

# B.Sc. Interior Design

## Syllabus

### AFFILIATED COLLEGES

Program Code: 22U

2023 – 2024 onwards



## BHARATHIAR UNIVERSITY

(A State University, Accredited with “A++” Grade by NAAC,  
Ranked 21<sup>st</sup> among Indian Universities by MHRD-NIRF)

Coimbatore - 641 046, Tamil Nadu, India

### Program Educational Objectives (PEOs)

Program Educational Objectives (PEOs)	
The <b>B. Sc. Interior Design</b> program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	Creatively solve problems for a wide range of physical interior environments, including residential and commercial, and for a diverse group of users.
PEO2	Design at different environmental scales from single rooms to more complex and even multi-storey facilities.
PEO3	Develop layout and details that integrate building services to ensure user comfort and efficient functioning of the interior space.
PEO4	Conduct detailed study of the context and different users and arrive at a clear Design Program providing both qualitative and quantitative guidelines for design.
PEO5	Use a wide range of materials and methods of interior construction and assembly in executing their interior design ideas effectively and develop detailed drawings for the same.
PEO6	Select appropriate materials, provide specifications for finish and materials and estimate the quantities and cost of the project.
PEO7	Start, organize and operate a professional interior design practice with knowledge of the processes of client interactions, contracts, ethics, code and legislation.
PEO8	Integrate plants and interior landscape into the design of interior spaces and detail and specify systems and materials for the same.
PEO9	Apply sustainable design practices in their design of interior spaces.



### Program Specific Outcomes (PSOs)

<b>Program Specific Outcomes (PSOs)</b>	
After the successful completion of the B. Sc. Interior Design program, the students are expected to demonstrate,	
PSO1	Understand and apply design theories and practices in the field of Interior Design
PSO2	Ability to identify social, economic, environmental and cultural issues that have bearing on the Interior Design Process
PSO3	Have a clear understanding of human needs and methods for researching user requirements, socio-economic factors and cultural context.
PSO4	Apply knowledge of latest developments in materials and interior construction and detailing practices to their design projects.
PSO5	Follow and inspire high ethical values in professional practice
PSO6	Demonstrate sharp creative, technical, technological and critical thinking skills.
PSO7	Ability to specialise and work in areas such as furniture design, branding, interior landscape, lighting design, interior component and product design.



**Program Outcomes (POs)**

<b>Program Outcomes (POs)</b>	
On successful completion of the B. Sc. Interior Design program, the students should demonstrate,	
PO1	A basic knowledge of Arts & Culture and an understanding of its impact on the Design of Interiors.
PO2	Understanding of the Basic Elements and Principles of Design and its application in 2D, 3D and Interior Design.
PO3	Knowledge of the development of Interior and Furniture Design and Architecture through History, and an understanding of its implications for design today.
PO4	Ability to follow a Design Process; to manipulate Form, Space, Colour, Lighting and Texture; and apply theoretical knowledge gained to develop Interior Design Solutions for projects.
PO5	Ability to plan and organise the Building Services effectively within the interior environment to improve safety, comfort, performance, efficiency and sustainable functioning of the built space.
PO6	Practical Knowledge of Interior Material Selection & Specification, Assemblies, Construction detailing and execution.
PO7	Knowledge and Ability to use computer technology for developing and communicating Design solutions.
PO8	Ability to understand ethical and professional responsibilities.
PO9	Knowledge of Environmental friendly practices in interior design
PO10	Ability to communicate effectively and work in interdisciplinary groups



**BHARATHIAR UNIVERSITY:: COIMBATORE 641 046**

**B. Sc., Interior Design (CBCS PATTERN)**

(For the students admitted from the academic year **2023-2024** and onwards)

**Scheme of Examination**

Part	Sub code	Title of the Course	Hours/ Week	Examination				Credits
				Duration in Hours	Maximum Marks			
					CIA	CEE	Total	
<b>Semester I</b>								
I	11T/F	Language - I	6	3	25	75	100	4
II	12E	English - I	6	3	25	75	100	4
III	13A	Core Paper I – Theory of Interior Design	5	3	25	75	100	4
III	13P	Core Practical Paper I – Basic Design Studio	7	3	40	60	100	4
III	1AA	Allied A: Paper I – Art and Interior Design	4	3	25	75	100	4
IV	1FA	Environmental Studies*	2	3	-	50	50	2
<b>Total</b>			<b>30</b>		<b>140</b>	<b>410</b>	<b>550</b>	<b>22</b>
<b>Semester II</b>								
I	21T/F	Language – II	6	3	25	75	100	4
II	22E	English – II	4	3	25	25	50 <sup>@</sup>	2
II	2NM	Effective English: Language Proficiency for Employability <a href="http://kb.naanmudhalvan.in/Special:Filepath/Cambridge_Course_Details.pdf">http://kb.naanmudhalvan.in/Special:Filepath/Cambridge_Course_Details.pdf</a>	2	-	25	25	50 <sup>#</sup>	2
III	23A	Core Paper II - Basics in Architecture	4	3	25	75	100	4
III	23P	Core Practical Paper II - Interior Design Studio I	7	3	40	60	100	4
III	2AB	Allied A: Paper II - Design Communication I	5	3	25	75	100	4
IV	2FB	Value Education – Human Rights*	2	3	-	50	50	2
<b>Total</b>			<b>30</b>		<b>165</b>	<b>385</b>	<b>550</b>	<b>22</b>
<b>Semester III</b>								
I	31T/F	Language – III	4	3	25	75	100	4
II	32E	English – III	4	3	25	75	100	4
III	33A	Core Paper III - Interior Materials and Construction – I	4	3	25	75	100	3
III	33P	Core Practical Paper III - Interior Design Studio II	7	3	40	60	100	5
III	3AC	Allied B: Paper I – History of Interior Design	3	3	20	55	75	2
IV	3ZP	Skill based Practical Subject 1 – Design Communication II	6	3	20	30	50	3
IV	3F A/B/C	Tamil** / Advanced Tamil* (OR) Non-major elective - I (Yoga for Human Excellence)* / Women's Rights*	2	3	-	50	50	2

			<b>Total</b>	<b>30</b>		<b>155</b>	<b>420</b>	<b>575</b>	<b>23</b>
<b>Semester IV</b>									
I	41T/F	Language – IV	4	3	25	75	100	4	
II	42E	English – IV	4	3	25	75	100	4	
III	43A	Core Paper IV – Interior Materials and Construction – II	3	3	25	75	100	3	
III	43P	Core Practical Paper IV - Interior Design Studio III	6	3	40	60	100	5	
III	4AD	Allied B: Paper II - Colour and Lighting	3	3	20	55	75	2	
IV	4ZP	Skill based Practical Subject 2: Design Communication III	5	3	20	30	50	3	
IV	4NM	Office Fundamentals : Digital Skills for Employability <a href="http://kb.naanmudhalvan.in/Special:FilePath/Microsoft_Course_Details.xlsx">http://kb.naanmudhalvan.in/Special:FilePath/Microsoft_Course_Details.xlsx</a>	3	-	25	25	50 <sup>#</sup>	2	
IV	4F A/B/E	Tamil**/Advanced Tamil* (OR) Non-major elective -II (General Awareness*)	2	3	-	50	50	2	
<b>Total</b>			<b>30</b>		<b>180</b>	<b>445</b>	<b>625</b>	<b>25</b>	
<b>Semester V</b>									
III	53A	Core Paper V - Interior Building Services	5	3	25	75	100	3	
III	53B	Core Paper VI - Furniture Construction & Detailing	5	3	25	75	100	4	
III	53C	Core Paper VII - Estimation and Costing	5	3	25	75	100	3	
III	53P	Core Practical Paper V - Interior Design Studio IV	7	3	40	60	100	6	
III	5E A/B/C	Elective I	4	3	20	55	75	3	
IV	5ZP	Skill based Practical Subject 3: Landscape for Interiors	4	3	20	30	50	2	
<b>Total</b>			<b>30</b>		<b>155</b>	<b>370</b>	<b>525</b>	<b>21</b>	
<b>Semester VI</b>									
III	63A	Core Paper VIII- Professional Practice	4	3	25	75	100	3	
III	63B	Core Paper IX - Interior Project Management	4	3	25	75	100	3	
III	63P	Core Practical Paper VI - Applied Art	4	3	30	45	75	4	
III	6E A/B/C	Elective II	3	3	20	55	75	3	
III	6E D/E/F	Elective III	3	3	20	55	75	3	
III	63V	Core Practical Project VI - Capstone Project	10	3	40	110	150	7	
IV	6ZP	Skill Based Practical Subject 4: Interior Presentation techniques	2	3	20	30	50	2	
IV	6NM	Inclusion of Naan Muthalvan Skill courses) Naandi / Unmati / Quest / Izapy/IBM Skill build <a href="http://kb.naanmudhalvan.in/BharathiarUniversity_(BU)">http://kb.naanmudhalvan.in/BharathiarUniversity_(BU)</a>	-	-	-	-	\$\$	-	

V	67A	Extension Activities**	-	-	50	-	50	2
		<b>Total</b>	<b>30</b>		<b>230</b>	<b>445</b>	<b>675</b>	<b>27</b>
		<b>Grand Total</b>	<b>180</b>		<b>1025</b>	<b>2475</b>	<b>3500</b>	<b>140</b>

\* No Continuous Internal Assessment (CIA). Only University Examinations.

\*\* No University Examinations. Only Continuous Internal Assessment (CIA).

@ University semester examination will be conducted for 50 marks (As per the existing pattern of examination) and the marks will be converted to 25 marks.

# Naan Mudhalvan Course: CEE will be assessed by Industry for 25 marks and CIA will be done by the course teacher.

\$\$ Naan Mudhalvan Course: No Score/credits but mandatory to complete the degree

<b>ELECTIVE LIST</b>			
ELECTIVE 1	A	5EA	Human Factors in Design
	B	5EB	Textiles in Interiors
	C	5EC	Green Building Technology
ELECTIVE 2	A	6EA	Modular Interiors
	B	6EB	Interior Photography
	C	6EC	Merchandising and Display
ELECTIVE 3	D	6ED	Advanced Materials in Interior Design and Construction
	E	6EE	Artificial Intelligence in Interior Design
	F	6EF	Entrepreneurial Development

63V - Capstone Project marks breakup:

Total Marks	CIA	CEE	
		Evaluation	Viva Voce
150	40	90	20



Course code	13A	THEORY OF INTERIOR DESIGN		L	T	P	C
<b>Core</b>		<b>Paper I</b>		-	5	-	4
<b>Pre-requisite</b>		<b>English Reading &amp; Writing, Knowledge of Basic Geometry</b>		<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>							
The main objectives of this course are to:							
<ol style="list-style-type: none"> <li>1. Present a framework to understand the design process.</li> <li>2. Understand the elements and principles related to interior design.</li> </ol>							
<b>Expected Course Outcomes:</b>							
On the successful completion of the course, student will be able to:							
CO1	Remember the basic elements & principles that are used in any design process.					K1	
CO2	Understand the impact of manipulation of individual design elements on the overall design composition.					K2	
CO3	Apply the design principles such as Unity, Balance, Emphasis, Harmony, and Rhythm etc. in creating specific designed impact.					K3	
CO4	Analyze the various factors that influence design process, perception and impact.					K4	
CO5	Evaluate the design outcome and process involved in design.					K5	
CO6	Create 2D and 3D patterns with the understanding of elements and principles of Design					K6	
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>							
<b>Unit:1</b>	<b>INTRODUCTION</b>					<b>14 hours</b>	
What is design? Meaning, Purpose; Factors affecting Design: Context - shaping force, Research - material, process; The role of taste in Design -Objectives of Aesthetic Planning - Beauty, Expressiveness, Functionalism; Basic Design, 2-dimensional, 3-dimensional Design; Ways of seeing: Attentive observation, Similarities and differences, Connections, Tactile sensation.							
<b>Unit:2</b>	<b>DESIGN ELEMENTS</b>					<b>15 hours</b>	
Gestalt and Perceptual Theories, Design Elements– Point, Line, Plane -natural/ geometric shapes, Texture; Perception modified by Scale, Light, Contrast, Pattern and Space, Form and Volume - Solids and Voids, Colour - Hue, Value and Saturation, Colour Perception - Light, daylight, Simultaneous Contrast, Space, Colour Systems, Colour Schemes, Psychology of colours, Effect of light on colour.							
<b>Unit:3</b>	<b>DESIGN PRINCIPLES</b>					<b>15 hours</b>	
Design Principles: Proportion- Proportioning Systems- Fibonacci Series and Golden section, Scale - visual scale, human scale, Balance - Visual Balance - Symmetrical Balance, Asymmetrical Balance, Radial Balance. Creating Harmony, Visual Unity, Ways to achieve Unity - proximity, repetition, and continuation, Rhythm - Visual Rhythm, Spatial Rhythm, Unity and Variety, Emphasis - by contrast/ placement/ isolation, Degrees of Emphasis.							
<b>Unit:4</b>	<b>DESIGN PROCESS</b>					<b>15 hours</b>	
Design Process- Analysis, synthesis, design evaluation; Design criteria – function and purpose, utility and economy, form and style.							

<b>Unit:5</b>	<b>HUMAN FACTORS</b>	<b>16 hours</b>
Human factors – human dimensions, distance zones, activity relationships, Space requirements – spatial planning, function, aesthetics. Interior Space – Definition; Elements structuring interior space – wall, floor, ceiling/roof, articulation; spatial form and dimension – square, rectangular, curvilinear spaces, height of spaces, transitions and openings – doorways, windows, stairways		
<b>Total Lecture hours</b>		<b>75 hours</b>
<b>Text Book(s)</b>		
1	Interior design principles and practice, Pratap R.M, Standard Publishers distribution, Delhi, 1988.	
2	Interior Design, Chaudhari S.N, Jaipur: Aavishkar Publishers, India, 2005.	
<b>Reference Books</b>		
1	Designing Interiors, Rosemary Kilmer, W. Otie Kilmer, Wley, 2014.	
2	Beginnings of Interior Environments, Phyllis S. Allen, Lynn M Jones, Miriam F Stimpson, Pearson Prentice Hall, 9 <sup>th</sup> ed, 2004.	
3	Design Basics, Stephen Pentak, David A Lauer, Cengage Learning Inc, 2014.	
4	Principles of Form and Design, Wucius Wong, Wiley Publications, 1993.	
5	Interior Design Illustrated, Francis D. K. Ching, John Wiley & Sons, 3rd Edition, 2012.	
6	Elements of Space making, Yatin Pandya, Grantha Corporation, 2013.	
7	A History of Interior Design, Judith Gura, John Pile, Laurence King Publishing; 4th Revised edition, 2013.	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="https://www.academia.edu/19251847/The_Role_of_Aesthetics_in_Design_Thinking">https://www.academia.edu/19251847/The_Role_of_Aesthetics_in_Design_Thinking</a>	
2	<a href="https://www.youtube.com/watch?v=xHGOZimYaU8&amp;t=1s">https://www.youtube.com/watch?v=xHGOZimYaU8&amp;t=1s</a>	
3	<a href="https://www.youtube.com/watch?v=2YMCQAUnfm4">https://www.youtube.com/watch?v=2YMCQAUnfm4</a>	
4	<a href="https://www.youtube.com/watch?v=9s1FlzRqck4">https://www.youtube.com/watch?v=9s1FlzRqck4</a>	
5	<a href="https://www.decorshow.com.au/apply-colour-theory-psychology-interior-design/">https://www.decorshow.com.au/apply-colour-theory-psychology-interior-design/</a>	
6	<a href="https://interiordesignstudent.com/category/study-notes/">https://interiordesignstudent.com/category/study-notes/</a>	
Course Designed By: Dr. Lakshmi Priya A		

<b>Mapping with Programme Outcomes</b>										
<b>Cos</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	M	S	S	S	L	S	L	S	S	S
<b>CO2</b>	M	S	S	S	L	S	L	S	M	M
<b>CO3</b>	M	S	M	S	L	M	L	L	L	L
<b>CO4</b>	M	M	M	S	L	M	L	L	L	L
<b>CO5</b>	L	L	L	M	L	L	L	L	L	L
<b>CO6</b>	L	S	L	L	L	L	M	L	L	L

\*S-Strong; M-Medium; L-Low

Course code	13P	BASIC DESIGN STUDIO	L	T	P	C
<b>Core</b>		<b>Practical I</b>	-	-	7	4
<b>Pre-requisite</b>		<b>High School level Drawing and Craft Skills</b>	<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Provide a framework for understanding the role of design in creating meaning and function.</li> <li>2. Sensitize students to the conceptual, visual and perceptual issues involved in the design process.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember to incorporate the basics of design, the elements and principles of design.					K1
CO2	Understand the fundamental design principles through visual composition and manipulation of design that can be later transferred to the context of interior design.					K2
CO3	Apply the inspiration received from external sources to develop designs through process of abstraction.					K3
CO4	Analyze different hands on skills by experimenting 2d relief works and designs using various materials and colours.					K4
CO5	Evaluate all the experiments through proper design development and communication.					K5
CO6	Create a design process in creating 2D/3D designs.					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>2D DESIGN</b>				<b>20 hours</b>	
Designs involving various elements such as point, line, shape, colour and texture – use principles of design, grids, Golden section – apply to pattern creation & compositions such as mural design, fabric design, mosaics, linocut printing, collage etc.						
<b>Unit:2</b>	<b>3D DESIGN</b>				<b>20 hours</b>	
Exploring form creation: from 2D to 3D -- platonic solids (boards, paper), structural frames /joints (wood/ misc), Solid and Void compositions, Organic or free flowing Forms, Enclosing Space, Light and Texture. Use different materials such as clay, POP, metal etc.						
<b>Unit:3</b>	<b>DESIGN BY ABSTRACTION</b>				<b>22 hours</b>	
Study and analysis of forms, patterns and colour schemes in nature. Abstraction of natural forms and design of three-dimensional objects and two-dimensional patterns inspired by them.						
<b>Unit:4</b>	<b>OBJECT DESIGN</b>				<b>22 hours</b>	
Study and critical analysis of man-made objects – their purpose, functional suitability, formal appeal, etc – evolving suggestions for improvement of the same in light fixture, mobile, chair etc.						

*All Projects are evaluated based on Concept clarity, Design development, Design effectiveness, Execution and Presentation		
<b>Unit:5</b>	<b>PORTFOLIO</b>	<b>21 hours</b>
Compilation of portfolio and presentation.		
<b>Total Lecture hours</b>		<b>105 hours</b>
<b>Text Book(s)</b>		
1	Interior Design Visual Presentation-A Guide to Graphics, Models and Presentation Techniques”, Maureen Mitton, John Wiley and Sons, USA, 2004.	
2	“Interior Design and Decoration”, Seetharaman.P and Pannu.P, CBS Publishers, New Delhi, India, 2009.	
<b>Reference Books</b>		
1	Graphic Thinking for Architects and Designers, Laseau, Paul, Wiley; 3 edition, 2000.	
2	Design Basics: 2D and 3D, Stephen Pentak, Richard Roth, 8th Ed, Wadsworth Publishing Co Inc, 2012.	
3	The Design of Everyday Things, Don Norman, Edition, 2013.	
4	Design Graphics, David Fair, Hodder and Stoughton, 1987.	
5	Architectural arts and Sculpture, Guild Source Books, 2001.	
6	Discovering the Inner Eye, Virginia Cobb Watson, Guptill Publication, 1988.	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="https://medium.com/@anahatrawal/10-basic-principles-of-graphic-design-b74be0dbdb58">https://medium.com/@anahatrawal/10-basic-principles-of-graphic-design-b74be0dbdb58</a>	
2	<a href="https://vansedesign.com/web-design/design-concept-thoughts/">https://vansedesign.com/web-design/design-concept-thoughts/</a>	
3	<a href="https://creativemarket.com/blog/10-basic-elements-of-design">https://creativemarket.com/blog/10-basic-elements-of-design</a>	
Course Designed By: Dr. Lakshmi Priya A		

<b>Mapping with Programme Outcomes</b>										
<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	L	S	M	M	L	S	L	S	S	M
<b>CO3</b>	L	S	L	S	L	S	L	S	M	M
<b>CO3</b>	L	S	L	L	L	M	L	L	L	L
<b>CO4</b>	L	S	M	M	L	M	L	L	L	L
<b>CO5</b>	L	S	L	L	L	L	L	L	L	L
<b>CO6</b>	L	S	M	M	L	L	M	L	L	L

\*S-Strong; M-Medium; L-Low

Course code	1AA	ART AND INTERIOR DESIGN	L	T	P	C
Allied A		Paper I	-	4	-	4
Pre-requisite		English Reading & Writing, High School Level Indian and World History.	Syllabus Version			2023-2024
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Develop knowledge of and appreciation for Art.</li> <li>2. Analyze various art forms and understand its application in interiors.</li> <li>3. Understand the socio-cultural influences on art and its reflection on interior design.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember the need for appreciation for Art in interior design					K1
CO2	Understand human culture and experience is grounded in the investigation of creativity, continuity and invention of art practices.					K2
CO3	Apply the knowledge of art and artifacts to study the objectives and ethos of each cultural period.					K3
CO4	Analyse various art forms to explore significant contributions to the development of cultural expression.					K4
CO5	Evaluate historical and contemporary expressive practices through critical encounters with visual and cultural productions.					K5
CO6	Create a comprehensive design solution with broader social and cultural contexts for design problems affecting the built environment.					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>INTRODUCTION</b>					<b>10 hours</b>
What is Art? Purpose of Art; Art and Aesthetics; Essential Concepts in Context and Perspective; Why it matters; How we see; Critical Modalities.						
<b>Unit:2</b>	<b>ART THROUGH TIME</b>					<b>13 hours</b>
Development of art: A survey of history of art forms: pre historic times to present times: changing nature of art through time in terms of content: form and material.						
<b>Unit:3</b>	<b>ART FORMS</b>					<b>13 hours</b>
Exploration of art forms – study of traditional and contemporary art forms – painting, sculpture, architecture, decorative arts, design arts, digital art; Relationship between art and design from earliest time; Study of famous and influential Artists, Craftsmen and people who pioneered innovations in their own fields and their influence on design and other fields. For eg: Van Gogh, Dali, William Morris, etc.						
<b>Unit:4</b>	<b>ORNAMENT</b>					<b>12 hours</b>
Study of ornament in Interior Design. Different types of ornamentation in the interiors. Study and evaluation of artifacts and historic examples and their applicability.						
<b>Unit:5</b>	<b>HERITAGE INTERIORS</b>					<b>12 hours</b>
Introduction to Heritage Interiors: Evolution of Interiors in different regions of India with examples. Heritage and identity at different spatial scales. Dimensions and scope of Heritage Interiors. Users and uses of Heritage interiors						

		Total Lecture hours	60 hours
<b>Text Book(s)</b>			
1	Encyclopedia of social and cultural anthropology, Alan Barnard & Jonathan Spencer, Taylor & Francis,1996.		
2	Social and Cultural Anthropology: The Key Concepts, Niggel Rapport, Routledge,2000.		
<b>Reference Books</b>			
1	Understanding Culture: An Introduction to Anthropological Theory, Philip Carl Salzman, Waveland press, 2001.		
2	The Interpretation of Cultures, Clifford Geertz, BasicBooks, 1977.		
3	Studies in Indian society, culture and Religion, Charles. V. Stanford, South Asia Books, 1988.		
4	Human Behaviour in the Social Environment: A Social Systems Approach, Gary Lowe, Irl Carter, Ralph Anderson, Aldine Transaction, 1999.		
5	Dimensions of Human Behaviour -Person and Environment, Elizabeth. D Hutchinson, Sage publications, 2007.		
6	Essays on Indian Art and Architecture, Kumar Raj(Ed), Discovery Publications, New Delhi, 2003.		
7	Buddhist Art and Architecture, Fisher E. Robert. Thames and Hudson, London, 1993.		
8	Jain Art and Architecture Vol 1-3, Ghosh.A(Ed)., Bharatiya Janpath, New Delhi, 1974.		
9	Becoming an Interior Designer, Christine M. Piotrowski, John Wiley and Sons, 2003.		
10	Interior Design, Arnold Friedmann, Forrest Wilson, John F. Pile, Elsevier Publishing company, 3rd edition, 1982.		
11	India: Decoration, Interior Design, Henry Wilson, Watson Guptill, First American edition, 2001.		
12	India Modern, Michael Freeman, Peripluseditions, 2005.		
13	Indian Interiors, Sunil Sethi, Angelika Taschen, TASCHEN America Ltd; 25 <sup>th</sup> ed, 2009.		
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>			
1	<a href="https://nptel.ac.in/courses/124/107/124107006/">https://nptel.ac.in/courses/124/107/124107006/</a>		
2	<a href="https://nptel.ac.in/courses/109/104/109104176/">https://nptel.ac.in/courses/109/104/109104176/</a>		
3	<a href="https://nptel.ac.in/courses/109/104/109104122/">https://nptel.ac.in/courses/109/104/109104122/</a>		
Course Designed By: Dr. Lakshmi Priya A			

<b>Mapping with Programme Outcomes</b>										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	L	M	M	L	L	L	L	L	M
CO2	S	L	M	L	L	L	L	L	L	M
CO3	S	L	S	L	L	L	L	L	L	M
CO4	S	L	L	L	L	L	L	L	L	M
CO5	S	L	L	L	L	L	L	L	L	S
CO6	M	S	M	S	L	L	L	L	L	M

\*S-Strong; M-Medium; L-Low



**Second  
Semester**

Course code	23A	BASICS IN ARCHITECTURE	L	T	P	C
Core	Paper II		-	4	-	4
Pre-requisite	High School History of India and the World, BSc Interior Design, Semester 1- Theory of Design, Art and Interior design		Syllabus Version		2023-2024	
<b>Course Objectives: Awareness of Architecture through the ages, Material and Construction I, Basic Math &amp; Physics concepts</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Enable the students to gain an overview of Architectural History from ancient times to now.</li> <li>2. Understand the Fundamentals of Architecture that guide design decisions.</li> <li>3. Recognize the Elements of Design and Forms of Construction.</li> <li>4. Identify features of modern architecture as modified by current cultural changes and material &amp; construction technologies, and cultural implications.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember the development of architecture from pre historic time till now and the cultural and contextual determinants that produced that architecture.					K1
CO2	Understand architecture as evolving within specific cultural contexts including aspects of politics, society, religion, climate, the tools used and the different uses of building materials.					K2
CO3	Apply the knowledge of the development of architectural form with reference to Technology, Style and Character from the history of world architecture in creating specific designed impact.					K3
CO4	Analyze the spatial, structural and stylistic qualities associated with architecture and their contribution to the development of arches, post, lintel, truss, vaults, domes and orders.					K4
CO5	Evaluate how social, cultural, political, and geo-physical factors transform and affect the design of the built environment					K5
CO6	Examine the evolution of architects work and at the same time try to understand how they react to current challenges and opportunities in the profession and society.					K5
CO7	Create knowledge for designing a space by understanding why a building was created a certain way in any given point in history.					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>INTRODUCTION – HISTORY</b>				<b>12 hours</b>	
Introduction – definition of Architecture; The Beginnings – Early History: Ajantha and Ellora Caves. Buddhist Architecture – Characteristic features- Sanchi stupa, Sthamba, Viharas and chaityas. Hindu Architecture (North) -Sun temple - Konark, (South) – Brihadeshwar temple, Meenakshi Amman Temple, Rock cut Temples – Mahabalipuram. Islamic architecture – characteristic features. Taj Mahal, Charminar, Buland-Darwaza-Fatepur Sikri; Gateway of India, Victoria Memorial, The Open Hand, Lotus Temple-its architectural features.						
<b>Unit:2</b>	<b>FUNDAMENTALS OF ARCHITECTURE</b>				<b>12 hours</b>	

Form; Space; Order; Elements of Architecture – Types, Systems and Components that inform design; Elementary forms of construction – arch, post, lintel, cantilever roofing techniques – truss, vaults and domes. The Design Process – Tools and Techniques for Generating Ideas.		
<b>Unit:3</b>	<b>BUILDING COMPONENTS</b>	<b>12 hours</b>
Drawings of the Components of a Building - indicating foundation, plinth, superstructure, lintel, slab; Different types of Structural systems: Load bearing walls – brick or stone masonry and Non Load bearing walls - Framed structure -- RCC construction, Steel framing with light roofing.		
<b>Unit:4</b>	<b>BUILDING MATERIALS</b>	<b>12 hours</b>
Building Materials: Brick – Classification & Types, Clay products – clay tiles, terracotta, porcelain, stoneware, earthenware, Glazing and their uses – Glazed ceramic Tiles, Cement-types and use, Sand, Timber -Classification, storage and use, Steel and Glass - types, properties and applications.		
<b>Unit:5</b>	<b>STRUCTURAL SYSTEMS</b>	<b>12 hours</b>
Structural Systems: Design Loads - Live load, Dead load, Wind load, Snow load, Earthquake loads. Framed structures- load bearing structural components- columns and beams- steel, concrete; Load bearing walls- Masonry structures, Prefabrication, cast-in site construction. Brief design concepts for earthquake loads.		
<b>Total Lecture hours</b>		<b>60 hours</b>
<b>Text Book(s)</b>		
1	A History of Architecture, Sir Banister Fletcher, CBS Publications (Indian Edition), 20th Edition, 2002.	
2	A Global History of Architecture, Francis D.K. Ching, Mark M. Jarzombek, and Vikramaditya Prakash, 3rd Edition, John Wiley, 2013.	
3	Architecture-Form, Space and Order, Francis D.K.Ching, Van Nostrand Reinhold Company, New York, 2007. Art Students; Universities Press, 2012.	
<b>Reference Books</b>		
1	Introduction to Architecture, Francis D. K. Ching, James F. Eckler, Wiley; 1 edition, 2012.	
2	Handbook of Indian Architecture, Satyamurthy, Ashish publishing house, New Delhi, 1991.	
3	Advances in building materials and construction, Rai,M. and Jaisingh, M.P, Roorkee Central Building Research Institute, 1986.	
4	Vastu- The User's Manual, Prabhakar,L.U, The Avenue Press, Chennai, 1998.	
5	Indian Temples, Oxford University Press, London, 1995.	
6	The Principles of Architecture: styles, structure and design, Foster.M, New Burlington, London, 1989.	
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]		
1	<a href="https://centerfordiagonality.org/the-ancients/">https://centerfordiagonality.org/the-ancients/</a>	
2	<a href="https://swayam.gov.in/nd1_noc20_ar02/preview#:~:text=From%20the%20Indus%20Valley%20Civilization,one%20aspect%20of%20material%20expression.">https://swayam.gov.in/nd1_noc20_ar02/preview#:~:text=From%20the%20Indus%20Valley%20Civilization,one%20aspect%20of%20material%20expression.</a>	
3	<a href="https://swayam.gov.in/nd1_noc20_ar08/preview">https://swayam.gov.in/nd1_noc20_ar08/preview</a>	
4	<a href="https://nptel.ac.in/courses/124/107/124107012/">https://nptel.ac.in/courses/124/107/124107012/</a>	
5	<a href="https://nptel.ac.in/courses/124/106/124106009/">https://nptel.ac.in/courses/124/106/124106009/</a>	
Course Designed By: Dr. Lakshmi Priya A		

Mapping with Programme Outcomes										
Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
C01	S	M	S	S	L	M	L	L	L	L
C02	S	M	S	S	L	S	L	L	L	L
C03	S	M	M	M	L	M	L	L	L	L
C04	S	M	M	S	L	M	L	L	L	L
C05	S	M	M	S	L	L	L	L	M	L
C06	S	M	M	S	L	S	L	M	M	L
C07	S	S	M	S	L	L	L	L	L	M

\*S-Strong; M-Medium; L-Low



Course code	23P	INTERIOR DESIGN STUDIO I	L	T	P	C
<b>Core</b>		<b>Practical II</b>	-	-	7	4
<b>Pre-requisite</b>		<b>BSc Interior Design, Semester 1 - Basic Design Studio, Theory of Interior Design.</b>	<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
The main objectives of this course are to: <ol style="list-style-type: none"> <li>1. Familiarize students with spatial planning as pertaining to residential interior design.</li> <li>2. Providing them a structured approach to the design process including study of the context, user, materials and construction, concept and design development.</li> <li>3. Develop Design ideation and inspiration methods.</li> <li>4. Develop design drawing and presentation skills.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember the basic design elements and principles and the results of their manipulation.					K1
CO2	Understand the Space Standards, Anthropometry, Ergonomics, Services and Systems as related to users and activities in the Residential environment.					K2
CO3	Apply knowledge of the design elements and principles, space standards and human factors, to the given design context to create desired impact on perception, comfort and use.					K3
CO4	Analyze the various factors like culture, climate, material, technology, comfort, aesthetics and performance that influence design process, perception and impact.					K4
CO5	Evaluate the design outcome with respect to criteria based on space, comfort and aesthetic requirements to accommodate function; response to environmental and socio-cultural context.					K5
CO6	Create various typology of interior designs and their applications in the residential spaces					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>USER &amp; TYPOLOGY STUDY</b>					<b>21 hours</b>
Study of Residential Spaces: Component spaces; Activity Analysis & Space Standards; Climatic Cultural Associations – Symbols and Meaning; Access & Enclosure; Circulation, Openings & Articulation; Structure, Materials & Construction; Surface, Colour & Texture.						
<b>Unit:2</b>	<b>CASE STUDIES</b>					<b>21 hours</b>
Book Case Studies, Real Life Case Studies – Documentation, Analysis, and Inference for Design.						
<b>Unit:3</b>	<b>SITE ANALYSIS – CONTEXTUAL STUDY</b>					<b>21 hours</b>
Analysis of Project Context – Site Analysis; Geographic, Topographic, Soil, Climatic, Wind and Sun direction, Cultural, Landscape, Access, Services & Utilities, Existing views, structures, materials, colours, service lines, circulation, water body, special features, wildlife and vegetation.						

<b>Unit:4</b>	<b>CONCEPTUAL &amp; SCHEMATIC DESIGN</b>	<b>21 hours</b>
<p>Adjacency Matrix, Bubble Diagram – Showing Spaces, Circulation, Access etc. Concept Stage: Design Concept presented as sketches (ink &amp; colour pencil) showing 2D and 3D versions of the idea evolution. Spatial distribution shall be to proportion and can be shown as single line drawing. Conceptual models are optional.</p> <p>Scheme Stage: Drawings to Scale - Detailed Plan with furniture layout &amp; fixtures, circulation, flooring level &amp; finishes, Elevations and Sections and detail sketches as needed to clarify design idea. Colour scheme, material choices.</p>		
<b>Unit:5</b>	<b>DESIGN PRESENTATION</b>	<b>21 hours</b>
<p>Detailed Drawings to include: Double line Detailed Plan showing Furniture and Fixture layouts, Flooring levels &amp; Finishes, Elevations, Sections, Detail sketches – 3D perspective / isometrics. Final Presentation on Cartridge paper, rendered in Ink &amp; Colour. Colour scheme, Mood board and model to be included.</p>		
<b>Total Lecture hours</b>		<b>105 hours</b>
<b>Text Book(s)</b>		
1	Time Saver Standards for Building Types, Joseph De Chiara, Michael J Crosbie, McGraw Hill Education; 4th edition, 2014.	
2	Time Saver Standards for Interior Design and Space Planning, Joseph De Chiara, Julius Panero, Martin Zelnik, McGraw Hill 2011.	
<b>Reference Books</b>		
1	Materials and Interior Design (Portfolio Skills), Lorraine Farrelly, Rachael Brown, Laurence King Publishing, 2012.	
2	Elements of Space making, Pandya, Yatin, Grantha Corporation, 2013.	
3	Construction and Detailing for Interior Design (Portfolio Skills), Drew Plunkett, Laurence King Publishing, 2010.	
4	Drawing for Interior Design (Portfolio Skills), Drew Plunkett, Laurence King Publishing, 2009.	
5	Drawing for Interior Design (Portfolio Skills), Drew Plunkett, Laurence King Publishing 2009.	
6	Interior Design; The New Freedom, Barbaralec Diamonstein, Rizzoli International Publications, New York, 1982.	
7	Interior Colour by Design, Jonathan Poore, Rockport Publishers, 1994.	
8	The Fundamentals of Interior Design, Stephen Anderson, Simon Dodsworth, Bloomsbury Academic; 2nd Revised edition, 2015.	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="https://swayam.gov.in/nd1_noc20_de12/preview">https://swayam.gov.in/nd1_noc20_de12/preview</a>	
2	<a href="https://www.thespruce.com/basic-interior-design-principles-1391370">https://www.thespruce.com/basic-interior-design-principles-1391370</a>	
3	<a href="http://ecoursesonline.iasri.res.in/course/view.php?id=658">http://ecoursesonline.iasri.res.in/course/view.php?id=658</a>	
4	<a href="http://ecoursesonline.iasri.res.in/course/view.php?id=653">http://ecoursesonline.iasri.res.in/course/view.php?id=653</a>	
5	<a href="https://swayam.gov.in/nd1_noc20_ar16/preview">https://swayam.gov.in/nd1_noc20_ar16/preview</a>	
Course Designed By: Dr. Lakshmi Priya A		

Mapping with Programme Outcomes										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	L	S	M	S	L	L	L	L	L	L
CO2	L	L	L	S	S	M	L	L	M	L
CO3	L	S	L	S	L	L	L	L	M	L
CO4	M	L	L	S	S	L	L	L	L	L
CO5	S	M	L	S	L	L	L	L	L	L
CO6	S	S	M	S	S	L	L	L	M	L

\*S-Strong; M-Medium; L-Low



Course code	2AB	DESIGN COMMUNICATION I	L	T	P	C
Allied A		Paper II	-	5	-	4
Pre-requisite	School level Drawing & Colouring skills; BSc Interior Design- Semester 1 - Basic Design Studio, Theory of Interior Design.		Syllabus Version		2023-2024	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>To improve sketching ability of students</li> <li>Enable students to learn and understand techniques of various methods of drawing representation.</li> <li>Develop ability to use colour and varied media effectively in design drawing presentations.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember the need for understanding basic forms and compositions to create effective drawings.				K1	
CO2	Understand different drawing media and demonstrate skill in illustrating environmental spaces using different rendering techniques and to understand the basic of standers drawings				K2	
CO3	Apply architectural representation techniques to represent the daily objects				K3	
CO4	Analyze the sciography for basic shapes				K4	
CO5	Create design drawing for architectural elements and furniture.				K6	
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>INTRODUCTION TO FREEHAND DRAWING</b>				<b>15 hours</b>	
Why we need to Draw – Seeing and Looking – Sketching to Scale; Introductory Pencil Exercises with different pencil point sizes and tone building exercises, Drawing what you see – Contour drawing, Shape and Proportion, Perspective, Tone, Detail, Texture and Shadow; Basic exercises – Compositions of Still life, Plant forms, Daily objects; Perspective Sketches: Types of perspective views using vanishing points, Exercise – single object from multiple views; Shading exercises- study of light and shadow; Textures - Represent different textures and surfaces such as glass, water, stone, wood, metal and fabric. Use pencil, pen and charcoal.						
<b>Unit:2</b>	<b>SKETCHING</b>				<b>15 hours</b>	
Outdoor Sketching including Landscape – trees, foliage (pen, colour pencil); Details such as stone carving, wood or metal work, ornament on furniture, gates, fixtures (pen, pencil, charcoal); Landscape, water bodies and built structures in different media (pen, colour pencil, water colour). Interiors Sketching - perspectives, lighting and composition, textures and details, material expressions, individual furniture, elevations & plans etc. (pen with colour pencils /markers/pastels) Drawing from Photograph.						
<b>Unit:3</b>	<b>DRAFTING BASICS</b>				<b>15 hours</b>	
Drafting Tools – Sheet types & sizes, Layout and Scale. Simple exercises in drafting, point and line, line types, line weights, straight and curvilinear lines, Hierarchy of lines in Multi-view drawings, dimensioning, lettering, borders, title panels, using pencil & ink and different types of sheets. Architectural symbols – representation of building elements, openings, materials, accessories etc., terminology and abbreviations used in architectural presentation.						
<b>Unit:4</b>	<b>MEASURED DRAWING</b>				<b>15 hours</b>	

2D drafting - Orthographic Projection of simple objects, furniture: Multi-view Drawings - Plan, Elevations, the Cross Section; Measuring and drawing to scale – scales and construction of scales, simple objects, furniture, doors and windows etc. in plan, elevation and section etc. reduction and enlargement of drawings.		
<b>Unit:5</b>	<b>3D PROJECTIONS &amp; ARCHITECTURAL REPRESENTATIONS</b>	<b>15 hours</b>
Isometric Views of Tables, Chairs, Cylindrical & Spherical elements, interior space etc. using simple isometric grid; Axonometric Construction of interior space or arrangement of objects. Sketching: Representation of landscape elements such as trees, indoor plants, planters, hedges, foliage, human figures in different postures, vehicles, street furniture and material textures, to scale; and their integration in 3D drawings. Sciography: Principles of Shade and Shadow- Shade and Shadows of Architectural Elements in Interiors. Shadows of Circular/ Cylindrical/ Spherical elements.		
		<b>Total Lecture hours</b>
		<b>75 hours</b>
<b>Text Book(s)</b>		
1	Drawing a Creative Process, Francis D.K.Ching, Wiley; 1ed, 1989.	
2	Free hand Sketching: An Introduction, Paul Laseau, W.W. Norton & Company, 2004.	
<b>Reference Books</b>		
1	Sketching for Architecture and Interior Design, Stephanie Travis, Laurence King Publishing, 2015.	
2	Interior Design Drawing, Alan Hughes, The Crowood Press, 2008.	
3	Design Process: Hand Sketching for Interiors, Rick Bartholomew, SDC Publications, 2013.	
4	Perspective and Sketching for Designers, Jessica Newman, Jack Beduhn, Prentice Hall, 1 edition, 2012.	
5	Freehand Drawing For Architect sand Interior Designers, Magali Delgado Yanes, W.W. Norton & Company, 2005.	
6	How to Draw What You See, Rudy De Reyna, Watson-Guptill Publications, 1996.	
7	Geometrical drawing for art students, I.H.Morris, Orient Longman, Calcutta, 2nd revised edition, 1995.	
8	Architectural drawing for Interior Designers, Lydia Sloan Cline, Bloomsbury Academic USA, 2014.	
9	Building Planning and Drawing, M.V. Chitawadagi, S.S. Bhavikatti, Dreamtech Press, 2019.	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="https://www.youtube.com/watch?v=O5A58npxsps&amp;list=RDCMUCTXI-UsgE9QhxRjppNchR-w&amp;index=2">https://www.youtube.com/watch?v=O5A58npxsps&amp;list=RDCMUCTXI-UsgE9QhxRjppNchR-w&amp;index=2</a>	
2	<a href="https://www.youtube.com/watch?v=a0mLX_WvH2w">https://www.youtube.com/watch?v=a0mLX_WvH2w</a>	
3	<a href="https://www.youtube.com/watch?v=ERusQsCMWOW">https://www.youtube.com/watch?v=ERusQsCMWOW</a>	
4	<a href="https://freehandarchitecture.com/">https://freehandarchitecture.com/</a>	
Course Designed By: Ms. Varunya Devi		

Mapping with Programme Outcomes										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	M	L	L	L	L	L	M	L	L
CO2	S	S	L	L	L	L	L	L	L	L
CO3	M	S	M	L	L	L	L	L	L	L
CO4	S	S	L	L	L	L	L	L	L	L
CO5	M	M	L	L	L	L	L	L	L	L

\*S-Strong; M-Medium; L-Low





**Third  
Semester**

<b>Course code</b>	<b>33A</b>	<b>INTERIOR MATERIALS AND CONSTRUCTION I</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Core</b>	<b>Paper III</b>			<b>4</b>	<b>-</b>	<b>3</b>
<b>Pre-requisite</b>	<b>BSc Interior Design- Semester 2 – Design Communication I, Basics in Architecture</b>		<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Develop a thorough knowledge of materials used for construction and finishing of interior wall, floor and ceiling surfaces and for door, window and ventilator openings.</li> <li>2. Create efficient and elegant detailing for interior material junctions</li> <li>3. Choose appropriate materials for different components of the interior structure based on aesthetics, functionality and cost.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Create a comprehensive list of materials and structures for a commercial or residential establishment.					K6
CO2	Create a comprehensive list of materials and structures for a commercial or residential establishment.					K6
CO3	Evaluate different types of wall systems and apply the correct choice of materials used in wall systems					K5
CO4	Analyze various types of flooring and floor finishes and make the right choice					K4
CO5	Evaluate different openings and ceiling systems and their functions in a Structure					K5
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>MATERIALS IN INTERIOR I</b>					<b>12 hours</b>
Wood and Wood-Based Materials -Properties and characteristics of wood and wood-based materials -Different types of wood species and their applications Understanding wood veneers, laminates, and engineered wood products - Joinery techniques and finishes for wood-based materials. Metals and Metal Alloys-Introduction to various metals and metal alloys used in interior construction-Properties and characteristics of common metals and alloys- Applications of metals in interior design and construction-Metal finishes, treatments, and maintenance considerations.						
<b>Unit:2</b>	<b>MATERIALS IN INTERIOR II</b>					<b>12 hours</b>
Glass and Glass Products - Properties and characteristics of glass -Different types of glass and their applications in interior design. Understanding glass products like mirrors, glass partitions, and decorative glass -Glass installation methods, safety considerations, and maintenance.						
<b>Unit:3</b>	<b>WALL SYSTEM</b>					<b>12 hours</b>
Interior Wall materials, construction – framing (steel, wood), paneling (Plywood, MDF, Gypboard, Cement particle boards, HPL boards), Filling (insulation, air), Surface finish – Plaster, Paint, tile, Wood, glass, metal, stone, brick, Plywood, wall paper, fabric, - texturing marble, granite, white wash, color wash. Exterior Wall finishes - Stone, rubble, tiles, fresco, murals, glass and metals, paints. Alternative partitions - Free standing walls, Floating walls, glazed partitions.						

<b>Unit:4</b>	<b>FLOORING SYSTEM</b>	<b>12 hours</b>
Planning new structures- Installing mezzanines, Raising the floor, Openings in floors. Interior floor finishes - Hard floor finishes, Resilient – asphalt tile, linoleum, cork, rubber, Soft floors – carpets and rugs, Exterior floors – Concrete slabs, tiles, mosaic, terrazzo and terracotta, Selection and characteristics of exterior floor finishes.		
<b>Unit:5</b>	<b>CEILING SYSTEMS</b>	<b>12 hours</b>
Ceilings - Basic Principles, Types - Suspended ceilings, Angled and curved ceilings, Proprietary ceiling systems- hanging methods, Timber/steel and clay tile ceilings, other Considerations. Materials - Gyp-board, Acoustical tile, Metal, Glass, Wood, Clay tile - FinishTreatment- plastering, embossing, fresco, plaster of Paris.		
<b>Total Lecture hours</b>		<b>60 hours</b>
<b>Text Book(s)</b>		
1	Construction and Detailing for Interior Design, Drew Plunkett, Laurence King Pub, 2014.	
2	Building Construction, Dr. B.C. Punmia, Ashok Kumar Jain, Laxmi; Tenth ed, 2008.	
3	Materiality and Interior Construction, Jim Postell, Nancy Gesimondo, Wiley, 2011.	
4	Interior Detailing: Concept to Construction, David Kent, John Wiley & Sons, 2010.	
5	Ching - Building Construction Illustrated, Francis D. K. VNR, 1975.	
<b>Reference Books</b>		
1	Materials and Components of Interior Architecture, J.Rosemary Riggs, Prentice Hall; 8 edition, 2013.	
2	Interior Architecture Now Paperback – Import, 27 Sep 2007 by Jennifer Hudson (Author) Laurence King Publishing, 2007.	
3	The Gypsum Construction Handbook, RS Means; 7 edition, 2014.	
4	Building Materials, S.K. Duggal, New Age International Publishers, 4th Ed, 2012.	
5	Ultimate Wall Book: A Step-by-step Guide to Creating Over 50 Design Solutions, Victoria Ellerton, Collins & Brown, 1998.	
6	Engineering Materials, S.C. Rangwala - Charotar Publishing, 2017.	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="https://nptel.ac.in/courses/124/105/124105015/">https://nptel.ac.in/courses/124/105/124105015/</a>	
2	<a href="https://www.accessengineeringlibrary.com/content/book/9780071360227">https://www.accessengineeringlibrary.com/content/book/9780071360227</a>	
3	<a href="https://www.buildersmart.in/blogs/arches-and-lintels/">https://www.buildersmart.in/blogs/arches-and-lintels/</a>	
Course Designed By: Ms. Sudha		

<b>Mapping with Programme Outcomes</b>										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	L	M	L	S	S	S	L	L	S	L
CO2	L	M	L	S	S	S	L	L	S	L
CO3	L	M	M	S	S	S	L	L	S	L
CO4	L	L	M	M	M	M	L	L	M	L
CO5	L	M	M	S	S	S	L	L	S	S

\*S-Strong; M-Medium; L-Low

Course code	33P	INTERIOR DESIGN STUDIO II	L	T	P	C
Core		Practical – III	-	-	7	5
Pre-requisite		BSc Interior Design- Semester 2- Interior Design Studio I, Design communication I	Syllabus Version			2023-2024
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Become familiar with Activities and related Space Standards, Anthropometry, Ergonomics, Furniture, Fixtures, Services and Systems as pertaining to Commercial Spaces such as Offices, Clinics, Kindergarten, Classrooms, etc.</li> <li>2. Understand wall, ceiling and floor finish options for these spaces including coverings.</li> <li>3. Develop Design ideation and development ability</li> <li>4. Develop design drawing and presentation skills</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember the standards, anthropometrical data, ergonomics and Proxemics					K1
CO2	Understand all the Elements and Principles of Design, their variations, application in different contexts and its impact on perception, comfort and use.					K2
CO3	Apply the composition of colours and create major impact in interiors					K3
CO4	Analyse the various services like acoustics, lighting and ventilation					K4
CO5	Evaluate how the elements of interior environments are modulated and organised by following the above-mentioned criteria					K5
CO6	Create various typology of interior designs and their applications in the spaces					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>TYPOLOGY, USER &amp; CASE STUDIES</b>				<b>21 hours</b>	
Study of Commercial Spaces; Activity Analysis & Space Standards; Designing for Action, Connection and Awareness; Collective Symbols and Meaning; Designing for Choice and Autonomy, for physical comfort, Safety, Accessibility and connection to nature. Book Case Studies, Real Life Case Studies – Documentation, Analysis, and Inference for Design.						
<b>Unit:2</b>	<b>CONTEXT AND SITE ANALYSIS</b>				<b>21 hours</b>	
Analysis of Project Context – Site Analysis; Geographic, Topographic, Soil, Climatic, Wind and Sun direction, Cultural, Landscape, Access, Services & Utilities, Existing views, structures, materials, colours, service lines, circulation, water body, special features, wildlife and vegetation. – Inference for Design. Design Program, Bubble Diagram, Adjacency Matrix, Program Analysis Graphics.						
<b>Unit:3</b>	<b>CONCEPTUAL DESIGN</b>				<b>21 hours</b>	
Development of Design Concept presented as sketches with colours showing 2D and 3D versions of the idea evolution. Mood and Inspiration Board. Spatial distribution shall be to proportion and can be shown as single line drawing along with a Conceptual model						

<b>Unit:4</b>	<b>SCHEMATIC DESIGN</b>	<b>21 hours</b>
Plan developed with a detailed layout, showing circulation, individual furniture groupings to scale, Elevations and Sections. Double line plan with elevations/ sections as needed to clarify design idea.		
<b>Unit:5</b>	<b>DESIGN PRESENTATION</b>	<b>21 hours</b>
Final Rendered Presentation Sheets, with Plan, Elevations, Sections, 3D views, Workshop on Model making, Guest Lecture by Architects, Site Visits to Schools and Multiplexes.		
<b>Total Lecture hours</b>		<b>105 hours</b>
<b>Text Book(s)</b>		
1	Museum Exhibition Planning and Design, Elizabeth Bogle, 2013	
2	Creating Exhibitions: Collaboration in the Planning, Development, and Design of Innovative Experiences 1st Edition - Polly McKenna – Cress, 2013	
3	Office Furniture Design - Oscar Asenio, 2006	
<b>Reference Books</b>		
1	Time-Saver Standards for Interior Design and Space Planning, Julius Panero, Martin Zelnik, McGraw-Hill Professional; 2nd edition, 2001.	
2	Materials and Interior Design (Portfolio Skills), Rachael Brown, Lorraine Farrelly, Laurence King Publishing, 2012.	
3	Construction and Detailing for Interior Design (Portfolio Skills), Drew Plunkett, Laurence King Publishing, 2010.	
4	Drawing for Interior Design (Portfolio Skills), Drew Plunkett, Laurence King Publishing, 2009.	
5	Designs for 20th century Interiors – Fiona Leolie, VH Publications, London, 2000.	
6	Interior Design; The New Freedom, Barbara IecDiamondstein, Rizzoli International Publications, New York, 1982.	
7	Interior Colour by Design, Jonathan Poore, Rockport Publishers, 1994.	
8	Worldwide Interiors – International Federation of Interior Architects & Designers, Rikuyo-Sha, Japan, 1987.	
9	The Fundamentals of Interior Design, Stephen Anderson, Simon Dodsworth, Bloomsbury Academic; 2nd Revised edition, 2015.	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="http://www.interiordesign.net/projects/institutional/">http://www.interiordesign.net/projects/institutional/</a>	
2	<a href="https://www.lbdbdesign.com/institution-interior-design">https://www.lbdbdesign.com/institution-interior-design</a>	
3.	<a href="http://www.interiordesign.net/projects/institutional/">http://www.interiordesign.net/projects/institutional/</a>	
Course Designed By: Dr. Lakshmi Priya A		

<b>Mapping with Programme Outcomes</b>										
<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	L	L	L	S	L	L	S	L	L	L
<b>CO2</b>	L	S	L	M	L	L	L	L	L	L
<b>CO3</b>	L	L	L	S	L	L	L	L	L	L
<b>CO4</b>	L	L	L	L	S	L	L	L	L	L

<b>C05</b>	L	S	L	M	M	L	L	L	L	L
<b>C06</b>	S	L	L	L	L	M	L	M	M	M

\*S-Strong; M-Medium; L-Low



Course code	3AC	HISTORY OF INTERIOR DESIGN	L	T	P	C
Allied B		Paper I	-	3	-	2
Pre-requisite	BSc Interior Design – Semester 1 – Art and Interior Design. Semester 2- Basics in Architecture.		Syllabus Version	2023-2024		
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Understand the Implications of various Styles and their applications over the centuries</li> <li>2. To have a detailed understanding on the Modern Movement and Contemporary developments in Interior Design</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember the style, visual elements, forms, patterns, geometry and proportions of various periods in architecture, interior design and furniture and display a clear vocabulary for specific description of architecture and interior elements					K1
CO2	Understand the implications of study of history on current practice of interior design and use					K2
CO3	Evaluate building typologies and their evolution over various periods through time					K5
CO4	Analyse the importance of technologies and materials in determining design, and infer their influence during different periods					K4
CO5	Evaluate how social, cultural, political, and geo-physical factors transform and affect the design of the built environment					K5
CO6	Analyse current implications in interior design that have evolved over a period of time , and the impact of individual designers in the field of building and interior design.					K4
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>INTRODUCTION</b>					<b>9 hours</b>
Indian furnishings and decorations. Buddhist, Hindu and Jain, Islamic influence, Chinese, Japanese Architecture influence on Indian Interiors.						
<b>Unit:2</b>	<b>REVIVAL</b>					<b>9 hours</b>
Regency Style - Furniture, Greek Revival, Gothic Revival, Industrial Revolution & Interiors - Iron and Glass, Victorian Style - Shaw & Queen Anne Revival, Vernacular House styles, Shaker Design.						
<b>Unit:3</b>	<b>ART MOVEMENTS</b>					<b>9 hours</b>
Arts & Crafts Movement, Art Nouveau - Characteristics, Artists and Architects associated; Ecole des Beaux Arts - Eclecticism for the masses- Rise of the Interior Decorator.						

<b>Unit:4</b>	<b>BAUHAUS TO POST MODERNISM</b>	<b>9 hours</b>
Emergence of Modernism - F.L. Wright, De Stijl. International Style - Walter Gropius/ Bauhaus, Mies Van DerRohe, Le Corbusier, Aalto. Art Deco, Industrial Style, Industrial Design, Postwar Modernism, Renaissance – Industrial Revolution - Modern architecture- modern materials and new techniques, Contemporary Design, 1990-present - Great Architects of modern age- Le Corbusier, Mies Vander Rohe, Frank LloydWright, Charles Correa, BV Doshi, Laurie Baker.		
<b>Unit:5</b>	<b>NEW AREAS OF INTERIOR DESIGN &amp; CASE STUDIES</b>	<b>9 hours</b>
New areas of exploration in interior design- Sustainability, Technology, Adaptive Reuse, Historic Preservation, Style directions, Building and Interior types; Project Case Studies		
<b>Total Lecture hours</b>		<b>45 hours</b>
<b>Text Book(s)</b>		
1	History of Architecture, Sir Banister Fletcher, CBS Publishers & distributors, New Delhi, 2017.	
2	History of Interior Design, Jeannie Ireland, Fairchild Books, 2008.	
3	A History of Interior Design, Judith Gura, John Pile, Laurence King Publishing; 4th Revised edition, 2013.	
<b>Reference Books</b>		
1	Interior Design Since 1900, Anne Massey, Thames & Hudson; Third Edition, 2008.	
2	Key Interiors since 1900, Graeme Brooker, Laurence King Publishing, 2013.	
3	History of Design - Decorative Arts and Material Culture, 1400-2000, Pat Kirkham, Susan Weber, Bard Center, 2013.	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="https://nptel.ac.in/courses/124/106/124106009/">https://nptel.ac.in/courses/124/106/124106009/</a>	
2	<a href="http://www.visual-arts-cork.com/architecture-history.htm">http://www.visual-arts-cork.com/architecture-history.htm</a>	
Course Designed By: Dr. Lakshmi Priya A		

<b>Mapping with Programme Outcomes</b>										
<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	S	M	S	L	L	L	L	L	L	L
<b>CO2</b>	M	L	S	L	L	L	L	L	L	L
<b>CO3</b>	L	L	S	L	L	L	L	L	L	L
<b>CO4</b>	L	L	L	M	L	L	S	L	L	L
<b>CO5</b>	S	L	L	L	L	L	L	L	L	L
<b>CO6</b>	L	L	L	M	L	L	L	S	L	L

\*S-Strong; M-Medium; L-Low

Course code	3ZP	DESIGN COMMUNICATION II	L	T	P	C
<b>Skill Based</b>		<b>Practical I</b>	-	-	6	3
<b>Pre-requisite</b>		<b>BSc Interior Design – Semester 1- Basic Design Studio, Semester 2 – Design Communication I.</b>	<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. To effectively and accurately communicate design details through drawings for client approval and site execution.</li> <li>2. Use CAD software for effective Design Communication</li> <li>3. Use Word and Image processing software for office communication and presentation purposes.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember drawing as a medium to visualize and communicate design ideas.					K1
CO2	Demonstrate understanding and ability to draw orthographic views of a given building component.					K2
CO3	Apply the skill in geometric constructions and develop into more complex forms.					K3
CO4	Prepare pictorial drawings using the principles of isometric and perspective projections to visualize objects in three dimensions.					K6
CO5	Understand and analyse the AutoCAD interface and foundational concepts.					K4
CO6	Create design representation in the form of Orthographic Multi-view Drawings using CAD.					K6
CO7	Explore the fundamentals of word & image processing techniques using digital software.					K5
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>DIAGRAMS AND 2D DRAWING</b>				<b>18 hours</b>	
Diagrams and Programming Analysis Graphics - Bubble Diagram, Blocking Diagrams, Fit and Stacking Plans, Conceptual Design, Mood – Inspiration Boards, Schematic Presentation Graphics, 2D drafting - Orthographic Projection Drawings for Interiors: Plans, Elevations, Sections, Reflected Ceiling Plans, Dimensions, Lettering. Paraline and Perspective Drawings; Rendering for 2D drawings – Material representations, Use of different Media – Colour pencils, Water colours or pen & ink.						
<b>Unit:2</b>	<b>PARALINE &amp; PERSPECTIVE DRAWING</b>				<b>18 hours</b>	
3D representations - Isometric drawing, Plan Oblique drawing of Interiors and Objects drawn to scale; Interior Perspective Drawings - One point, Two-point and Three-point Perspective views using grid method. Drawing Ellipses. Rendering of 3D Drawings - Material representations, colour, light and objects; use of hybrid or composite presentation techniques.						
<b>Unit:3</b>	<b>SOFTWARE BASICS</b>				<b>18 hours</b>	
Photoshop Basics: Getting to know the work area, Painting tools, Brush Settings, Making selections, Filling and stroking, Colour Basics, Layers, Text, Basic image manipulation.						

CAD Basics: Simple Exercises in 2D CAD software (AutoCAD/ArchiCAD) specifically or proficiency in drawing/ editing objects, texts, dimensioning, making and inserting blocks, understanding of units settings, scale, limits, line type, line weight, layers, colours and print commands. Complete design representation in the form of Orthographic Multi-view Drawings using CAD.

<b>Unit:4</b>	<b>MS WORD AND EXCEL BASICS</b>	<b>18 hours</b>
Word Processing: Basic templates for creating text documents, editing, formatting, spelling/ grammar check, dictionary and thesaurus, page layout, fonts, indentation, inserting tables and images, document review and annotation in software like MSWord. Image Processing: Basic image Sourcing, editing and insertion for desktop publishing in Adobe Photoshop or similar software.		
Numerical Processing: Preparing and editing spreadsheets in software like MS Excel, Collating raw data into numbers for analytical use. Presentation of data as tables charts and graphs. Inserting tables, texts and images in drawings for print and projection formats.		
<b>Unit:5</b>	<b>MS POWERPOINT BASICS</b>	<b>18 hours</b>
Slide Presentations: Using software like MS PowerPoint to create effective presentations, insertion of drawings, video clips, formatting and setting up presentation.		
<b>Total Lecture hours</b>		<b>90 hours</b>

**Text Book(s)**

1	Design Drawing, Francis D. K. Ching, Steven P. Juroszek, Wiley; 2 edition, 2010.
2	Interior Design Drawing, Alan Hughes, The Crowood Press, 2008.
3	Interior Design Visual Presentation: A Guide to Graphics, Models, and Presentation Techniques, Maureen Mitton, John Wiley and Sons, 2012.
4	Geometrical Drawing for Art Students; I.H. Morris, Universities Press 2012.
5	Teach yourself Auto CAD, Gibbs, BPE Publications, New Delhi, 1994.

**Reference Books**

1	Geometrical drawing for art students, 2nd revised edition - I.H. Morris, Orient Longman, Calcutta, 1995.
2	Architectural drafting and design, 4 <sup>th</sup> edition– Ernest R. Weidhaas, Allyn and Bacon, Boston, 1981.
3	AutoCAD 2015 beginning and intermediate by Munir m. Hamad, 2015.

**Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]**

1	<a href="https://drawingarchitecture.tumblr.com/">https://drawingarchitecture.tumblr.com/</a>
2	<a href="https://www.cadtutor.net/tutorials/autocad/learning-autocad-2014.php">https://www.cadtutor.net/tutorials/autocad/learning-autocad-2014.php</a>
3	<a href="https://nptel.ac.in/courses/112/104/112104172/">https://nptel.ac.in/courses/112/104/112104172/</a>

Course Designed By: Mr. Ashly Fabin

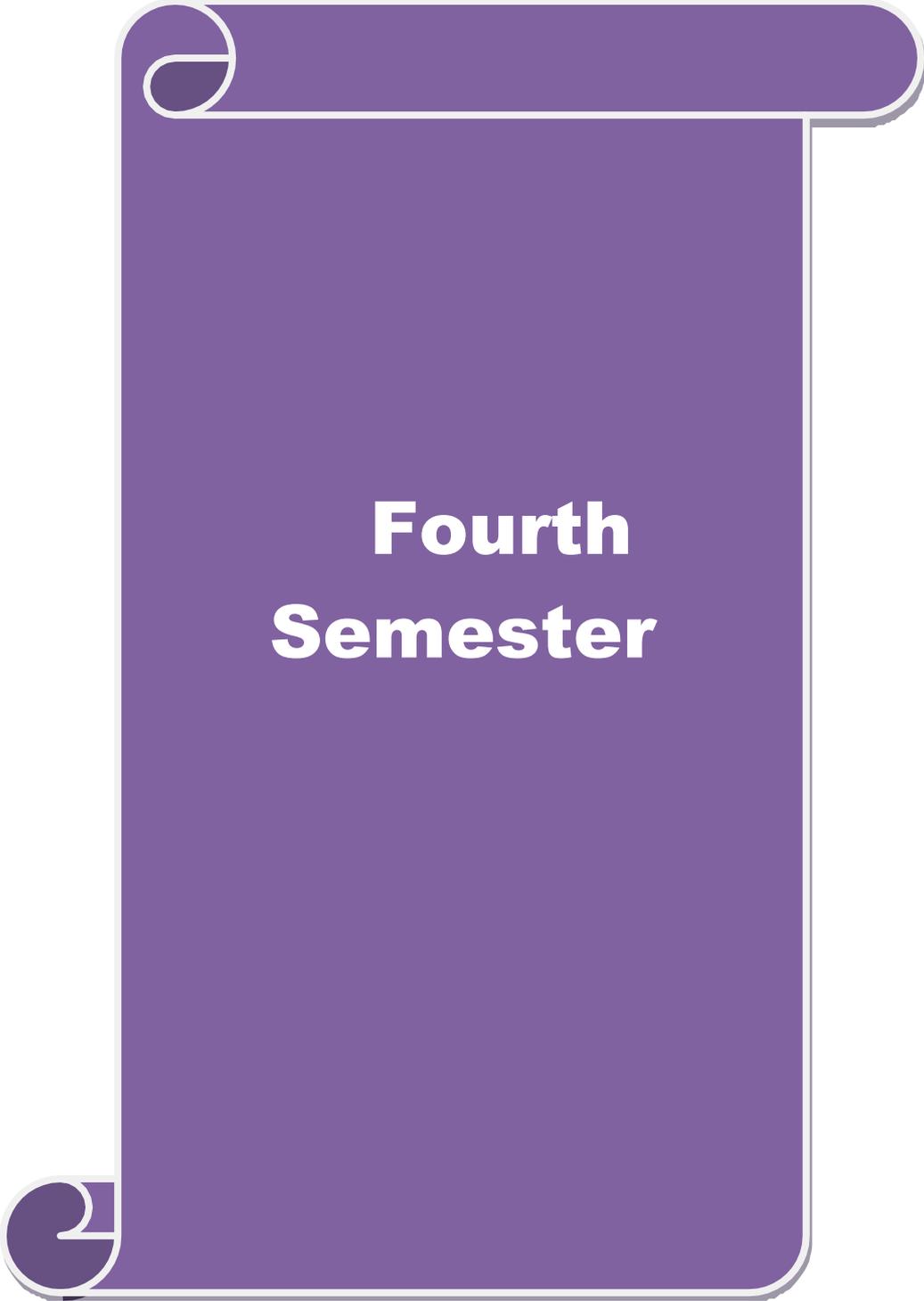
**Mapping with Programme Outcomes**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	L	L	L	M	L	S	S	L	L	M
CO2	L	M	M	M	L	S	S	L	L	M
CO3	M	M	L	M	L	S	L	L	L	M
CO4	L	S	L	L	L	S	M	L	L	M

<b>CO5</b>	L	M	L	M	L	L	S	L	L	S
<b>CO6</b>	L	M	L	M	L	L	S	L	L	S
<b>CO7</b>	L	L	L	L	L	M	S	L	L	S

\*S-Strong; M-Medium; L-Low





# **Fourth Semester**

Course code	43A	INTERIOR MATERIALS AND CONSTRUCTION II	L	T	P	C
Core	Paper IV		-	3	-	3
Pre-requisite	BSc Interior Design- Semester 3 – Interior Materials and Construction I, Design Communication II.		Syllabus Version		2023-2024	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Develop a wide knowledge of the kind of materials used in interior design.</li> <li>2. Select materials and manipulated them creatively to satisfy design needs formulating unique design solutions.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Understand the various types of doors, windows, ventilators and materials used in them					K2
CO2	Understand different types of stairs and components of staircase.					K2
CO3	Analyze various materials and joinery in furniture and fittings					K4
CO4	Evaluate the materials used in finishes of doors/windows, floors, wall and ceilings and make the right choice					K5
CO5	Create a list with appropriate choice of materials and finishes for various types of construction.					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>OPENINGS, ACCESS, WINDOWS, VENTILATORS</b>					<b>9 hours</b>
Introduction to Openings – Openings/arches technical terms – types of arches – materials used for construction – Lintels - types of lintels- materials used for Construction. Doors-types, materials used, detailing, finishing; Windows/ Ventilators- types, materials used, detailing, finishing.						
<b>Unit:2</b>	<b>STAIRWAY, MEZZANINE CONSTRUCTION &amp; MATERIALS</b>					<b>9 hours</b>
Stairs - Timber, Steel, Stone and Concrete, Handrails, cantilevered treads and glass stairs.						
<b>Unit:3</b>	<b>FITTINGS &amp; FINISHES</b>					<b>9 hours</b>
Fixtures - Basic principles - base structures, joints, decorative joints, veneer, finishes, built-in seating, floating furniture, Shelving, Cabinet Countertop– Solid Surfacing, Lacquered Glass, Laminate, Veneer, Solid Wood, Plywood, MDF, Hardware– Fittings, Locks, Handles, Sliders, Hinges, bolts. Cabinet Hardware.						
<b>Unit:4</b>	<b>ADVANCED CONSTRUCTION TECHNIQUES AND MATERIALS</b>					<b>9 hours</b>
Advanced concrete building components and construction techniques. To include folded plates,shell structures, vaults, domes, pneumatic structures, tensile structures. Their composition, construction and finishing.						
<b>Unit:5</b>	<b>WINDOW TREATMENTS &amp; SOFT FURNISHING</b>					<b>9 hours</b>
Window Treatments –Common types of window treatments – specifications and pricing– Top Treatments, Window Shades and Hard Treatments- Curtains and Drapery – Pattern and material estimation, Blinds and other coverings, Soft Furnishing and upholstery, Bedding: Spreads, Shams, Coverings; Reupholstered and Slipcovered Furniture – Calculate pricing from an upholstery manufacturer’s price list – Issues designer must consider when issuing an estimate						
					<b>Total Lecture hours</b>	<b>45 hours</b>

<b>Text Book(s)</b>	
1	Construction and Detailing for Interior Design, Drew Plunkett, Laurence King Pub, 2014.
2	Building Construction, Dr. B.C. Punmia, Ashok Kumar Jain, Laxmi; Tenth ed, 2008.
3	Materiality and Interior Construction, Jim Postell, Nancy Gesimondo, Wiley, 2011.
4	Interior Detailing: Concept to Construction, David Kent, John Wiley & Sons, 2010.
5	Ching - Building Construction Illustrated, Francis D. K. VNR, 1975.
<b>Reference Books</b>	
1	Materials and Components of Interior Architecture, J.Rosemary Riggs, Prentice Hall; 8 edition, 2013.
2	Interior Architecture, Jennifer Hudson, Laurence King Publishing, 2007.
3	USG, The Gypsum Construction Handbook, RS Means; 7 edition, 2014.
4	S.K. Duggal, Building Materials, New Age International Publishers, 4th Ed., 2012.
5	Ultimate Wall Book: A Step-by-step Guide to Creating Over 50 Design Solutions, Victoria Ellerton, Collins & Brown, 1998.
6	Engineering materials, S.C.Rangwala - Charotar Publishing, 2014.
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>	
1	<a href="https://nptel.ac.in/courses/124/107/124107011/">https://nptel.ac.in/courses/124/107/124107011/</a>
2	<a href="https://www.windowmaster.com/solutions/natural-ventilation/natural-ventilation-design-guidelines">https://www.windowmaster.com/solutions/natural-ventilation/natural-ventilation-design-guidelines</a>
3	<a href="https://www.homify.in/ideabooks/5101013/7-tips-for-cross-ventilation-in-indian-homes">https://www.homify.in/ideabooks/5101013/7-tips-for-cross-ventilation-in-indian-homes</a>
Course Designed By: Ms Sudha	

<b>Mapping with Programme Outcomes</b>										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	L	M	L	M	S	S	L	L	M	L
CO2	L	M	L	M	S	S	L	L	M	L
CO3	L	M	M	M	S	S	L	L	M	L
CO4	L	L	M	M	S	S	L	L	M	L
CO5	L	M	M	S	S	S	L	L	M	S

\*S-Strong; M-Medium; L-Low

Course code	43P	INTERIOR DESIGN STUDIO III		L	T	P	C
<b>Core</b>	<b>Practical IV</b>		-	-	6	5	
<b>Pre-requisite</b>	<b>BSc Interior Design, Semester 2- Interior Design Studio I, Semester 3 – Interior Design Studio II Interior Materials and Construction I</b>		<b>Syllabus Version</b>	<b>2023-2024</b>			
<b>Course Objectives:</b>							
This studio course guides student in identifying relevant data to inform the design of Retail Spaces. It is structured to lead investigations and design process to develop an understanding of the retail behavior patterns, visual display systems, materials, lighting and design trends in the retail industry and related fields such as advertising, film, graphic design and fashion.							
<b>Expected Course Outcomes:</b>							
On the successful completion of the course, student will be able to:							
CO1	Understand fundamentals of Merchandising, Retail Display and Hospitality facilities.					K2	
CO2	Apply form, orientation, material, colour and light to direct attention towards retail space and eventually the product on display—while establishing a unique memorable brand identity.					K3	
CO3	Apply materials, surface finishes, colour and lighting to create the intended sensorial impact and memory.					K3	
CO4	Analyze Design ideas and develop a strong relevant Design Concept					K4	
CO5	Evaluate the concept under varied conditions to develop design details					K5	
CO6	Create Detailed design presentation drawings and model					K6	
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>							
<b>Unit:1</b>	<b>INTRODUCTION</b>					<b>18 hours</b>	
Study of Retail Spaces; Activity Analysis & Space Standards; Designing for Emphasis, Impact, Memory. Collective Symbols and Meaning; Display and Storage Requirements, Consumer and Seller Survey to inform Design. Space Standards, Anthropometric and Ergonomic Data.							
<b>Unit:2</b>	<b>CASE STUDIES</b>					<b>18 hours</b>	
Book Case Studies, Real Life Case Studies – Documentation, Analysis, and Inference for Design.							
<b>Unit:3</b>	<b>SITE ANALYSIS – CONTEXTUAL STUDY</b>					<b>18 hours</b>	
Analysis of Project Context – Site Analysis; Geographic, Topographic, Soil, Climatic, Wind and Sun direction, Cultural, Landscape, Access, Services & Utilities, Existing views, structures, materials, colors, service lines, circulation, water body, special features, wildlife and vegetation.							
<b>Unit:4</b>	<b>CONCEPTUAL DESIGN</b>					<b>18 hours</b>	
Development of Design Concept presented as sketches with colors showing 2D and 3D versions of the idea evolution. Spatial distribution shall be to proportion and can be shown as single line drawing along with a Conceptual model							
<b>Unit:5</b>	<b>SCHEMATIC DESIGN AND DESIGN PRESENTATION</b>					<b>18 hours</b>	
Plan developed with a detailed layout, showing circulation, individual furniture groupings to scale, Elevations and Sections. Double line plan with elevations/ sections as needed to clarify design idea. Final Rendered Presentation Sheets, with Plan, Elevations, Sections, 3D views, and Model for the Viva Voce Presentation.							

		Total Lecture hours	90 hours
<b>Text Book(s)</b>			
1	Interior design principles and practice, Pratap R.M Standard Publishers Distribution, Delhi, 1988.		
2	“Interior design”, Chaudhari, S. N, Jaipur: Aavishkar Publishers, India, 2005.		
<b>Reference Books</b>			
1	Time-Saver Standards for Interior Design and Space Planning, Julius Panero, Martin Zelnik, McGraw-Hill Professional; 2nd edition, 2001.		
2	Materials and Interior Design (Portfolio Skills), Lorraine Farrelly, Rachael Brown, Laurence King Publishing, 2012.		
3	Construction and Detailing for Interior Design (Portfolio Skills), Drew Plunkett, Laurence King Publishing, 2010.		
4	Drawing for Interior Design (Portfolio Skills), Drew Plunkett, Laurence King Publishing, 2009.		
5	Designs for 20 <sup>th</sup> century Interiors–Fiona Leolie, VH Publications, London, 2000.		
6	Interior Design; The New Freedom, Barbara lecDiamonstein, Rizzoli International Publications, New York, 1982.		
7	Interior Colour by Design, Jonathan Poore, Rockport Publishers, 1994.		
8	Worldwide Interiors – International Federation of Interior Architects & Designers, Rikuyo-Sha, Japan, 1987.		
9	The Fundamentals of Interior Design, Stephen Anderson, Simon Dodsworth, Bloomsbury Academic; 2 <sup>nd</sup> Revised edition, 2015.		
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>			
1	<a href="https://www.slideshare.net/renurajbahak/presentation-on-furniture-design">https://www.slideshare.net/renurajbahak/presentation-on-furniture-design</a>		
2	<a href="https://www.shopify.in/retail/120057795-how-to-create-retail-store-interiors-that-get-people-to-purchase-your-products">https://www.shopify.in/retail/120057795-how-to-create-retail-store-interiors-that-get-people-to-purchase-your-products</a>		
3	<a href="https://www.dezeen.com/2020/07/17/forte-forte-shop-interiors-madrid/">https://www.dezeen.com/2020/07/17/forte-forte-shop-interiors-madrid/</a>		
Course Designed By: Dr. Lakshmi Priya A			

<b>Mapping with Programme Outcomes</b>										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	M	L	L	S	M	L	L	L	M
CO3	S	M	L	L	S	M	L	L	L	M
CO3	S	M	L	L	S	M	L	L	L	M
CO4	S	M	L	L	S	M	L	L	L	M
CO5	S	M	L	L	S	M	L	L	L	M

\*S-Strong; M-Medium; L-Low

Course code	4AD	COLOUR AND LIGHTING	L	T	P	C
Allied B		Paper II	-	3	-	2
Pre-requisite	BSc Interior Design – Semester 1- Theory of Interior Design, Semester 2 - Basics in Architecture		Syllabus Version		2023-2024	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Select colour of specific hue, tint, shade to create desired ambience in an interior space.</li> <li>2. Combine colours effectively to vary the mood and feel of an interior space by the type of colour composition chosen, the level of contrasts and intensity and extent of the same.</li> <li>3. Design lighting layouts, select light fittings, luminaries and light colours depending on the degree illumination, direction and nature of light desired for the task.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember recent trends in use of colour and lighting in functional contexts.					K1
CO2	Understand the qualities of colour and lighting as design elements					K2
CO3	Apply a combination of colours effectively to vary the mood and feel of an interior space by the type of colour composition chosen, the level of contrasts and intensity and extent of the same					K3
CO4	Analyze colours to specific hue, tint and shade to create desired ambience in an interior space.					K4
CO5	Evaluate theoretical knowledge gained on colour and lighting to practical situations in interior design					K5
CO6	Create or design lighting layouts by selecting light fittings, luminaries and light colours depending on the degree illumination, direction and nature of light desired for the task.					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>COLOUR</b>					<b>9 hours</b>
Concept of colour - Colour in the interiors and exteriors; Dimensions of colour– Hue, value and intensity; Effects of hue, value and intensity; Colour systems–Prang, Munsell and Ostwald; Colour harmonies- Factors considered in selecting colour harmonies. Effect of light on colour; Psychology of colour.						
<b>Unit:2</b>	<b>LIGHT FUNDAMENTALS</b>					<b>9 hours</b>
Physics of light - Reflection, Transparency, Filters, Lens, Refraction, Shadows, Luminance, Candela, Lumen, Flux, Lux, Illuminance. Human factors - sensing light, adaption, light and psychology. Natural light - direction, intensity, colour - daylight control.						
<b>Unit:3</b>	<b>LIGHTING BASICS</b>					<b>9 hours</b>
Importance of lighting; Artificial lighting–Light sources; Types–based on material, reflection, uses; Specific factors in lighting– measurement of lighting, location and direction, size and shape and colour - Economy in lighting - Psychological aspects of lighting. Glare-its types, causes and prevention.						

<b>Unit:4</b>	<b>LIGHT FIXTURES</b>	<b>9 hours</b>
Accessories-Meaning, Types-functional, decorative, both functional and decorative – Lighting accessories -fixtures, Lighting for areas and specific activities - Sources of electric light - dispersive, concealed, directional, visualising patterns of light, lighting control systems.		
<b>Unit:5</b>	<b>LIGHTING DESIGN</b>	<b>9 hours</b>
Lighting principles - change and variation, visual hierarchy, layers, drama, changing and controlling light, Application of lighting design concepts and colour selection to interiors. Case study analysis. Selection of colour and light to create specific moods, effects, and work conditions.		
<b>Total Lecture hours</b>		<b>45 hours</b>
<b>Text Book(s)</b>		
1	Fundamentals of Lighting, Susan M. Winchip, Fairchild Books; 2 edition, 2011.	
2	Modern Concepts of Colour and Appearance , Choudhar, A. K. R., Oxford and IBH Publishing Co. Pvt. Ltd, New Delhi, 2000.	
<b>Reference Books</b>		
1	Designing With Light: The Art, Science and Practice of Architectural Lighting Design, Jason Livingston, John Wiley & Sons, 2014.	
2	Lighting Design Basics, Mark Karlen, James R. Benya, Wiley; 2 edition, 2012.	
3	Colour in Interior Design, John. F.P, McGraw Hill company, New York, 1997.	
4	The Secret Language of Colour: Science, Nature, History, Culture, Joann Eckstut, Arielle Eckstut, Leventhal Publishers; First Edition, 2013.	
5	Architectural Lighting: Designing with Light and Space, Hervé Descottes, Cecilia Ramos, Princeton Architectural Press, 2011.	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="https://dengarden.com/interior-design/interiorlighting-internalwallscolors">https://dengarden.com/interior-design/interiorlighting-internalwallscolors</a>	
2	<a href="https://www.blueistyleblog.com/how-lighting-affects-interior-design/">https://www.blueistyleblog.com/how-lighting-affects-interior-design/</a>	
3	<a href="https://www.benjaminmoore.ro/en/interior-design/light-in-interior-design/">https://www.benjaminmoore.ro/en/interior-design/light-in-interior-design/</a>	
Course Designed By: Ms. Sudha		

<b>Mapping with Programme Outcomes</b>										
<b>Cos</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	L	M	L	S	L	L	S	L	M	M
<b>CO2</b>	L	M	L	S	L	L	L	L	L	L
<b>CO3</b>	L	M	L	S	L	L	L	L	L	L
<b>CO4</b>	L	M	L	S	L	L	L	L	L	L
<b>CO5</b>	L	M	L	S	L	L	L	L	L	L
<b>CO6</b>	L	M	L	S	L	L	L	L	L	L

\*S-Strong; M-Medium; L-Low

<b>Course code</b>	<b>4ZP</b>	<b>DESIGN COMMUNICATION III</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Skill Based</b>	<b>Practical 2</b>		-	-	<b>5</b>	<b>3</b>
<b>Pre-requisite</b>	<b>BSc Interior Design, Semester 2- Design communication I, Semester 3 – Design Communication II</b>		<b>Syllabus Version</b>	<b>2023-2024</b>		
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. To improve basic proficiency in architectural office software; transposing textual, numerical and graphic information across software platforms and devices to describe concepts holistically</li> <li>2. To cover fundamentals in 3D Visualization (SketchUp)</li> <li>3. Develop advanced perspective rendering techniques and to use in the expression of conceptual ideas and images</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember basics of SketchUp for 3D modelling and MS Excel for data analysis				K1	
CO2	Understanding of basic working knowledge of Basic 3D modelling in SketchUp and presentation software				K2	
CO3	Apply the learnt architecture knowledge in digital for to have a good presentation skill				K3	
CO4	Analysis analytical data's like BOQ using the MS Excel				K4	
CO5	Evaluating the realistic experience of the material in design				K5	
CO6	Create 3D modelling form advanced 2D work with emphasis on integration of design project presentation and documentation standard.				K6	
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>ADVANCED CAD</b>				<b>15 hours</b>	
Advanced CAD features for operational efficiency: 2D Isometric drawing, Isometric dimensioning, creating tool palettes, External reference drawing files, creating and using Dynamic Blocks, Viewports- controlling layers, colour, line weight.						
<b>Unit:2</b>	<b>SKETCHUP 1</b>				<b>15 hours</b>	
Interface basics, Creating Scenes, Manipulating Objects, Advanced selection tools, Drawing shapes and altering 3D text, Measuring and Labeling, Creating sections, Working with Components, Working with the Solid Tools, Using Boolean operations. Exercises- furniture, fixtures and artifacts.						
<b>Unit:3</b>	<b>SKETCHUP 2</b>				<b>15 hours</b>	
Introducing the 3D Warehouse, Organizing Scenes, Creating Textures and Materials, Material Editor, Mapping textures on straight and curved objects, Creating and sculpting Terrain, Using Photo Match and Google Earth, Introduction to animation. Exercises -- interior spaces.						
<b>Unit:4</b>	<b>RENDERING AND ANIMATION</b>				<b>15 hours</b>	
Rendering 3D views using material palettes, colours, textures, shades and shadows. Inserting objects from digital libraries and other sources, using software such as Lumion/ Blender/ Vray; Rendering 3D models: Material Browser, Assigning materials, material mapping, creating your own material - reflectivity, transparency, cut-outs, environment settings, Using render plugins in various software.						

Animation: Setting the Scene, Camera move/pan/ tilt animation, 3D animation, walk-through sequence, superimposing animated videos over base images.		
<b>Unit:5</b>	<b>PORTFOLIO</b>	<b>15 hours</b>
Compiling of Portfolio.		
<b>Total Lecture hours</b>		<b>75 hours</b>
<b>Text Book(s)</b>		
1	MS-Office 2010 Training Guide by Prof. Satish Jain, M. Geetha	
2	Microsoft PowerPoint 2016 Step By Step Paperback – 2016 by Lambert Joan	
3	The Sketchup Workflow for Architecture by Michael Brightman	
<b>Reference Books</b>		
1	Illustrated Microsoft Office 365 & Excel 2016 – 17, Elizabeth Eisner Reding (Author), Lynn Wermers (Author), 2016.	
2	SketchUp for Interior Design: 3D Visualising, Designing, and Space Planning, Lydia Cline, John Wiley and Sons, 2014.	
3	Interior Design Visual Presentation: A Guide to Graphics, Models and Presentation Techniques, Maureen Mitton, 2012.	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="https://www.udemy.com/course/microsoft-excel-2013-from-beginner-to-advanced-and-beyond/">https://www.udemy.com/course/microsoft-excel-2013-from-beginner-to-advanced-and-beyond/</a>	
2	<a href="https://www.udemy.com/course/case-study-powerpoint-2013-presentation-slide-by-slide/">https://www.udemy.com/course/case-study-powerpoint-2013-presentation-slide-by-slide/</a>	
3	<a href="https://www.udemy.com/course/sketchup-for-interior-design/">https://www.udemy.com/course/sketchup-for-interior-design/</a>	
Course Designed By: Mr. Ashly Fabin		

<b>Mapping with Programme Outcomes</b>										
<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	L	M	L	M	L	L	S	L	L	M
<b>CO3</b>	L	L	L	M	L	M	S	L	L	L
<b>CO3</b>	L	L	L	L	L	L	S	L	L	L
<b>CO4</b>	L	L	L	L	M	L	S	L	M	M
<b>CO5</b>	L	L	L	L	L	M	S	L	L	L
<b>CO6</b>	L	M	L	L	L	M	S	L	L	L

\*S-Strong; M-Medium; L-Low



# **Fifth Semester**

Course code	53A	INTERIOR BUILDING SERVICES		L	T	P	C
<b>Core</b>	<b>Paper V</b>		-	5	-	3	
<b>Pre-requisite</b>	<b>BSc Interior Design, Semester 3 - Interior Design Studio II, Interior Materials and Construction I, Semester 4 – Interior Materials and Construction II, Interior Design Studio III.</b>		<b>Syllabus Version</b>		<b>2023-2024</b>		
<b>Course Objectives:</b>							
The main objectives of this course are to:							
<ol style="list-style-type: none"> <li>1. Understand the engineering behind all services systems in built environment.</li> <li>2. Ability to incorporate effective service systems in the building interiors.</li> </ol>							
<b>Expected Course Outcomes:</b>							
On the successful completion of the course, student will be able to:							
CO1	Understand the fundamentals of environmental factors affects building system.					K2	
CO2	Understand the water supply and sanitation engineering.					K2	
CO3	Remember to design electrical, communication and acoustical systems in variousbuilt environment.					K1	
CO4	Analyze knowledge in various air- conditioning systems and fire safety design.					K4	
CO5	Apply knowledge on the basic design principles of vertical distributions systemswithin a building.					K3	
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>							
<b>Unit:1</b>	<b>BUILDING AND ENVIRONMENT</b>					<b>15 hours</b>	
Building and Enclosure- Environmental Factors- Environment control– importance of environment control advantages, elements to be controlled in the interiors – Temperature, Humidity and moisture, wind, air movement and quality, Day lighting and illumination, sound and Acoustics, sanitation, movement and accessibility.							
<b>Unit:2</b>	<b>WATER SUPPLY AND DRAINAGE SYSTEMS</b>					<b>15 hours</b>	
Water supply systems – quality and distribution – protecting the water supply – hot water–retaining rainwater–waste piping and vent piping – waste water treatment– plumbing systems, piping layouts, sanitary fixtures, fittings and standards for kitchen, toilet and bath, appliances and equipment.							
<b>Unit:3</b>	<b>FUNDAMENTALS OF ELECTRICAL &amp; ELECTRONIC SYSTEMS</b>					<b>15 hours</b>	
Electricity: Electrical distribution and safety systems in buildings; fixtures, equipment, and appliances; electrical circuitry and internal wiring; electrical loads, peak demand, operational costs; Communication: Intercoms, Wi-Fi, broad band data cabling, and CCTV systems.							
<b>Unit:4</b>	<b>DESIGN ASPECTS OF AIR-CONDITIONING, ACOUSTICS AND FIRE SAFETY SYSTEMS</b>					<b>15 hours</b>	
Air-conditioning: Principles and components of mechanical ventilation and air- conditioning systems; calculation based on design conditions and system sizing, design considerations for chiller rooms, cooling plants, AHUs; integration with natural ventilation, and other energy conserving technologies.							

Acoustics: Basics; acoustical requirements for different space types and design planning; site planning for noise control; exposure to acoustics design software. Fire Safety: Fire sources, spreading and growth decay curve; fire resistant rating of materials and fire retardant materials; fire hydrants, fire escapes, fire zones, fire escape staircase, fire lifts, refuge areas, fire tender access; smoke detector, alarm, and sprinkler systems; representation of fire considerations in drawings.		
<b>Unit:5</b>	<b>MECHANICAL TRANSPORTATION / CONVEYING SYSTEMS</b>	<b>15 hours</b>
Access and movement systems - Elevators and escalators - Types and applications, Estimating the load, and size requirements, special and custom elevators - domestic elevators, chair lifts. Ramps and accessibility, recommended ramp slopes for accessibility in interiors.		
	<b>Total Lecture hours</b>	<b>75 hours</b>
<b>Text Book(s)</b>		
1	Water Supply and Sanitary Engineering (Environmental Engineering) Rangwala,P.B, Charotar Publishing House, 2005	
2	Architectural Utilities 3: Lighting &Acoustics, Salvan, George S., JMC Press, 1999	
3	Manual of Tropical Housing and Building, Koenigsberger, Ingersoll & Mayhew, Orient Longman, Universities Press Pvt Limited, 1975.	
4	Lifts, Elevators, Escalators and Moving Walkways/Travelators, Bangash, M.Y.H. & Bangash T, CRC Press; 1 <sup>st</sup> Edition, 2007.	
<b>Reference Books</b>		
1	National Building Code, Bureau of Indian Standards, 2016.	
2	ASHRAE Fundamentals Handbook, 2013.	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="https://nptel.ac.in/courses/105/107/105107156/">https://nptel.ac.in/courses/105/107/105107156/</a>	
2	<a href="https://www.youtube.com/watch?v=5y_VBiTiuAY">https://www.youtube.com/watch?v=5y_VBiTiuAY</a>	
3	<a href="https://www.youtube.com/watch?v=1jfNIBtfWDY">https://www.youtube.com/watch?v=1jfNIBtfWDY</a>	
Course Designed By: Ms. Sudha		

Mapping with Programme Outcomes										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	L	M	L	L	H	M	H	M	M	M
CO2	L	L	L	L	H	H	H	M	M	M
CO3	L	M	L	H	H	H	H	M	M	M
CO4	L	L	L	M	H	M	M	M	M	M
CO5	L	M	L	M	H	H	H	M	M	M

\*S-Strong; M-Medium; L-Low

<b>Course code</b>	<b>53B</b>	<b>FURNITURE CONSTRUCTION &amp; DETAILING</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Core</b>	<b>Paper VI</b>		<b>-</b>	<b>5</b>	<b>-</b>	<b>4</b>
<b>Pre-requisite</b>	<b>BSc Interior Design - Semester 3 Interior Materials and Construction I, Semester 4 – Interior Materials and Construction II</b>		<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
To familiarize the students of Interior Design on materials used in furniture and its construction and detailing						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Understanding the analytical process of craftsmanship of a specified material.					K2
CO2	Understanding of industrial procedure of from making and utilization					K2
CO3	Understanding of wood and its specified qualities and its industrial treatments					K2
CO4	Analyse techniques and details for the design					K4
CO5	Evaluate design drawing and presentation skills.					K5
CO6	Create a block model of furniture					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>INTRODUCTION TO FURNITURE</b>				<b>15 hours</b>	
Styles of furniture– traditional, contemporary and modern design; Furniture for different Purpose–meaning, need; Factors influencing design – climatic condition, family needs and preferences, availability, principles of design and financial limit. Furniture through the ages – Overview; Development of Furniture design, Furniture for various spaces and functions – Selection and arrangement; Ergonomics, anthropometrics and spatial conventions in furniture design - furniture dimensions.						
<b>Unit:2</b>	<b>THE BASICS OF FURNITURE CONSTRUCTION &amp; TOOLS</b>				<b>15 hours</b>	
Measurement and measurement systems, Furniture Construction: Drawers, Cadenza, dining chairs sofa, settee, cots detail. Preparation for finishing, Furniture Materials specifying timber finishes etc. Detailed construction drawings & explaining construction and material finishes. Construction features of furniture - Process in wood furniture: shaping, carving, turning, fluting, reeding, joining & finishes; Upholstering– techniques and designs - Metal and Glass furniture - Methods and finishes - Ornament in furniture.						
<b>Unit:3</b>	<b>PLYWOOD CONSTRUCTION TECHNIQUES</b>				<b>15 hours</b>	
Plywood as a building material, Layout techniques and machining plans. _ Fabrication techniques - stapling, gluing. Furniture Joinery - screw joinery, nail joinery, Mortise & tenon joints, Dovetail joints, Dowel joints, Edge joints.						
<b>Unit:4</b>	<b>FURNITURE AND FURNISHINGS</b>				<b>15 hours</b>	
Furnishings – Types, Design, Selection and Layout - Care and maintenance – wooden furniture, wicker and cane, metal furniture, PVC. plastic, upholstered furniture – Wood finishes and furniture polishes - Window coverings - Drapes, blinds and curtains - materials, patterns and construction.						
<b>Unit:5</b>	<b>FURNITURE MODEL MAKING</b>				<b>15 hours</b>	

Preparation of block models of furniture using wood, boards, leather, fabric, thermocol, clay, soap/wax etc	
<b>Total Lecture hours</b>	<b>75 hours</b>

<b>Text Book(s)</b>	
1	Engineering materials - S. C. Rangwala - Charotar Publishing, 2008.
2	Building Construction Illustrated, Ching, Francis D. K. VNR, 1975.
<b>Reference Books</b>	
1	Furniture: World styles from classical to contemporary, David Linley and Judith Miller, DK Publishing, 2010.
2	Masters & Their Pieces Best of Furniture Design, Manuela Roth, Braun Publishing, 2011.
3	Construction and Detailing for Interior Design (Portfolio Skills), Drew Plunkett, Laurence King Publishing, 2010.
4	Time-Saver Standards for Interior Design and Space Planning, Julius Panero, Martin Zelnik, McGraw-Hill Professional; 2nd edition, 2001.
5	Materials and Interior Design (Portfolio Skills), Lorraine Farrelly, Rachael Brown, Laurence King Publishing, 2012.
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>	
1	<a href="https://www.slideshare.net/Pradeepagrwal/role-of-furniture-in-interior-decoration-madscreations">https://www.slideshare.net/Pradeepagrwal/role-of-furniture-in-interior-decoration-madscreations</a>
2	<a href="https://www.slideshare.net/SaifulIslamTT/141-40105-presentation-on-furniture">https://www.slideshare.net/SaifulIslamTT/141-40105-presentation-on-furniture</a>
3	<a href="https://www.slideshare.net/FuToThong/furniture-designer-51631684">https://www.slideshare.net/FuToThong/furniture-designer-51631684</a>
Course Designed By: Dr. Lakshmi Priya A	

<b>Mapping with Programme Outcomes</b>										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	M	L	M	S	M	L	L	L	M
CO3	S	M	L	M	S	M	L	L	L	M
CO3	S	M	L	M	S	M	L	L	L	M
CO4	S	M	L	M	S	M	L	L	L	M
CO5	S	M	L	M	S	M	L	L	L	M
CO6	S	M	L	M	S	M	L	L	L	M

\*S-Strong; M-Medium; L-Low

Course code	53C	ESTIMATION AND COSTING		L	T	P	C
Core	Paper VII		-	5	-	3	
Pre-requisite	BSc Interior Design- Semester 3, 4 – Interior Materials and Construction I and II		Syllabus Version	2023-2024			
<b>Course Objectives:</b>							
The main objectives of this course are to:							
<ol style="list-style-type: none"> <li>1. Estimate quantity of each individual type of interior work to be done within the larger project</li> <li>2. Calculate the materials needed for each work – for purchase of the same</li> <li>3. Arrive at an estimate of the Project Cost from agreed unit rates for each work involved and material selected.</li> </ol>							
<b>Expected Course Outcomes:</b>							
On the successful completion of the course, student will be able to:							
CO1	Remember the importance of estimation while planning for a building project.					K1	
CO2	Understand to calculate the materials needed for each work – for purchase of the same.					K2	
CO3	Apply the estimation quantity of each individual type of interior work to be done within the larger project.					K3	
CO4	Analyze the difference in quality and quantity of materials utilised in Interior Design					K4	
CO5	Evaluate to arrive at an estimate of the Project Cost from agreed unit rates for each work involved and material selected.					K5	
CO6	Create a detailed estimation and costing for a particular interior project					K6	
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>							
<b>Unit:1</b>	<b>INTRODUCTION</b>					<b>15 hours</b>	
<p>Estimation – definition, purpose, types of estimate, and procedure for Estimating the cost of work in order to implement an interior design project or to make products related to interior design like furniture, artifacts etc.</p> <p>Specification – Definition, purpose, procedure for writing specification for the purpose of calling tenders, types of specification. Specification for different item related to interior design project</p>							
<b>Unit:2</b>	<b>WALL AND CEILING</b>					<b>15 hours</b>	
<p>Estimation for Wall Construction, Estimation for Partitions, Doors, Fixed Glass/ Windows.</p> <p>Estimation for Wall and Ceiling Treatments, Paint –Calculation of prices for Wall coverings – Introduction to other wall materials such as wall tiles and paneling - Estimation and costing of Suspended Ceilings.</p>							
<b>Unit:3</b>	<b>FLOOR</b>					<b>15 hours</b>	
<p>Flooring Estimation - Plank and Tile Flooring –Resilient Flooring and Soft Flooring, Area Rugs– Explanation of product, product sizing and packaging – Commonly used flooring products and their estimation and costing.</p>							
<b>Unit:4</b>	<b>CABINETRY &amp; FURNITURE</b>					<b>15 hours</b>	
<p>Introduction to Built-In work, Discussion of Countertops and Cabinetry – Product sizing and packaging. Pricing of Cabinetry using pricing grids, Construction and Finish Costing of all components of Countertops and Cabinetry.</p>							

<b>Unit:5</b>	<b>SOFT FURNISHINGS AND TREATMENTS</b>	<b>15 hours</b>
Soft Furnishing and upholstery; Reupholstered and Slipcovered Furniture – Calculate pricing from an upholstery manufacturer’s price list. Window Treatments –Common types of window treatments – specifications and pricing. Issues designer must consider when issuing an estimate.		
<b>Total Lecture hours</b>		<b>75 hours</b>
<b>Text Book(s)</b>		
1	A Text book of Estimation and Costing (Civil), Kohli. R. C., S. Chand Publishing, New Delhi, 2012.	
2	Electrical Wiring Estimation and Costing, Uppal, S. L., and Garg. G. C. Khanna Publishers, New Delhi, 1986	
<b>Reference Books</b>		
1	Estimation construction costs, Peurifoy. R. L., and Oberlender, G. D. McGraw Hill, New York, 2013	
2	Estimating and Costing for Interior Designers: A Step-by-Step Workbook, Diana Allison, Bloomsbury Publishing India Private Limited, 2014.	
3	Estimating for Interior Designers, Carol Sampson, Watson-Guption; 2nd Revised edition, 2001.	
4	Professional Practice for Interior Designers Hardcover – Import by Christine M. Piotrowski (Author) Publisher: John Wiley & Sons; 3rd Edition, 2001.	
5	Interior Design Reference Manual: Everything You Need to Know to Pass the NCIDQ Exam Paperback – Import by David Kent Ballast (Author) Publisher: Professional Pubns Inc; 6 edition, 2013.	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="https://www.youtube.com/watch?v=r0aDjTLxy5c">https://www.youtube.com/watch?v=r0aDjTLxy5c</a>	
2	<a href="https://happho.com/interior-design-estimates/">https://happho.com/interior-design-estimates/</a>	
3	<a href="http://nsmarjiwe.blogspot.com/2012/10/estimation-in-interior-designing.html">http://nsmarjiwe.blogspot.com/2012/10/estimation-in-interior-designing.html</a>	
Course Designed By: Ms. Sudha		

<b>Mapping with Programme Outcomes</b>										
<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	L	L	L	M	M	M	M	S	M	S
<b>CO3</b>	L	L	L	M	M	M	M	S	M	S
<b>CO3</b>	L	L	L	M	M	M	M	S	M	S
<b>CO4</b>	L	L	L	M	M	M	M	S	M	S
<b>CO5</b>	L	L	L	M	M	M	M	S	M	S
<b>CO6</b>	L	L	L	M	M	M	M	S	M	S

\*S-Strong; M-Medium; L-Low

Course code	53P	INTERIOR DESIGN STUDIO IV	L	T	P	C
Core		Practical V	-	-	7	6
Pre-requisite		BSc Interior Design - Semester 1- Theory of Design, Semester 2, 3, 4 – Interior Design Studio I, II, III, Semester 3, 4– Interior Materials and Construction I and II, Semester 3, 4 – Design Communication II and III	Syllabus Version		2023-2024	
<b>Course Objectives:</b>						
This hands-on Design Studio course explores the intersection of architecture, art, and design. Students will work in groups of two and three, combining methods of the hand, machine and computer to develop a family of design pieces building a clear understanding of ergonomics, anthropometrics, materials and processes that are involved.						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Analyse a material and its industrial production technology					K4
CO2	Understanding the industrial production processes to design an effective product that can be produced efficiently.					K2
CO3	Manipulate material in a manner that is expressive of its essential characteristics.					K3
CO4	Analyze Ergonomic data and activity requirements to arrive at optimal form.					K4
CO5	Evaluate the concept under varied conditions to develop design details					K5
CO6	Create detailed design presentation drawings and model					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyse; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>RESEARCH</b>					<b>15 hours</b>
Furniture Design- Form and Structure for similar functional need; Materials and their suitability for use as components of the furniture; Processes of making – jointing, bending, cutting, mold casting etc. and consider suitability - Material science and Fabrication process- both historical and contemporary material and fabrication processes. From this collective research and discussions, students will work together to develop a line of inquiry regarding material form and process.						
<b>Unit:2</b>	<b>CASE STUDIES</b>					<b>20 hours</b>
Book Case Studies, Real Life Case Studies – Documentation, Analysis, and Inference for Design						
<b>Unit:3</b>	<b>CONTEXTUAL STUDY</b>					<b>25 hours</b>
Contextual Study can be User Study – Flexible designs can accommodate potential user variation, or special features can be added to accommodate a special need by a user; Study the Physical context in which furniture will be used – select materials and construction appropriate to the context; The selections will also influence visual impact, luxury, comfort, maintenance or flexibility– priorities deliberately.						

<b>Unit:4</b>	<b>CONCEPTUAL AND SCHEMATIC DESIGN</b>	<b>30 hours</b>
<p>Conceptual Design Creative process: Material, process, user and context study will lead to their individual design concept. Show 2D and 3D versions of the idea evolution and present development of Design Concept as colored sketches. Submission: Line sketches with Concept Model</p> <p>Schematic Design Detailing: The design concept is further developed and detailed to include material, jointing, finishing, color and texture - with sketches, part models, and detailed drawings. Submission: Detailed Plan, Elevations, and Section with connection details. Double line plan with elevations/ sections as needed to clarify design idea.</p>		
<b>Unit:5</b>	<b>DESIGN PRESENTATION</b>	<b>15 hours</b>
<p>Construction: Scaled Prototype model of furniture is constructed using identical or similar material and processes. It is supported with a detailed set of drawings for the final presentation and review. Submission for the Viva Voce Presentation: Prototype model, Final detailed set of Drawings – completed, formatted, dimensioned and rendered. (Sheets: Plan, Elevations, Sections and Jointing Details as needed to communicate the design unambiguously)</p>		
	<b>Total Lecture hours</b>	<b>105 hours</b>
<b>Text Book(s)</b>		
1	Interior design principles and practice, Pratap R.M, Standard Publishers distribution, Delhi, 1988.	
2	“Interior design”, Chaudhari, S. N, Jaipur: Aavishkar Publishers, India, 2005.	
<b>Reference Books</b>		
1	Time-Saver Standards for Interior Design and Space Planning, Julius Panero, Martin Zelnik, McGraw-Hill Professional; 2nd edition, 2001.	
2	Materials and Interior Design (Portfolio Skills), Lorraine Farrelly, Rachael Brown, Laurence King Publishing, 2012.	
3	Construction and Detailing for Interior Design (Portfolio Skills), Drew Plunkett, Laurence King Publishing, 2010.	
4	Drawing for Interior Design (Portfolio Skills), Drew Plunkett, Laurence King Publishing, 2009.	
5	Designs for 20 <sup>th</sup> century Interiors–Fiona Leolie, VH Publications, London, 2000.	
6	Interior Design; The New Freedom, Barbara lec Diamonstein, Rizzoli International Publications, New York, 1982.	
7	Interior Colour by Design, Jonathan Poore, Rock port Publishers, 1994.	
8	Worldwide Interiors – International Federation of Interior Architects & Designers, Rikuyo-Sha, Japan, 1987.	
9	The Fundamentals of Interior Design, Stephen Anderson, Simon Dodsworth, Bloomsbury Academic; 2 <sup>nd</sup> Revised edition, 2015.	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="https://youtu.be/eX1vSyj_iIU">https://youtu.be/eX1vSyj_iIU</a>	
2	<a href="https://www.slideshare.net/Pradeepagrwal/role-of-furniture-in-interior-decoration-madscreations">https://www.slideshare.net/Pradeepagrwal/role-of-furniture-in-interior-decoration-madscreations</a>	

3	<a href="https://www.google.com/url?sa=t&amp;rct=j&amp;q=&amp;esrc=s&amp;source=web&amp;cd=&amp;ved=2ahUKEwj6y sCc4vHqAhV28HMBHXxiDIUQFjAMegQIBBAB&amp;url=https%3A%2F%2Fthearchiblog.files.wordpress.com%2F2011%2F02%2Finterior-furnitures.ppt&amp;usg=AOvVaw0Qn2RTaW6f7cIaOoDKg3mm&amp;cshid=1596002017701710">https://www.google.com/url?sa=t&amp;rct=j&amp;q=&amp;esrc=s&amp;source=web&amp;cd=&amp;ved=2ahUKEwj6y sCc4vHqAhV28HMBHXxiDIUQFjAMegQIBBAB&amp;url=https%3A%2F%2Fthearchiblog.files.wordpress.com%2F2011%2F02%2Finterior-furnitures.ppt&amp;usg=AOvVaw0Qn2RTaW6f7cIaOoDKg3mm&amp;cshid=1596002017701710</a>
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Course Designed By: Dr. Lakshmi Priya A

Mapping with Programme Outcomes										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	M	L	M	L	L	M	L	L	M
CO3	S	M	L	M	L	L	M	L	L	M
CO3	S	M	L	M	L	L	M	L	L	M
CO4	S	M	L	M	L	L	M	L	L	M
CO5	S	M	L	M	L	L	M	L	L	M
CO6	S	M	L	M	L	L	M	L	L	M

\*S-Strong; M-Medium; L-Low



Course code	5ZP	LANDSCAPE FOR INTERIORS	L	T	P	C
<b>Skill Based 3</b>		<b>Paper</b>	-	-	4	2
<b>Pre-requisite</b>	<b>BSc Interior Design- Semester 1 – Theory of Interior Design, Semester 2 – Basics in Architecture. Semester 4 – Design Communication III.</b>		<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Present a vivid scenario of the need and importance of interiorscaping.</li> <li>2. Identification of plants, propagation methods, creation of different styles of flower arrangements and drawing landscape design layouts.</li> <li>3. Understand the plant kingdom, developing, drawing and designing landscape both indoor and outdoor and uplifting the aesthetic value of any kind of building.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember a variety of interior plants and ornamental flowers that can be used to enhance the quality of the interior environment.					K1
CO2	Understand the methods of cultivation of plants and flowers					K2
CO3	Apply knowledge of design theory and hands on interior design experience to create an Interior garden layout or flower arrangement.					K3
CO4	Analyze the basic knowledge on selection of Indoor plants and enumerate the conditions of plant growth.					K4
CO5	Evaluate the importance of flower arrangement to improve the aesthetics					K5
CO6	Create a compiled portfolio to exhibit your understanding and ideas on Floriculture					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>ORNAMENTAL PLANTS AND LAWN</b>				<b>14 hours</b>	
Selection of plants based on location, purpose, design effect and maintenance. Principles of pot culture. Indoor plants display and placement, upkeep and maintenance. Lawn– importance, types, preparation of lawn, methods of cultivation, use and maintenance.						
<b>Unit:2</b>	<b>LANDSCAPE DESIGN</b>				<b>14 hours</b>	
Softscape–Meaning and importance; Types of garden- formal and Informal layout, garden components, principles of landscape design; Factors affecting design of landscape in interiors. Landscape design concepts across cultures - the English garden, the Japanese garden, the Mughal garden.						
<b>Unit:3</b>	<b>PHYSICAL REQUIREMENTS OF PLANTS</b>				<b>14 hours</b>	
Physical requirements of plants – light, temperature, water, planting medium, soil separator, weight of plants, acclimatization and maintenance. Techniques to meet physical requirements. Protection of the integrity of the roof and structure, Provision of drainage, light weight planting medium, irrigation, selection of materials, water proofing , provision for utilities and maintenance.						
<b>Unit:4</b>	<b>TRENDS IN INTERIOR GARDEN</b>				<b>10 hours</b>	
Modern trends in gardening– Terrace garden, Rock garden, Water garden, Bonsai culture, Terrarium, Roof garden, Hanging garden, Kitchen garden. Flower arrangement as an						

ornamentation.		
<b>Unit:5</b>	<b>WORKING EXERCISE</b>	<b>8 hours</b>
Design guidelines, representation techniques, graphics and symbols, rendering techniques. Working exercises for space like courtyard design, outdoor room design, terrace garden etc.		
<b>Total Lecture hours</b>		<b>60 hours</b>

<b>Text Book(s)</b>	
1	Floriculture in India. Randhawa. G. S. and Mukhopadhyay. A, New Delhi, 1986.
2	A Textbook of Floriculture and Landscaping, Singh. A. K. and Sisodia. A. New India Publishing Agency, 2017.
<b>Reference Books</b>	
1	An Illustrated Dictionary of Floriculture and Landscaping. Ranchana. P. Kannan. M. and Vinodh. S, 2017.
2	Floriculture, Landscaping and Turf Management, Devi. A. N., Kumar. A. R and Lakshmanan. V, Lambert Academic Publishing, 2012.
3	Floriculture and Landscaping at a glance, Somani. L. L, Agrotech Publishing company, 2010.
4	Flower Arranging – A complete guide for beginners, Judith. B. The Flower Press Ltd., 2012
5	The Ultimate Flower Arrangement Book, Katherine. T. S. Create Space Independent Publishing Platform, 2011
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>	
1	<a href="https://www.archdaily.com/935822/indoor-landscaping-30-projects-that-bring-life-into-interiors">https://www.archdaily.com/935822/indoor-landscaping-30-projects-that-bring-life-into-interiors</a>
2	<a href="https://www.doc-developpement-durable.org/file/paysagisme/design/Landscape-Design-Elements-and-Principles.pdf">https://www.doc-developpement-durable.org/file/paysagisme/design/Landscape-Design-Elements-and-Principles.pdf</a>
3	<a href="http://www.hillagric.ac.in/edu/coa/vegetables/lectures/VSF_231_Flori/VSF_231_Flori_Lect_6-10_Plants.pdf">http://www.hillagric.ac.in/edu/coa/vegetables/lectures/VSF_231_Flori/VSF_231_Flori_Lect_6-10_Plants.pdf</a>
Course Designed By: Ms. Sudha	

<b>Mapping with Programme Outcomes</b>										
<b>Cos</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	L	L	L	S	S	L	M	L	S	L
<b>CO3</b>	L	L	L	S	S	L	M	L	S	L
<b>CO3</b>	L	L	L	S	S	L	M	L	S	L
<b>CO4</b>	L	L	L	S	S	L	M	L	S	L
<b>CO5</b>	L	L	L	S	S	L	M	L	S	L
<b>CO6</b>	L	L	L	S	S	L	M	L	S	L

\*S-Strong; M-Medium; L-Low



**Sixth  
Semester**

Course code	63A	PROFESSIONAL PRACTICE	L	T	P	C
<b>CORE</b>		<b>PAPER VIII</b>	-	4	-	3
<b>Pre-requisite</b>	<b>BSc Interior Design- Semester 2, 3, 4 – Interior Design Studio I, II &amp; III; Semester 3, 4 - Interior Materials and Construction I, II; Semester 5 - Estimation and Costing</b>		<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Enable the students to gain a clear idea of the processes involved in setting up an independent professional practice.</li> <li>2. Understand the opportunities and responsibilities associated with the profession.</li> <li>3. Make ethical and informed decisions in organizing themselves for success in their professional lives.</li> <li>4. Understand the duties and liabilities of an Interior designer along with knowledge of bye-laws that relate to the building &amp; the environment in the Indian context.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember the role and responsibilities of interior design profession and the role of professional bodies and statutory bodies as well as ethics of the profession.					K1
CO2	Understand the basic aspects of running an interior design practice.					K2
CO3	Apply the processes involved in taking up and completing an interior project					K3
CO4	Apply knowledge of preparation of tenders, quotations and contracts.					K3
CO5	Analyze the legal aspects and legislations associated with the profession.					K4
CO6	Evaluate the importance of fire safety standards, accessibility and stability requirements.					K5
CO7	Create the ability to develop work ready skills in the areas of written and oral communication, intercultural communication, client service, problem solving and self-management.					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>PROFESSIONAL BODIES</b>				<b>12 hours</b>	
Defining the Profession ; The Business of Interior Design; Familiarization with different Professional Bodies directly and In directly related to Interior Design profession such as The Indian Institute of Interior Designers – History, rules and regulations, membership procedure and category, IIID elections, Functions and formalities of the IIID Council, importance, professional and trade practices and ethics; Intellectual Property – Copyright.						
<b>Unit:2</b>	<b>GROUNDWORK STRATEGIES</b>				<b>12 hours</b>	
Creating and Managing an Interior Design Practice - Business formations – Sole Proprietorship, Partnership, LLC, Pvt. Ltd Corporation ; Strategic Planning – basics, mission statements, business analysis, goals-objectives-strategies, budgeting, measuring performance, benchmarking - Money Management – maintain records, control overheads - Marketing – Branding, Marketing Plan; Portfolio, Competitions, Website, Publications						
<b>Unit:3</b>	<b>OPERATIONS</b>				<b>12 hours</b>	
Types, details of a tender document, procedure to be followed for calling tenders, tender analysis, selection of contractor and award of the work. Important terms – Earnest Money Deposit , Security						

Deposit, Defect liability, Insurance etc. Types of Contracts, legality of the contracts, important clauses of the contract, role of owner, interior designer and the contractor in fulfillment of the contract.		
<b>Unit:4</b>	<b>SETTING UP THE PRACTICE</b>	<b>12 hours</b>
Size of the office, location, infrastructure requirement, staff requirement etc, Procurement of the works. Important activities in a professional office. Employee Management – Contracts, Compensation and Benefits, Job classifications, descriptions, Performance Evaluation, Employee Handbook.		
<b>Unit:5</b>	<b>CODES</b>	<b>12 hours</b>
Codes For Electrical Layout: Typical electrical layout for a building – location requirement for switch rooms and distribution panels – codes for fan points, power points and light points – PVC sheathed wiring system – protective earthing – earth electrode; Codes For Lighting: Measurement of illumination and luminous intensity – day light factor – sky luminance – ERC, IRC – light output ratio – recommended illumination levels for various spaces such as library, class room, garment factory, etc. Energy conservation in lighting. Codes For Ventilation: Ventilation rates – air changes per hour – relative humidity – cross ventilation, stack effect, recommended ventilation rates for kitchen, toilet, etc.		
<b>Total Lecture hours</b>		<b>60 hours</b>
<b>Text Book(s)</b>		
1	Professional Practice for Interior Designers, 5th ed, Piotrowski, Christine M., Wiley Publications, 2014.	
2	Indian Standards Institutions, National building code of India ISI rol.1, New Delhi, 1983.	
3	Specifying Interiors: A Guide to Construction and FF&E for Commercial Interiors Projects, Maryrose McGowan, John Wiley & Sons; annotated edition, 1996.	
<b>Reference Books</b>		
1	Space Planning for Commercial and Residential, Sam Kubba, McGraw-Hill Professional, 2003.	
2	Estimating and Costing for Interior Designers: A Step-by-Step Workbook, Diana Allison, Bloomsbury Publishing India Private Limited, 2014.	
3	Estimating and costing, Arul Manickam A.P. and T.K. Palaniappan, Pratheeba Publishers, Coimbatore, 1993.	
4	Fire Safety in Buildings, V.K.Jain, New age International (Pvt Ltd) publishers, Chennai, 2007.	
5	IS 9668 : 1990 – Firefighting code of practice - Bureau of Indian Standards, 1990.	
6	National Building code of India 2005 – Bureau of Indian Standards	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="https://designshack.net/articles/business-articles/what-are-design-ethics-and-why-are-they-important/">https://designshack.net/articles/business-articles/what-are-design-ethics-and-why-are-they-important/</a>	
2	<a href="https://info.designmanager.com/how-to-start-an-interior-design-business">https://info.designmanager.com/how-to-start-an-interior-design-business</a>	
Course Designed By: Mr. Libeesh		

Mapping with Programme Outcomes										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
C01	L	L	L	L	M	M	L	S	S	S
C02	L	L	L	L	L	S	L	S	L	S
C03	L	L	L	M	M	S	S	L	M	M
C04	L	L	L	L	L	S	S	L	L	S
C05	L	L	L	L	L	L	L	L	S	S
C06	L	L	L	M	S	L	L	L	L	L
C07	L	L	L	L	L	M	S	M	M	S

\*S-Strong; M-Medium; L-Low



Course code	63B	INTERIOR PROJECT MANAGEMENT	L	T	P	C
Core	Paper IX		-	4	-	3
Pre-requisite	B.Sc Interior Design – Semester 5 - Estimation & Costing, Interior Design Studio IV.		Syllabus Version		2023-2024	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Appreciate and understand various tools and techniques of project management to plan and execute design projects within stipulated time and resources.</li> <li>2. Aware of latest trends and techniques to manage the project effectively.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Understand and outline the basic concepts of Project Management and role of human factor in it.					K2
CO2	Remember to apply appropriate approaches to plan a new project and develop project schedule.					K1
CO3	Analyze and estimate project duration and analyze critical factors of project identify the important risks facing in a new project.					K4
CO4	Apply various project optimization techniques to considerably reduce the slack time and resources in the project.					K3
CO5	Evaluate real time resources with updated data and use computer application to get insights to manage it effectively.					K5
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>INTRODUCTION TO PROJECT MANAGEMENT AND PROJECT SELECTION</b>					<b>12 hours</b>
Objectives of Project Management- Importance of Project Management- Types of Projects Project Management Life Cycle- Project Selection – Feasibility study: Types of feasibility Steps in feasibility study.						
<b>Unit:2</b>	<b>PROJECT PLANNING AND IMPLEMENTATION</b>					<b>12 hours</b>
Project Scope- Estimation of Project cost – Cost of Capital – Project Representation and Preliminary Manipulations - Basic Scheduling Concepts - Resource Levelling – Resource Allocation.						
<b>Unit:3</b>	<b>PROJECT MONITORING AND CONTROL</b>					<b>12 hours</b>
Setting a base line- Project management Information System – Indices to monitor progress. Importance of Contracts in projects- Teamwork in Project Management - Attributes of a good project team – Formation of effective teams – stages of team formation.						

<b>Unit:4</b>	<b>PROJECT CLOSURE</b>	<b>12 hours</b>
Project evaluation- Project Auditing – Phases of project Audit- Project closure reports Guidelines for closeout reports.		
<b>Unit:5</b>	<b>SPECIAL TOPICS IN PROJECT MANAGEMENT</b>	<b>12 hours</b>
Computers, e-markets and their role in Project management- Risk management- Environmental Impact Assessment. Case studies in Project management		
	<b>Total Lecture hours</b>	<b>60 hours</b>
<b>TEXT BOOKS:</b>		
1. Project Management, K. Nagarajan, New Age International Publishers, 2017.		
2. Project Management, Clifford F. Gray, Erik. W. Larson, Gautam V. Desai, McGraw Hill, 6 <sup>th</sup> Edition, 2017.		
<b>REFERENCES:</b>		
1. Project Planning and Control with PERT and CPM, Dr. B.C. Punmia et al., Laxmi Publications		
2. A Management Guide to PERT and CPM, Jerome D. Wiest and Ferdinand K. Levy, Prentice Hall of India Publication, New Delhi, 1982.		
3. Building Production and Project Management, R.A. Burgess and G. White, The Construction Press, London, 1975.		
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1. <a href="https://onlinecourses.swayam2.ac.in/cec20_mg07/preview#">https://onlinecourses.swayam2.ac.in/cec20_mg07/preview#</a>		
2. <a href="https://onlinecourses.nptel.ac.in/noc19_mg30/preview">https://onlinecourses.nptel.ac.in/noc19_mg30/preview</a>		
3. <a href="https://nptel.ac.in/courses/110/104/110104073/">https://nptel.ac.in/courses/110/104/110104073/</a>		
Course Designed By: Dr. Geetha		

<b>Mapping with Programme Outcomes</b>										
<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	L	L	L	L	L	L	M	M	L	S
<b>CO2</b>	L	L	L	L	L	L	M	M	L	S
<b>CO3</b>	L	L	L	L	L	L	M	M	L	S
<b>CO4</b>	L	L	L	L	L	L	M	M	L	S
<b>CO5</b>	L	L	L	L	L	L	M	M	L	S

\*S-Strong; M-Medium; L-Low

Course code	63P	APPLIED ARTS	L	T	P	C
Core		Practical VI	-	4	-	4
Pre-requisite		BSc Interior Design, Semester 1 – Theory of Design, Art in Interior Design; Semester 2 – Basics in Architecture, Semester 3 - History of Interior Design	Syllabus Version		2023-2024	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Understand the process of making involved in the creating of various arts &amp; craft products and customized materials used in interior design.</li> <li>2. Develop an appreciation for the art and craft and promote the same through selective sensitive application.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember the different tools and techniques used in varied forms of applied arts.					K1
CO2	Understand the processes of making involved in the creation of different forms of applied arts.					K2
CO3	Apply clear knowledge in the process of creating objects of Art and Ornament for Interiors.					K3
CO4	Create art and craft forms as design elements and their relevant application in Interiors.					K6
CO5	Evaluate the awareness of the historic and cultural significance of various forms of art and craft, and their use in Interiors.					K5
CO6	Analyze uses and maintenance of art and artifacts based on the material, method of making and environment.					K4
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>WOOD AND METAL WORKING</b>					<b>12 hours</b>
Wood working - tools and techniques for shaping, carving, turning, bending, Materials for frames, Sawn curves, bending, panels, Methods of cutting shapes - straight edged, curved, complex, decorative. Decorating -Painting, Varnish, shellac, lacquer. Metals and Alloys - Tools for cold cutting metal, Shaping with Power tools, Solder joints, Forging, Welding and Cutting with Oxyacetylene torch, Surface finishes and repairs.						
<b>Unit:2</b>	<b>CERAMIC AND GLASS DESIGN</b>					<b>12 hours</b>
Ceramics Design and ornamentation - earthenware, stoneware, china, porcelain and terracotta Processes - Coiling, slab building, throwing, profiling, turning, slip casting. Materials and glazes. Glass - glass etching, engraving, cutting, enameling, stained glass techniques, and use of glass in homes.						
<b>Unit:3</b>	<b>SCULPTURE</b>					<b>12 hours</b>
Ceramic Sculpture - Making Faces essential steps, Modeling and Sculpting Animals Symbolism in cultural representation of animals, general principles and method - use of sculpture - Care and maintenance.						

<b>Unit:4</b>	<b>FABRIC PRINTING AND DYEING</b>								<b>12 hours</b>	
Fabric Aesthetics - Texture, Colour, Pattern. Application - Windows, Furniture, Walls, Ceilings. Properties - Cloth, Fiber, Yarn, Construction, Finishing, Dyeing and Printing– Dyeing–Definition and classification – Printing - Hand, Block printing, Tie and Dye, Screen; Machine - Discharge, Resist, Stenciling, Fabric painting tools and techniques.										
<b>Unit:5</b>	<b>MACRAME, DECOUPAGE AND GLASS PAINT</b>								<b>12 hours</b>	
Crafts - Macramé - , Decoupage - Design and Process, Decorating with decoupage, Decorative Mosaic - materials and tools, Planning and Designing, Working Methods -Direct techniques, Double direct techniques, Glass painting.										
								<b>Total Lecture hours</b>	<b>60 hours</b>	
<b>Text Book(s)</b>										
1	A Text Book of Applied Art, Borkar, S. Himalaya Publishing House, Karnataka, 2003.									
2	Introduction to Art: Design, Context and Meaning, Sachant. P., University of North Georgia Press, 2016.									
<b>Reference Books</b>										
1	Basic Pottery Making: All the Skills and Tools You Need to Get Started, Linda Franz (Editor), Stack pole Books; Spi edition, 2009.									
2	Complete Illustrated Guide to Shaping Wood, Lonnie Bird, Taunton Press Inc, 2014.									
3	Understanding Wood Finishing: How to Select and Apply the Right Finish, Bob Flexner, Pan Macmillan, 1993.									
4	Metal Working: Real World Know-How You Wish You Learned in High School, Skills Institute Press, Fox Chapel Publishing, 2011.									
5	300+ Mosaic Tips, Techniques, Templates and Trade Secrets, Bonnie Fitzgerald , Trafalgar Square Books, 2012.									
6	The Complete Guide to Glass Painting: Over 90 Techniques with 25 Original Projects and 400 Motifs, Alan D. Gear, Barry L. Freestone, Collins & Brown, 2000.									
7	Sculpture: Technique, Form, Content, Arthur Williams, Davis Publications Inc., U.S.; 2nd Revised edition, 1994.									
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>										
1	<a href="https://en.wikipedia.org/wiki/Applied_arts">https://en.wikipedia.org/wiki/Applied_arts</a>									
2	<a href="http://www.visual-arts-cork.com/definitions/applied-art.htm">http://www.visual-arts-cork.com/definitions/applied-art.htm</a>									
3	<a href="https://www.scienceabc.com/humans/different-mediums-used-art.html">https://www.scienceabc.com/humans/different-mediums-used-art.html</a>									
Course Designed By: Ms. Varunya Devi										
<b>Mapping with Programme Outcomes</b>										
<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	S	M	L	S	L	L	L	S	S	L
<b>CO3</b>	S	M	L	S	L	L	L	S	S	L
<b>CO3</b>	S	M	L	S	L	L	L	S	S	L
<b>CO4</b>	S	M	L	S	L	L	L	S	S	L
<b>CO5</b>	S	M	L	S	L	L	L	S	S	L
<b>CO6</b>	S	M	L	S	L	L	L	S	S	L

\*S-Strong; M-Medium; L-Low

Course code	63V	CAPSTONE PROJECT	L	T	P	C
<b>Core</b>		<b>Practical Project VI</b>	-	-	10	7
<b>Pre-requisite</b>		<b>BSc Interior Design - Semester 1 to 5 – All papers.</b>	<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
<p>The main objectives of this course are to develop student ability to</p> <ol style="list-style-type: none"> <li>1. Identify a Need for design in the environment around them and define the purpose of Design.</li> <li>2. Follow a structured, self-initiated process of research in identifying the user needs, functional requirements, contextual factor and all influences that would inform design decisions.</li> <li>3. Develop design solutions for a real life situation and developing details accordingly.</li> <li>4. Communicate the design process and the final design outcome in a forum through drawings, 3D visualizations, models and verbal presentations.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Understand the processes involved in narrowing down a design problem into its most essential questions.				K2	
CO2	Understand how to effectively conduct user and contextual studies and draw practical inferences from the same.				K2	
CO3	Apply inferences from research to concept development, form and space exploration and material and method choices.				K3	
CO4	Analyse the suitability of various forms, materials and technologies researched to the design solutions considered.				K4	
CO5	Create quality design solutions that are human centered and environmentally friendly.				K6	
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>Project Definition</b>				<b>15 hours</b>	
Project Proposal - Topic of study, site plan, location, existing building plan if any and any other relevant information pertaining to the project site. Description of the Interior Design project proposed for the site: Name, Use, a tentative list of facilities to be accommodated and Design goal.						
<b>Unit:2</b>	<b>Literature Research/Context and User Study</b>				<b>30 hours</b>	
<p>Conduct Research on Building typology and related case studies - Anthropometric &amp; Ergonomic Data, Climatic Data; Materials, detailing and technologies relevant to building function; Topic of interest such as User psychology, Colour theory, sensorial design, landscape for healing and sustainable interior detailing.</p> <p>Prepare and Conduct Survey and Study - Current users of the Space &amp; Future users of the Design Proposal – Their existing use patterns, problems and/or limitations, needs/wants, conflicting demands, user typologies, User timings and frequency, health, accessibility and maintenance issues, special considerations; Existing Site Conditions – Detailed Site Drawings, Materials and Finishes, the construction and condition or state of repair, Building Service connections, Natural Lighting and Ventilation, Existing Building Architecture and Detailing, Accessibility and Circulation/ Movement through the site, advantages and constraints, Climatic considerations, surrounding facilities, their usage, connection to the new proposal and physical appearance.</p>						

<b>Unit:3</b>	<b>Programme Development &amp; Design Concept</b>	<b>40 hours</b>
Develop a Design Brief or Programme that details – Spaces to be provided, Areas for each, facilities to be accommodated in each of the spaces and functional and qualitative requirements for these spaces in terms of – activity accommodation, equipment needed, lighting ventilation needs, proximity needs etc.; Develop the main Design Idea or Concept – The Basic Design theme for your design. A simple space planning layout and sketches that will guide further development of your design.		
<b>Unit:4</b>	<b>Design Development</b>	<b>40 hours</b>
Forms and details - Detailed double line plans, sections, elevation, 3D sketches, furniture details, ceiling design and landscape details if any - Material selections, mood boards, colour palettes and lighting is also worked on to arrive at the final design proposal. Details will indicate method of assembly or construction - Perspective sketches or 3D renders are used to visualise the design		
<b>Unit:5</b>	<b>Presentation</b>	<b>25 hours</b>
Design Drawings should include <ul style="list-style-type: none"> <li>• Literature Study, Case Studies &amp; Inference User &amp; Context Study &amp; Inference</li> <li>• Design Programme &amp; Concept</li> <li>• Detailed plans, sections, wall elevations, ceiling details, furniture/fixture details Ornament details</li> <li>• Graphics if any</li> <li>• 3D visualizations (digital or hand constructed perspective drawings) Captions and Write-ups for all of the above</li> </ul> <p>These are rendered and composed into presentation boards. Digital drawings can be made using SketchUp, or AutoCAD, 3dsmax and Photoshop. Hand drawings can also be presented. Presentation should include Mood boards of materials and textures.</p>		
<b>Total Lecture hours</b>		<b>150 hours</b>
<b>Text Book(s)</b>		
1	Space Planning for Commercial and Residential, Sam Kubba, McGraw-Hill Professional, 2003.	
2	Furniture Design: An Introduction to Development, Materials and Manufacturing, Stuart Lawson, Laurence King Publishing, 2013.	
<b>Reference Books</b>		
1	Specifying Interiors: A Guide to Construction and FF&E for Commercial Interiors Projects, Maryrose McGowan, John Wiley & Sons; annotated edition, 1996.	
2	Environmentally Responsible Design: Green and Sustainable Design for Interior Designers. Jones, Louise, John Wiley & Sons, 2008.	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="https://www.ndsu.edu/cule/pdfs/capstone/syllabi/pdf/ADHM%20_450_Senior_Project_Booklet_2011_082211[1].pdf">https://www.ndsu.edu/cule/pdfs/capstone/syllabi/pdf/ADHM%20_450_Senior_Project_Booklet_2011_082211[1].pdf</a>	
2	<a href="https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1147&amp;context=archthesis">https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1147&amp;context=archthesis</a>	
3	<a href="https://www.chhs.colostate.edu/dm/programs-and-degrees/b-s-in-interior-architecture-and-design/iad-senior-show/capstone-projects/">https://www.chhs.colostate.edu/dm/programs-and-degrees/b-s-in-interior-architecture-and-design/iad-senior-show/capstone-projects/</a>	
Course Designed By: Dr. Lakshmi Priya A		

Mapping with Programme Outcomes										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
<b>C01</b>	M	L	L	L	M	L	L	L	M	S
<b>C02</b>	L	L	S	L	M	M	M	L	L	S
<b>C03</b>	S	S	M	S	S	S	M	M	S	L
<b>C04</b>	L	M	L	L	L	L	S	L	L	S
<b>C05</b>	S	M	M	S	S	M	L	S	S	L

\*S-Strong; M-Medium; L-Low



Course code	6ZP	INTERIOR PRESENTATION TECHNIQUES	L	T	P	C
<b>Skill Based</b>		<b>Practical IV</b>	-	-	2	2
<b>Pre-requisite</b>		<b>BSc Interior Design- Semester 1 – Theory of Interior Design; Semester 2, 3, 4, - Design Communication I, II, III.</b>	<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
The main objectives of this course are to develop student ability to						
<ol style="list-style-type: none"> <li>1. Understand the importance of effective presentations in the field of interior design.</li> <li>2. Develop skills in using digital tools to create visually appealing presentations.</li> <li>3. Gain proficiency in hand rendering techniques for interior design presentations.</li> <li>4. Learn how to effectively communicate design concepts and ideas verbally.</li> <li>5. Apply design principles to create visually cohesive presentations.</li> <li>6. Explore various presentation formats and mediums.</li> <li>7. Develop critical thinking and problem-solving skills related to interior design presentations.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember how to improvise verbal and non verbal communication skills of students with an intension to improve their presentation skills					K1
CO2	Understand that the student to ultimately explain / defend his/her design to single person or panel.					K2
CO3	Apply all the hand and digital rendering techniques to compile a strong portfolio exhibiting your design understanding.					K3
CO4	Analyse the compositions by experimenting with element and principles of design.					K4
CO5	Create your own problem solving techniques after strengthening the skill set and analyzing the skills further.					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>PRESENTATION FORMATS</b>				<b>6 hours</b>	
Importance of presentations in interior design. Exploring different presentation formats (e.g., mood boards, storyboards, digital slides). Choosing appropriate mediums for different presentation scenarios. Creating cohesive and visually appealing presentations.						
<b>Unit:2</b>	<b>ELEMENTS AND DESIGN PRINCIPLES</b>				<b>6 hours</b>	
Elements of an effective interior design presentation. Applying design principles (e.g., balance, rhythm, contrast) to presentations. Creating visual hierarchy and focal points in presentations. Using color, typography, and layout effectively						
<b>Unit:3</b>	<b>HAND AND DIGITAL RENDERING</b>				<b>6 hours</b>	
Basics of hand rendering for interior design presentations. Exploring different rendering styles (e.g., sketching, watercolor). Using markers, pencils, and other traditional media for rendering. Understanding the need for making models; Making environment friendly models; Introduction to tools of model making. Making models out of clay, paper, cardboard etc. Introduction to digital rendering software. Creating 2D and 3D visualizations for interior design presentations. Incorporating textures, lighting, and materials into digital presentations						

<b>Unit:4</b>	<b>WRITTEN/ VERBAL/ NON VERBAL COMMUNICATION SKILLS</b>								<b>6 hours</b>	
<p>Writing Effectively: Subject Lines, Put the Main Point First, Know Your Audience, Organization of the Message. Types of writing skills - Analytical writing skills; Business writing skills; Technical writing skills etc.</p> <p>Developing effective verbal communication skills for design presentations. Presenting design concepts and ideas confidently. Responding to questions and critiques during presentations.</p> <p>Importance of Non Verbal Communication skills - Body language, Voice culture, Personal grooming, eye contact.</p>										
<b>Unit:5</b>	<b>CRITICAL THINKING AND PROBLEM SOLVING</b>								<b>6 hours</b>	
<p>Analyzing and evaluating design presentations. Problem-solving strategies for presentation challenges. Incorporating feedback and improving presentations</p>										
								<b>Total Lecture hours</b>	<b>30 hours</b>	
<b>Text Book(s)</b>										
1	Interior Design Visual Presentation: A Guide to Graphics, Models and Presentation Techniques by Maureen Mitton , 2012.									
2	Effective Communication Skills: Tips on How to Improve Your Social Skills and Interact with Others Effectively by Robert Cunningham 2018.									
<b>Reference Books</b>										
1	Rendering with Pen & Ink by Robert W. Gill. 2012									
2	Advanced 3DS Max -Advanced 3D Modelling and animation									
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>										
1	<a href="https://cedreo.com/blog/interior-design-presentation/">https://cedreo.com/blog/interior-design-presentation/</a>									
2	<a href="https://www.nda.ac.uk/blog/how-to-create-a-winning-interior-design-presentation/">https://www.nda.ac.uk/blog/how-to-create-a-winning-interior-design-presentation/</a>									
Course Designed By: Dr. Lakshmi Priya A										
<b>Mapping with Programme Outcomes</b>										
<b>Cos</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	M	L	L	L	M	L	L	L	M	S
<b>CO2</b>	L	L	S	L	M	M	M	L	L	S
<b>CO3</b>	S	S	M	S	S	S	M	M	S	L
<b>CO4</b>	L	M	L	L	L	L	S	L	L	S
<b>CO5</b>	S	M	M	S	S	M	L	S	S	L

\*S-Strong; M-Medium; L-Low



Course code	5EA	HUMAN FACTORS IN DESIGN	L	T	P	C
<b>Elective 1</b>		<b>Paper</b>	-	<b>4</b>	-	<b>3</b>
<b>Pre-requisite</b>		<b>BSc Interior Design – Semester 1 – Theory of Interior Design, Semester 2, 3, 4 – Interior Design Studio I, II, III.</b>	<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Comprehend the human factors to be considered in designing of interior spaces, furniture and products for human occupation and use.</li> <li>2. Design interiors and furniture that positively affect user well-being and improve efficiency.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember User psychological needs, response and Proxemics with respect to Design.					K1
CO2	Understand the relevance of Anthropometric Data and apply appropriately Anthropometric data in design of spaces and furniture.					K2
CO3	Apply practical understanding of Human factors to design of Residential, Commercial, Healthcare & Educational Design.					K3
CO4	Analyze Universal and Inclusive design and its importance.					K4
CO5	Evaluate practical knowledge in designing for Diversity as in Cultures, Elderly & Children.					K5
CO6	Understand Ergonomics for design of healthy productive interior environments					K2
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>PROXEMICS</b>					<b>12 hours</b>
Psychology of the client/user as crucial factors - influence of such factors in the design of the environment and interior architecture. Study of proxemics – effect of cultural and psychological factors on design						
<b>Unit:2</b>	<b>ANTHROPOMETRICS</b>					<b>12 hours</b>
Issues of anthropometrics – shape and size of human beings - critical dimensions relating to human form such as height, width and length of reach- application of such data in design. Use of anthropometrics in residential spaces - healthcare spaces - audiovisual spaces-recreational spaces and public spaces-eating and drinking spaces.						
<b>Unit:3</b>	<b>ERGONOMICS</b>					<b>12 hours</b>
Concept of ergonomics – Meaning, importance, factors involved – worker, workplace, equipment, environment, climate. Work environment– Location, space, indoor and outdoor climate, furniture, lighting and ventilation, flooring, noise, storage facilities. Design of workplace – Activity analysis –Designing for work based on ergonomics principles.						

<b>Unit:4</b>	<b>UNIVERSAL DESIGN</b>	<b>12 hours</b>
Universal Design, Human Diversity - Facts about the interaction of the environment and user - culture, gender, stage of life cycle, and physical characteristics, Designing for children, elderly and physically disabled. Environmental considerations.		
<b>Unit: 5</b>	<b>HUMAN FACTORS</b>	<b>12 hours</b>
Human Factors in Residential, Commercial, Healthcare and Educational Design.		
	<b>Total Lecture hours</b>	<b>60 hours</b>
<b>Text Book(s)</b>		
1	Human factors in the Built Environment, Linda L. Nussbaumer, Fairchild Books, 2013.	
2	Human Dimension & Interior Space: A Source Book of Design Reference Standards, Julius Panero, Martin Zelnik, Watson-Guptill; New edition, 1979.	
<b>Reference Books</b>		
1	Time-Saver Standards for Interior Design and Space Planning, Julius Panero, Martin Zelnik, McGraw-Hill Professional; 2nd edition, 2001.	
2	Building Construction, Dr. B.C. Punmia, Ashok Kumar Jain, Laxmi; Tenth Edition, 2008.	
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>		
1	<a href="https://nptel.ac.in/courses/124/107/124107008/">https://nptel.ac.in/courses/124/107/124107008/</a>	
2	<a href="https://www.youtube.com/watch?v=LAKlmdMHpdE">https://www.youtube.com/watch?v=LAKlmdMHpdE</a>	
Course Designed By: Ms. Sudha		

<b>Mapping with Programme Outcomes</b>										
<b>Cos</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	L	L	L	S	L	L	L	L	L	L
<b>CO2</b>	L	L	M	S	L	L	L	L	L	L
<b>CO3</b>	L	L	L	L	L	L	L	L	M	S
<b>CO4</b>	L	L	L	S	L	L	M	S	M	L
<b>CO5</b>	L	L	L	L	L	L	L	S	L	M
<b>CO6</b>	L	L	L	S	L	L	L	L	L	M

\*S-Strong; M-Medium; L-Low

Course code	5EB	TEXTILES IN INTERIORS	L	T	P	C
<b>ELECTIVE 1</b>		<b>SEMESTER – V</b>	-	4	-	3
<b>Pre-requisite</b>		<b>BSc Interior Design – Semester 1 – Art and Interior Design; Semester 3 – History of Interior Design.</b>	<b>Syllabus of Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Learn about the various textile fibers, weave and finishes.</li> <li>2. Learn basic elements and principles while designing a fabric.</li> <li>3. Gain knowledge on the latest trends in fabrics for a healthy environment.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Understand various types of fibres and their application in Interior design					K2
CO2	Understand the process of weaving, knitting, dyeing and various textile processing techniques.					K2
CO3	Apply textile knowledge for designing a comfortable and healthy environment					K3
CO4	Analyze the need and requirement of fabric care and maintenance					K4
CO5	Evaluate the selection criteria for various applications in interiors.					K5
CO6	Remember to incorporate natural materials for better living					K1
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>INTRODUCTION TO FABRICS</b>					<b>12 hours</b>
Fabric, yarn and fiber structure, Fabric structure- <b>woven</b> - warp, weft, selvedge ,knitted- course, non-woven, Fabric types and classification- woven, including plain, twill, satin, Jacquard, crepe and pile weaves, <b>knitted</b> - including single knit, double knit, tricot knit, pile knit, lace and net , <b>non-woven</b> -including felts webs and films, identification and properties of fabrics, yarns and fibers.						
<b>Unit:2</b>	<b>APPLICATION OF ELEMENTS AND PRINCIPLES</b>					<b>12 hours</b>
Application of elements and principles of design across a range of textiles. Describe and analyze elements and principles of design -furnishings, textile arts, non-apparel. Functional and aesthetic requirements and features of textile range.						
<b>Unit:3</b>	<b>COLOUR ON FABRICS</b>					<b>12 hours</b>
Fabric coloration and decoration- Principles of applying color to fabrics. Textile arts and crafts in interiors, traditional and modern materials and methods. Preparing samples on tie and die printing, batik printing, appliqué, macramé and braiding.						
<b>Unit:4</b>	<b>FURNISHINGS</b>					<b>12 hours</b>
Furnishings-classification, types of curtain, curtain construction, selection criteria relation to backgrounds in walls , floors and ceilings. Slip covers , cushion covers , bed linen and table linen Floor coverings -rugs and carpets, types selection , care and maintenance, installation of floor coverings						
<b>Unit:5</b>	<b>OTHER NATURAL MATERIALS</b>					<b>12 hours</b>
Jute or hessian – dyed jute fabric and its applications – various kinds of processed leather, its application in interior design.						

		<b>Total Lecture hours</b>	<b>60 hours</b>
<b>Text Book(s)</b>			
1	Textbook of Home Science, Mullick. P, Kalyani Publishers, Delhi, 2000.		
2	Textile-Fiber to fabric, Corbman.P.B. McGraw Hill International Editions, 1983.		
<b>Reference Books</b>			
1	Zarapkar system of cutting, Zarapkar, Navneet Publications, Gujarat.		
2	Marry practical constructions-I& II, Mathews, 1991.		
3	"Knitting Technology: A Comprehensive hand book and practical guide", DavidJ.Spencer,2001, CRCPress.ISBN:1587161214		
4	Textile Design– Theory & Concepts, Charusami, New Age International Publishing, ISBN:978-81-224-3053-0		
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>			
1	<a href="http://www.fibre2fashion.com">www.fibre2fashion.com</a>		
2	<a href="https://www.youtube.com/watch?v=xEWbKSjzTN0">https://www.youtube.com/watch?v=xEWbKSjzTN0</a>		
Course Designed By: Dr.Poongodi			

<b>Mapping with Programme Outcomes</b>										
<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	L	L	L	L	L	L	L	L	L	S
<b>CO3</b>	L	L	L	L	L	L	L	L	L	S
<b>CO3</b>	L	L	L	L	L	L	L	L	L	S
<b>CO4</b>	L	L	L	L	L	L	L	L	L	S
<b>CO5</b>	L	L	L	L	L	L	L	L	L	S

\*S-Strong; M-Medium; L-Low

Course code	SEC	GREEN BUILDING TECHNOLOGY	L	T	P	C
<b>ELECTIVE 1</b>		<b>SEMESTER - V</b>	-	4	-	3
<b>Pre-requisite</b>	<b>Environmental Studies, BSc Interior Design - Semester 3, 4 – Interior Materials and Construction – I, II.</b>		<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Understand the need and importance of sustainable design approach in buildings</li> <li>2. Expose the students to green building materials and services in built environment.</li> <li>3. Gain knowledge on renewable resources and construction techniques in buildings.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Understand the importance of environment by assessing its impact on humans and the need of green building practices.					K2
CO2	Apply knowledge on natural, renewable and recycled building materials.					K3
CO3	Apply sustainable service practices in all contexts.					K3
CO4	Analyse solar renewable energy resources in built environment.					K4
CO5	Understand importance of water conservation and its applications.					K2
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 – Evaluate</b>						
<b>Unit:1</b>	<b>BUILDING AND ENVIRONMENT</b>					<b>12 hours</b>
Green building technology – Meaning, concept, impact of green building on human health and natural environment, need, importance and benefits of green buildings. Indoor Air Quality, No Toxic (VOC) Materials, Good Ventilation, Humidity levels maintained and air exchanges, Environmentally Responsible Lighting Design; Day lighting: Indirect / diffused; Design for Movement – Activity and Connection - Connect to nature –views and interior landscaping - oxygenate the air and remove toxins.						
<b>Unit:2</b>	<b>SUSTAINABLE INTERIOR MATERIALS</b>					<b>12 hours</b>
Materials and finishes used in green building– Eco friendly materials - Bamboo, straw, wood, dimension stone, Recycled stone, non-toxic metals, Earth blocks -compressed, rammed, baked; vermiculites, flax linen, sisal, wood fibres, cork, coconut, polyurethane blocks etc; Use of recycled, up cycled, repurposed and „cradle to cradle“ materials; Increased design life cycle – good material and construction quality, design flexibility						
<b>Unit:3</b>	<b>GREEN BUILDING SERVICES</b>					<b>12 hours</b>
Green building practices and technologies. Roof, walls, floors – electrical, plumbing, windows, and doors, heating, ventilation and air conditioning (HVAC), insulation, Interior finishes, landscaping.						
<b>Unit:4</b>	<b>ENERGY EFFICIENCY</b>					<b>12 hours</b>
Passive Methods: Orientation, Shading, Ventilation, Activity Placement, Insulation, Landscape, Water body, Earth cooling; Choice of Wall Systems, Roof, Glazing to minimize heat gain - Renewable energy resources– meaning and importance, solar energy– advantages, principles and functions of solar devices –solar room heater, solar lights, solar water heater, solar air conditioners						
<b>Unit:5</b>	<b>WATER CONSERVATION</b>					<b>12 hours</b>
Water conservation technologies. Recharge of ground water - flooding issues. Rain water harvesting- importance, requirements of rainwater harvesting structure, types of rain water						

harvesting systems, advantages of water conservation strategies		<b>Total Lecture hours</b>	<b>60 hours</b>
<b>Text Book(s)</b>			
1	Solar Energy Utilization, Rai G.D Khanna Publishers, Delhi, 1996.		
2	Interior design, principles and practice, Roa, M.P. standard publishers, Delhi, 1998.		
3	Materials and components of Interior Design, Riggs, J.R. Regents Hall , New Jersey, 1992.		
4	Build your own home, Despande, R.S, United book corporation, Poona, 1974.		
<b>Reference Books</b>			
1	Green Building Construction; Thomas E Glavinich; Wiley, 2008.		
2	“Man, Climate and Architecture”, Givonji B., Elsevier, Amsterdam, 1986.		
3	Inside Today’s Home, Faulkner, R., and Faulkner. S, Rinehart publishing House, New York, 1987.		
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>			
1	<a href="https://nptel.ac.in/courses/105/102/105102195/">https://nptel.ac.in/courses/105/102/105102195/</a>		
2	<a href="https://swayam.gov.in/nd1_noc19_ce40/preview">https://swayam.gov.in/nd1_noc19_ce40/preview</a>		
4	<a href="https://nptel.ac.in/courses/124/107/124107011/">https://nptel.ac.in/courses/124/107/124107011/</a>		
Course Designed By: Ms. Sudha			

<b>Mapping with Programme Outcomes</b>										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M	L	M	M	S	S	M	M	S	M
CO2	M	L	M	L	S	S	M	M	S	M
CO3	L	L	M	L	S	S	M	M	S	M
CO4	L	L	M	L	S	S	M	M	S	M
CO5	L	L	M	L	S	S	M	M	S	M

\*S-Strong; M-Medium; L-Low

Course code	6EA	MODULAR INTERIORS	L	T	P	C
<b>ELECTIVE 2</b>		<b>SEMESTER – VI</b>	-	3	-	3
<b>Pre-requisite</b>	<b>BSc Interior Design- Semester 2, 3, 4- Interior Design Studio I, II, III; Semester 3, 4 - Interior Materials and Construction I, II; Design Communication II, III, Semester 5 - Estimation and Costing</b>		<b>Syllabus Version</b>	<b>2023-2024</b>		
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Understand fundamentals of practical modular interiors in kitchen design</li> <li>2. Gained knowledge of different materials used for various surfaces</li> <li>3. Developed skill in planning different layouts with technical drawings.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remembering the basic planning principles of kitchen					K1
CO2	Understanding how users interact with the room and how the designer can create a layout that is more efficient and intuitive					K2
CO3	Applying the kitchen services, material and construction methods in design					K3
CO4	Analyse the various measurement of kitchen cabinet and human anthropometric Measurements					K4
CO5	Create the best kitchen layout for the given requirements					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>INTRODUCTION TO MODULAR INTERIOR DESIGN, SYSTEMS AND COMPONENTS</b>					<b>9 hours</b>
Definition and principles of modular design-Historical overview of modular interior design - Benefits and advantages of modular interiors- Types of modular systems (walls, partitions, furniture, fixtures)-Understanding modular components and their functionalities-Analysis of different modular manufacturers and suppliers						
<b>Unit:2</b>	<b>MODULAR DESIGN PRINCIPLES, BUILDING CODES AND REGULATIONS</b>					<b>9 hours</b>
Design principles and guidelines for modular interiors - Integration of aesthetics and functionality in modular design - Exploring various design styles for modular spaces Overview of building codes and regulations relevant to modular interiors - Compliance with safety, accessibility, and fire codes - Permits and approvals for modular construction						
<b>Unit:3</b>	<b>KITCHEN MODULARS</b>					<b>9 hours</b>
Kitchen geometry – work heights and space dimension of different work areas and storage areas, anthropometric measurements of an individual worker and its application to kitchen layout Designing. Kitchen planning – Functions performed in a kitchen, types of kitchen, principles of planning kitchen – orientation and location, ventilation, storage needs, work triangle, color, light and Safety.						
<b>Unit:4</b>	<b>MATERIALS &amp; SERVICES</b>					<b>9 hours</b>
Materials and finishes – Various materials and finishes used in modulars – floor, walls, sink, ceiling, platforms, storage and their characteristics, Essential services needed in a building. Water supply – hot and cold, taping, water purifiers. - Electricity services – electric current, exhaust fans, electrical equipment and their locations. - Drainage services – Waste water drainage system, waste disposal.						
<b>Unit:5</b>	<b>DRAWINGS &amp; DOCUMENTATION</b>					<b>9 hours</b>

Creating technical drawings for modular interiors (floor plans, elevations, details) - Developing specifications and schedules for modular components - Understanding assembly and installation instructions	
	<b>Total Lecture hours</b> <b>45 hours</b>
<b>Text Book(s)</b>	
1	"Interior Design Illustrated" by Francis D.K. Ching and Corky Binggeli
2	"Interior Construction & Detailing for Designers and Architects" by David Kent Ballast
3	"Modular Design for Living" by James Bond and Martin Pawley
<b>Reference Books</b>	
1	Ultimate Kitchen Design, PacoAsensio (Editor), Mireia Casanovas (Illustrator), Alejandro Bahamon, 2005.
2	150 Best New Kitchen Ideas, Manel Gutierrez, 2015.
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>	
1	<a href="https://www.udemy.com/course/how-to-design-your-dream-kitchen/">https://www.udemy.com/course/how-to-design-your-dream-kitchen/</a>
2	<a href="https://www.houseplanshelper.com/kitchen-design-layout.html">https://www.houseplanshelper.com/kitchen-design-layout.html</a>
3	<a href="https://www.livspace.com/in/magazine/kitchens101-kitchen-cabinet-materials">https://www.livspace.com/in/magazine/kitchens101-kitchen-cabinet-materials</a>
Course Designed By: Dr. Lakshmi Priya A	

Mapping with Programme Outcomes										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	L	S	M	M	S	M	L	L	M	L
CO2	L	S	L	S	M	M	L	L	L	L
CO3	L	M	L	M	S	S	L	L	M	L
CO4	L	M	L	M	M	M	L	L	L	L
CO5	L	S	L	M	S	S	L	M	L	L

\*S-Strong; M-Medium; L-Low

Course code	6EB	INTERIOR PHOTOGRAPHY	L	T	P	C
<b>ELECIIVE 2</b>		<b>SEMESTER VI</b>	-	3	-	3
<b>Pre-requisite</b>		<b>BSc Interior Design- Semester 4 – Colour and Lighting, Semester 5 – landscape for Interiors.</b>	<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
The main objectives of this course are to develop student ability to						
1. Interior photography is the art and technique of capturing the beauty and essence of interior spaces.						
2. This course provides students with a comprehensive understanding of the principles, techniques, and equipment used in interior photography.						
3. Students will learn how to compose and capture stunning images that effectively showcase the design, architecture, and ambiance of various interior spaces, including residential and commercial settings.						
4. The course also explores lighting techniques, post-processing methods, and the business aspects of interior photography						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Understand the principles and technology of photography.					K2
CO2	Understand the applications of photography in interior					K2
CO3	Analyze and explore lighting techniques and understand the role of lighting in interior photography.					K4
CO4	Evaluate effectively use composition techniques to create visually appealing interior photographs using color rendering.					K5
CO5	Create post-processing techniques to enhance and optimize interior photographs.					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>PRINCIPLES OF COMPOSITION</b>					<b>9 hours</b>
Rule of thirds, perspective-worm's eye view, normal eye view, bird's eye view, one-point perspective, two-point perspective, three point perspective, exercises in composition.						
<b>Unit:2</b>	<b>PRINCIPLES OF PHOTOGRAPHY</b>					<b>9 hours</b>
Technical definitions, understanding a camera, anatomy of a SLR camera, technical setting in a SLR camera, different types of lenses.						
<b>Unit:3</b>	<b>PRINCIPLES OF INTERIOR LIGHTING</b>					<b>9 hours</b>
Technical definitions, lighting sources, types of lighting fixtures, types of lamps, calculating lighting levels, flash photography, types of flashes, controlling lighting levels with flash photography Exercise in interior lighting photography with artificial light and black and white photos						

<b>Unit:4</b>	<b>PRINCIPLES OF COLOUR</b>								<b>9 hours</b>	
Color rendering in photographic medium, color rendering in photographs under different lighting condition, lighting colors and its effect on a photograph, color filters in a camera Exercise on color photography of interiors.										
<b>Unit:5</b>	<b>INTEGRATION</b>								<b>9 hours</b>	
Project work/exercise in integrating all prior units, Post-processing and Editing - Raw file processing and workflow - Adjusting exposure, color, and contrast - Removing imperfections and enhancing details.										
								<b>Total Lecture hours</b>	<b>45 hours</b>	
<b>Text Book(s)</b>										
1	"Interior Photography: Lighting and Other Professional Techniques" by Stan Dixon and Kim Wendt									
2	"Photographing Interiors: A Guide to Creating Stunning Interior Style and Architectural Images" by Julie Adair King									
<b>Reference Books</b>										
1	Point view- The art of architectural photography , E.Manny A Ballan, VNR, "The Interior Photographer's Guide: Capturing the Heart of a Home" by Andreas von Einsiedel and Johanna Thornycroft									
2	Professional photography –photographing buildings, David Wilson, Rotovision, "Photographing Architecture and Interiors" by Julius Shulman and Richard Neutra									
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>										
1	<a href="https://digital-photography-school.com/">https://digital-photography-school.com/</a> <a href="https://improvephotography.com/">https://improvephotography.com/</a>									
2	<a href="https://photographylife.com/">https://photographylife.com/</a>									
3	<a href="https://phlearn.com/">https://phlearn.com/</a> , <a href="https://fstoppers.com/">https://fstoppers.com/</a>									
Course Designed By: Dr. Lakshmi Priya A										
<b>Mapping with Programme Outcomes</b>										
<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	M	L	L	L	M	L	L	L	M	S
<b>CO2</b>	L	L	S	L	M	M	M	L	L	S
<b>CO3</b>	S	S	M	S	S	S	M	M	S	L
<b>CO4</b>	L	M	L	L	L	L	S	L	L	S
<b>CO5</b>	S	M	M	S	S	M	L	S	S	L

\*S-Strong; M-Medium; L-Low

Course code	6EC	MERCHANDISING AND DISPLAY	L	T	P	C
<b>ELECTIVE 2</b>		<b>SEMESTER – VI</b>		-	3	3
<b>Pre-requisite</b>		<b>BSc Interior Design- Semester 2, 3, 4, 5 - Interior Design Studio – I, II, III, IV</b>	<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. To learn about the need and use of commercial art.</li> <li>2. To encourage the student to apply theoretical knowledge in arranging the interior and window of a store.</li> <li>3. To know the current trends in commercial art.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Remember the principals involved in Commercial art and merchandising.					K1
CO2	Understand consumer preferences and target markets.to choose appropriate products that are best for the local market.					K2
CO3	Apply techniques of salesmanship to drive sales.					K3
CO4	Analyze the various factors that influence sales.					K4
CO5	Evaluate various advertising techniques to make appropriate selection.					K5
CO6	Create attractive visual displays to attract customers.					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>INTRODUCTION TO MERCHANDISING</b>				<b>9 hours</b>	
Concept of commercial art and merchandising - Meaning, classification, development – recent trends-art, architecture and display.						
<b>Unit:2</b>	<b>CONSUMER AND MERCHANDISING</b>				<b>9 hours</b>	
Consumer and Merchandising - Meaning, significance and classification of consumer, Consumer rights and responsibilities, classification of consumer goods, elements involved in merchandising-grading, branding, labeling, packaging and standardization. Merchandising and distribution-Importance, selection of channels, channels of distribution of goods, techniques of merchandising-selling methods.						
<b>Unit:3</b>	<b>SALESMANSHIP</b>				<b>9 hours</b>	
Salesmanship-concept -definition, types and qualities of salesmen: techniques of Salesmanship						
<b>Unit:4</b>	<b>ADVERTISEMENT</b>				<b>9 hours</b>	
Advertisement-definition, importance, classification, features of good advertisement, preparation and techniques, advertisement media-selection, classification and types, poster- importance, Characteristics - steps and techniques in poster making.						
<b>Unit:5</b>	<b>MERCHANDISE DISPLAY</b>				<b>9 hours</b>	
Merchandise Display– Interior display– principles and requirements– types of merchandise - Display– window display-meaning, principles and factors and rules. Window arrangement – art and psychology, principles-techniques in window display.						
<b>Total Lecture hours</b>					<b>45 hours</b>	

<b>Text Book(s)</b>	
1	Marketing, Pattanchetti C.C., Reddy P.N., Rainbow publishers, Coimbatore, 1995.
2	Marketing, Nair, R, Sultan chand and sons educational publishers, New Delhi, 1994.
<b>Reference Books</b>	
1	Sales promotion and advertising management, Nisra,M.N, Himalaya publishing house, Bombay, 1994.
2	Marketing management, Sherlekar,S.A, Himalaya publishing House, Bombay, 1997.
3	Foundations of advertising Theory and practice, Chunnawalla.S.A, Sethia.K.C Himalaya publishing House, New Delhi, 1995.
4	Marketing and Sales Management, Thakur,D. Deep and Deep publications, New Delhi, 1990.
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>	
1	<a href="https://www.edx.org/professional-certificate/dartmouthx-retail-and-omnichannel-management">https://www.edx.org/professional-certificate/dartmouthx-retail-and-omnichannel-management</a>
2	<a href="https://www.edx.org/course/consumer-behaviour">https://www.edx.org/course/consumer-behaviour</a>
3	<a href="https://www.youtube.com/watch?v=us0jQ_NGwqY">https://www.youtube.com/watch?v=us0jQ_NGwqY</a>
Course Designed By: Dr. Geetha	

<b>Mapping with Programme Outcomes</b>										
<b>Cos</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	L	L	L	L	L	L	L	L	L	S
<b>CO2</b>	L	L	L	L	L	L	L	L	L	S
<b>CO3</b>	L	L	L	L	L	L	L	L	L	S
<b>CO4</b>	L	L	L	L	L	L	L	L	L	S
<b>CO5</b>	L	L	L	L	L	L	L	L	L	S
<b>CO6</b>	L	L	L	L	L	L	L	L	L	S

\*S-Strong; M-Medium; L-Low

Course code	6ED	ADVANCED MATERIALS IN INTERIOR DESIGN AND CONSRUCTION	L	T	P	C
<b>ELECTIVE 3</b>		<b>SEMESTER VI</b>	-	3	-	3
<b>Pre-requisite</b>	<b>BSc Interior Design- Semester 3, 4 – Interior Materials and Construction, Semester 5 – Furniture Construction and Detailing, Interior Building Services.</b>		<b>Syllabus Version</b>		<b>2023-2024</b>	
<b>Course Objectives:</b>						
The main objectives of this course are to develop student ability to						
<ol style="list-style-type: none"> <li>1. Understand the fundamental concepts and principles of advanced materials in interior design and construction.</li> <li>2. Identify and evaluate various advanced materials and their characteristics for specific design and construction applications.</li> <li>3. Explore sustainable practices and considerations related to the use of advanced materials.</li> <li>4. Develop the ability to integrate advanced materials into interior design concepts while considering functional and aesthetic requirements.</li> <li>5. Analyze the impact of advanced materials on environmental sustainability and resource efficiency in design and construction</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Understanding of Material Properties: Students will gain a deep understanding of various advanced materials used in interior design					K2
CO2	Apply Material Selection and Specification: Students will develop skills in selecting the appropriate materials for specific interior design projects					K3
CO3	Remember Sustainable Materials and Practices: Students will be introduced to sustainable design principles and the use of environmentally friendly materials.					K1
CO4	Analyze Integration of Materials: Students will learn how to integrate different materials harmoniously within interior spaces.					K4
CO5	Create Material Trends and Forecasting: Students will stay updated with the latest trends and innovations in materials for interior design.					K6
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>INTRODUCTION TO ADVANCED MATERIALS</b>				<b>9 hours</b>	
Definition, significance, and applications of advanced materials in interior design and construction - Historical overview and current trends in advanced materials - Properties and Characteristics of Advanced Materials - Mechanical, thermal, acoustic, and optical properties of advanced materials - Durability, maintenance, and life cycle considerations						
<b>Unit:2</b>	<b>ADVANCED MATERIALS IN INTERIOR DESIGN</b>				<b>9 hours</b>	
High-performance paints and coatings - Sustainable flooring options (e.g., bamboo, cork, and recycled materials) - Advanced wall coverings (e.g., eco-friendly wallpapers, acoustical panels) - Advanced Materials for Furniture and Fixtures - Sustainable upholstery and textiles - Innovative materials for furniture design (e.g., bio-based composites, 3D-printed furniture) - Energy-efficient lighting solutions and advanced lighting controls.						
<b>Unit:3</b>	<b>SUSTAINABLE PRACTICES IN ADVANCED MATERIALS</b>				<b>9 hours</b>	

Environmental impact assessment and sustainable certifications - Life cycle assessment and carbon footprint analysis - Recycling, upcycling, and waste management of advanced materials - Case Studies and Design Integration - Analysis of real-world projects utilizing advanced materials - Integration of advanced materials into interior design concepts. Design exercises and projects incorporating advanced materials.										
<b>Unit:4</b>	<b>FURNITURE, FIXTURES, AND EQUIPMENT (FF&amp;E) MATERIALS</b>								<b>9 hours</b>	
Analyzing materials and finishes used in furniture, fixtures, and equipment. - Understanding the properties and characteristics of upholstery materials, textiles, woods, metals, and plastics. - Exploring sustainable and innovative materials for furniture design, lighting fixtures, and other interior elements.										
<b>Unit:5</b>	<b>EMERGING TRENDS &amp; FUTURE DIRECTIONS</b>								<b>9 hours</b>	
Nanotechnology in interiors – biodegradable- 3D printing – Energy generating materials – Smart and Interactive – Biomimicry in Materials – circular Economy and materials reuse. Exploration of cutting-edge materials and technologies The role of advanced materials in smart homes and sustainable cities										
<b>Total Lecture hours</b>								<b>45 hours</b>		
<b>Text Book(s)</b>										
1	"Materials for Interior Environments" by Corky Binggeli, "Interior Materials and Surfaces: The Complete Guide" by Lisa Godsey									
2	"Materials for Interior Design" by Chris Lefteri, "Sustainable Materials, Processes and Production" by Rob Thompson and Martin Thompson									
<b>Reference Books</b>										
1	"Material Strategies in Digital Fabrication" by Christopher Beorkrem, "Interior Design Materials and Techniques" by Louie L. Robinson									
2	"The Materiality of Interior Design" by Katie Lloyd Thomas, "Interior Design Illustrated" by Francis D.K. Ching and Corky Binggeli									
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>										
1	<a href="https://www.materialbank.com/">https://www.materialbank.com/</a> <a href="https://www.materialconnexion.com/">https://www.materialconnexion.com/</a>									
2	<a href="https://www.architonic.com/">https://www.architonic.com/</a>									
3	<a href="https://www.dezeen.com/">https://www.dezeen.com/</a>									
4	<a href="https://materialdistrict.com/">https://materialdistrict.com/</a> , <a href="https://www.designboom.com/">https://www.designboom.com/</a>									
5	<a href="https://www.materialworld.co/">https://www.materialworld.co/</a>									
Course Designed By: Dr. Lakshmi Priya A										
<b>Mapping with Programme Outcomes</b>										
<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	M	L	L	L	M	L	L	L	M	S
<b>CO2</b>	L	L	S	L	M	M	M	L	L	S
<b>CO3</b>	S	S	M	S	S	S	M	M	S	L
<b>CO4</b>	L	M	L	L	L	L	S	L	L	S
<b>CO5</b>	S	M	M	S	S	M	L	S	S	L

\*S-Strong; M-Medium; L-Low

<b>Course code</b>	<b>6EE</b>	<b>ARTIFICIAL INTELLIGENCE IN INTERIOR DESIGN</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>ELECTIVE 3</b>		<b>SEMESTER VI</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>3</b>
<b>Pre-requisite</b>	<b>BSc Interior Design- Semester 2 to 5 –Interior Design Studio I to IV. Semester 3, 4 – Interior Materials and Construction I, II.</b>		<b>Syllabus Version</b>	<b>2023-2024</b>		
<b>Course Objectives:</b>						
The main objectives of this course are to develop student ability to						
<ol style="list-style-type: none"> <li>1. This course explores the intersection of artificial intelligence (AI) and interior design, providing students with a comprehensive understanding of how AI technologies can enhance and transform the field.</li> <li>2. Through a combination of theoretical knowledge and practical applications, students will learn about data analysis, machine learning, computer vision, and natural language processing in the context of interior design.</li> <li>3. The course aims to equip students with the skills and knowledge to leverage AI tools and techniques to create innovative and personalized design solutions.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Understand the fundamental concepts and principles of artificial intelligence (AI) and its application in the field of interior design.					K2
CO2	Remember to develop an understanding of data collection, preprocessing, and analysis methods required for AI applications in interior design.					K1
CO3	Analyze and collaborate with multidisciplinary teams to integrate AI technologies into the design process, fostering innovation and efficiency.					K4
CO4	Remember to utilize AI-based software and platforms to create virtual and augmented reality experiences for clients, allowing them to visualize and interact with design concepts.					K1
CO5	Evaluate and critique AI-generated design solutions, considering their feasibility, functionality, aesthetics, and user experience.					K5
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create</b>						
<b>Unit:1</b>	<b>INTRODUCTION TO ARTIFICIAL INTELLIGENCE IN INTERIOR DESIGN</b>				<b>9 hours</b>	
Overview of artificial intelligence and its applications in various industries. Introduction to the concept of AI in interior design. Historical context and evolution of AI in interior design. Ethical considerations and challenges in AI adoption in the field.						
<b>Unit:2</b>	<b>DATA COLLECTION AND ANALYSIS FOR INTERIOR DESIGN</b>				<b>9 hours</b>	
Data collection methods for interior design projects. Data preprocessing techniques and data cleaning. Exploratory data analysis for interior design. Data visualization tools and techniques. Case studies on real-world applications of data analysis in interior design.						
<b>Unit:3</b>	<b>MACHINE LEARNING FOR INTERIOR DESIGN</b>				<b>9 hours</b>	

Introduction to machine learning and its relevance in interior design. Supervised, unsupervised, and reinforcement learning algorithms. Feature engineering and selection for interior design datasets. Training and evaluation of machine learning models for interior design tasks. Practical applications of machine learning in space planning, material selection, and color schemes.										
<b>Unit:4</b>	<b>COMPUTER VISION AND IMAGE PROCESSING FOR INTERIOR DESIGN</b>								<b>9 hours</b>	
Fundamentals of computer vision and image processing. Image acquisition techniques for interior design projects. Image enhancement and restoration for better visualization. Object detection and recognition for furniture and decor elements. Augmented reality (AR) and virtual reality (VR) applications in interior design.										
<b>Unit:5</b>	<b>NATURAL LANGUAGE PROCESSING AND INTELLIGENT ASSISTANTS IN INTERIOR DESIGN</b>								<b>9 hours</b>	
Introduction to natural language processing (NLP) and its applications. Sentiment analysis and opinion mining for customer feedback analysis. Chatbots and virtual assistants for interior design consultations. Voice recognition and synthesis for smart homes and intelligent spaces. Future trends and advancements in AI for interior design.										
								<b>Total Lecture hours</b>	<b>45 hours</b>	
<b>Text Book(s)</b>										
1	"Artificial Project Intelligence in Design" edited by John Gero, "Designing the Digital Experience: How to Use EXPERIENCE DESIGN Tools & Techniques to Build Websites Customers Love" by David Lee King									
2	"Artificial Intelligence for Architects: How Artificial Intelligence and Robots will Change Architecture" by Thomas R. Kvan and Vera Parlac									
<b>Reference Books</b>										
1	"Digital Fabrication in Architecture" by Nick Dunn, "The AI Advantage: How to Put the Artificial Intelligence Revolution to Work" by Thomas H. Davenport									
2	"Responsive Environments: Architecture, Art and Design" by Lucy Bullivant,									
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>										
1	<a href="https://www.coursera.org/">https://www.coursera.org/</a>									
2	<a href="https://www.udemy.com/">https://www.udemy.com/</a>									
3	<a href="https://www.edx.org/">https://www.edx.org/</a>									
Course Designed By: Dr. Lakshmi Priya A										
<b>Mapping with Programme Outcomes</b>										
<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	M	L	L	L	M	L	L	L	M	S
<b>CO2</b>	L	L	S	L	M	M	M	L	L	S
<b>CO3</b>	S	S	M	S	S	S	M	M	S	L
<b>CO4</b>	L	M	L	L	L	L	S	L	L	S
<b>CO5</b>	S	M	M	S	S	M	L	S	S	L

\*S-Strong; M-Medium; L-Low

Course code	6EF	ENTREPRENEURIAL DEVELOPMENT	L	T	P	C
ELECTIVE 3		SEMESTER - VI	-	3	-	3
Pre-requisite	Interest in Entrepreneurship; Basic management skills. B. Sc Interior Design – Semester 5 – Estimation and Costing		Syllabus Version		2023-2024	
<b>Course Objectives:</b>						
The main objectives of this course are to:						
<ol style="list-style-type: none"> <li>1. Comprehend to provide thorough understanding of the conceptual and theoretical aspects of entrepreneurship and entrepreneurial environment.</li> <li>2. Understand the process and procedures of setting up of small enterprise and develop management skills for entrepreneurship development.</li> </ol>						
<b>Expected Course Outcomes:</b>						
On the successful completion of the course, student will be able to:						
CO1	Identify the scope of entrepreneurship as career, income generation and problems in entrepreneurship.					K1
CO2	Understand the important factors affecting entrepreneurship.					K2
CO3	Highlight the Central and State Government agencies supporting entrepreneurial development program.					K3
CO4	Analyses on project identification and classification					K4
CO5	Evaluate project formulation, planning commission guidelines and to develop project report					K5
<b>K1 - Identify; K2 - Understand; K3 - Highlight; K4 - Analyze; K5 – Evaluate</b>						
<b>Unit:1</b>	<b>ENTREPRENEURSHIP</b>					<b>9 hours</b>
Entrepreneurship – Entrepreneur, Enterprise and Entrepreneurship – meaning, need, transition from income generation to self-employment and Entrepreneurship, qualities of a good Entrepreneur, problems of Entrepreneurs.						
<b>Unit:2</b>	<b>ENTREPRENEURIAL DEVELOPMENT</b>					<b>9 hours</b>
Factors influencing entrepreneurial development – Economic, Legal Socioeconomic, Psychological and Environmental factors.						
<b>Unit:3</b>	<b>ENTREPRENEURIAL DEVELOPMENT PROGRAMME</b>					<b>9 hours</b>
Agencies supporting entrepreneurial development programme –SIDO, DIC, TIIC, SIPCOT, KVIC. Institutional finance to Entrepreneurs – IDBI, ICICI, RBI, LIC.						
<b>Unit:4</b>	<b>PROJECT IDENTIFICATION AND CLASSIFICATION</b>					<b>9 hours</b>
Project identification and classification – Meaning of Projects, Project identification, Project Classification, internal and external constraints, Project objectives.						
<b>Unit:5</b>	<b>PROJECT FORMULATION</b>					<b>9 hours</b>
Project formulation – concept, need, elements. Project selection, appraisal format, check list for feasibility report, planning commission guidelines.						
<b>Total Lecture hours</b>					<b>45 hours</b>	

<b>Textbooks:</b>
<ol style="list-style-type: none"> <li>1. Entrepreneurial Development, Khanka SS, S Chand Publishers, 2007.</li> <li>2. The Dynamics of Entrepreneurial Development and Management, Himalaya Publishing House, 2011.</li> </ol>
<b>References:</b>
<ol style="list-style-type: none"> <li>1. Entrepreneurship development in India, Gupta C.B, and Srinivasan N.P, Sultan Chand &amp; Sons, New Delhi, 2004.</li> <li>2. Sales Management, Chunawalla S.A, Himalayan Publishing House, New Delhi, 1991.</li> <li>3. Project Management and Entrepreneurship, Vasant Desai, Himalayan Publishing House, New Delhi, 2000.</li> <li>4. Entrepreneurship, David H. Moll, Prentice Hall of India, New Delhi, 1999.</li> <li>5. Advertising, Frank Jerkins, Prentice Hall of India, New Delhi, 2000.</li> </ol>
<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>
1. <a href="https://onlinecourses.swayam2.ac.in/cec20_mg19/preview">https://onlinecourses.swayam2.ac.in/cec20_mg19/preview</a>
2. <a href="https://onlinecourses.swayam2.ac.in/cec19_mg39/preview">https://onlinecourses.swayam2.ac.in/cec19_mg39/preview</a>
3. <a href="https://nptel.ac.in/courses/110/106/110106141/">https://nptel.ac.in/courses/110/106/110106141/</a>
Course Designed By: Dr. Geetha

<b>Mapping with Programme Outcomes</b>										
<b>Cos</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>
<b>CO1</b>	L	L	L	L	L	L	L	L	M	S
<b>CO2</b>	L	L	L	L	L	L	L	L	M	S
<b>CO3</b>	L	L	L	L	L	L	L	L	M	S
<b>CO4</b>	L	L	L	L	L	L	L	L	M	S
<b>CO5</b>	L	L	L	L	L	L	L	L	M	S

