



दिल्ली प्रौद्योगिकी विश्वविद्यालय
DELHI TECHNOLOGICAL UNIVERSITY
(Formerly Delhi College of Engineering)
(Estd. By Govt. of NCT of Delhi vide Act 6 of 2009)



Master of Design (M.Des)

Interaction Design

DEPARTMENT OF DESIGN



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Master of Design (M.Des)

Visual Communication

DEPARTMENT OF DESIGN

Master of Design (Visual Communication): Course Structure

First Year 1st SEMESTER

CREDITS: 20

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 531	Visual Culture & Media Practices	4	2	0	4	6
2	DD 533	Communication Design Fundamentals	4	2	0	4	6
3	DD 535	Image Fabrication & Visualization	4	2	0	4	6
4	DD 537	Video, Sound & Cinematography	4	2	0	4	6
5	DD 501	Design Project 1	4	0	0	8	8

First Year 2nd SEMESTER

CREDITS: 20

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 532	Experimental Communication	4	2	0	4	6
2	DD 534	Space and Service Design	4	2	0	4	6
3	DD 536	Narrative Contexts and Advanced Illustration	4	2	0	4	6
4	DD 538	Motion Graphics and Animation Fundamentals	4	2	0	4	6
5	DD 502	Design Project 2	4	0	0	8	8

Second Year 3rd SEMESTER

CREDITS: 20

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 601	Organizational model for entrepreneurship	4	2	0	4	6
2	DD 633	Major campaign planning & Design	4	2	0	4	6
3	DD 635	Advanced Animation & Game Design	4	2	0	4	6
4	DD 603	Design Project 3	4	0	0	8	8
5	DD 605	Internship	4	0	0	0	0
6	DD 607	Design Research Seminar	2	0	0	0	0

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 602	Sponsored/ Self Sponsored Project	20	0	0	0	0

Weights for Course Evaluation

S.No.	Course Type			Examination		Relative Weight				
	L	T	S	TH	ST	CWS	STS	MTE	ETE	STE
1.	2	0	4	Yes	Yes	10	40	10	20	20
2.	0	0	0	No	Yes	0	50	20	0	30

STE: Students semester work to be presented before jury.

CWS: Assignment based on lectures

STS: Work done in studios

MTE / ETE: Written test based on lecture

Visual Communication

Semester I

Subject Code: DD531

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Semester: 1

Prerequisite: NIL

Aim: To provide an understanding of contemporary culture, media, and society by diving deep into visual perspectives through knowledge, beliefs, art, morals, laws, and customs.

Course Title: Visual Culture & Media Practices

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Details of the Course

S.No	Contents	Contact weeks
1	Visual Culture as an interdisciplinary field of study including the interaction of anthropology, art history, media studies, and others. Historical examples, origin, developments in India, and across the world.	3
2	A world of cross-mediation, Visual culture as an 'Experience' and impact of its multiple forms, and visual content, theories, and codes. Understanding of the transformed and expanded nature of globalized visual culture in the 21st century and how design has shifted in visual communication and allied areas of disciplines.	3
3	Media studies such as Painting/Illustration, Sculpture/ Installation, Video, Digital art, Photography, Film/ Television, The Internet, Mobile screen devices, Fashion, Medical & scientific imaging, Social spaces of galleries, exhibitions, and other private and public environments of the everyday.	4
4	The changing nature of subjectivity vs objectivity, ways to visualize, reflect upon, and represent the world to ourselves, Execution of individual projects/ reports/ articles/ papers on the chosen topic/s.	4
	Total	14

Outcome: Students will be able to analyze a given visual culture and make use of this useful tool in understanding more about the world we live in, along with exploring a range of media.

Books Recommended

S.No.	Name of Authors / Books / Publishers	Year
1	The Handbook of Visual Culture by Ian Heywood (Editor), Barry Sandywell (Editor)	2017

2	Ways of Seeing: Based on the BBC Television Series by John Berger	1990
3	Practices of Looking: An Introduction to Visual Culture 2nd Edition by Marita Sturken	2009
4	The Indian Media Business by Vanita Kohli-Khandekar	2017

Subject Code: DD533

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Semester: 1

Prerequisite: NIL

Aim: To provide an understanding of the relationship between observation, thinking, and visual articulation by working and exploring different mediums, tools, and styles keeping in mind the strong fundamentals of communication theories.

Course Title: Communication Design Fundamentals

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Details of the Course

S. No.	Contents	Contact weeks
1	Fundamentals of communication, Communication theory, concepts of cognition, perception, and visual literacy.	3
2	Introduction to processes, materials, methods required for the creation, and production of visual communication. Study of composition, layout, and representation techniques for effective visual communication.	3
3	Image creation, Drawing and sketching to explore inventive shapes & forms, Exploration of rendering techniques, and study of illustration various styles.	4
4	Working with Text, Typography, Graphic production, Logo Design	4
	Total	14

Outcome: Students will be able to effectively communicate and produce a variety of works in graphic design, typography, and Illustration for publication as well as online media.

Books Recommended

S.No.	Name of Authors / Books / Publishers	Year
1	Visual Communication Design: An Introduction to Design Concepts in Everyday Experience by Jamer Hunt and Meredith Davis	2017
2	Art and Visual Perception by Rudolf Arnheim	1954

3	Typography Sketchbooks by Lita Talarico and Steven Heller	2011
4	History of Illustration by Susan Doyle (Editor), Jaleen Grove (Editor), Whitney Sherman (Editor)	2018

Subject Code: DD535

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Semester: 1

Prerequisite: NIL

Course Title: Image Fabrication & Visualization

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To provide an understanding of working with digital applications and other image capturing tools effectively to deliver a desired thematic expression for self as well as for a client.

Details of the Course

S. No.	Contents	Contact weeks
1	Working with vector and raster images, Digital image production, Working with digital tools & applications such as Photoshop, Illustrator, and Indesign.	4
2	Study of Photography, tools & techniques of Image capturing, Lightning, Exposure, standard, and Experimental photography techniques to produce commercial and fine arts images.	4
3	Post-processing, Photo/ Image Editing, manipulation, Color fundamental, and creative treatment of images such as superimposition & juxtaposition.	3
4	Digital matte, futuristic, landscape painting, Cinematographic compositions, Theme based digital experimental works.	3
	Total	14

Outcome: Students will be able to produce a variety of digital images by capturing, drawing, editing, manipulation of pixels to visualize a conceptual brief for a variety of projects and media.

Books Recommended

S.No.	Name of Authors / Books / Publishers	Year
1	Design with Adobe Creative Cloud Classroom in a Book: Basic Projects using Photoshop, InDesign, Muse, and More by Conrad Chavez	2013
2	Experimental Photography: A Handbook of Techniques by L. Bendandi, Gabriele Lungarella, Sergio Minniti, Francisco Gómez, Marco Antonini	2015

3	Photoshop: Photo Manipulation Techniques to Improve Your Pictures to World Class Quality Using Photoshop by John Slavio	2017
4	Cinematography: Theory and Practice: Image Making for Cinematographers and Directors Kindle Edition by Blain Brown	2016

Subject Code: DD537

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Semester: 1

Prerequisite: NIL

Course Title: Video, Sound & Cinematography

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To provide an understanding of video production, sound design, and working in moving media to tell a captivating story/s to the audiences.

Details of the Course

S. No	Contents	Contact weeks
1	Introduction to Film, Storytelling Techniques, Film History, Still vs Moving photography,	4
2	Scriptwriting, Storyboard, Cinematography, Compositional Techniques & Movement, White Balance & Lighting	4
3	Working with Audio Technology, Recording, Sound Design & effects, Tools & Techniques	3
4	Post-Production & Motion Graphics, Compositing, Editing, Packaging of Film/ Documentary/ TVC/ Video & promotion,	3
	Total	14

Outcome: Conception and production of short films on a range of educational, cultural, social, entertainment, and marketing communication needs.

Books Recommended

S.No	Name of Authors / Books / Publishers	Year
1	The filmmaker's handbook by Ed Pincus	1984

2	Painting with Light by John Alton	1949
3	Sound-on-film: Interviews with Creators of Film Sound by Vincent LoBrutto	1994
4	The Video Editing Handbook by Aaron Goold	2017

Subject Code: DD501
Contact Hours:
Examination Duration (Hrs)
Relative Weight:
Credit: 4
Semester: 1
Prerequisite: NIL

Course Title: Design Project 1
L: 0 T: 0 S: 8
Theory: 0 hrs Studio: 2
CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: To provide students with an understanding of using Design Research Methods and Explorative Techniques to focus on the problem-solving process.

Outcome: Students will apply, learn and appreciate the importance of research methods and exploration techniques in order to solve the given design problem in an appropriate way.

Books Recommended

S.No.	Name of Authors / Books / Publishers	Year
1	Designing Brand Identity by Alina Wheeler	2017
2	Show Your Work! By Austin Kleon	2014
3	How to Be a Graphic Designer without Losing Your Soul by Adrian Shaughnessy	2010
4	Reportage Illustration: Visual Journalism by Gary Embury and Mario Minichiello	2018

Visual Communication

Semester II

Subject Code: DD532

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Semester: 2

Prerequisite: NIL

Course Title: Experimental Communication

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To provide an understanding of the cross-disciplinary approach in solving contemporary design and world problems.

Details of the Course

S. No.	Contents	Contact weeks
1	Cross-fertilization of ideas, technology, and media in an interdisciplinary system. Importance of Inspiration, Exploration, and Imagination beyond traditional practices and methods.	3
2	Visual Communication with ideas embedded in psychotherapy, illustrators moving towards Land Art and field recording, digital programming converging with sculpture and performance.	4
3	Working with Digital aesthetics, processing, Experimental films using the latest technology such as Augmented and Virtual reality.	3
4	Collaborative project/s with Arts, engineering, science, and management, etc. to explore sonic, haptic, spatial, and experimental communication.	4
	Total	14

Outcome: Students will be able to attempt and produce an experimental solution/ concept by working and collaborating with other domains.

Books Recommended

S.No.	Name of Authors / Books / Publishers	Year
1	Installation and the Moving Image by Catherine Elwes	2015
2	Experimental Filmmaking: Break the Machine by Kathryn Ramey	2015

3	Digital Performance by Steve Dixon	2007
4	The Software Arts by Warren Sack	2019
5	New Media in Art (World of Art) by Michael Rush	2005

Subject Code: DD534

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Semester: 2

Prerequisite: NIL

Course Title: Space and Service Design

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To provide an understanding of space and service design by exploring the content, context, and spatial aspects of design challenges/ problems.

Details of the Course

S. No.	Contents	Contact weeks
1	Navigation design, signages, and wayfinding for space/ building/ Event	5
2	Event branding, Installations, Interactive Projections, Stage design, Curatorial practices	5
3	Designing for a service, Window display design, Packaging Design and collaterals	4
	Total	14

Outcome: Students will be able to execute a variety of projects related to the event, service branding as well as navigation design for public and commercial buildings.

Books Recommended

S.No.	Name of Authors / Books / Publishers	Year
1	The wayfinding handbook by David Gibson	2009
2	The Contexts of Curating by Terry Smith	2020
3	Visual Merchandising 2nd Edition by Antony J. Morgan	2008
4	Structural Packaging: Design Your Own Boxes and 3-D Forms by Paul Jackson	2012

Subject Code: DD536

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Semester: 2

Prerequisite: NIL

Course Title: Narrative Contexts and Advanced Illustration

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To provide an understanding of narrative building and conceptual solutions to the problems and to convey ideas in a clear and interesting way using a variety of drawing and illustration techniques.

Details of the Course

S. No.	Contents	Contact weeks
1	Methods of communicating narratives through image-making, the relationship between text and image, different approaches in visual story-telling	2
2	Story/ Idea generation, Script, Tone of Voice, Characters, Storyboarding, Colour palette, Illustration styles, Experiment with look & feel, Media- Digital vs traditional	4
3	Publication design, Explore ways of designing and producing books, image-based photo book, an experimental grid-based book produced using inexpensive materials, large-scale book project	4
4	Comic book styles, Biographical comics, Graphic novels, Children books, Corporate graphics, Editorial illustration, Illustration for Print media vs Online.	4
Total		14

Outcome: Students will be able to create illustrative books, graphic novels, comic books and other types of illustrative works.

Books Recommended

S.No.	Name of Authors / Books / Publishers	Year
1	Picture this by Molly Bang	1991
2	365 Days of Art: A Creative Exercise for Every Day of the Year by Lorna Scobie	2017

3	Illustration Workshop: Find Your Style, Practice Drawing Skills, and Build a Stellar Portfolio by Mary Kate McDevitt	2018
4	Illustration Next: Contemporary Creative Collaboration by Ana Benaroya	2013

Subject Code: DD538 **Course Title: Motion Graphics and Animation Fundamentals**
Contact Hours: **L: 2 T: 0 S: 4**
Examination Duration (Hrs) **Theory: 2 hrs Studio: 4**
Relative Weight: **CWS-10 STS-40 MTE-10 ETE-20 STE-20**
Credit: 4
Semester: 2
Prerequisite: NIL

Aim: To provide an understanding of procedures and techniques to facilitate the process of creating animation and motion design stories.

Details of the Course

S. No.	Contents	Contact weeks
1	Understanding the interface, tools, and workflow of motion graphic and visual effect application.	4
2	Traditional vs digital animation, Principles, Techniques, terminology, and exploration of styles and media	3
3	Storyboarding for animation and motion graphics, Animation for logos, titles, various motion effects	3
4	Character design, animating the scenes, sequence, flow, sound, and compositing to produce animation and motion graphic shorts.	4
	Total	14

Outcome: Students will be able to learn to conceptualize ideas and transform them into animated graphics and films.

Books Recommended

S.No.	Name of Authors / Books / Publishers	Year
1	The Animator's Survival Kit by Richard Williams	2001
2	The Animation Book: A Complete Guide to Animated Filmmaking--From Flip-Books to Sound Cartoons to 3- D Animation by Kit Laybourne	1998

3	Design for Motion: Fundamentals and Techniques of Motion Design by Austin Shaw	2015
4	Animated Storytelling: Simple Steps For Creating Animation and Motion Graphics by Liz Blazer	2015

Subject Code: DD502
Contact Hours:
Examination Duration (Hrs)
Relative Weight:
Credit: 4
Semester: 2
Prerequisite: NIL

Course Title: Design Project 2
L: 0 T: 0 S: 8
Theory: 0 hrs Studio: 2
CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: To provide students with an understanding of using Design Research Methods and Explorative Techniques to focus on the problem-solving process.

Outcome: Students will apply, learn and appreciate the importance of research methods and exploration techniques in order to solve the given design problem in an appropriate way.

Books Recommended

S.No.	Name of Authors / Books / Publishers	Year
1	Designing Brand Identity by Alina Wheeler	2017
2	Show Your Work! By Austin Kleon	2014
3	How to Be a Graphic Designer without Losing Your Soul by Adrian Shaughnessy	2010
4	Reportage Illustration: Visual Journalism by Gary Embury and Mario Minichiello	2018

Visual Communication

Semester III

Subject Code: DD601 **Course Title: Organizational model for Entrepreneurship**
Contact Hours: **L: 2 T: 0 S: 4**
Examination Duration (Hrs) **Theory: 2 hrs Studio: 4**
Relative Weight: **CWS-10 STS-40 MTE-10 ETE-20 STE-20**
Credit: 4
Semester: 3
Prerequisite: NIL

Aim: To understand how a modern business starts and runs.

Details of the Course

S. No.	Contents	Contact weeks
1	Entrepreneurship- Social, Corporate, trade, agriculture, etc	4
2	Models- Investment model, Business plans, start-ups, ROI model, etc	3
3	Legal aspects- contracts and agreement (NDA, etc.), IPR	4
4	Ethics and code of conducts	3
	Total	14

Outcome: Students will learn to manage and supervise live projects as entrepreneurs.

Books Recommended

S.No.	Name of Authors / Books / Publishers	Year
1	Ted Crawford, AIGA Professional Practices in Graphic Design, Allworth Press	2008
2	Shan Preddy, How to Run a Successful Design Business: The New Professional Practice, Gower Publishing, Ltd.	2011

Subject Code: DD633
Contact Hours:
Examination Duration (Hrs)
Relative Weight:
Credit: 4

Semester: 3

Prerequisite: Communication Design Fundamentals

Course Title: Major campaign planning & Design
L: 2 T: 0 S: 4
Theory: 2 hrs Studio: 4
CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To provide an understanding of the creation and dissemination of the image and voice for a collective entity, such as a company or an institution.

Details of the Course

S. No.	Contents	Contact weeks
1	Understand the history and culture of the making of big brands, their positioning, and branding. Exploration of brand insights, image building, and brand story.	5
2	Research to explore and develop innovative positioning, branding and marketing possibilities	4
3	Execution in different media, Presentation, and feedback	5
	Total	14

Outcome: Students will be able to push beyond their previous experience towards professional skills and practices for identity design.

Books Recommended

S.No.	Name of Authors / Books / Publishers	Year
1	Designing Brand Identity: An Essential Guide for the Whole Branding Team by Alina Wheeler	2003

2	Creating a Brand Identity: A Guide for Designers: (Graphic Design Books, Logo Design, Marketing) by Catharine Slade-Brooking	2016
3	The Dictionary of Brand by Marty Neumeier	2004

Subject Code: DD635

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Semester: 3

Prerequisite: Motion Graphics and Animation Fundamentals

Course Title: Advanced Animation & Game design

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To provide an understanding of advanced concepts, techniques, and production of hi-end animation and game design projects.

Details of the Course

S. No.	Contents	Contact weeks
1	Advanced animation and Serious Game Design & Research	5
2	Interactive Application Development using animation and games. Gamification for advertising	5
3	Experimentation with Virtual & Augmented Reality, 3D Modelling, animation and rendering	4
	Total	14

Outcome: Students will be able to produce a variety of projects for experimental animation and game design across a range of media and platforms.

Books Recommended

S.No.	Name of Authors / Books / Publishers	Year
1	Elemental Magic: The Art of Special Effects Animation by Joseph Gilland	2009
2	Dream Worlds by Hans Bacher	2007

3	The Gamer's Brain: How Neuroscience and UX Can Impact Video Game Design by Celia Hodent	2017
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Subject Code: DD603
Contact Hours:
Examination Duration (Hrs)
Relative Weight:
Credit: 4
Semester: 3
Prerequisite: NIL

Course Title: Design Project 3
L: 0 T: 0 S: 8
Theory: 0 hrs Studio: 2
CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: To provide students with an understanding of using Design Research Methods and Explorative Techniques to focus on the problem-solving process.

Outcome: Students will apply, learn and appreciate the importance of research methods and exploration techniques in order to solve the given design problem in an appropriate way.

Books Recommended

S.No .	Name of Authors / Books / Publishers	Year
1	Designing Brand Identity by Alina Wheeler	2017
2	Show Your Work! By Austin Kleon	2014
3	How to Be a Graphic Designer without Losing Your Soul by Adrian Shaughnessy	2010
4	Reportage Illustration: Visual Journalism by Gary Embury and Mario Minichiello	2018

Subject Code: DD 605

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Internship

L: 0 T: 0 S: 0

Theory: 0 hrs

Studio: 0hrs

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: Students will be able to develop an understanding about how the industry works and apply the same in enhancing their portfolio.

Outcome: Students will get a know-how of how the Industry works and will be able to apply that experience into their work.

Subject Code: DD 607

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 2

Pre Requisite: NIL

Course Title: Design Research Seminar

L: 0 T: 0 S: 0

Theory: 0 hrs

Studio: 0hrs

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: Students to present the work done in the Internship Program in the form of a seminar or student may also write Research Papers to be Presented in Conferences etc.

Outcome: Students will be able to Present/ Pitch his or her idea to the market / jury. They will also develop holistic research aptitude in preparation of this seminar.

Visual Communication

Semester IV

Subject Code: DD 602

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 20

Pre Requisite: NIL

Course Title: Sponsored/ Self Sponsored Project

L: 0 T: 0 S: 0

Theory: 0 hrs Studio: 0 hrs

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: Students to work on industry or self-sponsored project. Students willing to work on their own enterprise for the realization into a start-up is also encouraged.

Outcome: Students will be able to acquire skills, knowledge and experience needed for excelling in their respective fields.



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Master of Design (M.Des)

Transportation and Service Design

DEPARTMENT OF DESIGN

Master of Design (Transportation and Service Design)

Course Structure

First Year 1st SEMESTER

CREDITS: 20

S.No	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 551	Sketching and Rendering Skills	4	2	0	4	6
2	DD 553	Model Making	4	2	0	4	6
3	DD 555	Computer Aided 3D Modelling	4	2	0	4	6
4	DD 557	Physical and Cognitive Dynamics in Vehicle Design	4	2	0	4	6
5	DD 501	Design Project 1	4	0	0	0	0

First Year 2nd SEMESTER

CREDITS: 20

S.No	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 552	Form Exploration	4	2	0	4	6
2	DD 554	Digital Sculpting Tools and Techniques	4	2	0	4	6
3	DD 556	Advanced Rendering Techniques	4	2	0	4	6
4	DD 558	Clay Modelling	4	2	0	4	6
5	DD 502	Design Project 2	4	0	0	0	0

Second Year 3rd SEMESTER

CREDITS: 20

S.No	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 651	Organizational model for entrepreneurship	4	2	0	4	6
2	DD 653	Service and Mobility Design	4	2	0	4	6
3	DD 655	Elective from other Discipline	4	2	0	4	6
4	DD 603	Design Project 3	4	2	0	4	6
5	DD 605	Internship	2	0	0	0	0
6	DD 607	Design Research Seminar	2	0	0	0	0

Second Year 4th SEMESTER

CREDITS: 20

S.No	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 602	Sponsored/ Self Sponsored Project	20	0	0	0	0

Weights for Course Evaluation

S.No.	Course Type			Examination		Relative Weight				
	L	T	S	TH	ST	CWS	STS	MTE	ETE	STE
1.	2	0	4	Yes	Yes	10	40	10	20	20
2.	0	0	0	No	Yes	0	50	20	0	30

STE: Students semester work to be presented before a jury.
CWS: Assignment based on lectures
STS: Work done in studios
MTE / ETE: Written test based on lecture

Transportation and Service Design

Semester I

Subject Code: DD XXX

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Prerequisite: NIL

Course Title: Sketching and Rendering Skills

L: 2 T: 0 S: 4

Theory: 0 hrs

Studio: 3hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To develop an understanding about the different Sketching and Rendering techniques.

Details of the Course

S. No.	Contents	Contact weeks
1	Representing the observed, Representing concept- Sketching for ideation, object representation through memory and imagination. Exploring mobility sketches.	3
2	Perspective Drawing, Grid based Drawing, Free hand vehicle Sketching and Rendering.	4
3	Basics of Rendering, Marker Rendering, Digital Rendering.	3
4	Exposure and demonstration to Illustrate concept sketches and using state of the art software.	4
Total		14

Outcome: Capabilities to evolve criteria as well as aesthetic decision making abilities to design. Rendering skills for advanced mobility sketches. Free hand skills.

Reference Books:

1. Steur, R. & Eissen, K. (2011). Sketching: The Basics. BIS Publishers.
2. Norling, E. (2008). Perspective Made Easy. BN Publishing.
3. Henry, K. (2012) Drawing for Product Designers. Laurence King Publishers
4. Illustrator, Photoshop and InDesign Manuals, Tutorials

Subject Code: DD XXX

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Model Making

L: 2 T: 0 S: 4

Theory: 0 hrs Studio: 3hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To understand the process of Model Making and developing Prototypes.

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to Prototyping	2
2	Exploring different prototyping Techniques and Tools.	4
3	Introduction to Foam Modelling	4
4	Applied Exercises	4
	Total	14

Outcome: Exploring different methods of model making and to develop an understanding about prototyping.

Reference Books

1. (2018) Classic Cars: A Century of Masterpieces
2. Richard Heseltine (2014) British Auto Legends: Classics of Style and Design
3. Stuart Codling (2017) The Art of the Classic Sports Car: Pace and Grace

Subject Code: DD XXX

Course Title: Computer Aided 3D Modelling

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 0 hrs

Studio: 3hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit: 4

Pre Requisite: NIL

Aim: To understand and develop prototypes in Computer Aided 3D Software.

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to 3D Software.	2
2	Introduction to Parametric and Non Parametric Modelling	4
3	Surface Modelling	4
4	Applied Exercises.	4
	Total	14

Outcome: Students will be able to get an overview about the different 3D software.

Reference Books

- 1. Learning Design with Alias® StudioTools™: A Hands-on Guide to Modeling and Visualization in 3D (Official Alias Training Guide)**
- 2. Rhinoceros Visualisation & Rendering: A guide to using Rhino 6 & Grasshopper for 3D rendering.**

Subject Code: DD XXX

Course Title: Physical and Cognitive Dynamics in Vehicle Design

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 0 hrs

Studio: 3hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit: 4

Prerequisite: NIL

Aim: Understanding the human behaviours, how humans interact with the mobility systems and services.

Details of the Course

S. No.	Contents	Contact weeks
1	Definitions of Ergonomics and its application and overview, Concept of Man Machine Environment System, User compatibility, comfortability, adaptability, performance and productivity, environmental influencing factors affecting human performance	2
2	Understanding of product ergonomics; Concept of usability, usability by Form, Feature, function, material	4
3	Conducting a behavioural diagnosis and understanding users	4
4	Psycho-physiological aspects of Interface design (Control and Display design), Decision-making and Situation awareness	
	Total	14

Outcome: Students will be able to recognize a variety of mobility based products and systems to which design practice and guidance required to apply for making it user-centric design.

Reference Books

1. R. S. Bridger, Introduction to Ergonomics, 2nd Edition, Taylor & Francis, 2003
2. J. Dul, and B. Weerdmeester, Ergonomics for beginners, a quick reference guide, Taylor & Francis, 1993
3. C. D. Wicknes, S. E. Gordon, and Y. Liu, An Introduction to Human Factors Engineering, Longman, New York, 1997
4. Argyris, C. (1970). *Intervention theory and method: A behavioral science view* (pp. 12-35). Reading, MA: Addison-Wesley.
5. Long, J., & Whitefield, A. (Eds.). (1989). *Cognitive ergonomics and human-computer interaction* (Vol. 1). Cambridge University Press.
6. Gaines, B. R., & Monk, A. F. (2015). *Cognitive Ergonomics: Understanding, Learning, and Designing Human-Computer Interaction*. Academic Press.

Subject Code: DD XXX

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Prerequisite: NIL

Course Title: Design Project 1

L: 0 T: 0 S: 0

Theory: 0 hrs Studio: 3hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To develop an understanding about the courses being taught and apply the same in the form of a Design Project.

Outcome: Students will be able to apply different theory and practical knowledge taught during the semester in the Design Project.

Transportation and Service Design

Semester II

Subject Code: DD XXX

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Prerequisite: NIL

Course Title: Form Exploration

L: 2 T: 0 S: 4

Theory: 0 hrs

Studio: 3hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To understand the importance of form manipulation with a methodological approach inspired from an object or concept which leads innovative forms.

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to Form and aesthetics. Form and Identity. Form and Function, Form as Expression, Meaning and Form. Form as Abstraction.	4
2	Naturalistic Form and inspirations from Nature. Understanding of forms and methods to develop it. Adaptation into mobility and vehicle design.	4
3	Understanding of emotions and inspiration through form, and they can be communicated in tangible forms.	4
4	Application based exercises.	2
Total		14

Outcome: Students will learn and appreciate the use of AR and VR and apply them in their Design Solutions.

Reference Books

1. Nature, A. F. F. (2011). A history of nature as a model for design in engineering, architecture and Art. Rudolf Finsterwalder editor.
2. Benyus, J. M. (1997). Biomimicry: Innovation inspired by nature.
3. Bolton, J., Featherstone, D., & Connell, T. (2009). *Fancy Form Design*. SitePoint
4. Rand, P. (2017). *Design, form, and chaos*. Yale University Press

Subject Code: DD XXX

Course Title: Digital Sculpting Tools and Techniques.

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 0 hrs

Studio: 3hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit: 4

Prerequisite: NIL

Aim: To understand Digital Sculpting Tools and Techniques

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to Digital Sculpting	4
2	Introduction to Mesh based Geometry and Software.	4
3	Introduction to Voxel Based Sculpting and Software.	4
4	Application of Digital Sculpting Tools.	2
	Total	14

Outcome: Approach to problem-solving based on Digital Sculpting.

Reference Books

1. Learning Design with Alias® StudioToolsTM: A Hands-on Guide to Modeling and Visualization in 3D (Official Alias Training Guide)
2. Rhinoceros Visualisation & Rendering: A guide to using Rhino 6 & Grasshopper for 3D rendering.
3. Mudbox
4. Zbrush

Subject Code: DD XXX

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Prerequisite: NIL

Course Title: Advanced Rendering Techniques

L: 2 T: 0 S: 4

Theory: 0 hrs Studio: 3hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To understand the constraints while designing products and applications keeping in mind the usability aspects.

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to Advanced Sketching.	4
2	Introduction to Marker Rendering.	4
3	Hyper realistic Rendering Tools and Techniques.	4
4	Application based Exercises.	2
	Total	14

Outcome: Students will develop an understanding of the advanced rendering skills.

Reference Books:

1. How to Draw Cars Like a Pro, 2nd Edition (Motorbooks Studio)
2. How to Draw Awesome Vehicles: Land, Sea, and Air: Packed with Over 100 Incredible Vehicles

Subject Code: DD XXX

Course Title: Clay Modelling

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 0 hrs

Studio: 3hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit: 4

Prerequisite: NIL

Aim: To understand the importance of clay modeling and get hands-on experience.

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to Forms (2-3D), Form and Identity.	4
2	Exploring forms in Clay and understanding properties and techniques related to Automotive clay.	4
3	Advanced Clay modelling and Industry visit.	4
4	Application-based projects and Industry collaboration.	2
	Total	14

Outcome: Students will be able to appreciate the forms that bring them to reality using clay modeling.

Reference Books:

1. Beginner's Guide to Sculpting Characters in Clay
2. A MANUAL OF CLAY-MODELLING by Hermione Unwin

Subject Code: DD XXX

Course Title: Design Project 2

Contact Hours:

L: 0 T: 0 S: 0

Examination Duration (Hrs)

Theory: 0 hrs Studio: 3hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit: 4

Pre Requisite: NIL

Aim: To develop an understanding about the courses being taught and apply the same in the form of a Design Project.

Outcome: Students will be able to apply different theory and practical knowledge taught during the semester in the Design Project.

Transportation and Service Design
Semester III

Subject Code: DD XXX Course Title: Organizational model for Entrepreneurship
Contact Hours: L: 2 T: 0 S: 4
Examination Duration (Hrs) Theory: 0 hrs Studio: 3hrs
Relative Weight: CWS-10 STS-40 MTE-10 ETE-20 STE-20
Credit: 4
Prerequisite: NIL

Aim: To understand how modern business starts and runs.

Details of the Course

S. No.	Contents	Contact weeks
1	Entrepreneurship- Social, Corporate, trade, agriculture etc	4
2	Models- Investment model, Business plans, start-ups, ROI model etc	3
3	Legal aspects- contracts and agreement (NDA etc.), IPR	4
4	Ethics and code of conducts	3
	Total	14

Outcome: Students will learn to manage and supervise live projects as entrepreneur

Reference Books

1. Ted Crawford, AIGA Professional Practices in Graphic Design, Allworth Press, 2008
2. Shan Preddy, How to Run a Successful Design Business: The New Professional Practice, Gower Publishing, Ltd., 2011

Subject Code: DD XXX

Course Title: Service and Mobility Design

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 0 hrs

Studio: 3hrs

Relative Weight:

CWS-10 STS-40

MTE-10 ETE-20

STE-20

Credit: 4

Prerequisite: NIL

Aim: To understand how to design for the Service and Mobility.

Details of the Course

S. No.	Contents	Contact weeks
1	Application of design methodologies to tackle human issues. Understanding issues of the society and figuring out mobility based issues. Introduction to Services; tying together humans, digital, and physical interactions.	4
2	Designers' role in society. Stakeholder Analysis; Providing insights into the relationships between people, technology and design, Understanding needs for bottom of the pyramid.; Learning from different case studies.	3
3	Delivering Services from the view of design thinking; understanding people's needs from a holistic view. Systems approach to service design.	4
4	Small projects for intervention from the viewpoint of Social and Service Design	3
Total		14

Outcome: Students will be able to look at society's issues and be able to solve them using service design and applied problem solving.

Reference Books

1. Nynke Tromp and Paul Hekkert (2018) Designing for Society: Products and Services for a Better World.
2. Robert Curedale (2013), Service Design: 250 Essential Methods
3. Robert Curedale (2013), Design Research Methods: 150 Ways to Inform Design
4. Lucy Kimbell (2015) , The Service Innovation Handbook: Action-oriented Creative Thinking Toolkit for Service Organizations
5. Elizabeth Resnick (2019), The Social Design Reader
6. C. K. Prahalad (2004), The Fortune at the Bottom of the Pyramid
7. Victor Papanek (1972), Design for the Real World

Subject Code: DD XXX

Course Title: Design Project 3

Contact Hours:

L: 0 T: 0 S: 0

Examination Duration (Hrs)

Theory: 0 hrs

Studio: 3hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit: 4

Pre Requisite: NIL

Aim: To develop an understanding about the courses being taught and apply the same in the form of a Design Project.

Outcome: Students will be able to apply different theory and practical knowledge taught during the semester in the Design Project.

Subject Code: DD XXX

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Prerequisite: NIL

Course Title: Internship

L: 0 T: 0 S: 0

Theory: 0 hrs

Studio: 0hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: Students will be able to develop an understanding about how the industry works and apply the same in enhancing their portfolio.

Outcome: Students will get a know-how of how the Industry works and will be able to apply that experience into their work.

Subject Code: DD XXX

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 2

Prerequisite: NIL

Course Title: Design Research Seminar

L: 0 T: 0 S: 0

Theory: 0 hrs

Studio: 0hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: Students to present the work done in the Internship Program in the form of a seminar

Outcome: development of Presentation skills as well as preparation for the final Degree show.

Transportation and Service Design
Semester IV

Subject Code: DD XXX

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 20

Prerequisite: NIL

Course Title: Sponsored/ Self Sponsored Project

L: 0 T: 0 S: 0

Theory: 0 hrs Studio: 0 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: Students to work on industry or self-sponsored project. Students willing to work on their own enterprise for the realization into a start-up is also encouraged.

Outcome: Students will be able to acquire skills, knowledge and experience needed for excelling in their respective fields.



दिल्ली प्रौद्योगिकी विश्वविद्यालय
DELHI TECHNOLOGICAL UNIVERSITY
(Formerly Delhi College of Engineering)
(Estd. By Govt. of NCT of Delhi vide Act 6 of 2009)



Master of Design (M.Des)

Product Design

DEPARTMENT OF DESIGN

Master of Design (Product Design): Course Structure

First Year 1st SEMESTER

CREDITS: 20

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 521	Representation Techniques	4	2	0	4	6
2	DD 523	Industrial Design Process and Practice	4	2	0	4	6
3	DD 525	Material and Process for Designer	4	2	0	4	6
4	DD 527	Behavioral Dynamics in Design	4	2	0	4	6
5	DD 501	Design Project 1	4	0	0	8	8

First Year 2nd SEMESTER

CREDITS: 20

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 522	Form and Senses	4	2	0	4	6
2	DD 524	Design for Human Experiences	4	2	0	4	6
3	DD 526	Design for Sustainability	4	2	0	4	6
4	DD 528	Medical Technology Innovation	4	2	0	4	6
5	DD 502	Design Project 2	4	0	0	8	8

Second Year 3rd SEMESTER

CREDITS: 20

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 601	Organizational model for entrepreneurship	4	2	0	4	6
2	DD 623	Strategic Design Management	4	2	0	4	6
3	DD 6xx	Elective from other Discipline	4	2	0	4	6
4	DD 603	Design Project 3	4	0	0	8	8
5	DD 605	Internship	4	0	0	0	0
6	DD 607	Design Research Seminar	2	0	0	0	0

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 602	Sponsored/ Self Sponsored Project	20	0	0	0	0

Weights for Course Evaluation

S.No.	Course Type			Examination		Relative Weight				
	L	T	S	TH	ST	CWS	STS	MTE	ETE	STE
1.	2	0	4	Yes	Yes	10	40	10	20	20
2.	0	0	0	No	Yes	0	50	20	0	30

STE: Students semester work to be presented before jury.

CWS: Assignment based on lectures

STS: Work done in studios

MTE / ETE: Written test based on lecture

Product Design

Semester I

Subject Code: DD 521

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Representation Techniques

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To develop an understanding about the different representation techniques.

Details of the Course

S. No.	Contents	Contact weeks
1	Representing the observed, Representing concept- Sketching for ideation, object representation through memory and imagination and figure drawing.	3
2	One point, two point, and three point perspective, Grid based Drawing	4
3	Basics of Rendering - Shading, filling areas, shading a cube, cylinder, and sphere, basics of shadows on cube and cylinder Shading corners, cones, sphere, combined shapes, different materials and vignettes.	3
4	Exposure and demonstration to Illustration and Image making software Vector illustrations, Digital sketching.	4
	Total	14

Outcome: Capabilities to draw with correct proportions, perspective, depth and volume. Students will gain the skills of 2D and 3D. Visualization of products in 3D space and representation of the same. Capabilities to evolve criteria as well as aesthetic decision making abilities to design.

Reference Books:

1. Steur, R. & Eissen, K. (2011). Sketching: The Basics. BIS Publishers.
2. Norling, E. (2008). Perspective Made Easy. BN Publishing.
3. Henry, K. (2012) Drawing for Product Designers. Laurence King Publishers
4. Illustrator, Photoshop and InDesign Manuals, Tutorials
5. The Art of 3D Drawing: An illustrated and photographic guide to creating art with three-dimensional realism, by Stefan Pabst, Walter Foster Publishing

Subject Code: DD 523
Contact Hours:
Examination Duration (Hrs)
Relative Weight:
Credit: 4
Pre Requisite: NIL

Course Title: Industrial Design Process and practice
L: 2 T: 0 S: 4
Theory: 2 hrs Studio: 4 hrs
CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To understand the design process and practice

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to industrial revolutions, Industrial Design (ID), Product Design (PD), and Engineering Design (ED)	2
2	Industrial Design Process- Generic product design and development process, understanding of market and target audience.	4
3	Product Value, Levels of Products, principles associated with Industrial Design	4
4	Evaluation techniques for concept selection and testing.	4
	Total	14

Outcome: Explore diverse tools, methods to conceptualize and generate effective solutions to design problem

Reference Books

1. Hann, M. (2013). Structure and Form in Design: Critical Ideas for Creative Practice. A&C Black.
2. Boden, M. A. (2012). Creativity and art: three roads to surprise.
3. Cuffaro, D., & Zaksenberg, I. (2013). The Industrial Design Reference & Specification Book: Everything Industrial Designers Need to Know Every Day. Rockport Publishers.
4. Ulrich, K. T. (2003). Product design and development. Tata McGraw-Hill Education.
5. Roozenburg, N. F., & Eekels, J. (1995). Product design: fundamentals and methods.
6. Mohr, J. J., Sengupta, S., & Slater, S. F. (2009). Marketing of high-technology products and innovations. Pearson Prentice Hall.

Subject Code: DD 525
Contact Hours:
Examination Duration (Hrs)

Course Title: Material and Processes for Designer
L: 2 T: 0 S: 4
Theory: 2 hrs Studio: 4 hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit: 4

Pre Requisite: NIL

Aim: To understand and identify various material, properties, and processes involved in product development process.

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to materials, types, properties	2
2	Thermoplastics and Thermosetting plastics, classification, and applications	4
3	Different manufacturing processes like machining, casting, moulding etc.	4
4	Material exploration: using MDF, PoP, wire etc., Design from waste/ discard.	4
	Total	14

Outcome: Students will be able to choose appropriate material and processes for designing a product.

Reference Books

1. Lefteri, C. (2013). Materials for design. Laurence King Publishing.
2. Garratt, J. (1996). Design and technology. Cambridge University Press.
3. Ashby M., Johnson K., 2002, Materials and Design: The Art and Science of Material Selection in Product Design: Butterworth-Heinemann.
4. Beck R. D.: Plastic Product Design, Van Nostrand Reinhold Co., New York, 1980
5. Thompson R.: Manufacturing processes for design professionals, Thames & Hudson, London 2007
6. Degarmo E. P., Materials and Processes in Manufacturing, 9th ed., John Wiley & Sons, 2002
7. Callister, W. D., & Rethwisch, D. G. (2011). Materials science and engineering (Vol. 5, pp. 344-348). NY: John Wiley & sons.
8. Ghosh, A., & Mallik, A. K. (1986). Manufacturing science. Ellis Horwood, 1986.

Subject Code: DD 527

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Behavioural Dynamics in Design

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: Understanding the human behaviours, how human interact with the system.

Details of the Course

S. No.	Contents	Contact weeks
1	Definitions of Ergonomics and its application and overview, Concept of Man Machine Environment System, User compatibility, comfortability, adaptability, performance and productivity, environmental influencing factors affecting human performance	2
2	Understanding of product ergonomics; Concept of usability, usability by Form, Feature, function, material	4
3	Conducting a behavioural diagnosis and understanding users	4
4	Psycho-physiological aspects of Interface design (Control and Display design), Decision-making and Situation awareness	
	Total	14

Outcome: Students will be able to recognize variety of products and systems to which design practice and guidance required to apply for making it user-centric design.

Reference Books

1. R. S. Bridger, Introduction to Ergonomics, 2nd Edition, Taylor & Francis, 2003
2. J. Dul, and B. Weerdmeester, Ergonomics for beginners, a quick reference guide, Taylor & Francis, 1993
3. C. D. Wicknes, S. E. Gordon, and Y. Liu, An Introduction to Human Factors Engineering, Longman, New York, 1997
4. Argyris, C. (1970). *Intervention theory and method: A behavioral science view* (pp. 12-35). Reading, MA: Addison-Wesley.
5. Long, J., & Whitefield, A. (Eds.). (1989). *Cognitive ergonomics and human-computer interaction* (Vol. 1). Cambridge University Press.
6. Gaines, B. R., & Monk, A. F. (2015). *Cognitive Ergonomics: Understanding, Learning, and Designing Human-Computer Interaction*. Academic Press.

Subject Code: DD 501

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Design Project 1

L: 0 T: 0 S: 8

Theory: 0 hrs Studio: 3hrs

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: To develop an understanding about the courses being taught and apply the same in the form of a Design Project.

Outcome: Students will be able to apply different theory and practical knowledge taught during the semester in the Design Project.

Product Design Semester II

Subject Code: DD 522

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Form and senses

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To understand the importance of form manipulation with a methodological approach inspired from an object or concept which leads innovative forms.

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to Form and aesthetics. Form and Identity. Form and Function, Form as Expression, Meaning and Form. Form as Abstraction.	4
2	Naturalistic Form and inspirations from Nature. Understanding of forms and methods to develop it. Manipulation of forms in order to understand Positive and negative space.	4
3	Understanding of emotions and inspiration through form, and they can be communicated in tangible forms	4
4	Importance of senses during initial product development phase	2
	Total	14

Outcome: Students will learn and appreciate the intricacies of form creation and communicating ideas through Form.

Reference Books

1. Nature, A. F. F. (2011). A history of nature as model for design in engineering, architecture and Art. Rudolf Finsterwalder editor.
2. Benyus, J. M. (1997). Biomimicry: Innovation inspired by nature.
3. Bolton, J., Featherstone, D., & Connell, T. (2009). *Fancy Form Design*. SitePoint
4. Rand, P. (2017). *Design, form, and chaos*. Yale University Press.

Subject Code: DD 524

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Design for Human experiences

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To understand the user and associated experiences

Details of the Course

S. No.	Contents	Contact weeks
1	Understanding all set of users, user classification, various user centric approaches	4
2	Human centric approach, design for all, empathy and ethnographic research, design intent	4
3	Lens of human centric design, HCD process, Evaluation techniques	4
4	Application of Human centric Design.	2
Total		14

Outcome: Approach to problem-solving will challenge students to get out into the real world and test your ideas so you can arrive at exciting, unexpected solutions tailored to the needs of the people you serve.

Reference Books

1. Kabir, Z. (2011). User centric design of an NFC mobile wallet framework.
2. Lowdermilk, T. (2013). User-centered design: a developer's guide to building user-friendly applications. " O'Reilly Media, Inc.".
3. Luma Institute. (2012). Innovating for people: Handbook of human-centered design methods. Luma Institute, LLC.

Subject Code: DD 526

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Design for Sustainability

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To understand the concerns with human and environment care and achieving these in a sustained manner.

Details of the Course

S. No.	Contents	Contact weeks
1	What makes the biological Ecosystem so creative and sustainable? Creativity & Care. Self-reliant, dependence and interdependence, Symbiosis in nature. Optimal use of material, energy and information. Optimized growth. Compatibility between form and function. Self-recovery.	4
2	Upgradability. Enhancing propensity for growth. Technical design for functionality, emotional design for interactivity. Understanding design sophistication in nature.	4
3	Concept of wellness in nature. Independence, dependence and interdependence, Symbiosis in nature. 3P Diagram and beyond. Life-cycle analysis, Cradle-to-Cradle, Frugal Design Through Sustainability, Production, unfolding wholeness, Sustainability matrices. Material / Process / Design	4
4	Individual / group project exploring sustainability challenges and finding solutions. Student presentations.	2
Total		14

Outcome: Students will develop an understanding of the different concerns pertaining to the environment and their role as a designer in achieving

Reference Books

1. Mendler, S., & Odell, W. (2000). The HOK guidebook to sustainable design. John Wiley & Sons.
2. Williams, D. E. (2007). Sustainable design: Ecology, architecture, and planning. John Wiley & Sons.
3. Walker, S. (2012). Sustainable by design: Explorations in theory and practice. Routledge.
4. Fairs, M. (2009). Green design: creative sustainable designs for the twenty-first century. North Atlantic Books.

Subject Code: DD 528

Contact Hours:

Examination Duration (Hrs)

Course Title: Medical Technology Innovation

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4 hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit: 4

Pre Requisite: NIL

Aim: The course gives glimpse of innovating in the space of healthcare with hands on approach to identification of unmet clinical needs, invention and implementation of such technologies and also inculcate the entrepreneurial character in the students.

Details of the Course

S. No.	Contents	Contact weeks
1	Focus beyond the basics i.e. advanced technical aspects, such as advanced camera settings and lens techniques..	4
2	Enhance your photographic knowledge and mastery of subjects such as visual language, advanced composition and lighting.	4
3	Utilise digital workflow processes to ensure maximum accuracy and output quality	4
4	high and slow speed photography, Image processing for various application- Satellite images, medical related images etc	2
	Total	14

Outcome: Ability to identify clinical needs and move in a stepwise approach through inventing and planning the implementation of a marketable solution.

Reference Books

1. Paul G. Yock, Biodesign: The Process of Innovating Medical Technologies, Second Edition.
2. Peter J. Ogradnik, Medical Device Design: Innovation from Concept to Market, First edition.
3. Badnjevic. A. (2018), Inspection of Medical Devices for Regulatory purpose, Springer.
4. Becker Karen M, Clinical Evaluation of Medical Devices, Humana Press

Subject Code: DD 502

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Design Project 2

L: 0 T: 0 S: 8

Theory: 0 hrs Studio: 3hrs

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: To develop an understanding about the courses being taught and apply the same in the form of a Design Project.

Outcome: Students will be able to apply different theory and practical knowledge taught during the semester in the Design Project.

Product Design Semester III

Subject Code: DD 601 **Course Title: Organizational model for Entrepreneurship**
Contact Hours: **L: 2 T: 0 S: 4**
Examination Duration (Hrs) **Theory: 2 hrs Studio: 4 hrs**
Relative Weight: **CWS-10 STS-40 MTE-10 ETE-20 STE-20**
Credit: 4
Pre Requisite: NIL

Aim: To understand how modern business starts and run.

Details of the Course

S. No.	Contents	Contact weeks
1	Entrepreneurship- Social, Corporate, trade, agriculture etc	4
2	Models- Investment model, Business plans, start-ups, ROI model etc	3
3	Legal aspects- contracts and agreement (NDA etc.), IPR	4
4	Ethics and code of conducts	3
Total		14

Outcome: Students will learn to manage and supervise live projects as entrepreneur

Reference Books

1. Ted Crawford, AIGA Professional Practices in Graphic Design, Allworth Press, 2008
2. Shan Preddy, How to Run a Successful Design Business: The New Professional Practice, Gower Publishing, Ltd., 2011
3. Martin, R. L. (2009). The design of business: Why design thinking is the next competitive advantage. Harvard Business Press.
4. Best, K. (2006). Design management: managing design strategy, process and implementation. AVA publishing
5. Craig M. Vogel and Jonathan Cagan, Creating Breakthrough Products: Innovation from Product Planning Program Approval, FT Press, 2001

Subject Code: DD 623

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Strategic Design Management

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To understand how to use strategies in Design and Management.

Details of the Course

S. No.	Contents	Contact weeks
1	Nature of strategic Design, Introducing strategic design: Tangible Vs Intangible design, Design thinking vs Strategic thinking, etc.	4
2	Tools for strategic design, innovation through strategic design, Design process management	3
3	Design driven innovation, strategic design models	4
4	Corporate responsibility and design	3
	Total	14

Outcome: Students will learn strategize and Design accordingly.

Reference Books

1. Cooper, R., Junginger, S., & Lockwood, T. (Eds.). (2013). The handbook of design management. A&C Black
2. Kathryn Best, The Fundamentals of Design Management, AVA Publishing, 2010
3. Brigitte Borja De Mozota, Design Management: Using Design to Build Brand Value and Corporate Innovation, Allworth Press, 2004
4. Kenneth B Khan, Product Planning Essentials, M E Sharpe Inc, 2011
5. John Stark, Product Lifecycle Management: 21st Century Paradigm for Product Realisation, Springer, 2011
6. David L. Rainey, Product Innovation: Leading Change through Integrated Product Development, Cambridge University Press, 2011

Subject Code: DD 603

Course Title: Design Project 3

Contact Hours: L: 0 T: 0 S: 8
Examination Duration (Hrs) Theory: 0 hrs Studio: 3hrs
Relative Weight: CWS-0 STS-30 MTE-20 ETE-0 STE-50
Credit: 4
Pre Requisite: NIL

Aim: To develop an understanding about the courses being taught and apply the same in the form of a Design Project.

Outcome: Students will be able to apply different theory and practical knowledge taught during the semester in the Design Project.

Subject Code: DD 605

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Internship

L: 0 T: 0 S: 0

Theory: 0 hrs

Studio: 0hrs

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: Students will be able to develop an understanding about how the industry works and apply the same in enhancing their portfolio.

Outcome: Students will get a know-how of how the Industry works and will be able to apply that experience into their work.

Subject Code: DD 607

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 2

Pre Requisite: NIL

Course Title: Design Research Seminar

L: 0 T: 0 S: 0

Theory: 0 hrs

Studio: 0hrs

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: Students to present the work done in the Internship Program in the form of a seminar or student may also write Research Papers to be Presented in Conferences etc.

Outcome: Students will be able to Present/ Pitch his or her idea to the market / jury. They will also develop holistic research aptitude in preparation of this seminar.

Product Design

Semester IV

Subject Code: DD 602

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 20

Pre Requisite: NIL

Course Title: Sponsored/ Self Sponsored Project

L: 0 T: 0 S: 0

Theory: 0 hrs Studio: 0 hrs

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: Students to work on industry or self-sponsored project. Students willing to work on their own enterprise for the realization into a start-up is also encouraged.

Outcome: Students will be able to acquire skills, knowledge and experience needed for excelling in their respective fields.



दिल्ली प्रौद्योगिकी विश्वविद्यालय
DELHI TECHNOLOGICAL UNIVERSITY
(Formerly Delhi College of Engineering)
(Estd. By Govt. of NCT of Delhi vide Act 6 of 2009)



Master of Design (M.Des)

Lifestyle and Accessory Design

DEPARTMENT OF DESIGN

Master of Design (Lifestyle and Accessories Design): Course Structure

First Year 1st SEMESTER

CREDITS: 20

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD	Fundamental of Design	4	2	0	4	6
2	DD	Form studies	4	2	0	4	6
3	DD	Jewelry Design	4	2	0	4	6
4	DD	Exploring Material structure & surfaces	4	2	0	4	6
5	DD	Design project-1 (Personal accessory Design)	4	0	0	8	0

First Year 2nd SEMESTER

CREDITS: 20

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD	Branding and Packaging Design	4	2	0	4	6
2	DD	Collection Design	4	2	0	4	6
3	DD	Craft Workshop & Documentation	4	2	0	4	6
4	DD	Design for sustainability	4	2	0	4	6
5	DD	Design project-2 (Trend & Forecasting)	4	0	0	8	0

Second Year 3rd SEMESTER

CREDITS: 20

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD	Organization model for entrepreneurship	4	2	0	4	6
2	DD	Experience Design	4	2	0	4	6
3	DD	Electives from other department	4	2	0	4	6
4	DD	Design project-3 (Service & system design)	4	0	0	8	6
5	DD	Internship	4	0	0	0	0
6	DD	Design Research Seminar	2	0	0	0	0

Second Year 4th SEMESTER**CREDITS: 20**

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD	Sponsored/ Self Sponsored Project	20	0	0	0	0

Weights for Course Evaluation

S.No.	Course Type			Examination		Relative Weight				
	L	T	S	TH	ST	CWS	STS	MTE	ETE	STE
1.	2	0	4	Yes	Yes	10	40	10	20	20
2.	0	0	0	No	Yes	0	50	20	0	30

STE: Students semester work to be presented before jury.

CWS: Assignment based on lectures

STS: Work done in studios

MTE / ETE: Written test based on lecture

Lifestyle and Accessories Design

Semester I

Subject Code: DD541

Course Title: Fundamental of Design

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 2 hrs

Studio: 4 hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit: 4

Pre Requisite: NIL

Aim: To develop a sense of composition by applying elements and principles of design.

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to basic elements of Design, understanding communication theory and visual literacy.	3
2	Introduction to Principles of Design, Development of patterns using elements, both Regular and irregular patterns. (Repetition). Study of composition and layouts to create designs.	3
3	Development of design aptitude through understanding of the elements and principles of design. Exploring rendering techniques and illustration styles.	4
4	Exposure to form and movement, Understanding natural shapes, structures and material explorations.	4
	Total	14

Outcome: Students will be able to represent their ideas in better way by understanding correct proportions, depth, volume etc. Course will bring a better sensitivity towards Representation Techniques.

Reference Books:

- Design Elements, Color Fundamentals - Aaris Sherin
- Universal Principles of Design -William Lidwell, Kritina Holden, Jill Butler
- Interaction of Color: 50th Anniversary Edition - Josef Albers
- Design of everyday things – Don Norman

Subject Code: DD543

Course Title: Form Studies

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 2 hrs

Studio: 4 hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit:

Pre Requisite: NIL

Aim: To understand the importance emotions and expressions and their application in form manipulation with a methodological approach inspired from an object or concept which leads innovative and experiential forms.

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to Forms (2-3D), Form and Identity. Form and Function, Form and emotion. Form as Abstraction. Introduction to Form and aesthetics.	3
2	Understanding forms inspired from nature, manipulation of forms. Naturalistic Form and inspirations from Nature. Understanding of forms and methods to develop it. Manipulation of forms in order to understand Positive and negative space.	4
3	Morphology of expression, Understanding Emotions, Expressions, Illusions and Senses, etc. Communicating through tangible forms. Understanding of emotions and inspiration through form, and they can be communicated in tangible forms	4
4	Individual Projects and Presentations for product developments.	3
Total		14

Outcome: Students will be able to appreciate the forms and the emotions and expressions that are conveyed through them.

Reference Books:

- Unflattening - Nick Sousanis
- Emotional design – Don Norman
- Nature by Design: The Practice of Biophilic Design - Stephen R. Kellert
- Designology: How to Find Your PlaceType and Align Your Life With Design – Sally Augustin

Subject Code: DD545

Course Title: Jewellery Design

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 2 hrs

Studio: 4 hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit:

Pre Requisite: NIL

Aim: To understand the importance of emotion and expression represented by jewellery and its various manufacturing techniques.

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to Jewellery design, History of jewellery and material being used and different processes of jewellery.	3
2	Understanding the materials that can be used and manipulated, introducing technology in this domain of designing, and enhancing its experience for future. Studying about various brands that are working towards.	3
3	Introducing smart materials and wearable technology. Designing jewellery with solutions for future scenarios.	4
4	Understanding of jewellery as a concept not just as a body ornament and how it can be developed in different materials with different techniques.	4
Total		14

Outcome: Students will develop an deeper understanding of personal ornaments, its expression and true value.

Reference Books:

- Jewel: A Celebration of Earth's Treasures -Dorling Kindersley
- Jeweler- Masters, Mavericks, and Visionaries of Modern Design - Stellene Volandes

Subject Code: DD547

Course Title: Exploring Material structures and Surfaces

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 2 hrs

Studio: 4 hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit:

Pre Requisite: NIL

Aim: To understand various materials, new age materials and process.

Details of the Course

S. No.	Contents	Contact weeks
1	Introducing many different materials and processes as applicable to product design, understanding their properties and how they have been put to use by some of the most innovative designers around the world.	
2	Manipulating the materials, hand on experience with material to explore better.	
3	Exploring forms with a variety of material and creating products for everyday use. Understanding different texture and finishes of materials that can be developed into new products.	
4	Creating a learning diary for experiences gathered throughout the process of the subject and placing the material explorations and pictures of the products created at different stages.	
Total		14

Outcome: Exploring materials tools and introducing new forms of materials to generate innovative design solutions.

Reference Books:

- The Materials Sourcebook for Design Professionals – Rob Thompson
- The Pattern Sourcebook: A Century of Surface Design – Dursilla Cole
- Materials for Design – Chris Lefteri

Subject Code: DD501

Course Title: Design Project-1 (Personal Accessories Design)

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 2 hrs

Studio: 4 hrs

Relative Weight:

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Credit:

Pre Requisite: NIL

Aim: Introduction to various materials (leather, fabrics, Faux leather, cork etc) to understanding accessories and developing patterns and apply the same in the form of a Design Project.

Outcome: Students will be able to apply different theory and practical knowledge taught during the semester in the Design Project. Developing concepts and designs followed by Prototyping the collection in leather.

Reference Books:

- Handbag Designer 101 – Emily Blumenthal
- Modern Concept of Leather and Footwear Manufacturing -RD Singh
- Practical Leather Technology – Thomas.C.Thorsteen
- Classic and Modern Fabrics: The Complete Illustrated Sourcebook- JANET WILSON

Lifestyle and Accessories Design

Semester II

Subject Code: DD542
Contact Hours: 7
Examination Duration (Hrs.):
Relative Weight:
Credit: 4
Semester: 4th

Course Title: Branding & Packaging Design
L:2 T: 0 S: 4
Studio: 4
CWS-10 STS-40 MTE-10 ETE-20 STE-20

Pre Requisite:

Aim: The course will focus on the principles and theories of Branding & Packaging Design with emphasis on brand value, strategy, functionality, sustainability, aesthetics and materials.

CONTENT

S.No	Content	Contact weeks
1	Overview Of Branding, Meaning and purpose of branding. Create a brand strategy, Understanding creative briefs, Deciding your brand type, Creating a brand name and slogan. Understanding target consumers and their needs.	2
2	Understanding packaging design as a less environmental destructive practice along with types of packaging & material available in the market. Understand different aspect of packaging to enhance overall experience to produce the package cost-effectively.	3
3	Utilize Visual Knowledge for optimum communication, including specifying appropriate typefaces, font style, graphics, shape, form, colour, photography and layout.	3
4	Expand design thinking and processing, implement their concepts to practice, learn of manufacturing techniques and feasibility issues of a product packaging.	3
5	Development and translation of brand identity and value via visuals for a product packaging. Methodologies and techniques for creating prototypes for innovative and sustainable packaging Design.	3
	Total	14

Outcome: Students will get the understanding of branding & packaging considering various aspects in mind like communication, transportation, shelf life, Protection, easy storage, helps in easing the job of distribution and usage.

Books Recommended

S.No.	Name of Authors / Books / Publishers	Year
1	Packaging Design: Successful Product Branding From Concept to Shelf, 2nd Edition Marianne R. Klimchuk, Sandra A. Krasovec, January 2013.	2013
2	Package Design Workbook: The Art and Science of Successful Packaging Paperback – June 1, 2011 by Steven DuPuis (Author), John Silva (Author)	2011
3	Structural Packaging: Design Your Own Boxes and 3D Forms Paperback – February 15, 2012 by Paul Jackson (Author)	2012
4	The Packaging Designer's Book of Patterns, 4th Edition by László Roth, George L. Wybenga, march 2013	2013

Subject Code: DD 544

Course Title: Collection Design

Contact Hours:

L: 2

T: 0

S: 4

Examination Duration (Hrs)

Theory: 2 hrs

Studio: 4 hrs

Relative Weight:

CWS-10 STS-40

MTE-10 ETE-20

STE-20

Credit:

Pre Requisite: NIL

Aim: Creating a collection products considering all the relevant factors, from design aesthetics, ergonomics, functionality and environmental aspects.

Details of the Course

S. No.	Contents	Contact weeks
1	Understanding of collection design as a range of products. Understanding customer's need, Personality, experience and lifestyle to come up with a collection.	
2	Designing, developing to marketing. Step to step through the concept, Design, development and production Phases.	
3	Understanding various manufacturing process and material that can be used to create a collection. Understanding and exploring various colors, materials and finishes for the same.	
4	Discovering the potential value, practicality, and influences of products in collection by defining overall aesthetics, feel and purpose.	
Total		14

Outcome: Students will be able to create a collection that can be market ready.

Reference Books:

Subject Code: DD546

Course Title: Craft Workshop and Documentation

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 2 hrs

Studio: 4 hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit:

Pre Requisite: NIL

Aim: To develop a sensitive approach in students towards various crafts of India.

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to the crafts and how it has its niche still in the market, how it has and influenced cultural practices. To gain knowledge on Indian Crafts Heritage. To understand craft industry, role of designers in this industry and career opportunity.	3
2	Sensitize towards the Indian traditional design with their social context. Ability to gather relevant data / information, ability to Interact, observe, document and present.	3
3	To have a realistic understanding of the various craft cluster to equip for integration with professional expertise.	4
4	Selection of an area and understanding the crafts in detail. To contribute in documentation and archival for craft repository through research. Creating a collection of products from the same craft. Experiencing the craft right from materials, Design, manufacturing to market. Understanding the city from where the craft has been evolved. Understanding its geographical and demographic condition. Understanding the artisans and their lifestyle how they are. How its influencing or motivating the craft and production.	4
Total		14

Outcome: Students will learn about various crafts of India and its process and how being designers they can bring some livelihood to artisans.

Reference Books

- Arts and crafts of india -1993 by Nicolas barnard and robyn beech
- Hand made in india : crafts of india -2009 ranjan Aditi
- Hand crafted Indian textile -2009 -martand singh
- Crafts atlas of india-2012 -jaya jaitly

Subject Code: DD548

Course Title: Design For Sustainability

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 2 hrs

Studio: 4 hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit:

Pre Requisite: NIL

Aim: To understand the concerns with human and environment care and achieving these in a sustained manner.

Details of the Course

S. No.	Contents	Contact weeks
1	Sensitizing and creating an awareness of sustainable design & technology, enabling students to recognize the economic and environmental impacts of the design & technology they choose to reduce its ill effects.	
2	Sustainable design principles. Physical, mental, spiritual, cultural, social, ethical and economic issues in designing for sustainability.	
3	To convert the constraints into sustainable opportunities. Designing for sustainability and giving insights to regional sensibilities and diversities, resources and environment.	
4	Individual / group project exploring sustainability challenges and finding solutions. Student presentations.	
	Total	14

Outcome: Students will develop an understanding of the different concerns pertaining to the environment and their role as a designer in achieving

Reference Books:

- Overdressed: The Shockingly High Cost of Cheap Fashion – Elizabeth.I.Cline
- The Sustainable Design Book – Rebecca Proctor
- Cradle to Cradle: Remaking the Way We Make Things – William Mc Donough
- Why Materials Matter: Responsible Design for a Better World – Sheetal Solanki

Subject Code: DD502

Course Title: Design Project- 2 (Trend & Forecasting)

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 2 hrs

Studio: 4 hrs

Relative Weight:

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Credit:

Pre Requisite: NIL

Aim: To develop an understanding about the dynamics of forecast for designing products and apply the same in the form of a Design Project.

Details of the Course

S. No.	Contents	Contact weeks
1	Understanding the dynamics of forecast for designing products that can cater the market.	
2	Understanding the multi-faceted dynamics within the world where a variety of changing trends.	
3	Understanding the process of forecasting.	
4	Project based on understanding, application of the topics covered and developing a trend report.	
	Total	14

Outcome: Students will be able to apply different theory and practical knowledge about the process of forecasting taught during the semester in the Design Project.

Reference Books:

- ALBERTO & ROY COLORI - COLOR FORECAST WITH FABRICS & YARN
- Fashion Trend Forecasting – Gwenth Holland
- Fashion Trends: Analysis and Forecasting (Understanding Fashion)- Eundoek Kim

Lifestyle and Accessories Design

Semester III

Subject Code: DD641

Course Title: Organizational Model for Entrepreneurship

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 2 hrs Studio: 4 hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit:

Pre Requisite: NIL

Aim: To understand how modern business starts and run

Details of the Course

S. No.	Contents	Contact weeks
1	Entrepreneurship- Social, Corporate, trade, agriculture etc	4
2	Models- Investment model, Business plans, start-ups, ROI model etc	3
3	Legal aspects- contracts and agreement (NDA etc.), IPR	4
4	Ethics and code of conducts	3
	Total	14

Outcome: Students will learn to manage and supervise live projects as entrepreneur

Reference Books

1. Ted Crawford, AIGA Professional Practices in Graphic Design, Allworth Press, 2008
2. Shan Preddy, How to Run a Successful Design Business: The New Professional Practice, Gower Publishing, Ltd., 2011

Subject Code: DD643

Course Title: Experience Design

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 2 hrs Studio: 4 hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit:

Pre Requisite: NIL

Aim: To understand the user and associated experience.

Details of the Course

S. No.	Contents	Contact weeks
1	Understanding user experience existing in the surrounding related to products, technologies, spaces etc.	
2	Understanding complexities in environments and solving them by better experience design.	
3	Understanding the factors that can affect experience. (internal/ external etc)	
4	Application of human centric design for experience.	
	Total	14

Outcome: Approach to problem-solving will challenge students to get out into the real world and test your ideas so you can arrive at exciting, unexpected solutions tailored to the needs of the people you serve.

Reference Books:

- 100 Things Every Designer Needs To Know About People -Susan M. Weinschenk
- Usable Usability -Eric Reiss
- Measuring The User Experience: Collecting, Analyzing, and Presenting Usability Metrics - Tom Tullis and Bill Albert
- Smashing UX Design: Foundations for Designing Online User Experiences - Jesmond Allen and James Chudley

Subject Code: DD603

Course Title: Design Project-3 (Service & System Design)

Contact Hours:

L: 0 T: 0 S: 0

Examination Duration (Hrs)

Theory: 0 hrs

Studio: 0 hrs

Relative Weight:

CWS-0 STS-30

MTE-20 ETE-0

STE-50

Credit:

Pre Requisite: NIL

Aim: To understand issues in the society and devising methodologies for providing services for the same.

Details of the Course

S. No.	Contents	Contact weeks
1	Application of design methodologies to tackle human issues. Understanding issues of the society. Introduction to Services; tying together humans, digital, and physical interactions.	
2	Designers role in the society. Stakeholder Analysis; Providing insights into the relationships between people, technology and design, Understanding needs for bottom of the pyramid.; Learning from different case studies.	
3	Delivering Services form the view of design thinking; understanding people's needs from a holistic view. Systems approach to service design.	
4	Small projects for intervention from the view point of Social and Service Design	
	Total	14

Outcome: Students will be able to apply design thinking techniques to intervene and provide solutions for the problems selected.

Reference Books:

- The System Design Interview, 2nd Edition- Lin, Lewis C.
- Design Systems- Kholmatova, Alla
- This Is Service Design Methods: A Companion to This Is Service Design Doing - Marc Stickdorn
- Service Design: From Insight to Implementation - Andy Polaine

Subject Code: DD605

Course Title: Internship

Contact Hours:

L: 0 T: 0 S: 0

Examination Duration (Hrs)

Theory: 0 hrs

Studio: 0 hrs

Relative Weight:

CWS-0 STS-30 MTE-20 ETE-0

STE-50

Credit:

Pre Requisite: NIL

Aim: Students will be able to develop an understanding about how the industry works and apply the same in enhancing their portfolio.

Outcome: Students will get a know-how of how the Industry works and will be able to apply that experience into their work.

Subject Code: DD607

Course Title: Design Research Seminar

Contact Hours:

L: 0 T: 0 S: 0

Examination Duration (Hrs)

Theory: 0 hrs

Studio: 0 hrs

Relative Weight:

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Credit:

Pre Requisite: NIL

Aim: Students to present the work done in the Internship Program in the form of a seminar or student may also write Research Papers to be Presented in Conferences etc.

Outcome: Students will be able to Present/ Pitch his or her idea to the market / jury. They will also develop holistic research aptitude in preparation of this seminar.

Lifestyle and Accessories Design

Semester IV

Subject Code: DD602

Course Title: Sponsored/ Self Sponsored Project

Contact Hours:

L: 0 T: 0 S: 0

Examination Duration (Hrs)

Theory: 0 hrs

Studio: 0 hrs

Relative Weight:

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Credit:

Pre Requisite: NIL

Aim: Students to work on industry or self-sponsored project. Students willing to work on their own enterprise for the realization into a start-up is also encouraged.

Outcome: Students will be able to acquire skills, knowledge and experience needed for excelling in their respective fields.

Master of Design (Interaction Design): Course Structure

First Year 1st SEMESTER

CREDITS: 20

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 511	Digital Representation Techniques	4	2	0	4	6
2	DD 513	Narrative Building	4	2	0	4	6
3	DD 515	User Centred Design	4	2	0	4	6
4	DD 517	Behavioural Dynamics in Design	4	2	0	4	6
5	DD 501	Design Project 1	4	0	0	8	8

First Year 2nd SEMESTER

CREDITS: 20

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 512	Virtual and Augmented Reality	4	2	0	4	6
2	DD 514	Design of Human Experiences	4	2	0	4	6
3	DD 516	Usability Evaluation and Testing	4	2	0	4	6
4	DD 518	Creating and Experiencing Forms	4	2	0	4	6
5	DD 502	Design Project 2	4	0	0	8	8

Second Year 3rd SEMESTER

CREDITS: 20

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 601	Organizational model for entrepreneurship	4	2	0	4	6
2	DD 613	Design for Society and Service Design	4	2	0	4	6
3	DD 615	Elective from other Discipline	4	2	0	4	6
4	DD 603	Design Project 3	4	0	0	8	8
5	DD 605	Internship	4	0	0	0	0
6	DD 607	Design Research Seminar	2	0	0	0	0

S.No.	Code	Course Title	Credit	Contact Hours/Week			
				L	T	S	Total
1	DD 602	Sponsored/ Self Sponsored Project	20	0	0	0	0

Weights for Course Evaluation

S.No.	Course Type			Examination		Relative Weight				
	L	T	S	TH	ST	CWS	STS	MTE	ETE	STE
1.	2	0	4	Yes	Yes	10	40	10	20	20
2.	0	0	0	No	Yes	0	50	20	0	30

STE: Students semester work to be presented before jury.

CWS: Assignment based on lectures

STS: Work done in studios

MTE / ETE: Written test based on lecture

Interaction Design

Semester I

Subject Code: DD 511

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Digital Representation Techniques

L: 2 T: 0 S: 4

Theory: 2 hrs

Studio: 4 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To develop an understanding about the different representation techniques.

Details of the Course

S. No.	Contents	Contact weeks
1	Representing the observed, Representing concept- Sketching for ideation, object representation through memory and imagination and figure drawing.	3
2	One point, two point, and three point perspective, Grid based Drawing	4
3	Basics of Rendering - Shading, filling areas, shading a cube, cylinder, and sphere, basics of shadows on cube and cylinder Shading corners, cones, sphere, combined shapes, different materials and vignettes.	3
4	Exposure and demonstration to Illustration and Image making software Vector illustrations, Digital sketching.	4
	Total	14

Outcome: Capabilities to draw with correct proportions, perspective, depth and volume. Students will gain the skills of 2D and 3D. Visualization of products in 3D space and representation of the same. Capabilities to evolve criteria as well as aesthetic decision making abilities to design.

Reference Books:

1. Steur, R. & Eissen, K. (2011). Sketching: The Basics. BIS Publishers.
2. Norling, E. (2008). Perspective Made Easy. BN Publishing.
3. Henry, K. (2012) Drawing for Product Designers. Laurence King Publishers
4. Illustrator, Photoshop and InDesign Manuals, Tutorials
5. The Art of 3D Drawing: An illustrated and photographic guide to creating art with three-dimensional realism, by Stefan Pabst, Walter Foster Publishing

Subject Code: DD 513

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Narrative Building

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To understand the narration techniques related to design.

Details of the Course

S. No.	Contents	Contact weeks
1	Sketching, Sketching for Scenario building, Illustrations for stories, Creating Illustrative personas	2
2	Storytelling in different forms, Visual storytelling, Audio storytelling, Vision stories	4
3	Communication Techniques such as Drama, Mime, Theatre, Video, Audio, Gestures etc.	4
4	Narrative Therapy, Exploring Novel Narration Techniques	4
	Total	14

Outcome: Exploring different methods of narrative building and to develop an understanding about narrations.

Reference Books

1. H. Porter Abbott (2002). The Cambridge Introduction to Narrative.
2. John L (2010) Joseph Urban.
3. Tamara. A and Pruitt. J (2010) The Essential Persona Lifecycle: Your Guide to Building and Using Personas

Subject Code: DD 515

Course Title: User Centered Design

Contact Hours:

L: 2 T: 0 S: 4

Examination Duration (Hrs)

Theory: 2 hrs

Studio: 4hrs

Relative Weight:

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Credit: 4

Pre Requisite: NIL

Aim: To understand and user centered design and develop different skills needed for development of user centered products and services.

Details of the Course

S. No.	Contents	Contact weeks
1	User Studies an Introduction and Ethnography	2
2	Ethnographic Observation, Understanding Emotional and Cultural Dimensions, Conducting Interviews, Protocols, Analysis of Interview Data	4
3	Different approaches to problem solving, Fish Bone, 5 Why's	4
4	Root Cause Analysis using various techniques. Exploring Through live projects.	4
	Total	14

Outcome: Students will be able to choose what techniques to apply for developing user centred products and services. An overall development of empathy towards the user while designing a product will be developed.

Reference Books

1. J. Creswell, Research design: qualitative, quantitative and mixed methods approach, 2002.
2. J. Nielsen, Usability Engineering, Morgan Kaufmann, San Francisco, 1993
3. R. Preece, Interaction Design: Beyond Human – Computer Interaction, John Wiley and Sons, Delhi, 2003
4. A. Cooper and R. Reimann, The Essentials of Interaction Design, John Wiley & Sons – Dream Tech India Pvt. Ltd, Delhi, 2003

Subject Code: DD 517

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Aim: Understanding the human behaviours, how human interact with the system.

Course Title: Behavioural Dynamics in Design

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Details of the Course

S. No.	Contents	Contact weeks
1	Definitions of Ergonomics and its application and overview, Concept of Man Machine Environment System, User compatibility, comfortability, adaptability, performance and productivity, environmental influencing factors affecting human performance	2
2	Understanding of product ergonomics; Concept of usability, usability by Form, Feature, function, material	4
3	Conducting a behavioural diagnosis and understanding users	4
4	Psycho-physiological aspects of Interface design (Control and Display design), Decision-making and Situation awareness	4
	Total	14

Outcome: Students will be able to recognize variety of products and systems to which design practice and guidance required to apply for making it user-centric design.

Reference Books

1. R. S. Bridger, Introduction to Ergonomics, 2nd Edition, Taylor & Francis, 2003
2. J. Dul, and B. Weerdmeester, Ergonomics for beginners, a quick reference guide, Taylor & Francis, 1993
3. C. D. Wicknes, S. E. Gordon, and Y. Liu, An Introduction to Human Factors Engineering, Longman, New York, 1997
4. Argyris, C. (1970). *Intervention theory and method: A behavioral science view* (pp. 12-35). Reading, MA: Addison-Wesley.
5. Long, J., & Whitefield, A. (Eds.). (1989). *Cognitive ergonomics and human-computer interaction* (Vol. 1). Cambridge University Press.
6. Gaines, B. R., & Monk, A. F. (2015). *Cognitive Ergonomics: Understanding, Learning, and Designing Human-Computer Interaction*. Academic Press.

Subject Code: DD 501

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Design Project 1

L: 0 T: 0 S: 8

Theory: 0 hrs Studio: 3hrs

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: To develop an understanding about the courses being taught and apply the same in the form of a Design Project.

Outcome: Students will be able to apply different theory and practical knowledge taught during the semester in the Design Project.

Interaction Design

Semester II

Subject Code: DD 512

Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Virtual and Augmented Reality Contact

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To understand the importance of AR and VR and their applications.

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to Application of AR,	4
2	Introduction to Application of VR	4
3	Applications related to AR and VR, Basic Programming and related Software, Unity3D, Vuforia, Adobe Aero etc.	4
4	Development of a AR/VR Project.	2
	Total	14

Outcome: Students will learn and appreciate the use of AR and VR and apply them in their Design Solutions.

Reference Books

1. Schmalstieg. D and Hollerer. T (2016) Augmented Reality : Principles and Practice (Usability)
2. Peddie. J Augmented Reality: Where We Will All Live
3. Rakesh. B (2019), Virtual Reality with VRTK4, Create Immersive VR Experiences Leveraging Unity3D and Virtual Reality Toolkit
4. Adobe Aero.

Subject Code: DD 514

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Design for Human Experiences

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To understand the user and associated experiences

Details of the Course

S. No.	Contents	Contact weeks
1	Understanding all set of users, user classification, various user centric approaches	4
2	Human centric approach, Design for all, Empathy and Ethnographic Research, Design Intent	4
3	Lens of human centric design, HCD process, Evaluation techniques	4
4	Application of Human centric Design.	2
Total		14

Outcome: Approach to problem-solving will challenge students to get out into the real world and test your ideas so you can arrive at exciting, unexpected solutions tailored to the needs of the people you serve.

Reference Books

1. Kabir, Z. (2011). User centric design of an NFC mobile wallet framework.
2. Lowdermilk, T. (2013). User-centered design: a developer's guide to building user-friendly applications. " O'Reilly Media, Inc."
3. Luma Institute. (2012). Innovating for people: Handbook of human-centered design methods. Luma Institute, LLC.

Subject Code: DD 516

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Usability Evaluation and Testing

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To understand the constraints while designing products and applications keeping in mind the usability aspects.

Details of the Course

S. No.	Contents	Contact weeks
1	Story of transition in human society form Man-Machine Interaction to Human-Computer Interaction. Relationship between product complexity and mental workload.	4
2	Subjective and objective measurements of product complexity and mental workload. User centered design process for usable product design. Understanding users' mental models. Conduct of task analysis. Operational definitions of usability. Measurement of ease of use, efficiency and effectiveness of digital products.	4
3	Design of interactive products from usability perspective. Development of user screeners, testing protocols and conduct of usability tests. Usability Testing by creation of paper prototypes, wireframes, information architecture. Conduct of low fidelity tests, card sorting, reverse card sorting, affordance tests, high fidelity testing and brand testing.	4
4	Individual / group project exploring usability aspects and finding solutions. Student presentations.	2
Total		14

Outcome: Students will develop an understanding of the different usability aspects and related testing.

Reference Books

1. William Lidwill, Jill Butler, Kritina Holden, Universal Principles of Design: 100 Ways to Enhance Usability, Influence Perception, Increase Appeal, Make Better Design Decisions, and Teach Through Design, Rockport Publisher
2. Susan M. Weinschenk, 100 Things Every Designer Needs to Know about People, New Riders Publisher
3. Jef Raskin, The Humane Interface: New Directions for Designing Interactive Systems, Addison Wesley Professional

Subject Code: DD 518

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Creating and Experiencing Forms

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To understand the importance emotions and expressions and their application in form manipulation with a methodological approach inspired from an object or concept which leads innovative and experiential forms.

Details of the Course

S. No.	Contents	Contact weeks
1	Introduction to Forms (2-3D), Form and Identity. Form and Function, Form as Expression, Meaning and Form. Form as Abstraction.	4
2	Designing Virtual forms.	4
3	Morphology of expression, Understanding Emotions, Expressions, Illusions and Senses, etc.	4
4	Individual Projects and Presentations.	2
	Total	14

Outcome: students will be able to appreciate the forms and the emotions and expressions that are conveyed through them.

Reference Books

1. Nature, A. F. F. (2011). A history of nature as model for design in engineering, architecture and Art. Rudolf Finsterwalder editor.
2. Benyus, J. M. (1997). Biomimicry: Innovation inspired by nature.
3. Bolton, J., Featherstone, D., & Connell, T. (2009). *Fancy Form Design*. SitePoint
4. Rand, P. (2017). *Design, form, and chaos*. Yale University Press.
5. Gerald C. Cupchik (2016). The Aesthetics of Emotion: Up the Down Staircase of the Mind-Body
6. Warren Shibbes (1995). Emotion in aesthetics

Subject Code: DD 502

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Design Project 2

L: 0 T: 0 S: 8

Theory: 0 hrs Studio: 3hrs

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: To develop an understanding about the courses being taught and apply the same in the form of a Design Project.

Outcome: Students will be able to apply different theory and practical knowledge taught during the semester in the Design Project.

Interaction Design

Semester III

Subject Code: DD 601 **Course Title: Organizational model for Entrepreneurship**
Contact Hours: **L: 2 T: 0 S: 4**
Examination Duration (Hrs) **Theory: 2 hrs Studio: 4 hrs**
Relative Weight: **CWS-10 STS-40 MTE-10 ETE-20 STE-20**
Credit: 4
Pre Requisite: NIL

Aim: To understand how modern business starts and run

Details of the Course

S. No.	Contents	Contact weeks
1	Entrepreneurship- Social, Corporate, trade, agriculture etc	4
2	Models- Investment model, Business plans, start-ups, ROI model etc	3
3	Legal aspects- contracts and agreement (NDA etc.), IPR	4
4	Ethics and code of conducts	3
Total		14

Outcome: Students will learn to manage and supervise live projects as entrepreneur

Reference Books

1. Ted Crawford, AIGA Professional Practices in Graphic Design, Allworth Press, 2008
2. Shan Preddy, How to Run a Successful Design Business: The New Professional Practice, Gower Publishing, Ltd., 2011

Subject Code: DD 613

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Design for Society and Service Design

L: 2 T: 0 S: 4

Theory: 2 hrs Studio: 4 hrs

CWS-10 STS-40 MTE-10 ETE-20 STE-20

Aim: To understand how to design for the society or a social cause.

Details of the Course

S. No.	Contents	Contact weeks
1	Application of design methodologies to tackle human issues. Understanding issues of the society. Introduction to Services; tying together humans, digital, and physical interactions.	4
2	Designers role in the society. Stakeholder Analysis; Providing insights into the relationships between people, technology and design, Understanding needs for bottom of the pyramid.; Learning from different case studies.	3
3	Delivering Services form the view of design thinking; understanding people's needs from a holistic view. Systems approach to service design.	4
4	Small projects for intervention from the view point of Social and Service Design	3
	Total	14

Outcome: Students will be able to look at society's issues and be able to solve them using service design and applied problem solving.

Reference Books

1. Nynke Tromp and Paul Hekkert (2018) Designing for Society: Products and Services for a Better World.
2. Robert Curedale (2013), Service Design: 250 Essential Methods
3. Robert Curedale (2013), Design Research Methods: 150 Ways to Inform Design
4. Lucy Kimbell (2015) , The Service Innovation Handbook: Action-oriented Creative Thinking Toolkit for Service Organizations
5. Elizabeth Resnick (2019), The Social Design Reader
6. C. K. Prahalad (2004), The Fortune at the Bottom of the Pyramid
7. Victor Papanek (1972), Design for the Real World

Subject Code: DD 603

Course Title: Design Project 3

Contact Hours:	L: 0 T: 0 S: 8
Examination Duration (Hrs)	Theory: 0 hrs Studio: 3hrs
Relative Weight:	CWS-0 STS-30 MTE-20 ETE-0 STE-50
Credit: 4	
Pre Requisite: NIL	

Aim: To develop an understanding about the courses being taught and apply the same in the form of a Design Project.

Outcome: Students will be able to apply different theory and practical knowledge taught during the semester in the Design Project.

Subject Code: DD 605

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 4

Pre Requisite: NIL

Course Title: Internship

L: 0 T: 0 S: 0

Theory: 0 hrs

Studio: 0hrs

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: Students will be able to develop an understanding about how the industry works and apply the same in enhancing their portfolio.

Outcome: Students will get a know-how of how the Industry works and will be able to apply that experience into their work.

Subject Code: DD 607

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 2

Pre Requisite: NIL

Course Title: Design Research Seminar

L: 0 T: 0 S: 0

Theory: 0 hrs

Studio: 0hrs

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: Students to present the work done in the Internship Program in the form of a seminar or student may also write Research Papers to be Presented in Conferences etc.

Outcome: Students will be able to Present/ Pitch his or her idea to the market / jury. They will also develop holistic research aptitude in preparation of this seminar.

Interaction Design

Semester IV

Subject Code: DD 602

Contact Hours:

Examination Duration (Hrs)

Relative Weight:

Credit: 20

Pre Requisite: NIL

Course Title: Sponsored/ Self Sponsored Project

L: 0 T: 0 S: 0

Theory: 0 hrs Studio: 0 hrs

CWS-0 STS-30 MTE-20 ETE-0 STE-50

Aim: Students to work on industry or self-sponsored project. Students willing to work on their own enterprise for the realization into a start-up is also encouraged.

Outcome: Students will be able to acquire skills, knowledge and experience needed for excelling in their respective fields.