



PCET's
Pimpri
Chinchwad
University, Pune

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Pimpri Chinchwad Education Trust's
Pimpri Chinchwad University

SCHOOL OF DESIGN

(Established under Maharashtra Act No V of 2023)

Sate, Pune - 412 106. Maharashtra, India

**MASTER'S OF DESIGN
(ISD)**



EFFECTIVE FROM 2024-25 ACADEMIC YEAR

Pimpri Chinchwad Education Trust's
Pimpri Chinchwad University
Sate, Pune - 412106

Curriculum Structure
Master's of Design
(ISD)
Pune Design School



Effective from Academic Year 2024-25

Program Structure

Preamble:

India has a long history of welcoming visitors with open arms, making it recognised as a typically hospitable nation. Hospitality is known to be the very essence of India. The hospitality sector offers a wide range of professional options at different levels and requires a variety of talents, and it makes a considerable contribution to the economies of India and many other nations.

The goal of Pimpri Chinchwad University's Bachelor of Design is to provide students with a solid intellectual foundation. Their ability to develop strategic business insight, make moral decisions, and adopt a sustainable worldview is empowered by the curriculum. In essence, the programme aims to create leaders who can proactively implement business strategies that pursue the economic well-being of all stakeholders while considering the welfare of the people and impact on the planet. The foundational information and abilities offered in this undergraduate degree programme are crucial for students to succeed in creative roles and be responsible citizens in the future. A key component of the curriculum is the student's holistic development. The B.Des program is Ideal for students who wish to start a career in Design, management, or entrepreneurship soon after graduation.

Vision and Mission of Programme:

Vision

The vision of the Pune Design School is to be recognized for leadership in the discipline and the profession by advancing design excellence in an evolving global ecosystem, promoting human values and well being, and inculcating responsibility to society, the environment, and the profession.

Mission

- To offer future leaders with academic and research excellence to succeed in today's dynamic Design Environment as successful managers and entrepreneurs.
- To Improve and Enhance the Educational Experience.
- To Cultivate a Culture of Research, Scholarship and Creative Activities
- To Grow a Comprehensive and Balanced Student community and Faculty
- To Advance Industry, Professional, Community and University Partners

Programme Educational Objectives:

1. Develop research methodologies to investigate and identify design focused interventions.
2. Develop critical thinking and ability to create innovative solutions.
3. Exhibit proficiency in practices that employ media, materials & emerging technologies.
4. Ability to demonstrate digital & analogue competence to present ideas.
5. Develop entrepreneurial approach to create strategic design solutions.



Programme Outcomes (POs):

The Graduates will be able to:

1. **Critical & Design Thinking:** Capacity to apply and effectively problem-solve in an unstructured, unfamiliar and complex context.
2. **Emerging Technology Practice:** Demonstrate curiosity and intention of practice in the domain of emerging technologies that engender innovation in the industry.
3. **Strategic Design Disposition:** Illustrate critical understanding of impact of design interventions on micro & macro environments.
4. **Entrepreneurial Attitude:** Display of professionalism, enterprise, teamwork and collaboration as an approach and attitude towards entrepreneurship.

Programme Specific Outcomes (PSOs):

1. Using a structured thought process and design development process, ability to design Products that create business value, serve individual and societal needs while considering environmental impact
2. Ability to create innovative solutions which are desirable to the user, technically feasible and commercially viable.
3. Ability to develop concepts through cycles of research and concept progression while integrating all relevant issues in a given context through several stages of design development and form building.
4. Ability to work in a professional manner with the knowledge of design management in a collaborative, team environment, honoring timelines and ethical considerations.

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Curriculum Framework for M. Des (2 years)

Sr. No.	Type of course	Abbreviations
1	Major	MAJ
4	Ability Enhancement Courses	AEC
5	Open Electives	OE
7	Summer Internship	INTR
9	Project	PROJ

Sr. No.	Type of course	No. of Courses	Total Credits	
			No	%
1	Major	17	47	55.95
2	Open Electives	3	9	10.71
3	Ability Enhancement Courses	1	2	2.38
4	Project	4	23	27.38
5	Internship	1	3	3.57
	Total	22	84	100.0

COURSE DISTRIBUTION: SEMESTER WISE

Sr. No.	Type of course	Courses				
		1	2	3	4	
1	Major	6	3	3	1	13
2	Open Electives	1	1	1	0	3
3	Ability Enhancement Courses	0	0	1	0	1
4	Project	1	1	1	1	4
5	Internship	0	1	0	0	1
Total						22

Program Structure of M.Des Interior and Space Design

Pattern 2024

Semester I

WEF: A.Y. 2024-25

Course Code	Course Name	Course Type	Teaching Scheme					Assessment Scheme		
			Th	Prac	Tut	Credit	Hrs	CI A	ES A	Total
PMDFD101	FUNDAMENTALS OF DESIGN	MAJ	2	1	-	3	4	40	60	100
PMDFD102	DESIGN THINKING AND INNOVATION	MAJ	1	1	-	2	3	40	60	100
PMDFD103	INTRODUCTION TO DESIGN RESEARCH	MAJ	1	1	-	2	3	40	60	100
PMDISD101	DRAFTING TECHNIQUES	MAJ	2	2	-	4	5	40	60	100
PMDISD102	DESIGN STUDIO - I	PROJ	1	2	-	3	5	40	60	100
PMDISD103	BASICS OF FURNITURE AND SPACE	MAJ	1	1	-	2	5	40	60	100
PMDISD104	HUMAN ERGONOMICS	MAJ	1	1	-	2	5	40	60	100
PMDISD105	OE-I	OE	1	2	-	3	5	40	60	100
						21	35	320	480	800
PMDISD105	OPEN ELECTIVE COURSE I Options									
PMDISD105A	Clay									
PMDISD105B	Bamboo									

Semester II										
Course Code	Course Name	Course Type		Teaching Scheme				Assessment Scheme		
			Th	Prac	Tut	Credit	Hrs	CIA	ESA	Total
PMDISD106	ESTIMATING & COSTING	MAJ	2	0	-	2	2	40	60	100
PMDISD107	INTERIOR MATERIALS & SPECIFICATION	MAJ	2	2	-	4	6	40	60	100
PMDISD108	FURNITURE & FURNISHINGS	MAJ	2	2	-	4	6	40	60	100
PMDISD109	Design Studio -II	PROJ	2	3	-	5	8	40	60	100
PMDISD110	OE II	OE	1	2	-	3	5	40	60	100
PMDISD111	SUMMER INTERNSHIP	INTR	3	0	-	3	3	40	60	100
						21	30	240	360	600
PMDISD110	OPEN ELECTIVE COURSE II Options									
PMDISD110A	Retail and Exhibition Design									
PMDISD110B	Lighting Design									
Exit Policy: For students exiting after 1st year of M.Des will receive Post Graduate Diploma in Interior and space design after successful completion of Summer Internship Project of 4 credits										
PMDISD111	SUMMER INTERNSHIP	INTR	3	0	0	3	0			100

Semester III

Course Code	Course Name	Course Type	Teaching Scheme					Hrs	Assesment Scheme		
			Th	Prac	Tut	Credit			CI A	ES A	Total
PMDISD201	INTERIOR LIGHTING & ACOUSTICS	MAJ	2	2	-	4		6	40	60	100
PMDISD202	WORKING DRAWINGS	MAJ	2	2	-	4		6	40	60	100
PMDISD203	INTERIOR SERVICES	MAJ	2	1	-	3		4	40	60	100
PMDISD204	Design Studio-III	PROJ	2	3	-	5		8	40	60	100
PMDISD205	OE III	OE	1	2	-	3		5	40	60	100
PMDFD104	Portfolio Making	AEC	2	0	-	2		2	40	60	100
						21		31	240	360	600

PMDISD205	OPEN ELECTIVE COURSE III Options										
PMDISD205A	Design Management										
PMDISD205B	Crafts of India										

Semester IV

Course Code	Course Name	Course Type	Teaching Scheme					Hrs	Assesment Scheme		
			Th	Prac	Tut	Credit			CI A	ES A	Total
PMDISD206	Post Graduation Project/Internship	PROJ	5	5	0	10		0	120	180	300
PMDISD207	Dissertation	MAJ	5	6	0	11		0	120	180	300
						21		0	240	360	600

Name of the Program:		M.Des		Semester : 1		Level: PG	
Course Name		FUNDAMENTALS OF DESIGN		Course Code/ Course Type		PMDFD101	
Course Pattern		2024		Version		1.0	
Teaching Scheme					Assessment Scheme		
Theory	Practical	Tutorial	Total Credits	Hours	CIA (Continuous Internal Assessment)	ESA (End Semester Assessment)	Practical/Oral
2	1	-	3	4	40	60	-
Pre-Requisite:							
Course Objectives (CO):				The Objective of Fundamental of Design is - 1. To develop an interest on non-familiar materials. 2. To develop an understanding of various Elements of Design that plays a Vital Role. 3. The objective is to understand the fundamentals of Good design compositions and learn why a particular aspect of the design is good or not. 4. Use various visual elements to create good compositions in 2D with balance, harmony, a good sense of proportions, etc. 5. To be able to use radii manipulation, form integration, and harmony of forms to communicate intangible attributes			
Course Learning Outcomes (CLO):				Upon Completion of this course, Students will be able to 1. Imagine, and create transitions of 2-D forms by Simplification, Manipulation, etc. 2. create, understand and express new forms/cross-sections using these basic fundamental exercises in Design. 3. Create personally significant works of design by applying basic design concepts and techniques. 4. Assess, evaluate, appreciate, and respect design work. 5. Develop creative solutions to design problems.			

Course Contents:

Descriptors/Topics	CLO	Hours
UNIT I		
Introduction : Basics of Design, Principles of Design	CLO 1	6
UNIT II		
Design & Storytelling : Elements, 2D Composition	CLO 2	6
UNIT III		
Design Culture : Arts and Crafts, Global Design	CLO 3	6
UNIT IV		
Human Centered Approach : Themes & Design Rules – Visual Communication	CLO 4	6
UNIT V		
Design & Critical Thinking : 10 Rules for Good Design	CLO 5	6
Total		30

Activity Plan

Assignment Number	Assignment Title	Week Number	Details	CLO	Hours
1	Textures and patterns	4,5,6	volume, surface, movement	CLO 2	10
2	Typography	7,8,9	shape, form and structure	CLO 3	10
3	2D composition	10,11,12	hierarchy, order; and spatial movement	CLO 4	10
			Total		30

Learning resources

Text Book / Reference Books:

1. Geometry of Design – 2005 by Kimberly Elam
2. Principles of Three Dimensional Design – 2006 by Stephen Luecking

Online Resources/E-Learning Resources

1. <https://paperform.co/blog/principles-of-design/>
2. <https://teaching.ellenmueller.com/3d-design/resources/elements-principles-of-design/>



Name of the Program:		M.Des		Semester : 1		Level: PG	
Course Name		Design Thinking and Innovation		Course Code/ Course Type		PMDFD102	
Course Pattern		2024		Version		1.0	
Teaching Scheme					Assessment Scheme		
Theory	Practical	Tutorial	Total Credits	Hours	CIA (Continuous Internal Assessment)	ESA (End Semester Assessment)	Practical/Oral
1	1	-	2	3	40	60	-

Pre-Requisite:

Course Objectives (CO):

- The objective of Design Thinking is
1. Understand the concepts of design thinking approaches
 2. Create design thinking teams and conduct design thinking sessions
 3. Apply both critical thinking and design thinking in parallel to solve problems
 4. Apply some design thinking concepts to their daily work
 5. Use Design Thinking in the Workplace, Design Thinking Skills

Course Learning Outcomes (CLO):

- the end of this course, students will be able to
1. have an awareness of how design thinking can be applied in a wide range of contexts, from the personal to the global
 2. investigate and think creatively about design problems and opportunities
 3. initiate an attitude of playfulness to aid design thinking
 4. develop visual literacy and articulation to explain design decisions
 5. use computing tools and online environments to aid design thinking.

Course Contents:

Descriptors/Topics	CLO	Hours
UNIT I		
Design Thinking Overview : What Is Different About Design thinking?, Exercise: Design Thinking in the Workplace, Design Thinking Skills, Exercise: Design Thinking Skills, Design Thinking Mindset, Principles of Design Thinking, Exercise: Design Thinking Principles	CLO 1	3
UNIT II		
General Approaches to Design Thinking : The Basis for Design Thinking, Design Thinking Frameworks, Exercise: Build a Design Thinking Framework, The Design Thinking Team, What Constitutes a Design Thinking Team?, Exercise: Create a Design Thinking Team , Design Thinking Workshops and Meetings	CLO 2	3
UNIT III		
A Design Thinking Approach in Stages : Apply the Design Thinking Frameworks, Class Exercise: Review the Case Study, Empathize with the Customers and/or Users, Exercise: Engage the Customer /User, Define the Problem, Exercise: Review and Follow-Up, Exercise: Define the Point of View, Ideate, Exercise: Develop Potential Solutions, Exercise: Feedback on the Solutions, Prototype Alternate Solutions, Exercise: Create a Prototype of the Solution Exercise: Review the Prototype and Gain Feedback, Test the Solutions	CLO 3	3
UNIT IV		
Design Thinking Techniques : Listening and Empathizing Techniques, Engagement, Exercise: Ask the Right Questions, Observation, Exercise: Setting Up the Observation, Showing, Empathy, Define and Ideation Techniques, Unpacking, Exercise: Unpack to the Wall, Personas, Exercise: Create Personas for the Case Study, Pattern Recognition and Connecting the Dots, Prototype and Test Techniques, Types of Prototypes Exercise: Revise Franken Prototype to Refined Prototype Forms of Testing in Design Thinking, Exercise: Prepare and A / B Test of the Prototype	CLO 4	3
UNIT V		
General Design Thinking Practices : Visualization Techniques and Diagrams, Use of Diagrams and Maps in Design Thinking, Exercise: Create an Empathy Map, Story Telling Techniques, Story Telling Throughout the Design Thinking Process, Improvisation, Exercise: Tell a Story, Scenarios Exercise: Create a Set of Scenarios for the Case Study, K-Scripts, Exercise: Create a Set of K-Scripts for the Case Study	CLO 5	3
Total		15

Activity Plan

Assignment Number	Assignment Title	Week Number	Details	CLO	Hours
1	General Approaches	4,5,6	Build a Design Thinking Framework	CLO 2	10
2	Approach in Stages	7,8,9	Define the Point of View, Ideate, Exercise: Develop Potential Solutions,	CLO 3	10
3	Design Thinking Practices	10,11,12	Create an Empathy Map, Story Telling Techniques, Story Telling Throughout the Design Thinking Process, Improvisation	CLO 4	10
Total					30

Learning resources

Textbooks / Reference Books:

- Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation, by Tim Brown
- The Design of Business: Why Design Thinking is the Next Competitive Advantage, by Roger L. Martin

Online Resources/E-Learning Resources

<https://principles.design/>

<https://teaching.ellenmueller.com/3d-design/resources/elements-principles-of-design/>

Name of the Program:		M.Des		Semester : 1		Level: PG	
Course Name		Introduction to Design Research		Course Code/ Course Type		PMDFD103	
Course Pattern		2024		Version		1.0	
Teaching Scheme					Assessment Scheme		
Theory	Practical	Tutorial	Total Credits	Hours	CIA (Continuous Internal Assessment)	ESA (End Semester Assessment)	Practical/Oral
1	1	-	2	3	40	60	-
Pre-Requisite:							
Course Objectives (CO):				The Objective of Introduction to Design Research is - 1. identify and discuss the role and importance of research in the social sciences. 2. identify and discuss the issues and concepts salient to the research process. 3. Discuss the complex issues inherent in selecting a research problem, selecting an appropriate research design, and implementing a research project. 4. Understand the concepts and procedures of sampling, data collection, analysis and reporting. minimize the risk of bias and helps to control extraneous variables.			
Course Learning Outcomes (CLO):				At Students who successfully complete this Course will be able to: 1. Understand why research is important for any kind of design intervention or design solution. 2. Understand and evaluate a wide range of qualitative and quantitative methodologies related to design research and practice 3. know which of these tools and methods be best suited in different context and circumstances during the research process. 4. Acquire data visualization skills and competently use visual representation tools such as Scenario and Personas building, Affinity diagram, Empathy mapping, Entities positioning map, ERAF System Diagram etc. in a range of situations. 5. Have the ability to translate research findings into design proposals.			

Course Contents:

Descriptors/Topics	CLO	Hours
UNIT I		
Research process and scope : types (Primary & Secondary and Qualitative & Quantitative) of research, sampling methods, user profiling etc. as well as various research tools and methods (excluding observation, visual ethnography, observations etc.).	CLO 1	3
UNIT II		
Tools of research : brainstorming, surveys, interviews, experiment design, etc.,	CLO 2	3
UNIT III		
Research analysis : Analysis techniques of insights and patterns from the collected data and information, Validation of Data , Writing research report, Format of the report, Style of referencing, Bibliography	CLO 3	3
UNIT IV		
Preparing research proposals: Selection of the topic, Review of literature, Identifying Objectives of the Study, preparing Research Questions, Hypothesis formation	CLO 4	3
UNIT V		
Issues in Research : Research Ethics, Plagiarism, software to detect plagiarism	CLO 5	3
Total		15

Activity Plan

Assignment Number	Assignment Title	Week Number	Details	CLO	Hours
1	Research process	4,5,6	observation, visual ethnography, observations	CLO 2	10
2	Tools of research	7,8,9	brainstorming, surveys, interviews	CLO 3	10
3	Research analysis	10,11,12	data and information, Validation of Data , Writing research report	CLO 4	10
			Total		30

Learning resources

Textbooks/Reference Books:

- Design Research: Methods and Perspectives (The MIT Press) Hardcover – 2003 by Brenda Laurel
- Design Research Now: Essays and Selected Projects (1st edition) 2007 - By Ralf Michel, Hochschule für Gestaltung und Kunst, Basel, Switzerland

Online Resources/E-Learning Resources

- <https://www.inderscienceonline.com/journal/jdr>
- 3 Kinds of Design Research: Research for / into / through Design -<https://www.youtube.com/watch?v=7niJ2a6HTBo>



Name of the Program:		M.Des		Semester : 1		Level: PG	
Course Name		DRAFTING TECHNIQUES		Course Code/ Course Type		PMDISD101	
Course Pattern		2024		Version		1.0	
Teaching Scheme					Assessment Scheme		
Theory	Practical	Tutorial	Total Credits	Hours	CIA (Continuous Internal Assessment)	ESA (End Semester Assessment)	Practical/Oral
2	2	-	4	6	40	60	-
Pre-Requisite:							
Course Objectives (CO):				The Objective of DRAFTING TECHNIQUES is - 1.Developing a working concept of what it means to draw. 2.Reinforcing the principles of traditional drawing skills. 3.Developing new ways of thinking, seeing, and creating. 4.Tapping into imagination, intuition, and powers of observation by exploring various ways of seeing, both perceptually and conceptually. 5.Building confidence through an exercise that helps you explore different types of techniques.			
Course Learning Outcomes (CLO):				Students who successfully complete this course will be able to: 1. Skill fully apply the principle techniques, tools, materials, and media employed in manual freehand drawing and illustration. 2. Observe and accurately translate observed subjects or scenes into two dimensional representations on paper using a variety of drawing techniques such as perspectives and projections. 3. Demonstrate skills in accurately drawing and illustrating a variety of subjects, at a range of scales: at the scale of a portable object, at the scale of furniture, and at the scale of architecture. 4. Implement the fine motor skills and precision in penmanship required for manual freehand drawings and illustrations. 5. Recognize and discriminate between the various techniques of manual freehand drawing and illustrations.			

Course Contents:

Descriptors/Topics	CLO	Hours
UNIT I		
Fundamentals of hand drafting and space planning	CLO 1	6
UNIT II		
Initial spatial planning of a room.	CLO 2	6
UNIT III		
An introduction to the basic alternate ways of drawing and of viewing a room	CLO 3	6
UNIT IV		
Proportions and spacing	CLO 4	6
UNIT V		
An intro to CAD (Computer Aided Design) both in 2-D and 3-D	CLO 5	6
Total		30

Activity Plan

Assignment Number	Assignment Title	Week Number	Details	CLO	Hours
1	Technical Understanding	4,5,6	Identifying technical drawing standards	CLO 2	10
2	Autocad 1	7,8,9	Setting up the workspace and templates in AutoCAD	CLO 3	10
3	Autocad 2	10,11,12	Producing technical drawings in AutoCAD	CLO 4	10
4	Tasksheets	13,14,15	Verifying, publishing and printing drawings	CLO 5	30
			Total		60

Learning resources

Textbooks/Reference Books:

- Interior Design Drawing Paperback – Import, 26 September 2008 by Alan Hughes
- Construction Drawings and Details for Interiors Paperback – 20 August 2021 by Rosemary Kilmer (Author), W. Otie Kilmer (Author)

Online Resources/E-Learning Resources

- Interior Design Sketching - Complete Guide for Beginners and Pro's
<https://www.youtube.com/watch?v=VDn3WvxhByM>
- Design Drawing vs Technical Drawing
https://www.youtube.com/watch?v=hy51qA_u7h4



Name of the Program:		M.Des		Semester : 1		Level: PG	
Course Name		DESIGN STUDIO - I		Course Code/ Course Type		PMDISD102	
Course Pattern		2024		Version		1.0	
Teaching Scheme					Assessment Scheme		
Theory	Practical	Tutorial	Total Credits	Hours	CIA (Continuous Internal Assessment)	ESA (End Semester Assessment)	Practical/Oral
1	2	-	3	5	40	60	-

Pre-Requisite:

Course Objectives (CO):

The Objective of **Design studio 1** is -

1. Understand the broad range of ideas and concerns that are embodied in the intellectual and creative process
2. Practice sequence of projects ranging in degree of abstraction, level of complexity and focus, the students learn the design skills that are necessary for the exploration, development
3. Deliberate communication of conceptual ideas and their manifestation into space and form.
4. enhance your ability to understand spatial composition in relation to functional requirements
5. Focus on the design of a space with a moderate level of functional and structural complexity

Course Learning Outcomes (CLO):

Upon Completion of this course, students will be able to

1. Develop core knowledge and skills in design, including the integration of complex spatial/material problem solving skills and critical personal and disciplinary reflection.
2. Undertake primary and/or secondary research to inform and enrich the design process and outcomes
3. Apply the design process as a research tool for understanding and refining a design proposal
4. Transfer knowledge and understanding of sub-disciplinary areas creatively and appropriately towards a resolved design proposal.
5. Test and critically evaluate a variety of methodologies, processes and media involved in the development of architectural design proposals, and thus be able to analyse, question, and engage in informed and reasoned argument about such design proposals.

Course Contents:

Descriptors/Topics	CLO	Hours
UNIT I		
Introduction to the course and general information	CLO 1	3
UNIT II		
Basic principles of urban design	CLO 2	3
UNIT III		
units for individual and collective living	CLO 3	3
UNIT IV		
spatial strategies and design deliverables	CLO 4	3
UNIT V		
analysis concept development, functional analysis, spatial planning	CLO 5	3
Total		15

Activity Plan

Assignment Number	Assignment Title	Week Number	Details	CLO	Hours
1	space organization	4,5,6	Identifying technical drawing standards	CLO 2	10
2	User Study	7,8,9	user comfort	CLO 3	10
3	Implementation	10,11,12	structure and finish material.	CLO 4	10
4	Concept	13,14,15	Verifying, publishing and printing drawings	CLO5	30
			Total		60

Learning resources

Textbooks/Reference Books:

- The City in History: Its Origins, Its Transformations, and Its Prospects by Lewis Mumford 1972
- Construction Drawings and Details for Interiors Paperback – 20 August 2021
by Rosemary Kilmer (Author), W. Otie Kilmer (Author)

Online Resources/E-Learning Resources

- Re-imagining urban space | Ali Butcher | TEDxJacksonville
<https://www.youtube.com/watch?v=dsh4YzSxSH0>
- Design Drawing vs Technical Drawing
https://www.youtube.com/watch?v=hy51qA_u7h4



Name of the Program:		M.Des		Semester : 1		Level: PG	
Course Name		BASICS OF FURNITURE AND SPACE		Course Code/ Course Type		PMDISD103	
Course Pattern		2024		Version		1.0	
Teaching Scheme					Assessment Scheme		
Theory	Practical	Tutorial	Total Credits	Hours	CIA (Continuous Internal Assessment)	ESA (End Semester Assessment)	Practical/Oral
1	1	-	2	3	40	60	-

Pre-Requisite:

Course Objectives (CO):

The Objective of **Basics of Furniture and Space** is -

1. Expanded knowledge of materials, tools, and joinery, which in turn generates a broader appreciation and respect for furniture design.
2. Working knowledge of materials and fabrication techniques
3. Deliberate communication of conceptual ideas and their manifestation into space and form.
4. Enhance your ability to understand spatial composition in relation to functional requirements
5. Focus on the design of a space with a moderate level of functional and structural complexity

Course Learning Outcomes (CLO):

Upon Completion of this course, students will be able to

1. Consider all design aspects in a comprehensive and integrated manner
2. Maintaining focus and critical engagement upon the primary concepts and ideas that inspire design.
3. Apply the design process as a research tool for understanding and refining a design proposal
4. Transfer knowledge and understanding of sub-disciplinary areas creatively and appropriately towards a resolved design proposal.
5. Test and critically evaluate a variety of methodologies, processes and media involved in the development of design proposals

Course Contents:

Descriptors/Topics	CLO	Hours
UNIT I		
Human body support devices : Aesthetics (the meaning of form) Historical precedent (examples from the past)	CLO 1	3
UNIT II		
Surfaces and objects to support various activities : Function and social use (ergonomics, comfort, proxemics)	CLO 2	3
UNIT III		
Storage and display pieces : Surrounding context (the spatial setting for furniture)	CLO 3	3
UNIT IV		
Spatial partitions : Environmental design matters (sustainability, renewable materials, off-gassing), Surrounding context (the spatial setting for furniture)	CLO 4	3
UNIT V		
Material : classification, characteristics, properties, availability, cost	CLO 5	3
Total		15

Activity Plan

Assignment Number	Assignment Title	Week Number	Details	CLO	Hours
1	Function and social use	4,5,6	ergonomics, comfort, proxemics	CLO 2	10
2	Design processes	7,8,9	sketching, iterative overlays, model studies	CLO 3	10
3	Fabrication processes	10,11,12	hand, power, digital	CLO 4	10
			Total		30

Learning resources

Textbooks/Reference Books:

- The City in History: Its Origins, Its Transformations, and Its Prospects by Lewis Mumford 1972
- Construction Drawings and Details for Interiors Paperback – 20 August 2021
by Rosemary Kilmer (Author), W. Otie Kilmer (Author)

Online Resources/E-Learning Resources

- Re-imagining urban space | Ali Butcher | TEDxJacksonville
<https://www.youtube.com/watch?v=dsh4YzSxSH0>
- <https://catalogimages.wiley.com/images/db/pdf/9781118090787.excerpt.pdf>



Name of the Program:		M.Des		Semester : 1		Level: PG	
Course Name		Human Ergonomics		Course Code/ Course Type		PMDISD104	
Course Pattern		2024		Version		1.0	
Teaching Scheme					Assessment Scheme		
Theory	Practical	Tutorial	Total Credits	Hours	CIA (Continuous Internal Assessment)	ESA (End Semester Assessment)	Practical/Oral
1	1	-	2	3	40	60	-
Pre-Requisite:							
Course Objectives (CO):				The Objective of Human Ergonomics is - 1. To have holistic transdisciplinary understanding of knowledge to support design and innovation in human centric systems 2. understanding the sociocultural environment and organizational dimension of HE 3. enabling a more humane and sensitive practice of human-centered systems for promoting well-being, productivity and overall systems performance 4. To take a step towards understanding the sociocultural environment and organizational dimension of HE 5. Focus on the design of a space with a moderate level of functional and structural complexity			
Course Learning Outcomes (CLO):				Upon Completion of this course, students will be able to			

Course Contents:

Descriptors/Topics	CLO	Hours
UNIT I		
Brief History of HE : Earlier origins of human scale in everyday contexts, Modern times and the advent of the factory system Brief understanding of human relations and industrial psychology	CLO 1	3
UNIT II		
Human Knowing in technological contexts : Vision and Perception, Cognition, Information processing approach	CLO 2	3
UNIT III		
Human Acting in technological contexts : Challenges of different demographics, Anthropometrics, How does anthropometrics help in design?, Body and activity systems, Lifting, grasping, pushing and pulling	CLO 3	3
UNIT IV		
The physical context of human knowing and acting : Varieties of work environments, Issues related to lighting and sound, HE outside in everyday world	CLO 4	3
UNIT V		
Uncertainty as a fundamental challenge in human performance : coping with the unexpected, Dynamic Challenges in large-scale systems not typically present in simple systems, Challenges of human behavior in large scale systems, complex interlinkages with technology, Human errors in complex systems	CLO 5	3
Total		15

Activity Plan

Assignment Number	Assignment Title	Week Number	Details	CLO	Hours
1	technological contexts	4,5,6	ergonomics, comfort, proxemics	CLO 2	10
2	human knowing	7,8,9	sketching, iterative overlays, model studies	CLO 3	10
3	Body and activity systems	10,11,12	hand, power, digital	CLO 4	10
			Total		30

Learning resources

Textbooks/Reference Books:

- Bridger, R. (2017). Introduction to Human Factors and Ergonomics (4th ed.). Boca Raton: CRC Press.
- Casey, S. M. (1998). Set phasers on stun. Santa Barbara, CA: Aegean.
- Dempsey, P. G., Wogalter, M. S., & Hancock, P. A. (2000). What's in a name? Using terms from definitions to examine the fundamental foundation of human factors and ergonomics science. Theoretical Issues in Ergonomics Science, 1(1),

Online Resources/E-Learning Resources

- https://onlinecourses.swayam2.ac.in/aic20_ed03/preview
- <https://archive.nptel.ac.in/courses/107/103/107103004/>

