group Work)	55%
2. Final Presentation	15%
3. Class Participation	10%
4. Term-End Exam	20%

Recommended readings for students:

1. Corey, G., & Corey, M. S. (2010). *I Never Knew I Had a Choice: Explorations in Personal Growth*. (9th ed) Thomson
2. Unless You're Oprah, "Be Yourself" Is Terrible Advice (Adam Grant, *The New York Times*, 2016)
3. Dalai Lama & Desmond Tutu with Douglas Abram. *The Book of Joy*, Cornerstone Publishers, 2016
4. Dalai Lama & Howard C Cutler. *The Art of Happiness at Work*. Easton Press, 1998.



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B-Des in Interaction Design Programme

Course Title: **Fundamentals of Communication**

Course Code: **CC1101**

Credits: 2.0

Course Description & Content

This course provides an introduction to the importance of effective communication, the consequences of poor communication, and the different elements of verbal and non-verbal communication. Students learn about, and enhance, the components of communication: kinesics, paralanguage (voice) and language.

Learning Outcomes

- Identify different cultural differences and their impact on communication.
- Deliver effective oral presentations following appropriate kinesics and paralinguistic features.
- Apply appropriate communication skills across settings, purposes, and audiences.
- Compose grammatically correct sentences and paragraphs.

Topics to be Covered

1. Nature and importance of communication
2. Mehrabian's Communication Theory
3. Ethos, Pathos, Logos: The three pillars of persuasive communication
4. English as a Foreign Language
5. Consequences of poor communication
6. Writing Strategy
7. Basic of Effective Presentation
8. Influence of culture on communication
9. Common Errors in English

Methodology

- Lectures, demonstrations and presentations.
- Assignments.
- Analysis and feedback.

Assessment Plan

Components	Weightage
1. Continuous Evaluation	30%
2. Class Participation	20%
3. Quiz/Tests	20%
4. Written Exam	30%

Suggested Readings

Technical Communication: Principles and Practice. Second Edition. New Delhi: Oxford University Press, by Sangeeta Sharma.

Websites

Using rhetorical appeals to credibility, logic, and emotions to convince people, <https://link.springer.com>

<https://www.businessballs.com/communication-skills/mehrabians-communication-theory-verbal-non-verbal-body-language/>

<https://www.businessballs.com/communication-skills/presentation-skills-and-techniques/>



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INSTITUTE OF DESIGN

B-Des in Interaction Design Programme

Course Title: **Film Appreciation (Elective – 1)**

Course Code: **FL1110**

Credits: 2.0

Course Description & Content

The first elective of Foundation semester, Film Appreciation course would deal with the history, theory, and practice with respect to design. The elective course would look into film language, techniques and history from the perspective of design and introduce students to the fundamental concepts of application of design thinking in films.

Learning Outcomes

The students will be able to:

- Trace the trajectory of moving images and how it affected societies globally.
- Study regarding the various methodologies of filmmaking approaches.
- Distinguish between facts, assumptions and opinions.
- Have a holistic understanding of visual culture and the trajectory from still to moving images.

Methodology

- Lectures
- Assignments
- Analysis
- Discussions

Evaluation Criteria

S.No	Components	Weightage
1	Communication/Presentation	10%
2	Skills	Nil
3	Process and management	Nil
4	Application of concepts	10%
5	Understanding & clarity of concepts	10%
6	Attitude towards learning	Nil
7	Levels of improvement	Nil
8	Levels of thinking & Reflection	10%
9	Overall output	Nil
10	Innovation & creativity	Nil
11	Research & analysis	Nil
12	Class participation	Nil
13	Teamwork	20%
14	Observation and perception	Nil
15	Jury	40%
	Total	100%

Suggested Readings

1. Introducing Critical Theory by Stuart Sim.
2. Starting Point: 1979-1996 by Hayao Miyazaki.
3. Film Theory: An Introduction Through the Senses by Malte Hagener and Thomas Elsaesser.
4. How to Read a Film by James Monaco.



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B-Des in Interaction Design Programme

Course Title: **Animation (Elective – 2)**

Course Code: **AN1109**

Credits: 2.0

Course Description & Content

The Animation elective offers an introduction to the basic animation techniques. Amongst the various techniques available, Stop-Motion is the choice of medium. Stop Motion is a software free technique wherein one can manipulate objects and capture images to create an illusion of motion. After initial trials the students will animate simple self-made stories.

Learning Outcomes

The students will be able to:

1. Learn how the illusion of animation works
2. Work with time-line and understand frames per second
3. Communicate ideas through animation films
4. Deconstruct animation techniques
5. Gain skills to build sets and aid to assist in animation shots

Methodology

- Lectures
- Assignments
- Analysis

Evaluation Criteria

S. No	Components	Weightage
1	Communication/Presentation	Nil
2	Skills	10%
3	Process and management	Nil
4	Application of concepts	Nil
5	Understanding & clarity of concepts	10%
6	Attitude towards learning	Nil
7	Levels of improvement	10%
8	Levels of thinking & Reflection	Nil
9	Overall output	10%
10	Innovation & creativity	20%
11	Research & analysis	Nil
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	Nil
15	Jury	40%
	Total	100%

Suggested Readings

1. Animator's Survival Kit by Richard Williams
2. The Illusion of Life / Frank Thomas and Ollie Johnston
3. <https://www.renderforest.com/blog/35-motion-graphics-animation-blogs>



JK LAKSHMIPAT UNIVERSITY
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BATCH: 2019-2023 (4 YEAR)

B.DES IN INTERACTION DESIGN PROGRAMME

FOUNDATION SEMESTER - II



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Colour**

Course Code: **CL1115**

Credits: 3.0

Course Description & Content

This course helps in the perception of colour and the interaction of colour and form. This course content includes, the theory of colour, interaction of colours, the relationship of colour and form, perception of light and colours, pigments, chromatic and achromatic colours.

Learning Outcomes

- Helps students to understand the science of colour as an element of design, and its application.
- Students get to understand colour perception and its relationship with form.
- Students can develop visual sensitivity through application of colour.

Methodology:

- Lectures, demonstrations and presentations.
- Experimentation with pigments.
- Discussions and feedback.

Evaluation Criteria

S. No	Components	Weightage
1	Communication/Presentation	Nil
2	Skills	10%
3	Process and management	Nil
4	Application of concepts	Nil
5	Understanding & clarity of concepts	20%
6	Attitude towards learning	Nil

7	Levels of improvement	10%
8	Levels of thinking & Reflection	Nil
9	Overall output	Nil
10	Innovation & creativity	Nil
11	Research & analysis	Nil
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	20%
15	Jury	40%
	Total	100%

Suggested Readings

1. L. Hotzschue; Understanding Colour, VNR, 1995.
2. Itten, Johannes; The Art of Colour: The Subjective Experience and Objective Rationale of Color, Wiley Publications, 1997.



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B. Des in Interaction Design Programme

Course Title: **Visual Documentation**

Course Code: **VD1117**

Credits: 4.0

Course Description & Content

This course introduces students to the fundamentals of typography in design and its application in effective product interface/communication, basics of photography and videography, ways of documenting design work and photo imaging/manipulation and illustration manipulation techniques in succession. The course looks at elements of visual documentation in parts as well as in succession and brings them together for a holistic understanding of visual culture and approaches in design.

Learning Outcomes

- Students will understand the fundamentals of typography in communication.
- Students will understand the concept of graphic layouts, type hierarchy, white space.
- Students get to understand typography as an element of graphic design.
- Students will learn basics of photography and cutting edge digital techniques.
- Students will learn the methodologies of documenting design works.
- Students will learn photo manipulation with regards to illustration and digital image processing.

Methodology:

- Lectures, demonstrations and presentations.
- Experimentation with traditional and modern methods.
- Group discussions and feedback.

Evaluation Criteria:

S.No	Components	Weightage
1	Communication/Presentation	20%
2	Skills	Nil
3	Process and management	10%
4	Application of concepts	Nil
5	Understanding & clarity of concepts	10%
6	Attitude towards learning	Nil
7	Levels of improvement	Nil
8	Levels of thinking & Reflection	10%
9	Overall output	Nil
10	Innovation & creativity	Nil
11	Research & analysis	Nil
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	10%
15	Jury	40%
	Total	100%

Suggested Readings

1. The Elements of Typographic Styles by Robert Bringhurst.
2. TYPOGRAPHIE - A manual of Design, by Emil Ruder.
3. Cultural Connectives by Rana Abou Rjeily.
4. Thinking with TYPE by Ellen Lupton, Just My Type by Simon Garfield.
5. Ways of Seeing by John Berger.
6. Understanding Exposure by Bryan Peterson.
7. The Decisive Moment by Henri Cartier Bresson.
8. Dreams of India by Raghu Rai.
9. Photoshop: Photo Manipulation Techniques to Improve Your Pictures to World Class Quality by John Slavo.



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Geometry & Construction 3D**

Course Code: **GC1114**

Credits: 2.0

Course Description & Content

This course helps the student to understand the geometry of solids and its application in form generation. This course includes enhanced geometric construction: derivation of regular and semi-regular tessellations, geometry of solids, construction of regular polygons and ellipse, derivation of Archimedean solids, subdivision of regular polyhedron into symmetric components.

Learning Outcomes

- Students would have a good understanding of geometrical patterns in three-dimensional forms.
- Students would appreciate and articulate the language of form, pattern and structure.
- Students will be stimulated by the fundamentals of geometric logic.

Methodology:

- Lectures, Demonstrations and Presentations.
- Assignments.
- Analysis and feedback.

Evaluation Criteria

S. No	Components	Weightage
1	Communication/Presentation	Nil
2	Skills	20%
3	Process and management	10%
4	Application of concepts	Nil
5	Understanding & clarity of concepts	20%

6	Attitude towards learning	Nil
7	Levels of improvement	Nil
8	Levels of thinking & Reflection	Nil
9	Overall output	10%
10	Innovation & creativity	Nil
11	Research & analysis	Nil
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	Nil
15	Jury	40%
	Total	100%

Suggested Readings

1. Sacred Geometry by Stephen Skinner.
2. Islamic Ornamental Design by Humbert Claude.



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Habitat Studies**

Course Code: **HS1112**

Credits: 2.0

Course Description & Content

This course makes the students sensitive towards the social, cultural and physical environment and understands the relevance of design in that context. The course contents are Introduction to the socio-cultural structure of Indian society, Introduction to field work; preparatory exercises to understand the methodology for studying an environment, field study in a chosen location and communication of its understanding through maps, sketches, illustrations and textual reports, observation and study of detailed aspects of the chosen environment.

Learning Outcomes

- This course broadens students' perception about Indian habitat; appreciate the interrelationships and interdependence of the physical components.
- It helps to develop the ability and desire to establish contact with people, share their experiences and learn from their living.
- This course can develop the ability to collect and analyze information from the grassroots level and present it in the form of a document.

Methodology:

- Lectures, field study and group discussions.
- Interviews and interactions with people.
- Sketching and illustrations.

Evaluation Criteria

S. No	Components	Weightage
1	Communication/Presentation	10%
2	Skills	Nil
3	Process and management	Nil
4	Application of concepts	Nil
5	Understanding & clarity of concepts	10%
6	Attitude towards learning	Nil
7	Levels of improvement	Nil
8	Levels of thinking & Reflection	10%
9	Overall output	Nil
10	Innovation & creativity	Nil
11	Research & analysis	20%
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	10%
15	Jury	40%
	Total	100%

Suggested Readings

1. Village India by Stephen. P. Huyler.
2. Mankind Behaving – Human Needs and Material Culture by James K Feible.
3. Daughters of India – Art & Identity by Stephen. P. Huyler.
4. Tribes of India – The Struggle for Survival by Christoph Van Furer, Haimendorf.
5. The Beautiful Tree – A Personal Journey into How the World's poorest people are educating themselves.



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Design Process / Problem Solving**

Course Code: **DE1116**

Credits: 4.0

Course Description

This course gives students an overview of the process of design. This overview is essential for them to appreciate the learning through various courses. The course content includes: analysis and mapping of the design process, the morphology of the problem solving process, role of creativity in design, methodologies and strategies related to the different stages of the design problem and case studies.

Learning Outcomes

- Students will understand and demonstrate the different stages in the design process – from perception of a problem to generating a solution to the problem through investigation, analysis and synthesis
- Students will understand the methodology of the problem solving process.

Methodology:

- Lectures
- Assignments.
- Individual Design Projects
- Discussions and feedback.

Evaluation Criteria

S. No	Components	Weightage
1	Communication/Presentation	Nil
2	Skills	Nil
3	Process and management	Nil
4	Application of concepts	10%
5	Understanding & clarity of concepts	10%
6	Attitude towards learning	10%
7	Levels of improvement	Nil
8	Levels of thinking & Reflection	Nil
9	Overall output	Nil
10	Innovation & creativity	10%
11	Research & analysis	20%
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	Nil
15	Jury	40%
	Total	100%

Suggested Readings

1. D. Norman; The Design of Everyday things, London, The MIT Press, 1998.
2. A Forty; Objects of Desire, Thames & Hudson, 1993.
3. Julier, G.; 20th Century Design, Thames & Hudson, 1993.
4. Potter, Norman; What is a Designer: Things, Places, Messages, Princeton Architectural Press 2002.
5. Victor Papanek, Design For The Real World.
6. Indian Design Edge – Strategic insights for success in the creative economy by Darlie Koshy.
7. Design the International Movement by H Kumar Vyas.



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Craft Study**

Course Code: **CR1113**

Credits: 2.0

Course Description & Content

The course looks at the craft history and hands on study of diverse craft techniques from India and further looks into application of the same in design. The course contents are introduction to craft history, craft and society, craft and its cultural relevance, study of traditional materials associated with craft and allied craft techniques and its application through design thinking.

Learning Outcomes

- This course broadens students' perception about Indian handicrafts, design culture with regards to geographical diversity and the roots of craft imagination.
- It helps to develop the ability to understand cultures and approach processes and techniques associated with them.
- This course aims at developing holistic understanding of craft techniques with regards to the cultural, sociological and geographical aspects of the same.

Methodology:

- Lectures, field study and group discussions.
- Interviews and interactions with craft engineers and craft based designers.
- Study of techniques and processes and documentation.

Evaluation Criteria

S. No	Components	Weightage
1	Communication/Presentation	10%
2	Skills	Nil
3	Process and management	Nil
4	Application of concepts	Nil
5	Understanding & clarity of concepts	10%
6	Attitude towards learning	Nil
7	Levels of improvement	Nil
8	Levels of thinking & Reflection	10%
9	Overall output	Nil
10	Innovation & creativity	Nil
11	Research & analysis	10%
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	20%
15	Jury	40%
	Total	100%

Suggested Readings

1. Handmade in India: Crafts of India by Aditi Ranjan, M P Ranjan.
2. Craft Atlas of India by Jaya Jaitley.
3. Handmade in India: A Geographical Encyclopedia of India Handicrafts by Aditi Ranjan, M P Ranjan.
4. Tribes of India – The Struggle for Survival by Christoph Van Furer, Haimendorf.
5. The Beautiful Tree – A Personal Journey into How the World's poorest people are educating themselves.



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Coding 101 / HTML CSS**

Course Code: **CD1111**

Credits: 2.0

Course Description & Content

The course looks at coding in context of digital design and introduces coding languages, backend coding principles and interrelation between the digital design workflows and coding methods for the same with regards to interaction design.

Learning Outcomes

- This course introduces students to fundamental principles of coding and its correlation with interaction design.
- It helps to develop a holistic knowledge of digital design processes, from workflow to coding and finally to being launched on the web platform.
- This course aims at developing systems thinking at the basic level through study of interconnections between larger systems in web design processes.

Methodology:

- Study of coding languages, application and systems.
- Practicing variations and language based probabilities and tracing their connection with design workflows.
- Study of the various developer platforms and DIY methods of digital design launching and publication.

Evaluation Criteria

S. No	Components	Weightage
1	Communication/Presentation	Nil
2	Skills	Nil
3	Process and management	10%
4	Application of concepts	10%
5	Understanding & clarity of concepts	10%
6	Attitude towards learning	Nil
7	Levels of improvement	Nil
8	Levels of thinking & Reflection	20%
9	Overall output	Nil
10	Innovation & creativity	Nil
11	Research & analysis	Nil
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	10%
15	Jury	40%
	Total	100%

Suggested Readings

1. Code Complete by Steve McConnell.
2. Clean Code by Robert Cecil Martin.
3. Don't Make Me Think by Steve Krug.
4. Designing Mobile Interfaces: Patterns For Interaction Design by Eric Berkman and Steven Hooper.



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **History of Design**

Course Code: **HD1118**

Credits: 2.0

Course Description & Content

The course looks at history of design from a global context, considering the ways in which design imagination emerged out of it following separate social, economic, and cultural paths. The course includes study of design history of India, Europe, Asia, America and Africa with respect to the histories and developments over years.

Learning Outcomes

- The course introduces students to historical and sociological transformations and their implications on world design.
- It helps to develop a deeper understanding of design proper, the signification of its diversity and ramifications.
- The course also develops contextual understanding of design in its myriad forms across the globe.

Methodology:

- Study of history and cultures in context of design.
- Study of political and social scenarios with respect to design.
- Study of influences of diverse cultures in design disciplines.

Evaluation Criteria

S. No	Components	Weightage
1	Communication/Presentation	10%
2	Skills	Nil
3	Process and management	Nil
4	Application of concepts	Nil
5	Understanding & clarity of concepts	10%
6	Attitude towards learning	Nil
7	Levels of improvement	Nil
8	Levels of thinking & Reflection	20%
9	Overall output	Nil
10	Innovation & creativity	Nil
11	Research & analysis	20%
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	Nil
15	Jury	40%
	Total	100%

Suggested Readings

1. Thinking Design by S Balaram.
2. White by Kenya Hara.
3. Designing Design by Kenya Hara.
4. Graphic Design: A Concise History by Richard Hollis.
5. On Beauty by Umberto Eco.
6. On Ugliness by Umberto Eco.
7. Sagmeister and Walsh: Beauty by Stefen Sagmeister and Jessica Walsh.



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Semiotics (Elective - II)**

Course Code: **SE1119**

Credits: 2.0

Course Description & Content

The third elective of Foundation semester, Semiotics would deal with studying of the basis of meaning making through signs and symbols. Semiotics will introduce the culture of studying visual signs and their historical, psychological and unconscious connect with the human mind and how that has seen applications in design proper. The elective course would look at study of visual signs, semiotic theory along with fundamentals of visual semiotics in the digital domain.

Learning Outcomes

- Learning fundamentals of semiotic theory and its application in design thinking.
- Understanding of elements of semiotics and visual semiotics.
- Understanding of visual semiotic theory and practice with regards to visual communication and industrial design.

Methodology:

- Study of Saussurian and Peircean theory of semiotics.
- Study of analytical psychology models and their application in design.
- Study of cognition, signification, representation and meaning making through semiotics.

Evaluation Criteria

S. No	Components	Weightage
1	Communication/Presentation	Nil
2	Skills	Nil
3	Process and management	10%
4	Application of concepts	10%
5	Understanding & clarity of concepts	10%
6	Attitude towards learning	Nil
7	Levels of improvement	Nil
8	Levels of thinking & Reflection	10%
9	Overall output	Nil
10	Innovation & creativity	20%
11	Research & analysis	Nil
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	Nil
15	Jury	40%
	Total	100%

Suggested Readings

1. Course in General Linguistics by Ferdinand de Saussure.
2. A Theory of Semiotics by Umberto Eco.
3. The Essential Pierce by Nathan Houser and Christian Kloesel.
4. On Norms and ideals by Charles Saunders Pierce
5. Archetypes and the Collective Unconscious by Carl Jung.
6. Logos: The Development of Visual Symbols by Steven Skaggs.
7. Type, Sign, Symbol by Adrian Frutiger.
8. Man and His Symbols – Carl Jung.



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Biomimicry (Elective - II)**

Course Code: **BM1120**

Credits: 2.0

Course Description & Content

The fourth elective of Foundation semester comprises Biomimicry course. Biomimicry would deal with studying the fundamental approaches in emulating nature's strategies in design. The elective course would look into strategies in biomimicry design, fundamentals of fractal based design and levels of biomimicry and their applications in design.

Learning Outcomes

- The course looks at introducing nature's grand design theory and developing design thinking in keeping with the same.
- Designing through biomimetics: approaches, strategies and case studies.
- Study of existing biomimicry based design models and their nature of functioning.

Methodology:

- Study of nature's grand design theory and biomimicry levels
- Study of material innovation through biomimicry.

Evaluation Criteria

S. No	Components	Weightage
1	Communication/Presentation	Nil
2	Skills	Nil
3	Process and management	10%
4	Application of concepts	10%
5	Understanding & clarity of concepts	10%

6	Attitude towards learning	Nil
7	Levels of improvement	Nil
8	Levels of thinking & Reflection	10%
9	Overall output	Nil
10	Innovation & creativity	20%
11	Research & analysis	Nil
12	Class participation	Nil
13	Teamwork	Nil
14	Observation and perception	Nil
15	Jury	40%
	Total	100%

Suggested Readings

1. Biomimicry by Janine Benyus.
2. Biomimetics for Designer by Veronica Kapsali.
3. Bulletproof Feathers: How Science Uses Nature's Secrets to Design Cutting-Edge Technology – Ed. Robert Allen
4. Biomimicry Resource Handbook: A Seed Bank of Best Practices by Danya Baumeister and Sherry Ritter.



JK LAKSHMIPAT UNIVERSITY

INSTITUTE OF DESIGN

B. Des in Interaction Design Programme

Course Title: **Critical Thinking & Story Telling**

Course Code: **CC1102**

Credits: 2.0

Course Description & Content

The modern world offers confounding opinions and choices that need to be navigated judiciously. This course explores frameworks and processes to critically examine narratives, reconstruct them, and craft well-reasoned stories that can be told using impactful communication.

Learning Outcomes

The students will be able to:

- Formulate intelligent questions to investigate.
- Evaluate information and argument for correctness, consistency, relevance and validity.
- Compose well-structured and well-reasoned arguments.
- Articulate and evaluate the impact of narratives.
- Distinguish between facts, assumptions and opinion.

Prerequisites		N/A
Hours per Week		L-T-P: 2-1-0
Credits		2
Sr. No	Specifications	Weightage
01	Attendance	Nil
02	Assignment	20
03	Class Participation	20
04	Quiz	Nil
05	Theory Exam	Nil

06	Theory Exam	Nil
07	Theory Exam	40
08	Report-1	20
09	Report-2	Nil
10	Report-3	Nil
11	Project -1	Nil
12	Project -2	Nil
13	Project -3	Nil
14	Lab Evaluation	Nil
15	Lab Evaluation	Nil
16	Course portfolio	Nil
	Total (100)	100

Evaluation scheme for re-test

7	Theory Exam	40
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Syllabus of Critical Thinking and Storytelling

- I. **Introduction to Critical Thinking-** Definitions of Critical Thinking, its applications and the methods to think critically. Paul & Elder model will be used.
- II. **Importance of questioning-**The key to critical thinking is the ability to formulate intelligent questions. Students will be able to create, improve and prioritize their questions. They will be able to use different types of question by using Bloom's taxonomy to understand the root of any situation, problem or subject.
- III. **Examine data Critically-**Students will be able to filter information, separate fact from opinion, identify cognitive biases and become aware of the ladder of inference. They will also be taught to conduct responsible research and basics of bibliography and citation.
- IV. **Construct and reconstruct argument-** Students will be taught to construct arguments with sound reasoning. They will be able to support their claims and opinions with compelling data and facts, and present well-informed arguments. Evaluate argument using logical fallacies.
- V. **Building a compelling Narrative-** Stories that we create and narrate influence how we see ourselves and our association with others. The students will be able to observe, think, create and narrate their stories in an effective manner.

Text Books and Reference Books

Critical thinking: an introduction

Alec Fisher - Cambridge University Press - 2011

Critical thinking its definition and assessment

Alec Fisher-Michael Scriven - Centre for Research in Critical Thinking - 1997

Art of thinking clearly

Rolf Dobelli - Harper Collins USA – 2014

Critical thinking skills: developing effective analysis and argument

Stella Cottrell - Palgrave Macmillan – 2017

Thinking, fast and slow

Daniel Kahneman - Farrar, Straus and Giroux - 2015



JK LAKSHMIPAT UNIVERSITY
Institute of Design

BATCH: 2019-2023 (4 YEAR)

B.DES IN INTERACTION DESIGN PROGRAMME

(2ND, 3RD AND 4TH YEAR)



JK LAKSHMIPAT UNIVERSITY
Institute of Design

BATCH: 2019-2023 (4 YEAR)

B.DES IN INTERACTION DESIGN PROGRAMME

SEMESTER - III



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Introduction to Interaction Design**

Course Code: **ID1154**

Credits: 3.0

Course Description & Content

The purpose of the course is to give an overview of interaction design basics, methods and principles. Focusing on the scope and importance of interaction design, including the consequences of design flaws. To enable students to analyze and critique interactive products, presenting core concepts such as usability and user experience goals. Touches on the role and the characteristics of the users, the nature of the activity and the environment in which the interaction is happening.

Learning Outcomes

- In-depth understanding of what interaction design is, the importance and the scope of user-centered design and methods
- Understand how the sensory, cognitive and physical capabilities of users inform the design of interactive products
- Understand the process of interaction design, including requirements elicitation, prototyping, evaluation and the need for iteration
- Analyze and critique the design of interactive product

References and Readings:

1. The Inmates Are Running the Asylum: Why High Tech Products Drive Us Crazy and How To Restore The Sanity - Cooper, Alan.
2. The Elements of User Experience - Garrett, Jesse James.
3. Toothpicks and Logos: Design in Everyday Life - Heskett, John.
4. Don't Make Me Think: A Common Sense Approach to Web Usability - Krug, Steve.
5. Things That Make Us Smart: Defending Human Attributed in the Age of the Machine - Norman, Donald.
6. Design for the Real World: Human Ecology and Social Change - Papanek, Victor.



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **User Studies**

Course Code: **US1157**

Credits: 3.0

Course Description & Content:

Focuses on understanding user behaviors, needs, and motivations through observation techniques, task analysis, standard research methods and other feedback methodologies.

Learning Outcome:

- Students will learn to gather user data through observation and contextual interviews
- Students will learn to Interpret interviews and consolidate data across users with techniques such as affinity diagrams and personas
- Students will learn to use data insights into the design process
- Students will learn to make informed choices of the right research techniques such as contextual interviews, survey research, focus groups, rapid assessment procedure and task analysis.

Suggested Readings:

1. Contextual Design: Defining Customer-Centered Systems - Beyer, Hugh; Holtzblatt, Karen
2. User and Task Analysis for Interface Design - Hackos, JoAnn T; Redish, Janice C.
3. Quick Ethnography - Handwerker, W. Penn
4. Observing the User Experience - Mike Kuniavsky
5. Rapid Contextual Design - Wendell J, Holtzblatt K, Wood S.



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Introduction to UI Wireframing**

Course Code: **WF1155**

Credits: 3.0

Course Description & Content:

Focuses on the application of the early research to the creation of wireframes and storyboards and high-fidelity mockups with respect to space allocation and prioritization of content, functionalities available, and intended behaviors. Introduces rapid wireframing and how to transform them into design solutions.

Learning Outcomes

- In-depth understanding of wireframes as an essential step for UX design and its impact on the outcome of the final product.
- Ability to transform an abstract idea to a visual guide that represents the skeletal framework of the product and best accomplishes the intended purpose.
- Clearly define what a screen does, how the navigation works, the range of functions available, the relative priorities of the information and functions, the display of certain kinds of information and the effect of different scenarios on the display.
- To develop a comprehensive plan for a complex product.

Suggested Readings:

1. <https://web.archive.org/web/20180505065903/konigi.com/uiref/wireframes/>
2. Garrett, Jesse James (2010). *The Elements of User Experience: User-Centered Design for the Web and Beyond*
3. Brown, Dan M. (2011). *Communicating Design: Developing Web Site Documentation for Design and Planning* (2nd ed.)
4. *The Basics of User Experience Design: A UX Design Book by the Interaction Design Foundation - Mads Soegaard*
5. *Seven Step UX: The Cookbook for Creating Great Products - Csaba Házi*
6. *Lean UX: Designing Great Products with Agile Teams - by Jeff Gothelf, Josh Seiden*
7. Wodtke, Christina; Govella, Austin (2009). *Information Architecture: Blueprints for the Web* (2nd ed.)



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: Visual Design Basics and Tools

Course Code: VD1156

Credits: 3.0

Course Description & Content:

Focuses on basic principles that guide the foundation of visual design, usage of color, typefaces, visual elements and how to make an aesthetically pleasing interface. Students will learn applied perception of visual design principles and cognition that inform effective design for digital spaces and how imagery, context, and attention form important considerations for all kinds of designs.

Learning Outcomes

- To acquire an ability to identify a visual design problem.
- To understand the factors that directly or indirectly influence the visual design.
- To be able to think from the targeted user's point of view and to construct communicable messages and usable functions for the audience for the target group.
- To be able to create a visually pleasing product by strategically implementing images, colors, fonts, and other elements.

Suggested Readings:

1. Visual Research by Ian Noble Russell Bestley
2. Design - The Indian context, National Institute of Design (2000) by H Kumar Vyas
3. Graphic Design Theory - Readings from the field by Helen Armstrong
4. Graphic design thinking: Beyond Brainstorming by Ellen Lupton
5. Designing Programmes by Karl Gerstner
6. A word in your eye, University of Reading, Department of Typography & Graphic Communication by Ken Garland



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: Introduction to Programming

Course Code: IP1160

Credits: 3.0

Course Description & Content:

This course is designed to equip students with the unique skills they need to build and develop a variety of websites through hands-on projects and leverage cloud services like GitHub and the likes. Students will be able to construct responsive and interactive websites and web portals for a variety of platforms.

Learning Outcomes

- To understand how to structure a website using HTML and CSS and the design restrictions that come with it.
- To emerge with knowledge and experience in principles, languages, and tools that empower students to design and develop a usable website.
- The ability to think and problem-solve like a programmer.

Suggested Readings:

1. A Smarter Way to Learn HTML & CSS: Learn it faster. Remember it longer by Mark Myers (Author)
2. Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript, and Web Graphics by Jennifer Robins
3. HTML and CSS for beginners: A Complete Beginners Guide To Learn HTML and CSS by Mario Wheeler



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Design Project 1: Web-based project**

Course Code: **DP1159**

Credits: 6.0

Course Description & Content:

Apply the knowledge of the coursework of the entire semester through the design and development of a web-based project. Students will identify a design opportunity in the real world and come up with a solution. Students will follow the design process from conducting user research to the final product.

Learning Outcomes:

- To be able to investigate and respond as a designer to an authentic, engaging, and complex problem, or challenge in the real world.
- Hands-on understanding of how to convert an abstract idea to a usable and functional product.
- Undertake problem identification, formulation, and solution.
- Apply their understanding of user research, mockups, visual design and programming in a holistic fashion.



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: Presentation Skills

Course Code: PS1160

Credits: 2.0

Course Description & Content:

This course focuses on how to deliver an effective business presentation that will bring about the desired results within an organization and to convincingly pitch a product idea to stakeholders. Learn to structure the presentation, engage the audience and deliver a clear, concise messaging.

Learning Outcomes

- To plan and structure powerful presentations that deliver effective messaging based on your audience.
- Communicate effectively with each participant – key listening and questioning skills.
- Prepare slides, handouts, and notes that catch the attention of the listeners.
- Engage an audience by getting them interested in your message.
- Understand the motivations and values of the audience
- Answer difficult questions and in a calm and collected manner

Suggested Readings:

1. Art and copy, a film by Doug pray
2. Typographic Systems of Design: Frameworks for Type Beyond the Grid (Graphic Design Book on Typography Layouts and Fundamentals) by Kimberly Elam.



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Perspective on Contemporary Issues**

Course Code: **CC1103**

Credit: 3.0

Course Description

In an era of globalization, there is an increasing need for the youth to be able to empathize with others, value diverse perspectives and cultures and understand how events around the world are intertwined. Global issues revolve around social, economic and environmental factors which ultimately add to the interconnectedness of countries. In this course, students will employ key critical thinking concepts to analyze contemporary issues from multiple perspectives. They will explore the impact at micro and macro levels.

Course Outcomes

The students will be able to:

- Identify different perspectives objectively.
- Explain interconnectedness of the issues and their impact at micro and macro levels.
- Recognize their own beliefs, biases, claims and assumptions.
- Evaluate sources, argue and defend effectively.

Methodology

This course will be an amalgamation of brief lectures and activity based learning i.e. films, group discussions, debates, and case studies. The objective behind utilizing activity based learning is for the learners to have a more hands on experience. This will encourage and ensure active participation and longer retention. The idea is for learners to feel engaged and also express their views in a conducive environment. The takeaway from this course will not only be awareness about certain issues but equipping learners with skills of decision making and reasoning in alignment with certain global contexts.

Evaluation Scheme		
Prerequisites		N/A
Hours per Week		L-T-P: 2-0-1
Credits		2
Sr. No	Specifications	Weightage
01	Attendance	Nil
02	Assignment	20
03	Class Participation	20
04	Quiz	20
05	Theory Exam	Nil
06	Theory Exam	Nil
07	Theory Exam	20
08	Report-1	20
09	Report-2	Nil
10	Report-3	Nil
11	Project -1	Nil
12	Project -2	Nil
13	Project -3	Nil
14	Lab Evaluation	Nil
15	Lab Evaluation	Nil
16	Course portfolio	Nil
Total (100)		100

Course Content	
Introduction to contemporary perspective	Introduction to the course, skills and the topics. Revision of critical thinking.
Research, analysis & evaluation of a topic from local, national and global perspectives	<u>Climate Change and Sustainability</u> Understanding the magnitude of the issue, its impact and future challenges. How we can meet our current needs without diminishing the quality of the environment or reducing the capacity of future generations to meet their own needs.
	<u>Globalization</u> With increasing development throughout the world, the focus of this theme will be on the impact of globalization in India.
	<u>Nationalist Movement</u> There is a sense that excesses of globalization have created an identity crisis across the world, facilitating the rise of nationalist movements. Rising nationalism is seen everywhere, from the election of Donald Trump to Brexit, the success of far-right parties in Italian, German and Austrian elections in 2017 and 2018, nationalism appears to be on rise globally. We will look at its reasons and implication.
	<u>Technology</u> Impact of unprecedented technological growth, challenges and opportunities.

Readings:

1. Harari, Y. N. (2019). 21 Lessons for the 21st century. Toronto: CELA.
2. GUHA, R. (2019). India After Gandhi: the history of the world's largest democracy. NEW YORK: ECCO.
3. Rosling, H., Rosling, O., & Rönnlund Anna Rosling. (2019). Factfulness: ten reasons were wrong about the world - and why things are better than you think. London: Sceptre.
4. Kolbert, E.(2015). The Sixth Extinction: An unnatural History. Bloomsbury

Articles
https://www.theguardian.com/environment/2015/mar/08/how-water-shortages-lead-food-crises-conflicts
<u>The Cultural Challenges of Meeting Climate Change Goals: Montreal Weighs an Emissions Ban on Iconic Wood-Fire Bagel Shops</u> Andrew Hoffman Pub Date: Apr 11, 2019 Source: WDI Publishing at the University of Michigan
<u>Prototyping a Scalable Smart Village to Simultaneously Create Sustainable Development and Enterprise Growth Opportunities</u> Solomon Darwin; Henry W. Chesbrough Pub Date: Jan 1, 2017 Source: UC Berkeley - Haas School of Business
<u>bKash: Financial Technology Innovation for Emerging Markets</u> Ishtiaq Mahmood; Marleen Dieleman; Narmin Tartila Pub Date: Jun 28, 2017 Source: Ivey Publishing
<u>The Panic of 2008 and Brexit: Regional Integration versus Nationalism</u> Robert F. Bruner; Kevin Hare Pub Date: Oct 9, 2017 Source: University of Virginia Darden School Foundation
<u>Biblio Credit Union: Social Inequality and the Living Wage</u> Kent Walker; Curtis Labutte Pub Date: Jan 30, 2017 Source: Ivey Publishing



JK LAKSHMIPAT UNIVERSITY
Institute of Design

BATCH: 2019-2023 (4 YEAR)

B.DES IN INTERACTION DESIGN PROGRAMME

SEMESTER - IV



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Graphical User Interface Design (GUI)**

Course Code: **GD1161**

Credits: 3.0

Course Description & Content

This course focuses on the elements of GUI and how to design an interface for different devices like TV, Web, Apps, Tabs, and other devices), interface technology, input and output devices, interaction styles, UI patterns, common interface paradigms, and industry standards.

Learning Outcomes

- To learn the foundations of UI design, processes, skills and tools for the same.
- To learn the research methodology associated with UI design.
- Students will learn to work with various tools for the creation of visuals for User Interface.
- Students will learn the current practices and industry standards.

Suggested Readings:

1. Things That Make Us Smart: Defending Human Attributed in the Age of the Machine by Norman, Donald.
2. The Design of Everyday Things by Norman, Donald.
3. Design for the Real World: Human Ecology and Social Change by Papanek, Victor.
4. Interaction Design- Beyond Human-Computer Interaction by Preece, Jennifer
5. The Humane Interface: New Directions for Designing Interactive Systems by Raskin, Jef.



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Rapid Prototyping and Testing**

Course Code: **PT1162**

Credits: 3.0

Course Description & Content:

A fast-paced course to create and follow-through a project from start to prototype. Students will learn how to build low-fidelity prototypes using both analog and digital tools and test the prototype to evaluate the UI. This course is built on the foundations of testing and iterating early in the design process.

Learning Outcomes:

- Students will learn to find design issues early
- Students will learn to evaluate and improve a design concept quickly
- Easily compare design variations with respect to the findings.
- Gather design feedback earlier in the process
- Students will learn to collaborate across teams to achieve complex iterations.

Suggested Readings:

1. Universal Principles of Design: 125 Ways to Enhance Usability, Influence Perception, Increase Appeal, Make Better Design Decisions, and Teach Through Design, 2nd edition, by William Lidwell, Kristina Holden, and Jill Butler
2. Designing the User Interface: Strategies for Effective Human-Computer Interaction, by Ben Shneiderman and colleagues (5th edition)
3. Paper Prototyping: Fast and Simple Techniques for Designing and Refining the User Interface, by Carolyn Snyder.
4. User and Task Analysis for Interface Design, by JoAnn Hackos and Janice Redish.
5. Persuasive Technology: Using Computers to Change What We Think and Do, by B.J. Fogg



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Cognitive Ergonomics and Human Factors**

Course Code: **CE1163**

Credits: 3.0

Course Description & Content:

This course will teach students the basics of human factors - how people sense, perceive, understand, use and experience interactive objects and spaces, human information processing and execution. Different types of Controls & Displays and its organization. Human capabilities (e.g., visual and auditory perception, memory, mental models, and interface metaphors), Cognition, patterns, decision making and other psychological factors that define the basic principles of Interaction Design. Explore the psychology of touch, human errors, gestalt laws in UX design and cognitive frameworks.

Learning outcome:

- Demonstrate an understanding of the role and scope of cognitive ergonomics in the planning, evaluation, and effectiveness of systems
- Articulate the implications and consequences of human factors applications in a system's context
- Apply cognitive ergonomics theory, concepts and strategies to improve systems in relevant contexts
- Measure and describe human performance in a system's context
- Appraise the potential ethical and global impacts of the use of cognitive ergonomics

References:

1. Human factors in engineering and design by Mark S. Sanders and Ernest J. McCormick McGraw Hill (1983)
2. Visual perception of form; Leonard Zusne
3. Human factors and web development by Ratner, Julie
4. Bottlenecks by David C Evans



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Technology in UXD**

Course Code: **TN1264**

Credits: 3.0

Course Description & Content:

This course will be focused on the basics of JavaScript and Python and is designed to equip students with the skills they need to build and develop a variety of websites and applications through hands-on projects and leverage cloud services like GitHub and the likes. Students will be able to design and develop complex websites and applications.

Learning Outcomes

- To design and develop feature-rich websites and applications.
- To emerge with knowledge and experience in principles, languages, and tools that empower students to design and develop a usable website and application.
- The ability to think and problem-solve like a programmer.

Suggested Readings:

1. Computer Programming JavaScript, Python, HTML, SQL, CSS by William Alvin Newton and Steven Webber
2. <https://www.learnpython.org/>
3. <https://www.w3schools.com/>



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Design Project 2: Design of an app-based product**

Course Code: **DP1265**

Credits: 6.0

Course Description & Content:

Apply the knowledge of the coursework of the entire semester through the design of a socially relevant app-based project. Students will identify a design opportunity in the real world and come up with a solution. Students will follow the design process from conducting user research to the final product.

Learning Outcomes:

- To be able to investigate and respond to an authentic, engaging, and complex problem, or challenge in the real world.
- Hands-on understanding of how to convert an abstract idea to a usable and functional product.
- Demonstrate a sound technical knowledge of their selected project topic.
- Undertake problem identification, formulation and solution.
- Apply their understanding of user research, mockups, visual design and programming in a holistic fashion.

Suggested Readings:

1. Design Crazy: Good Looks, Hot Tempers, and True Genius at Apple, by Max Chafkin
2. The Persona Lifecycle: A Field Guide for Interaction Designers, by John Pruitt and Tamara Adlin
3. Designing the User Interface: Strategies for Effective Human-Computer Interaction
4. Tog on Interface, by Bruce "Tog" Tognazzini



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Proposal Writing**

Course Code: **PW1166**

Credits: 2.0

Course Description & Content

The course deals with strategies of writing a proposal/pitch for a design project. The course introduces a student to the formats, approaches and information that become part of a successful proposal. Students are introduced to and expected to explore the ways in which budget, promise, workflow and task management can become part of a proposal.

Learning Outcomes

- Knowledge of using targeted words, phrases, linguistic cues to showcase promise and garner trust in a proposal.
- The idea of the segments/sections that would traditionally be expected of a good proposal.
- Scenario building and opportunity mapping.
- A display of a core understanding of how a pitch can be realized realistically and how to demonstrate responsibility.

Suggested Readings:

1. Writing Winning Business Proposals by Richard Freed.
2. One Perfect Pitch: How to Sell Your Idea, Your Product, Your Business--or Yourself March 24, 2016, by Marie Perruchet
3. Pitch Anything: An Innovative Method for Presenting, Persuading, and Winning the Deal by Oren Klaff



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: Communication and Identity

Course Code: CC1104

Credit: 2.0

Course Description

This course enables students to explore their personal and professional identities, to create their distinctive presence. It intends to help them gain an understanding of the basic purpose, benefits, and responsibilities of self-presence, and to begin the process of defining their values, strengths, and goals

Learning Outcomes

The students will be able to:

- Analyze their personal identities, both private and social
- Identify their different values, strengths and areas of professional interest
- Articulate their personal statement and use it to craft an influential pitch
- Express themselves through various communication formats, on different platforms

Topics to be Covered

1. Self and Social identity
2. Labelling Theory
3. External and internal locus of Identity
4. Personal Statement
5. Steps to build Personal Brand
6. Online presence
7. Elevator Pitch, Cover Letter
8. Presence in Personal Interviews



JK LAKSHMIPAT UNIVERSITY
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BATCH: 2019-2023 (4 YEAR)

B.DES IN INTERACTION DESIGN PROGRAMME

SEMESTER - IV



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Information Architecture**

Course Code: **IA1167**

Credits: 3.0

Course Description & Content

The course deals with how to organize and structure information to improve discoverability and finding desired information and in completing tasks. This course introduces the core components of a good IA, as well as essential IA design methods and strategies. This course enables students to understand essential logic and concepts needed to build a useful, usable, and extensible information architecture.

Learning Outcomes

- Students will learn to evaluate information architecture, identify issues, and potential solutions, measure baseline performance, testing structure, schemes, and labels
- Students will learn to document information architecture, content inventories, site maps
- Students will learn components of information architecture, structure types, organization schemes, label names, and when and why they're needed.

Suggested Readings:

1. Information Architecture for the World Wide Web: Designing Large-Scale Web Sites by Peter Morville
2. How to Make Sense of Any Mess: Information Architecture for Everybody by Abby Covert
3. Understanding Context: Environment, Language, and Information Architecture by Andrew Hinton



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Usability Fundamentals and Evaluation**

Course Code: **UF1168**

Credits: 3.0

Course Description & Content

This course is designed to enquire what it means for an interface to be usable, why usability matters, and what the key user interface design principles and usability considerations are. Students will learn to spot usability problems, how to test the usability of design through usability evaluations and cognitive walkthroughs, best practices for conducting user testing.

Learning Outcomes

- To practically apply principles of usability into the design practice.
- To evaluate the usability of a product with respect to learnability, efficiency, memorability, human errors, and satisfaction.
- Students will learn how to improve usability and when to work on usability.
- Students will learn to measure and track usability, post-task questionnaire, targeting the right participant for the study, setting up of the usability labs, record usability sessions, write tasks (scenarios) to avoid bias and get the needed feedback, running sessions, analyze and use the insights of the findings
- Students will learn to plan, conduct, and analyze their own usability testing frameworks studies, using in-person, remote, or online methods

Suggested Readings

1. <http://temza.com/e-books/introduction-to-good-usability.pdf>
2. Mobile Usability by Jakob Nielsen and Raluca Budiu, 2012
3. Living With Complexity Don Norman, 2011 by Don Norman
4. Homepage Usability: 50 Websites Deconstructed by Jakob Nielsen
5. Designing Web Usability: The Practice of Simplicity by Jakob Nielsen.
6. UX Storytellers - Connecting the Dots by Jan Jursa, Stephen Köver and Jutta Grünewald



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Accessibility and Inclusive Design**

Course Code: **AS1170**

Credits: 3.0

Course Description & Content

This course is designed to build an understanding of why accessibility is extremely important—not just for moral and legal reasons, but also so that the products can reach their full audience base. Students will learn to build it into the design process. This will ensure students are taking a disability advocacy approach, and keeping the focus on the users throughout the development process.

Learning Outcome:

- Students will learn how to approach accessibility from all angles.
- Students will gain practical, hands-on skills that'll enable them to assess and optimize for common accessibility issues, as well as show them how to place an emphasis on the quality of the user experience by avoiding classic mistakes.
- Students will also come away with the knowledge to conduct effective accessibility testing by working with users with disabilities.

Suggested Readings:

1. World Health Organization(WHO), International Classification of Impairments, Disabilities, and Handicaps, 1980, [International Classification of Impairments, Disabilities, and Handicaps](#)
2. United Nation, Convention on the Rights of Persons with Disabilities, 2006, [enable convention cover](#)
3. W3C Standards for Web Design Accessibility, [Accessibility - W3C](#)
4. Building Access: Universal Design and the Politics of Disability by Aimi Hamraie
5. Design for an Empathic World by Sim Van Ryn, Jason McLennan



JK LAKSHMIPAT UNIVERSITY

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B. Des in Interaction Design Programme

Course Title: **Hardware Prototyping**

Course Code: **A01141**

Credits: 3.0

Course Description & Content

The course will deal with electronics and programming, starting from the very basics and building up to mastery of the Arduino platform. Learners will understand how to use sensors to detect external events, such as light or sound, and how to perform an action linked to these events. The course also provides a natural introduction to the world of FabLabs, an international network of over a thousand spaces where people can access digital manufacturing machines and practice using Arduino alongside other makers.

Learning outcome:

- Enables introductory understanding of Arduino in terms of their features, capabilities and associated stimuli receptors.
- Exploration supported understanding of various components of physical Arduino system and its associated virtual programming
- Advanced understanding of digital prototyping techniques and strategies for dynamic products.

Suggested Readings:

1. Arduino: The Complete Beginner's Guide - Step By Step Instructions (The Black Book) by Byron Francis
2. Make: Getting Started With Arduino - The Open Source Electronics Prototyping Platform by Massimo Banzi and Michael Shiloh
3. Make: Electronics: Learning Through Discovery by Charles Platt



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B. Des in Interaction Design Programme

Course Title: **Machine Learning, AI**

Course Code: **ML1171**

Credits: 3.0

Course Description & Content:

This course provides a broad introduction to machine learning, data mining, and statistical pattern recognition. This course will help students to understand the best practices in machine learning and the innovation process in machine learning and AI. The course will also draw from many case studies and applications, so that you'll also learn how to apply learning algorithms to building smart products.

Learning outcome:

- Students will be able to clearly define a machine learning problem, identify appropriate data, train a classification algorithm, improve your results, and deploy it in the real world.
- Students will also be able to anticipate and mitigate common pitfalls in applied machine learning.
- Students will learn how to implement machine learning algorithms, open-source libraries used by leading tech companies in the machine learning field.

Suggested Readings:

1. Machine Learning For Absolute Beginners: A Plain English Introduction (Second Edition) by Oliver Theobald
2. Machine Learning with Python: A Practical Beginners' Guide by Oliver Theobald
3. Deep Learning (Adaptive Computation and Machine Learning series) by Ian Goodfellow
4. Machine Learning: The Absolute Complete Beginner's Guide to Learn and Understand Machine Learning by Steven Samelson



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Design Project 3: IoT Product with PD**

Course Code: **DP1272**

Credits: 6.0

Course Description & Content

Design Project 3 entails the understanding of the individual modules of the semester towards a conclusive project that demands the learners to undertake the task of providing design solutions within the domain of an IoT product. This project will help bridge the understandings of physicality of form and user interaction and hence, deliver a holistic understanding of an object and its behavior with users. It would make the learners understand the nuances of IoT systems in terms of its physical touchpoints and its digital neural network(s).

Learning outcome:

- Learning to plan a project with regards to context, possibilities and design thinking.
- Exploration based understanding of the subject of product design and user behavior and its application through IoT products.
- Understanding research, analysis and ideation/iteration based methodologies with regards to IoT in context of products such as appliances, home assistants etc.
- Ability to present and document the entire process/individual process for further learning and referencing
- Analysis and peer discussion-based understanding of the concepts of IoT.

Suggested Readings:

1. Speculative Everything: Design, Fiction, and Social Dreaming (The MIT Press) by Anthony Dunne and Fiona Raby
2. Discursive Design: Critical, Speculative, and Alternative Things (Design Thinking, Design Theory) by Bruce M. Tharp and Stephanie M. Tharp



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Understanding and Managing Conflict**

Course Code: **CC1105**

Credit: 2.0

Course Description

In today's increasingly complex and fragmented world, it is important to be able to resolve conflicts and build healthy relationships. Interpersonal and Group Dynamics is a course designed to prepare students to identify conflicts, manage emotions, analyze the situation and characters, and practice different frameworks to deal with conflicts.

Course Outcomes

The students will be able to:

- Define a group and explain the stages of group development
- Describe conflict and explain types and causes of conflict
- Use inquiry and advocacy to engage with groups
- Give and receive feedback effectively
- Identify sources of conflict and manage them using difference conflict handling styles

Topics to be Covered

1. Introduction to the stages of group development
2. Introduction to Personality, Perception and Learning as source of differences in individual and groups
3. Nature, Types and sources of Conflict
4. Conflict Resolution Strategies
5. Emotional Intelligence
6. Empathy and Feedback
7. Inquiry & Advocacy – Concept of silence (Masking, Avoiding, Withdrawing) and violence (Controlling, Labeling, Attacking)



JK LAKSHMIPAT UNIVERSITY
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BATCH: 2019-2023 (4 YEAR)

B.DES IN INTERACTION DESIGN PROGRAMME

SEMESTER - VI



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Interactive data visualization and Information Design**

Course Code: **DV1173**

Credits: 3.0

Course Description & Content:

This course equips students to strategically design and pack increasingly huge amounts of data into increasingly streamlined, tiny dashboards. This course will lead students through key considerations when designing for dashboards, such as using the pre-attentive attributes of color, form, orientation, and spatial location. Through varied examples, some of the psychological aspects of dashboard use, including attention, short-term memory, and problem-solving will be discussed.

Learning outcome:

- Students will learn how to apply a range of basic and complex information visualization techniques
- Students will learn how the eye and the brain function together to deliver imagery, and how it affects information visualization design
- Students will learn how to evaluate the effectiveness of an information visualization
- Students will learn the principles of visual perception—encompassing how, what, and why we see what we do—can be applied to your dashboard designs
- Students will be equipped to involve themselves in big data and use collation and presentation of information in the steps of design processes—including conducting user interviews and analyzing user flows and sales funnels
- Students will learn how to turn raw data into meaningful patterns, which will help find actionable insights to design meaningful interfaces and to process their own UX research.

Suggested Readings:

1. Semiology of Graphics: Diagrams, Networks, Maps by Bertin, Jacques.
2. The Functional Art by Cairo, Alberto
3. Show Me the Numbers: Designing Tables and Graphs to Enlighten by Few, Stephen.
4. Visualizing Data: Exploring and Explaining Data with the Processing Environment. by Fry, Ben.
5. You Are Here by Harmon, Katherine.
6. Information Graphics: A Comprehensive Illustrated Reference by Harris, Robert L.
7. Holmes, Nigel. Wordless Diagrams.
8. Institute for Information Design Japan. Information Design Source Book.
9. Jacobson, Robert. Information Design. The MIT Press, 2000.
10. Mijksenaar, Paul. Visual Function: An Introduction to Information Design.
11. Myer, Eric. K. Designing Infographics.
12. Tufte, Edward. Envisioning Information.
13. Ware, Colin. Information Visualization, Third Edition: Perception for Design.
14. Yau, Nathan. Visualize This: The Flowing Data Guide to Design, Visualization, and Statistics.
15. Yau, Nathan. Data Points: Visualization That Means Something.



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Emotional Design, Addictive Interfaces**

Course Code: **ED1174**

Credits: 3.0

Course Description & Content

In this course, the students will be taught to view products as experiences with emotional components and incorporate emotions as a key consideration when designing products or websites. This course will provide students with an understanding of emotional responses and how to create designs that encourage them and provide great user experiences. By the end of this course, students will have a better understanding of the relationship between people and the things they use in their everyday lives and, more importantly, how to design new products and websites which elicit certain emotional responses.

Learning Outcome:

- The relationship between emotion and design, and how to tap into it for more effective design solutions.
- How human factors affect the emotional responses to design, with real-life examples
- How to design for positive emotional experiences
- What the “Triune Brain” is, and how to apply it to your work
- The difference between visceral, behavioral and reflective design, and how to encourage positive visceral, behavioral and reflective processing.

Suggested Readings:

1. Design of Everyday Things by Don A. Norman
2. Hooked: How to Build Habit-Forming Products by Nir Eyal
3. 100 Things Every Designer Needs to Know About People by Susan M. Weinschenk
4. Made to Stick: Why Some Ideas Survive and Others Die by Chip Heath, Dan Heath.
5. Emotional Design: Why We Love (or Hate) Everyday Things By Donald A. Norman
6. Brandjam: Humanizing Brands Through Emotional Design by Marc Gobe
7. Emotional Design Elements by Smashing Magazines
8. Design Psychology 3: Emotional Design by Nuo Man
9. Touchy Feely: An Exploration of Emotional Ergonomics to Help Foster Empathy for Human-Centered, Inclusive Design by Joey Zeledon



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Ethnography Research**

Course Code: **ER1175**

Credits: 3.0

Course Description & Content: In this course, the students will be introduced to the methodologies behind qualitative research within a specific ethnic group such as environmental observation, participant observation, interviews, group discussions, audio-visual records, etc. Students will learn about data collection, interviewing, description, analysis, and interpretation in qualitative research. Quality criteria, good practices, ethics, representation, and taking away prejudices will be discussed.

Learning Outcome:

- This course will provide an overview of ethnography as a method, the challenges it faces and practical ways to amplify data collection and understanding.
- Students will learn about how data from ethnography can address research issues in practical, actionable ways.
- This course will outline principal ethnographic techniques typically used in commercial research and their benefits.
- This course will explore ways in which ethnographic insights can be made actionable.

Suggested Readings:

1. Ethnography: A Way of Seeing by Harry F. Wolcott
2. Doing Critical Ethnography (Qualitative Research Methods) by Jim Thomas
3. Writing Ethnographic Fieldnotes, by Emerson, Fretz, and Shaw
4. Qualitative HCI Research: Going Behind the Scenes (Synthesis Lectures on Human-Centered Informatics) Paperback – April 7, 2016 by Ann Blandford, Dominic Furnis, Stephan Makri
5. Doing Research in Design by Christopher Crouch
6. A Designer's Research Manual by Jennifer Visocky O'Grady, Kenneth Visocky O'Grady
7. The Handbook of Qualitative Research by Norman K. Denzin and Yvonna S. Lincoln, 1994.
8. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches by John W. Creswell 2008
9. The Craft of Research by Wayne C. Booth, 2008.
10. The Field Guide to Human-Centered Design - A book by IDEO.org



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Design for AR, VR and creating immersive experiences**

Course Code: **IE1176**

Course Credit: 3.0

Course Description & Content

This course will teach students how to create amazing VR and AR experiences as Augmented reality (AR) and virtual reality (VR) are quickly becoming huge areas of technology. While AR and VR hardware and software are changing dramatically, UX principles and techniques for 3D interaction design will remain consistent. This course will give students the 3D UX skills to remain relevant in the next decade. Students will learn to create immersive experiences that tap into the novel opportunities that AR and VR generate. Through examples and case studies from spatial and holographic interface designers, students will master how to create immersive 3D content for AR and VR that provides rich user experiences.

Learning Outcomes:

- Students will learn the core concepts of designing for this new medium such as Storytelling, Imagineering, Improvisation, etc.
- Students will learn how to enhance immersion in order to improve your users' experience
- Students will learn how to create 3D personas to improve spatial navigation, layout, and content
- Students will learn how to incorporate the brain's responses to 3D interfaces by taking visual, auditory, and kinesthetic interactions into account
- Students will learn how to avoid known UX problems when designing for AR and VR

Suggested Readings:

1. Ways of Seeing by John Berger
2. The metaphysics of Virtual Reality by Michael Heim
3. The VR Book - Human-centered design for virtual reality by Jason Jerald
4. Learning Virtual Reality: Developing immersive experiences and applications for Desktop, Web, and Mobile by Tony Parisi
5. Storytelling for Virtual Reality: Methods and Principles for crafting immersive narratives by John Bucher



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Design Project 4: Human Machine Interface Design**

Course Code: **MI1277**

Credits: 6.0

Course Description

In Design Project 4 students will be required to design an effective human-machine interface (HMI) that can be used in a real-life scenario. Students will follow a design process and interaction design principles to design a rich user experience for an HMI such as a Kiosk, control panels, consoles, medical displays, etc. for different contexts, scenarios, and target user groups.

Learning outcome:

- Students will learn how to make content more comprehensible to the operator in the work environment.
- Students will learn how to implement digital concepts into the physical world.
- Students will learn how to reduce cognitive load by applying interaction design principles in complex physical processes
- Students will learn to map the design choices to a larger target environment
- Students will learn how to evaluate and optimize the product experience for the target environment.

Suggested Readings:

1. The Handbook of Human-Machine Interaction: A Human-Centered Design Approach 1st Edition by Guy A. Boy
2. Human Machine Interface: Concepts and Projects by Dr. Samuel Guccione and Dr. James Mc Kinahan



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Entrepreneurship**

Course Code: **ET1178**

Credits: 2.0

Course Description:

The course entrepreneurship teaches a student to build an independent design-led business model from scratch. Students will learn to understand, plan and execute an innovative idea and support it with design thinking, strategy and resource development approaches. Entrepreneurship is an integral part of design learning, where for major innovations/ unique ideas and opportunity areas, a designer is encouraged to set up a circular model that generates value. The course will concentrate on traditional areas of the target along with opportunity area mapping, operational models to ensure growth, calculated risk management models and mind to market strategy formulation.

Learning Outcome:

- Conceptualization of entrepreneurship as a model of innovation to be practiced in reality, within a specific market/opportunity area.
- An introductory understanding of diverse factors, which relate to an entrepreneurship model – the risk factors as well as the unique opportunity quotients.
- Sequential understanding of an entrepreneurship model, the necessary actions and the fundamentals.
- Understanding how innovation and demand can be bridged via an entrepreneurship based model in a particular context.

Suggested Readings:

1. This Is Service Design Doing: Applying Service Design Thinking in the Real World by Marc Stickdorn , Markus Edgar Hormesis
2. Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers by Alexander Osterwalder and Yves Pigneur
3. Value Proposition Design: How to Create Products and Services Customers Want (Strategyzer) by Alexander Osterwalder, Yves Pigneur



JK LAKSHMIPAT UNIVERSITY
Institute of Design

BATCH: 2019-2023 (4 YEAR)

B.DES IN INTERACTION DESIGN PROGRAMME

SEMESTER - VII



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Imaging**

Course Code: **IM1179**

Credits: 3.0

Course Description

This course will be focused on Iconography, Imagery, and representation techniques for User Interfaces. Students will learn how to make and use icons and imagery to deliberately and intentionally carry meaning and communicate the context in the Interface. Students will learn to conduct multiple types of tests at various stages of the product-development cycle to ensure that people understand the meaning and purpose of icons.

Learning Outcome:

- Students will learn to create meaningful icon-label relationships, and an optimal placement within the interface.
- Students will learn to conduct tests at various stages of the product-development cycle to ensure that people understand the meaning and purpose of icons.
- Students will learn how to evaluate and improvise their design choices to improve findability, recognition, and communication.
- Students will learn to use metaphors and sketching as essential steps in the icon design process
- Students will learn how to make patterns and icons library for an efficient workflow.

Suggested Readings

1. Icon Design: Graphic Icons in Computer Interface Design by Steve Caplin
2. The Future of the Image by Ranciere Jacques
3. Mid-Century Modern: Icons of Design by Frances Ambler
4. Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability by Steve Krug
5. Ways of Seeing by John Berger
6. Visual Intelligence: Perception, Image, and Manipulation in Visual Communication by Marie, Anne; Barry Seward



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: Data Analytics and UX

Course Code: DA1180

Credits: 4.0

Course Description:

This course will be focused on Interpreting data trends in conversions, page views, and other user actions to identify opportunities and guide UX design. Students will learn to enhance user flows using data analytics, heat maps, rage clicking patterns, etc. This course gives a comprehensive understanding on using data analytics to drive user experience design.

Learning Outcome:

- Students will learn how to make quantitative data-driven design decisions and support their findings and recommendations.
- Students will learn to make a strong case for or against proposed redesigns based on their data analysis.
- Students will learn to use analytics based on different types of goals: transaction, engagement, etc.
- Students will learn to analyze trends and outliers in the data and identify UX opportunities and evaluate the success of the user experience.

Suggested Reading:

1. Lean Analytics: Use Data to Build a Better Startup Faster, by A. Croll and B. Yoskovitz
2. Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie, or Die by E. Siegel
3. Data Smart: Using Data Science to Transform Information into Insight, by J. W. Foreman
4. Improving the User Experience through Practical Data Analytics: Gain Meaningful Insight and Increase Your Bottom Line 1st Edition by Mike Fritz, Paul D Berger



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Final Design Project: Systems Design**

Course Code: **DE1281**

Credits: 12.0

Course Description:

The final design project will require students to design a system-based solution following the design process. This project will enable students to develop fluency of tools and methodologies to design systems, understand the product-service continuum and relevance of design thinking in conceptualizing and developing services. Students will plan, design and execute experience prototyping sessions to evaluate their findings from a business, user and a systemic perspective. This course will touch on the overlaps of systems design with user experience.

Learning Outcomes:

- Deep understanding of complex systems and structures, their tenets and how to take them into consideration in order to develop/understand a system better.
- Providing systems-based design solutions that work across multiple levels.
- Case studies of social design projects/ systems projects with regards to product and service design

References and Readings:

1. Critical Design in Context: History, Theory, and Practice by Matt Malpass
2. Critical Theory and Interaction Design (The MIT Press) by Jeffrey Bardzell
3. Can't Not Do: The Compelling Social Drive that Changes Our World by Paul Shoemaker
4. Giuseppe Pagano: Design for Social Change in Fascist Italy by Flavia Marcello
5. Design for Services, Anna Meroni and Daniela Sangiorgi, Gower Publishing Limited 2011
6. Service Design: From Insight to Implementation, Andrew Polaine, Lavrans Lovlie, and Ben Reason



JK LAKSHMIPAT UNIVERSITY

Institute of Design

B. Des in Interaction Design Programme

Course Title: **Leadership**

Course Code: **DL1182**

Credits: 2.0

Course Description & Content

The course on Leadership concentrates on how to become a more effective leader through communication, management, and strategy. The course introduces students to the various aspects of leadership and how it affects organizations and smaller startups. Ideas on what would constitute balanced leadership and how it can be designed better to maximize potential are also explored. Students are also introduced to the various thinking tools that can help a leader to operate and perform better in the context of leadership-driven businesses and organizations.

Learning Outcomes

- Learning to design effective ideas that percolate down an organization creating a harmonious work culture.
- Sensitizing the learner to bring in positive change in environments where capital is not the primary requirement to compete against large organizations.
- Understanding to transform the organization into a more agile, responsive and creative mode of working.
- Exploration of better ways of collaborative and proactive design intervention through opportunities.

References and Readings:

1. Design Leadership: How Top Design Leaders Build and Grow Successful Organizations by Richard Banfield
2. Steve Jobs: A Biography by Walter Isaacson
3. Less and More: The Design Ethos of Dieter Rams by Klaus Klemp and Keiko Ueki-Polet



JK LAKSHMIPAT UNIVERSITY

Institute of Design

Semester: 8

B. Des in Interaction Design Programme

Course Title: Graduation Project

Course Code: GP1283

Credits: 18.0

Course Description & Content:

The focus of the graduation project is to demonstrate the ability to contribute and collaborate in a professional manner with experts in the industry, with project partners and prospective users of the intended product. The students will justify the design decisions taken during the tenure of the project with regards to the design process, argue for relevant facts, social context and user focus.

Learning Outcome:

- Identify and define relevant design problems of high complexity and discuss its relevance in relation to both the profession and the social context.
- Communicate effectively with experts during different phases of the project, as well as demonstrate maturity in the processing and evaluation of the obtained response.
- Work and contribute efficiently in a professional environment and deliver great user experiences
- Collaborate with other team members and stakeholders.
- Take a user-centered design approach and rapidly test and iterate designs.

References and Readings:

- As per the project choices.