Dr. YSR Architecture and Fine Arts University

B. Design in

Interior Design (ID)

Regulations, Curriculum and Syllabus

School of Planning and Architecture

DEPARTMENT OF INTERIOR DESIGN

Vision

The interior design course's vision is to promote societal, environmental, and professional responsibility by cultivating design excellence in an ever-changing global context, encouraging human health and wellness, and cultivating design excellence in an ever- changing global environment.

Mission

- To address societal and environmental concerns, develop essential design and professionalism competencies.
- To produce inclusive and sustainable design, enable for experiential learning and community interaction.
- Create a worldwide platform for collaborative research and multidisciplinary learning.
- Orient the department's academic process to meet the professional competency of practice.
- Collaborate actively with the field of practice
- To establish national and international relationships with prestigious institutes and industries.

Program Educational Objectives (PEOs)

PEO 1: Graduates will use their knowledge to design spaces that take into account both the environment and the needs of the users.

PEO 2: Provide future designers with technical skills and new technology so that they can create working drawings, specifications, layouts, and recommend materials and finishes for a specific project.

PEO 3: Develop aesthetic and functional designs, material plans, and system suggestions for an effective functioning**.**

PEO 4: Expose students to a wide range of live design projects, presentations, research papers, and critique to help them display a thorough understanding of the various components of interior design.

Programme Outcomes (PO's)

1. **Design Skills:** Integrate knowledge, skills, and attitudes that will sustain a learning and creative environment to design projects holistically, use your knowledge of space planning, material technology, building services, and user psychology

2. **Freehand Drawing & Drafting:** The ability to create quick and accurate sketches is a valuable asset that aids in the communication of design and to hone drawing skills through imagination: speculative sketching, concept sketches, presentation sketches, and drawings.
3. **Space Planning:** Recognize the character and nature of spaces, as well as the scale and various layers of design within a space.
4. **Theory of Design:** Perception and response to visual phenomena, and cognitive learning related to design. Space, material, form, color, and light concepts as ordering mechanisms.

   Material Exposure: The materials and construction have an impact on how a person perceives the finished room, materials and finishes help facilities stand the test of time and are appropriate for the function and level of use.
5. **Technical drawings and Computer Applications:** The use of technology in design is an important aspect of putting a design into action, as technology is an important aspect of interior design, this subject introduces students to the software and technology they will be using throughout the course.
6. **Communication Skills:** Develop confidence in your verbal, written, and graphic communication, as well as your presentation skills, in order to communicate efficiently and effectively with clients and others
7. **Research Strategies Design Process:** The designer will be able to provide quality facility interiors with proper planning and research of innovative design features, making strategic decisions while working for a client is critical to success, and this subject teaches students how to develop a viable and actionable strategy.
8. **Juxtapose contrasting elements:** When a designer blends various materials, shapes, patterns, and textures, the differences between them can enhance their inherent properties.
9. **Environment and sustainability:** Understand building and safety codes, as well as the principles and practices of environmentally friendly and sustainable interior design to promote sustainable development by facilitating the creation of built environments through the use of holistic approaches.
10. **Interior Designer and Society:** Designers work at the intersection of [cultural] trends; their issues are among the most pressing issues confronting the developed

world and assess societal, health, safety, legislative, and cultural issues as they relate to the Interior Design profession using the knowledge and skills gained.

11. **Individual and team work:** An ability to understand the market trends, client needs, project potentials and work with an inter disciplinary team and to create human responsive spaces and ensure project execution.

Correlation between the POs and the PEOs

PEOs	Programme Outcomes											
	1	2	3	4	5	6	7	8	9	10	11	12
I	√		√	√						√		
II	√	√		√		√					√	√
III	√		√		√			√	√			
IV	√	√		√							√	√

Program Specific Outcomes (PSOs):

PSO1: Assist students in comprehending the art and science of enhancing a building's interior in order to produce a much healthier and more aesthetically beautiful environment.

PSO2: Students will be able to find a good combination of creative information and approaches to affect the design of residential, commercial, and public places.

PSO3: In the realm of interior design, provide students with necessary academic and practical knowledge.

PSO4: Assist students in exhibiting a comprehensive awareness of interior design's numerous components, as well as a high level of professionalism and the ability to work effectively in a team.

COURSE STRUCTURE FOR B. Des(ID)

SEMESTER I

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P / S	Total		Int.	Ext.	Total	W/J/P/ S
	Core Studio										
1	ID21B1S1	Fundamentals of Design	1	0	9	10	10	100	100	200	J
2	ID21B1S2	ID Drawing & Graphics -I	1	0	5	6	6	50	50	100	S
	Core Theory										
3	ID21B1C1	ID Materials & Applications-I	2	0	2	4	4	50	50	100	W
4	ID21B1C2	Introduction to Art & Design	2	1	0	3	3	50	50	100	W
	Practical/Workshop										
5	ID20B1P1	Model Making Workshop – I	0	0	4	4	4	100	-	100	-
6	ID20B1P2	Basic Computer Applications	1	0	2	3	3	50	50	100	P
	Mandatory Course										
7	MC21B101	UHV-1 (AICTE)	1	0	0	1	0				
		Total				31	30	400	300	700	

Note: W- Written, J – Jury, S – Studio, P- Practical (all practical exams will be followed by viva - voce)

SEMESTER 6

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P / S	Total		Int.	Ext.	Total	W/J/P/ S
	Core Studio										
1	ID21B2S1	Space Planning	1	0	9	10	10	100	100	200	J
2	ID21B2S2	Creativity & Problem Solving	1	0	3	4	4	50	50	100	J
3	ID21B2S3	ID Drawing & Graphics -II	1	0	3	4	4	50	50	100	S
	Core Theory										
4	ID21B2C1	ID Materials & Applications II	2	0	1	3	3	50	50	100	W
	Practical/Workshop										
5	ID21B2P1	Model Making Workshop – II	1	0	3	4	4	100	-	100	-
6	ID21B2P2	Computer Aided Drawing for Interior Design	1	0	2	3	3	50	50	100	P
	Ability Enhancement Course										
7	ID21B2A1	Communication Skills	2	0	0	2	2	50	50	100	W
	Mandatory Course										
8	MC21B201	Environmental Studies	1	0	0	1	0				
		Total				31	30	450	350	800	

Note: W- Written, J – Jury, S – Studio, P- Practical (all practical exams will be followed by viva - voce)

SEMESTER III

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P / S	Total		Int.	Ext.	Total	W/J/P/ S
	Core Studio										
1	ID21B3S1	Interior Design Studio – I	1	0	9	10	10	100	100	200	J
2	ID21B3S2	Interior Construction Details	1	0	4	5	5	50	50	100	S
	Core Theory										
3	ID21B3C1	Introduction to Ergonomics	2	0	2	4	4	50	50	100	W
4	ID21B3C2	History of Interior Design	3	0	1	4	4	50	50	100	W
	Professional Elective										
5	ID21B3E1	Adaptive Reuse & Recycle	3	0	0	3	3	50	50	100	W
	ID21B3E2	Psychology of Space and Behavioral Science									
	Open Elective										
6	ID21B3O1	Open Elective – I	2	0	0	2	2	100	-	100	-
	Skill Enhancement Course										
7	ID21B3K1	**Skill/Job Oriented Course-01-** Computer Design and Digital Fabrication	1	0	3	4	2	100	-	100	P
	Mandatory Course										
8	MC21B301	Indian Constitution (AICTE)	1	0	0	1	0				
		Total				31	30	500	300	800	

Note: W- Written, J – Jury, S – Studio, P- Practical (all practical exams will be followed by viva - voce)

SEMESTER IV

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P / S	Total		Int.	Ext.	Total	W/J/P/ S.
	Core Studio										
1	ID21B4S1	Interior Design Studio -II	1	0	9	10	10	100	100	200	J
2	ID21B4S2	Interior Working Drawings	1	0	3	4	4	50	50	100	J
	Core Theory										
3	ID21B4C1	Theory of Furniture Design	1	0	2	3	3	50	50	100	W
4	ID21B4C2	Interior Landscape and Signages	2	0	1	3	3	50	50	100	W
5	ID21B4C3	Building Services for Interior Design	2	0	1	3	3	50	50	100	W
	Professional Elective										
6	ID21B4E1	Traditional / arts and crafts of India	3	0	0	3	3	50	50	100	W
	ID21B4E2	Theory Of Aesthetics & Design									
	Open Elective										
7	ID21B4O1	Open Elective-II	2	0	0	2	2	100	-	100	-
	Skill Enhancement Course										
8	ID21B4K1	**Skill/Job Oriented Course-02-** Advanced Communication Skills	0	2	0	2	2	100	-	100	P
	Mandatory Course										
9	MC21B401	Essence of Indian Traditional Knowledge (AICTE)	1	0	0	1	0	-	-	-	-
	* Mandatory Community Service Project during summer vacation between IV and V semester and evaluation will be done as per the guidelines by APSCHE										
		Total				31	30	500	400	900	

Note: W- Written, J – Jury, S – Studio, P- Practical (all practical exams will be followed by viva - voce)

SEMESTER V

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P / S	Total		Int.	Ext.	Total	W/J/P/ S
	Core Studio										
1	ID21B5S1	Interior Design Studio – III	1	0	9	10	10	100	100	200	J
2	ID21B5S2	Estimation & Project Management	1	0	2	3	3	50	50	100	W
	Core Theory										
3	ID21B5C1	Climatology and Thermal Comfort	2	0	0	2	2	50	50	100	W
4	ID21B5C2	Basics of Structural Design	2	0	0	2	2	50	50	100	W
	Practical/Workshop										
5	ID21B5P1	Critical Research Seminar	1	0	1	2	2	100	-	100	-
	Professional Elective										
6	ID21B5E1	Visual Merchandising	3	0	0	3	3	50	50	100	W
	ID21B5E2	Furniture Design and Detailing									
	Open Elective										
7	ID21B5O1	Open Elective-III	2	0	0	2	2	100	-	100	-
	Skill Enhancement Course										
8	ID21B5K1	**Skill/Job Oriented Course-03-** Integrated Project Work	0	0	2	2	2	100	-	100	J/W/P
9	ID21B5CSP	Community Service Project	(DuringVacation) 180 hours				4*	100	-	100	J
		Total				30	30	600	300	900	

Note: W- Written, J – Jury, S – Studio, P- Practical (all practical exams will be followed by viva - voce)

*Credits for Mandatory Community Service Project during summer vacation between V semester and VI semester

SEMESTER VI

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P / S	Total		Int.	Ext.	Total	W/J/P/ S
	Core Studio										
1	ID21B6S1	Interior Design Studio – IV	1	0	9	10	10	100	100	200	J
	Core Theory										
2	ID21B6C1	Acoustics and Lighting Design	4	0	0	4	3	50	50	100	W
3	ID21B6C2	Product Design & Innovation	2	0	2	4	4	50	50	100	W
4	ID21B6C3	Life Style Accessories Design	2	0	1	3	3	50	50	100	W
5	ID21B6C4	Pre-Thesis Seminar	1	0	2	3	3	100	-	100	J
	Professional Elective										
7	ID21B6E1	Design Ethnography	3	0	0	3	3	50	50	100	W
	ID21B6E2	Foundation of Lighting Design									
	Open Elective										
8	ID21B6O1	Open Elective-IV	2	0	0	2	2	100	-	100	-
	Skill Enhancement Course										
9	ID21B6K1	**Skill/Job Oriented Course-04-** Online Workshop	0	0	2	2	2	100	-	100	J/W/P
	*Industrial / Research Internship (ID20B7IN) mandatory after VI Semester. Evaluation will be done as per the guidelines given by APSCHE										
		Total				30	30	500	300	800	

Note: W- Written, J – Jury, S – Studio, P- Practical (all practical exams will be followed by viva - voce)

SEMESTER VII

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P / S	Total		Int.	Ext.	Total	W/J/P/ S
	Thesis										
1	ID21B7TH	Design Thesis	2	0	16	18	18	200	200	400	J
	Core Theory										
2	ID21B7C1	Professional Practice	3	0	0	3	3	50	50	100	W
	Professional Elective										
3	Elective – I		3	0	0	3	3	50	50	100	W
	ID21B7E1	Biophilic Approach to Interiors									
	ID21B7E2	Barrier Free Built Environment									
4	ID21B7K1	**Skill/Job Oriented Course-05-** MOOCs	0	0	2	2	2	100	-	100	J/W/P
5	ID21B7IN	Industrial / Research Internship	Vacation (180 hours)				4*	100	-	-	J
		Total				30	30	300	300	600	

Note: W- Written, J – Jury, S – Studio, P- Practical (all practical exams will be followed by viva - voce)
***Credits for Industrial Internship carried out during summer vacation between VI and VII semesters.**

SEMESTER VIII

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P / S	Total		Int.	Ext.	Total	W/J/P/ S
	Practical Training										
1	ID21B8PT	Practical Training	540 hours				18	100	100	200	J
2	ID21B8IN	Industrial Project / Internship					12	100	-	100	J
		Total					30	200	100	300	

Note: W- Written, J – Jury, S – Studio, P- Practical (all practical exams will be followed by viva - voice)

SYLLABUS

SEMESTER – I

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
I	ID21B1S1	FUNDAMENTALS OF DESIGN	1	0	9	10	100	100	200

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the basics elements and principles of design	2,3,4	2,3,6
CO2	To develop the understanding of shapes in reference to elements and Principles	2,3,4	2,3,6
CO3	To understand space making using solid shapes creating visual composition	2,3,4	2,3,6
CO4	To develop the vision of color and color wheel in different scenarios	2,3,4	2,3,6
CO5	To develop the meaning of space in reference to color and other elements	2,3,4	2,3,6

MODULE – I (CO1)

Introduction to Design: Definitions and meaning of design, importance of design, examples of design from nature. Fundamental elements of design in 2D and their definitions; point, line, shape, form, space, texture, value, color and material.

Introduction to the principles of design in 2D and 3D - unity, balance, symmetry, proportion, scale, hierarchy, rhythm, contrast, harmony, focus, etc; use of grids, creating repetitive patterns.

Assignment: to compose patterns with different elements of design by incorporating the principles of design.

MODULE – II (CO2)

Concepts of Geometry: Introduction to different 2D shapes & 3D forms. Transformation of 2D shapes to 3D forms. Suggested Assignment: To sketch the basic geometric forms and to analyze them based on transformation of simple to complex forms.

Introduction to Biomimicry. Study and analysis of forms, patterns and color schemes in nature, abstraction of natural forms and design of three – dimensional objects and two - dimensional patterns inspired by them.

MODULE – III (CO3)

Principles of composition using grids, symmetrical/ asymmetrical, Rule of Thirds, Center of Interest, Gestalts Theory of Visual Composition, etc

Suggested Assignment: to compose patterns using grids and to incorporate the principles.

MODULE – IV (CO4)

Introduction – Physics, physiology and psychology of colors – visible spectrum, colored light, color temperature, color interaction, color blindness.

Color Systems: An introduction to Munsell's colour system , Color aid system, Color systems in practice, simplified color system, color terminology, special color issues, mixed color effects, effects of texture,

using color systems**.**
MODULE – V (CO4)
Color wheel – primary, secondary, tertiary colors, color wheel, color schemes color value, intensity, and modification of color hues – tints, shades, neutralization. Color charts – types, making and using. Color harmony, use of color harmony.
MODULE – VI (CO5)
Psychological impact of color – warm, cool and neutral colors, impact of specific hues, meanings of color, color and form, color and light, color and surface qualities, color and distances and scales. Problems with color. Use of colors in various functional contexts – e.g. residential interiors. Use of color in special situations – out door/indoor spaces, accessories, art works etc. Assignment: Prepare a color wheel, and compositions based on color theory.
Note: The end exam shall be a jury based portfolio evaluation & Viva voce.

Reference Books:

1. Ching, Francis D.K. Architecture Form, space, and Order, 2nd ed. Van Nostrand Reinhold, New York, 1996.
2. Hanks, A.David. Decorative Designs of Frank Lloyd Wright, Dover Publications, Inc. New York, 1999.
3. Helper, E.Donald, Wallach, I.Paul. Architecture Drafting and Design, 3rd ed. McGraw-Hill Book Company, New York, 1977.
4. John.F. Pile, Color in Interior Design, Mc-Graw Hill professional, Ist edition, 1997
5. Johannes Item, The Art of color, John Wiley & Sons; Revised edition, 1997
6. Jonathan Pore, Interior Color by Design, Volume 2: A design tool for Home owners, Designers and Architects, Rockport publishers, 2005.
7. Ethel Rompilla, Color for Interior Design, Harry N. Abrams, 2005.
8. Itten, Johannes. Design and Form: The basic course at the Bauhaus, Thames and Hudson Ltd., London 1997.
9. Krier, Rob. Architectural Composition, Academy Editions, London, 1988.
10. Meiss, pierre Von. Elements of Architecture: Form to place, E and FN Spon, London, 1992.
11. Johanness Itten, The Art of Colour.
12. Pipes, Alan. Drawing for 3-Dimensional Design. Thames and Hudson Ltd., London, 1990.
13. Wucius, Wong. Principles of two Dimensional Design. Van Nostrand Reinhold 1972

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
I	ID21B1S2	INTERIOR DESIGN DRAWING AND GRAPHICS – I	1	0	5	6	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the usage of different points of pencils and apply in sketching & drawing	1,2,6	2,3
CO2	To understand and analyse the geometric patterns in nature	1,2,6	2,3
CO3	To learn the fundamentals of drawing equipment and method of Presentation	1,2,6	2,3
CO4	To create, compose sheets using different drawing tools on different Mediums	1,2,6	2,3
CO5	To learn and understand measurement and scaling techniques for representing furniture and landscape elements(Architectural Representation)	1,2,6	2,3
CO6	To understand concept of orthographic projections & automated surveying	1,2,6	2,3

MODULE – I (CO1)

Introduction to pencil exercises – Knowledge about usage of different points of pencils, handling of pencils, practicing lines and tone building exercises. Simple exercises of object drawings – natural geometric forms with emphasis on depth and dimension, detail & texture, sunlight & shadow.

MODULE – II (CO2 & CO3)

Introduction – Fundamentals of drawing and its practice, introduction to drawing equipment, familiarization, use and handling. Drawing – Drawing sheet sizes, composition, fixing. Simple exercises in drafting, point and line, line types, line weights, straight and curvilinear lines, borders, title panels, tracing in pencil, ink, use of tracing cloth. Portfolio- preparation.

Introduction to the basic principles of drawing, Scale of conversion, Fonts and lettering. Exercises related to lettering practice. Measuring and drawing to scale – scales, simple objects, furniture, rooms, doors and windows, entrance gate, window grills etc. in plan, elevation and section etc. reduction and enlargement of drawings.

MODULE – III (CO4)

Interiors and furniture sketching – Interior still life, lighting & composition, textures and details, material expressions, individual pieces of furniture, elevations & plans etc. using different media. Drawing from photographs.

Outdoor Sketching: Natural Forms/Built Forms. Understanding variety in Forms. Sketching Human Form: Anatomy and Expressions – Graphical Representations

MODULE – IV (CO5)

Architectural symbols – representation of building elements, openings, materials, accessories etc., terminology and abbreviations used in architectural presentation.

Architectural representation of landscape elements such as trees, indoor plants, planters, hedges, foliage, human figures in different postures, vehicles, street furniture etc.; by using different media and techniques and their integration to presentation drawings.

MODULE – V (CO6)

Orthographic projections of planes and solids, sections of solids, development of surfaces of solids and intersections of solids. Use of geometry in building interiors - isometric, axonometric, and oblique views. Working with models to facilitate visualization.

MODULE – VI (CO6)

Automated Surveying – Introduction to use of Digital Surveying – Instruments such as Leveling laser, Laser Measuring, inclinometer, Point Laser, Rotary laser, Optical levels etc.- total station, Electronic Theodolite. **Understanding of different scales** and their uses in practice. Survey & case study of a small size Interior space of a building (small residence, room, Toilet) and representation of the same in scaled drawings.

Note: This is a studio subject and students should be made to prepare construction drawings as studio exercises along with the theoretical inputs. The studio work should be supplemented with appropriate site visits**.**

Reference Books:

1. Stephen Kliment, Architectural Sketching and Rendering: Techniques for Designers and Artists, Watson Guptill, 1984.
2. Ivo.D. Drpic, Sketching and Rendering of Interior Space, Watson- Guptill, 1988.
3. Maureen Mitton, Interior Design Visual Presentation: A Guide to graphics, models and presentation techniques, 3rd edition, wiley publishers, 2007
4. Mogali Delgade Yanes and Ernest Redondo Dominquez, Freehand drawing for Architects and Interior Designers, ww.Norton & co., 2005
5. Francis D.Ching, Design Drawing, Wiley publishers
6. Moris, I.H.Geometrical Drawing for Art Students.
7. Thoms, E.French. Graphics Science and Design, New York: MC Graw Hill.
8. Nichols, T.B. and Keep, Norman. Geometry of Construction, 3rd ed. Cleaver-Hume Press Ltd., London, 1959.
9. Bhatt, N.D. and Panchal V.M.Engineering Drawing: Plane and Solid Geometry, 42nd ed. Charotar Pub., Anand, 2000.
10. Gill, P.S.T.B. of Geometrical Drawing, 3rd ed. Dewan Suhil Kumar kataria, Ludhiana, 1986.
11. Shah, M.G., Kale, C.M. and Patki, S.Y. Building Drawing: with an integrated approach to built environment, 7th ed. Tata Mc Graw Hill Pub., Delhi, 2000.
12. Bies, D.John. Architectural Drafting: Structure and Environment Bobbs – Merril Educational Pub., Indianapolis.
13. Nelson, A. John. H.B. of Architectural and Civil Drafting, Van Nostrand Reinhold, New York, 1983.
14. Francis D. Ching – Architectural Graphics , Wiley publishers, 2002
15. Arora, K.R.Surveying Vol. 1,6th ed, Standard Book House, Delhi – 2000.
16. Lynch, Kevin, Site Planning. MIT Press, Massachusetts, 1962.
17. Punmia, B.C. Surveying Vol. 1, 13th ed. Laxmi Publications Pvt. Ltd., New Delhi

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
I	ID21B1C1	INTERIOR DESIGN MATERIALS AND APPLICATIONS – I	2	0	2	4	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To knowledge of all materials, their applications in various spaces in interiors and being updated with current market trends	1,5,9	1,2,4
CO2	To understand the components and materials within the building.	1,5,9	1,2,4
CO3	To analyse the properties of various building materials.	1,5,9	1,2,4
CO4	To understand the development of different interior spaces with suitable construction materials.	1,5,9	1,2,4

MODULE – I (CO1,CO2,CO3 & CO4)

Masonry – bricks, lime, sand, mortars, cement and aggregates, concrete, stone masonry, gypsum based plaster etc.

MODULE – II (CO1,CO2,CO3 & CO4)

Timber, cane, bamboo – characteristics of good timber, defects, availability in India & world, types of timber, selection of timber.

Applications of timber: doors, windows, furniture, interior accessories, etc Finishes to timber – types of polish – manual: spirit - French polish, wax, spray –readymade coatings: melamine, PU, etc

Cane & Bamboo : availability, types, characteristics, applications

MODULE – III (CO1,CO2,CO3 & CO4)

Wood Derivatives – Plywood, block boards, particle board, medium density fiber board, agro wood, etc. – their properties, process of manufacture, tools and technology of its application and quality assessment, finishes to reconstituted wood, lamination, polishing etc. Surface finishes for wood products and derivatives etc., Coatings – clear and pigmented finishes technical or protective coatings etc.

MODULE – IV(CO1,CO2,CO3 & CO4)

Paints – Protective coating paints, types of paints – water based paints, distempers, cement based paints, emulsion paints, anti-corrosive paints etc. – composition, functions, preparation and application method, painting on different surfaces, defects in painting, etc

Varnishes (oil and spirit) – various types, damp proofing finishes etc. and methods of application

MODULE – V (CO1,CO2,CO3 & CO4)

Glass and glass products – Composition and fabrication of glass, classification, all types of glass annealed, float, mirrored, tinted, etc. – including wired glass, fiber glass, laminated glass, glass blocks, etc - their properties and uses in buildings. Commercial forms available – their physical and behavioral properties.

Application of glass: tools and technology of its application in built forms – glass doors, partitions, etc. Material and workmanship, specifications.

MODULE – VI (CO1,CO2,CO3 & CO4)

Adhesives – Types of adhesives, natural, synthetic, thermoplastic and thermosetting adhesives, epoxy resin. Method of application, bond strength etc.

Expected Output – Students should do case studies, market surveys, visual presentations, site visits and detailed drawings of joinery, parts & types of doors, windows, partitions & wall paneling, etc
Note: Market surveys to be conducted to find out the commercial and technical names, sizes, wastages, BIS and codes for materials, testing, fabrication, rates, commercial methods of pricing, billing etc.

Reference Books:

1. Bindra, S.P. and Arora, S.P. Building Construction: Planning Techniques and Methods of Construction, 19th ed. Dhanpat Rai Pub., New Delhi, 2000.
2. Moxley, R. Mitchell's Elementary Building Construction, Technical Press Ltd.
3. Rangwala, S.C. Building Construction 22nd ed. Charota Pub. House Anand, 2004.
4. Sushil Kumar. T.B. of Building Construction 19th ed. Standard Pub. Delhi, 2003.
5. Chowdary, K.P. Engineering Materials used in India, 7th ed. Oxford and IBH, New Delhi,1990.
6. Rangwala, S.C. Building Construction: Materials and types of Construction, 3rd ed. John Wiley and Sons, Inc., New York, 1963.
7. Francis D. Ching, Building Construction Illustrated, Wiley publishers, 2008.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
I	ID21B1C2	INTRODUCTION TO ART AND DESIGN	2	1	0	3	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To interpret the progression of the historical art forms, furniture styles, elements and motifs as a reflection of changing influences in the social and cultural context across world cultures.	1,3	1,2,3
CO2	To understand the values, beliefs, symbolism and ideas shaping art and design.	1,3	1,2,3
CO3	To explore the different ornaments and accessories in historic interiors	1,3	1,2,3
CO4	To understand the evolution of interiors in heritage buildings	1,3	1,2,3
CO5	To apply the knowledge of arts, crafts, and design in contemporary interior context.	1,3	1,2,3

MODULE – I (CO1 & CO2)

Introduction to art, Purpose and relevance of Art in Interior Design.

MODULE – II (CO1 & CO2)

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.

MODULE – III (CO1 & CO2)

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 the earliest time. Study o famous and influential Artists, Craftsmen and people who pioneered innovations in their own fields and their influence on design and other fields. For e.g.: Van Gogh, Dali, William Morris, etc.

MODULE – IV (CO3)

Study of Ornaments & Accessories in Interior Design. Different types of Ornamentation & Accessories in the interiors. Study and evaluation of artifacts, historic examples and their applicability.
Suggested Assignment: to document artifacts, historical sites, and to understand them with respect to the surround environment; to incorporate them in the design aspects to present day context or usage.

MODULE – V (CO4)

Introduction to Heritage Building Interiors: Evolution of Interiors in different regions of India with examples. Heritage and identity at different spatial scales. Dimensions and scope of Heritage building Interiors.

MODULE – VI (CO5)

General understanding of Interior Design, difference between interior design & Interior decoration, Interior Design and integration with Architecture. Introduction to Role of Interior Designer in a building project. Scope of Interior Design. Various subjects to be learnt by Interior Design students and their relevance to practice.

Reference Books:

1. Alan Barnard & Jonathan Spencer, Encyclopedia of social and cultural anthropology, Taylor & Francis, 1996
2. Niggel Rapport, Social and Cultural Anthropology: The Key Concepts, Routledge, 2000
3. Philip Carl Salzman, Understanding Culture: An Introduction to AnthropologicalTheory, Waveland press, 2001.
4. Clifford Geertz, The Interpretation of Cultures, Basic Books, 1977.
5. Charles. V. Stanford, Studies in Indian society, culture and Religion, South Asia Books, 1988.
6. Human Behavior in the Social Environment: A Social Systems Approach, Gary Lowe, Irl Carter, Ralph Anderson, Aldine Transaction, 1999
7. Elizabeth. D. Hutchinson, Sage publications, Dimensions of Human Behavior, person and Environment, 2007.
8. Kumar Raj (Ed) Essays on Indian Art and Architecture. Discovery pub., New Delhi, 2003
9. Fisher E. Robert. Buddhist Art and Architecture. Thames and Hudson, London. 1993.
10. Ghosh. A (Ed). Jain Art and Architecture Vol 1-3. Bharatiya Jnanpith.New Delhi.
11. Christine M. Piotrowski, Becoming an Interior Designer, John Wiley and Sons, 2003.
12. Arnold Friedmann , Forrest Wilson, John F. Pile, Interior Design, Elsevier Publishing company, 3rd edition, 1982.
13. Henry Wilson, India: Decoration, Interiors, Design, Watson Guptill, First American edition, 2001
14. Michael Freeman, India Modern, Periplus editions, 2005
15. Sunil Sethi, Angelika Taschen, Indian Interiors, TASCHEN America Ltd; 25th

8. Francis D. Ching, Building Construction Illustrated, Wiley publishers, 2008

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
I	ID21B1P1	MODEL MAKING WORKSHOP – I	0	0	4	4	100	-	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To relate the geometrical volumes into building models.	5,6,9	2,3,6
CO2	To understand the volumes in relation to space and experience 3D quality of volumes.	5,6,9	2,3,6
CO3	To represent the concepts 3 dimensionally.	5,6,9	2,3,6
CO4	To analyze the various possibilities for representing the models and use the various methods of model building.	5,6,9	2,3,6
CO5	To determine the appropriate usage of selective materials best suitable for model making	5,6,9	2,3,6
CO6	To design and create models conceptually with functional and aesthetic values.	5,6,9	2,3,6

MODULE – I (CO1)

Introduction to Model Making and to concepts of model making and various materials used for model making. Need; role of scale models in design: general practices: Essentials of model making: understanding of various tools and machines employed, best practices involved in operating the tools and the techniques

MODULE – II (CO2)

Block Modelling - Preparation of base for models using wood or boards. Introduction to block models of buildings (or 3D Compositions) involving the usage of various materials like Thermocol, Soap/Wax, Boards, Clay etc.

MODULE – III (CO3)

Introduction to the Mount & Foam Board for model making – types, properties etc. Hand building techniques on different planes - making rigid forms like, cubic, spherical, pyramidal shaped forms, depiction of steps, free forms, sculptures, etc.

Expected Output: With the above knowledge the students should make a model of a furniture for internal & external assessment.

MODULE – IV (CO4)

Detailed Modelling - Making detailed models which includes the representation of various building elements like Walls, Columns, Steps, Windows/glazing, Handrails using materials like Mountboard, Snow- white board, acrylic sheets. Representing various surface finishes like brick/stone representation, stucco finish etc. Various site elements – Trees/Shrubs, Lawn, Water bodies, Street furniture, Fencing etc.

MODULE – V (CO5)

Ceramics – clay/ plaster of Paris: Introduction to model making, Need; role of scale models in design: general practices - The potter's wheel – kneading the clay, function of hands in throwing. Learning basic techniques in making different objects like bowl, plate, cylinder, vase, etc. Essentials of model making: understanding of various tools and machines employed, best practices involved in operating the tools and

the techniques. Introduction to the Ceramic materials used for model making –clay, types and mixtures, properties etc. Hand building techniques- coiling, hand building with clay strips- making a small sculpture in Relief work – addition - making a mural, scooping – tile work.
Expected Output: With the above knowledge the students should make a useful interior product or ceramic sculpture or ceramic mural with moulds along with a written report for internal & external assessment.

MODULE – VI (CO6)

Interior Models of Interior Spaces: Making models of the various interior spaces such as

- Residences
- Offices
- Retail Spaces
- Recreational Spaces
- Scaled models of furniture.

Reference Books:

1. BENN, The book of the House, Ernest Benn Limited, London
2. Jannsen, Constructional Drawings & Architectural models, Karl Kramer Verlag Stuttgart, 1973.
3. Harry W.Smith, The art of making furniture in miniature, E.P.Duttor Inc., New York, 1982.Adele Croblas Greenberg ,Fundamental Photoshop: A complete introduction.
4. Stanford Hohauser, Architectural and Interior models, Van Nostrand Reinhold, 1970.
5. Fabrics: A guide for architects and Interior Designers, Marypaul Yates, Norton publishers, 2002.
6. Materials for Interior Environments, Corky Bingelli, John wiley and sons, 2007

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
I	ID21B1P2	BASIC COMPUTER APPLICATIONS	1	0	2	3	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To imparts basic knowledge on computers to upgrade the general understanding and ability in computing in the realm of Interior Design.	6	2,3
CO2	To enable the student to make audio visual presentations, word processing, and other basic computing.	6	2,3
CO3	To gain the knowledge on various presentations techniques on computer (Microsoft PowerPoint)	6	2,3
CO4	To understand the importance of internet and its uses and applications	6	2,3
CO5	To understand the concept of graphical representation	6	2,3
CO6	To understand the concept of photo editing & image processing	6	2,3

MODULE – I (CO1)

Introduction: Brief overview of computer components – ROM, RAM, input devices, output devices, platforms, securities, operating systems, relevant software for interior design. Introduction to word processing package (like MS office), toolbar, creating a new document, formatting text, inserting tables, pictures, page numbers and date / time, spelling and grammar checking, taking print outs.

MODULE – II (CO2)

Spread Sheets: Introduction to spread sheets. Microsoft Excel, creating formulae, basic operations, borders and shading, inserting charts, taking printouts.

MODULE – III (CO3)

Multi-media Presentations: Introduction to multimedia presentation (like MS Power Point), creating a presentation, opening an existing presentation, creating a blank presentation, different power point views, slide manipulation, slide animation, slide transitions, view slide show, navigating while in slideshow, hyper linking to other applications, scanning in different formats, setting of options, resolution settings, management of file size, integrating partial scans of large documents. Pack up a presentation for use on another computer, taking print outs.

MODULE – IV (CO4)

Internet Concepts: Introduction to internet, use of internet, various search engines, searching strategies, saving images and documents from internet in different formats, e-mails, conferencing etc.

MODULE – V (CO5)

Graphical concepts – I : Photo editing and desktop publishing, application, software introduction, software and system requirements, preferences, workspace, graphics terminology, image depth, resolution and image size, up sampling and down sampling, image sources, straightening an image, cropping an image, basic image correction, printing photo edited documents, selections, choosing foreground and background colors, filling with color, options and preferences revisited, file browser, stepping back in time, use ram efficiently, sharpening images, working with layers, painting in photo editing software, color theory, image modes, channels, more advanced adjustment commands, file format categories.

MODULE – VI (CO6)

Graphical Concepts – II: Photo editing and Desktop publishing (application) – Import and export of photo edited files, objects in photo editing, fills, outlines, total text control, basic toolbox of vector based software (like Adobe Photoshop or Illustrator), color management tools, starting your page right etc.

Reference Books:

1. Adobe Creative Team, Adobe Photoshop CS (Class Workbook)
2. Droblas, Adele Greenberg, Fundamental Photoshop: AComplete Introduction.
3. Sagman, Microsoft Office for Windows, Indian Addison Wesley, 1999.
4. Woody Leon Hard, Microsoft Office 2000, Prentice Hall of India, NewDelhi.
5. Adobe Creative Team, 2003
6. Adele Croblas Greenberg, Fundamental Photoshop: A complete introduction.

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
I	MC21B101	UHV-1 STUDENT INDUCTION PROGRAM (AICTE)	1	0	0	0	-	-	-

COs	Course Outcomes	POs	BTLs
	The Student Induction Program (SIP) The 3-week Student Induction Program (SIP) is to prepare newly admitted undergraduate students for the new stage in their life by facilitating a smooth transition from their home and school environment into the college and university environment through various discussions and activities. The SIP has been formulated with specific goals to help students to:		
CO1	Become familiar with the ethos and culture of the institution (based on institutional culture and practices)	NA	NA
CO2	Set a healthy daily routine, create bonding in batch as well as between faculty members and students	NA	NA
CO3	Get an exposure to a holistic vision of life, develop awareness, sensitivity and understanding of the Self---family---Society---Nation---International---Entire Nature	NA	NA
CO4	Facilitate them in creating new bonds with peers and seniors who accompany them through their college life and beyond	NA	NA
CO5	Overcome weaknesses in some essential professional skills – only for those who need it (e.g. Mathematics, Language proficiency modules)	NA	NA

The various modules or core areas recommended for the 3-week SIP are:

SIP Module 1: Universal Human Values I (UHV I) 22 hours

The purpose is to help develop a holistic perspective about life. A self-reflective methodology of teaching is adopted. It opens the space for the student to explore his/her role (value) in all aspects of living – as an individual, as a member of a family, as a part of the society and as an unit in nature. Through this process of self-exploration, students are able to discover the values intrinsic in them. The session wise topics are given below:

Session No	Topic Title	Aspirations and Issues	Basic Realities (underlying harmony)
1	Welcome and Introductions	Getting to know each other	Self-exploration
2 and 3	Aspirations and Concerns	Individual academic, career… Expectations of family, peers, society, nation… Fixing one's goals	Basic human aspirations Need for a holistic perspective Role of UHV

4 and 5	Self-Management	Self-confidence, peer pressure, time management, anger, stress… Personality development, self-simprovement…	Harmony in the human being
6 and 7	Health	Health issues, healthy diet, healthy lifestyle Hostel life	Harmony of the Self and Body Mental and physical health
8, 9, 10 and 11	Relationships	Home sickness, gratitude towards parents, teachers and others Ragging and interaction Competition and cooperation Peer pressure	Harmony in relationship Feelings of trust, respect… gratitude, glory, love
12	Society	Participation in society	Harmony in the society
13	Natural Environment	Participation in nature	Harmony in nature/existence
14	Sum Up	Review role of education Need for a holistic perspective	Information about UHVII course, mentor and buddy
15	Self-evaluation and Closure	Sharing and feedback	

Module 2: Physical Health and Related Activities

This module is intended to help understand the basic principles to remain healthy and fit and practice them through a healthy routine which includes exercise, games etc.

SIP Module 3: Familiarization of Department/ Branch and Innovation

This module is for introducing and relating the student to the institution/department/branch; how it plays a role in the development of the society, the state, region, nation and the world at large and how students can participate in it.

SIP Module 4: Visit to a Local Area

To relate to the social environment of the educational institution as well as the area in which it is situated through interaction with the people, place, history, politics…

SIP Module 5: Lectures by Eminent People

Listening to the life and times of eminent people from various fields like academics, industry etc. about careers, art, self-management and so on enriches the student's perspective and provides a holistic learning experience.

SIP Module 6: Proficiency Modules

This module is to help fill the gaps in basic competency required for further inputs to be absorbed. It includes effort to make student proficient in interpersonal communication and expression as well as awareness about linguistic and thereafter NLP.

SIP Module 7: Literature / Literary Activities

Through the exposure of local, national and international literature, this module is aimed at helping the student learn about traditional as well as contemporary values and thought.

SIP Module 8: Creative Practices

This module is to help develop the clarity of humanistic culture and its creative, joyful expression through practice of art forms like dance, drama, music, painting, pottery, sculpture etc.

SIP Module 9: Extra Curricular Activities

This is a category under which things that are not placed in any of the above may be placed. Some clubs and hobby group may be made for each of the above categories, so that students may pursue them even after SIP. The recommended hours to be allocated are given above. Depending on the available faculty, staff, infrastructure, playgrounds, class timings, hostellers and day scholars etc., the timetable for these activities may be drawn up. Of course, colleges may conduct an inaugural function at the beginning of the SIP; and they may also conduct a celebratory closing ceremony at the end of the SIP. In particular during the lockdown phase, appropriate care may be taken and some or all activities may be planned in distance- learning or on-line mode.

Implementation:

The institution is expected to conduct the 3-week SIP under the guidance of the Director/Principal or Dean Students or a senior faculty member. For this, the institution is expected to make an SIP Cell. The SIP Cell will be responsible for planning, and then implementation of the SIP.

Follow up:

The SIP is only the beginning of the interaction with newly joined students.

An important part of the SIP is to associate one faculty mentor to every small group of about 20 students; and also associate one senior student buddy to an even smaller groups of about 5 students for the guidance required for holistic development of the newly joined student throughout his/her time in the institution/college.

These activities are to be continued in the ongoing academic program along with other cultural activities through the Student Activity Cell (SAC).

SEMESTER – II

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
II	ID21B2S1	SPACE PLANNING	1	0	9	10	100	100	200

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To analyze and identify the anthropometrics and ergonomics in daily life	1,2,3,4	2,3,6
CO2	To understand the concept of function relationship and its outcome of circulation through spaces.	1,2,3,4	2,3,6
CO3	To understand and analyze the furniture for different types of works and their effects on human body	1,2,3,4	2,3,6
CO4	To analyze and understand the organization of various forms to define spaces	1,2,3,4	2,3,6
CO5	To analyze and infer required learnings from the relevant case and literature studies of various interior spaces	1,2,3,4	2,3,6
CO6	To prepares a base for the students to gain an understanding into the fundamental issues in designing spaces and develops the skill to create floor plans considering all the factors affecting spatial composition.	1,2,3,4	2,3,6

MODULE – I (CO1,CO2 & CO3)

Basic anthropometrics – average measurements of human body in different postures – its proportion and graphic representation, application in the design of simple household and furniture. Role of mannequins in defining spatial parameter of design. Basic human functions and their implications for spatial planning. Minimum and optimum areas for various functions.

MODULE – II (CO4)

Introduction to design methodology, Kitchens - Work triangle, planning for activity - anthropometrics - types of kitchen - modular kitchens. Materials used in counters, shelves, worktops, washing areas & their comparative study. Lighting & colour scheme - natural & artificial light.

MODULE – III (CO4)

Toilets - Anthropometry - various types of sanitary ware and their use - types of layouts - concepts in modern day toilet interiors - materials & finishes - colour, texture & pattern.

MODULE – IV CO4

Bedrooms & Living Rooms - Concepts in bedroom & living room interiors - various layout of these spaces - the use of furniture and accessories to create a certain types of ambience - materials & finishes - lighting, colour & texture.

MODULE – V (CO5 & CO6)

Residence - Detailed study of residential spaces: such as, living, dining, bedrooms, kitchen, toilet etc. including the furniture layout, circulation, clearances, etc. Case study of existing residential spaces and the analysis of the spaces therein, to be taken up. Preparing user profile, bubble and circulation diagrams.

MODULE – VI (CO5 & CO6)
Visual analysis of designed spaces noted for comfort and spatial quality; analysis of solid and void relations, positive and negative spaces. Integration of spaces and function in the design of kiosk for - traffic police, ATM center, etc.; stalls inside a shopping mall, - jewelry stall, flower stall, ice cream stall, etc.; booths - bus ticketing booth, smokers' booths, etc.
Note: at least 1 major problems and 2 minor time problems shall be given. The end exam shall be a 5 hour space planning based time problem.

Reference Books:

1. Karlen Mark, Space planning Basics, Van Nostrand Reinhold, New York, 1992.
2. Joseph D Chiara, Julius Panero, & Martin Zelnick, Time Saver standards for Interior Design & space planning, 2nd edit ion, Mc-Graw Hill professional, 2001.
3. Francis.D. Ching & Corky Bingelli, Interior Design Illustrared, 2nd edition, Wiley publishers, 2004.
4. Julius Panero & Martin Zelnick, Human Dimension & Interior Space: A source book of Design Reference standards, Watson – Guptill, 1979.
5. Karlen Mark, Kate Ruggeri & Peter Hahn, Space Planning Basics, Wiley publishers, 2003
6. Designs for 20th century Interiors - Fiona Leolie, VH Publications, London, 2000.
7. Interior Design; The New Freedom, Barbaralec Diamonstein, Rizzoli International Publications, New York, 1982.
8. Interior Colour by Design, Jonathan Poore, Rockport Publishers, 1994.
9. Worldwide Interiors - International Federation of Interior Architects & Designers, Rikuyo - Sha, Japan, 1987.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
II	ID21B2S2	CREATIVITY AND PROBLEM SOLVING	1	0	3	4	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To engage the imagination to explore new possibilities	1,2,5	2,6
CO2	To encourages you to find fresh perspectives and come up with innovative Solutions	1,2,5	2,6
CO3	To formulate and articulate ideas.	1,2,5	2,6
CO4	To introduce lateral thinking and facilitate innovative design solutions.	1,2,5	2,6
CO5	To exploring creativity and challenging assumptions of design and generating alternatives by using tools and techniques of creativity.	1,2,5	2,6
CO6	To introduces the different tools and techniques of creativity as applicable to problem solving in design,	1,2,5	2,6

MODULE – I (CO1,CO2 & CO3)

Introduction – Definitions Of Creativity, Understanding Components Of Creativity, Definitions Of Problem Solving, Theories Of Creativity, Goals And Objectives, Value Judgments, Defining Problems, Information Gathering, Creative Incubation, Creative thinking and creative process.

MODULE – II (CO1,CO2 & CO3)

Thinking techniques – Principles in generative, convergent, lateral, interactive, graphical thinking, check lists, analysis and synthesis simulation, action ability and implementations of intentions. Blocks in creative thinking.

MODULE – III (CO4)

Tools and techniques of creativity – mind mapping, brain storming with related stimuli and unrelated stimuli, positive techniques for creativity, creative pause, Focus, Challenge, alternatives, concepts, sensitizing techniques, group or individual techniques.

MODULE – IV (CO5)

Problem statements – Brain writing with unrelated stimuli, idea mapping, random input, story boarding exercises, problem solving techniques –brain storming, lateral thinking of De Bono

MODULE – V (CO6)

Creative solutions applicable to designs – Design, Invention, opportunity, problems, improvement, planning, projects, conflicts. Simple Design exercises. Creative Design process – conceptual design, embodiment design, detail design, Iterations

Note: students are to design & produce at least 6 minor & 4 major basic products of day to day use and submit conceptual sketches along with a written report for internal and external assessment.

Reference Books:

1. Geoffrey Broadbent. Design in Architecture, London:D.Fulton
2. Christopher Alexander. Pattern Language. New York: Oxford University Press
3. Thomas Mitchell. Redefining Designing: Form to Experience

4. Edward De Bono, Lateral Thinking
5. James Snyder and Anthony Y Catanse, Introduction to Architecture, McGraw- Hill Book company, New York, 1979.
6. Design Basics for Creative Results by Bryan L.Peterson, F&W Publications, Inc.
7. Noone, Donald.J, Creative Problem solving, Hauppauge, 1993.
8. De Bono, Edward, Serious Creativity: Using the power

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
II	ID21B2S3	INTERIOR DESIGN DRAWING AND GRAPHICS – II	1	0	3	4	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the drawing techniques with pen and brushes	1,2,6	2,3
CO2	To understand the tones and rendering in interior spaces	1,2,6	2,3
CO3	To introduces the techniques of architectural drawing pertaining to 3D views and perspectives, sciography and rendering.	1,2,6	2,3
CO4	To impart the techniques of rendering in different media and skills of three dimensional visualization and presentation.	1,2,6	2,3
CO5	To understand the importance Perspective and three dimensional drawings with rendering in different media for presentation.	1,2,6	2,3
CO6	To get skill of drawing from imaginations	1,2,6	2,3

MODULE – I (CO1)

Introduction to pen and brush exercises – Simple exercises of shapes and lines, lines and textures, pen lines, ruling with pen and brush, brush lines etc.

MODULE – II (CO2)

Tones and Rendering – tones in pen drawings, value scales, Gray values, Grading tones etc. Simple exercises of tonal values and textures with pen. Color study, monochrome and wash rendering etc.

MODULE – III (CO3)

Introduction to Sciography – Simple and composite forms, shadows on horizontal, vertical planes and on their own surfaces. Study of shade and shadows of simple geometrical solids of various forms and groups of forms in Interiors.

MODULE – IV (CO4)

Perspective: Introduction to perspectives**,** Characteristics of perspective drawings, perspectives of simple geometric solids and spaces and complex geometries. Advanced examples in one point or parallel perspective, two-point Interior perspectives of rooms. Introduction to three point perspective of furniture.

MODULE – V (CO5)

Rendering of the perspectives in different media through drawing pencil, sketch pen, pencil color, monochrome, wash rendering etc., Integrating landscape elements, human figures, shadows, foreground etc in the perspectives.

MODULE – VI (CO6)

Drawing from imagination – speculative drawings, diagramming, drawing compositions, concept sketches, design development sketches, presentation sketches , Presentation drawings, Graphical presentations etc.

Reference Books:

1. Stephen Kliment, Architectural Sketching and Rendering: Techniques for Designers and Artists, Watson Guptill, 1984.
2. Ivo.D. Drpic, Sketching and Rendering of Interior Space, Watson- Guptill, 1988.
3. Maureen Mitton, Interior Design Visual Presentation: A Guide to graphics, models and presentation techniques, 3rd edition, wiley publishers, 2007
4. Mogali Delgade Yanes and Ernest Redondo Dominquez, Freehand drawing for Architects and Interior Designers, ww.Norton & co., 2005
5. Francis D.Ching, Design Drawing, Wiley publishers
6. Atkin William W. Corbellent, Raniero and Firore. R. Vincent, Pencil Techniques in Modern Design. 4th ed. Reinhold pub Corporation. New York, 1962.
7. Bately, Claude. Design Development of India Architecture.
8. Bellings, Lance Bowen. Perspective space and Design.
9. Burden, Ernest, Architectural Delineation: A photographic approach to presentation, 2nd ed, McGraw Hill, Inc., New York, 1982.
10. Conli, Claudius. Drawings by Architects.
11. John. F. Pile, Perspective for Interior Designers, Watson – Guptill, 1989.
12. Ernest. R. Norling, Perspective made easy, Dover publications, 1999
13. Joseph D, Amelio, Perspective Drawing Hand book, Dover publications, 2004

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
II	ID21B2C1	INTERIOR DESIGN MATERIALS & APPLICATIONS –II	2	0	1	3	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To provides information on the properties, management, specifications, use, application and rates of the materials used in the interiors.	1,5,9	1,2,4
CO2	To impart knowledge on the various materials while highlighting the current trends and innovations in the usage of interior design materials.	1,5,9	1,2,4
CO3	To gain knowledge required for specifying appropriate materials for various spaces in interiors of buildings.	1,5,9	1,2,4
CO4	To gain awareness of the existing and new trends and availability of hardware and accessories materials.	1,5,9	1,2,4
CO5	To Understand the stone varieties and properties to use in interior building industry.	1,5,9	1,2,4
CO6	To Understand properties and use of metals, rubber, fabrics & tiles ,green materials in interior building industry.	1,5,9	1,2,4

MODULE – I (CO1,CO2,CO3 & CO4)

Metals – Steel, iron, aluminum, bronze, brass, copper – SS, alloys, characteristics, form and uses, properties, definition of terms, methods of working with metals, fixing and joinery in metals, finishing and treatment to metals. Application of metals to built form and interiors - special doors and windows, ventilators, doors – sliding, sliding and folding, revolving, pivoted, rolling, collapsible, dormer, skylights, clerestory etc.

Hardware & Accessories: all hardware required for residences, offices, other public & private spaces, etc including all types of hinges, drawer slides, handles, locks, wire managers, etc, accessories for toilet, kitchen, office, glass patch fittings, profiles, etc

MODULE – II (CO1,CO2,CO3,CO4 & CO5)

Stones : Igneous, metamorphic & sedimentary – classifications, types, properties, availability, applications

MODULE – III (CO1,CO2,CO3 & CO6)

Rubber – Natural rubber, latex, coagulation, vulcanizing and synthetic rubber- properties and application. Plastics – Types, thermosetting and thermo plastics, resins, common types of moldings, fabrication of plastics, polymerization and condensation. Plastic coatings, reinforced plastic, plastic laminates – properties, uses and applications.

MODULE – IV (CO1,CO2,CO3 & CO6)

Fabrics and other furnishing materials – fibers – natural – silk, cotton, linen, damask, furs, etc: artificial -

polyester, nylon, rayon, etc , textiles, fabric treatments, carpets, durries, tapestries, Drapery, upholstery, wall coverings, etc. – properties, uses and application in the interiors.
MODULE - V (CO1,CO2,CO3 & CO6)
Roofing tiles: terracotta, sheets and fiber boards – properties and application. **Flooring tiles :** Various natural as well as artificial flooring materials like, ceramic tiles, full body vitrified tiles, terracotta tiles, glass mosaic tiles, stone tiles, Mosaic, Rubber, Linoleum, PVC and PVA flooring, their Properties, other uses and applications in the interiors.
MODULE – VI CO1,CO2,CO3 & CO6
Green materials – roofing, flooring, luminaries, water controls, sensors, etc **Miscellaneous materials** such as, foam, cork, leather, leatherite, UPVC, paper, Rexene, water proofing materials, termite treatment chemicals, Insulation materials - various insulating materials & their properties, uses and applications in the interiors.
Expected Output – Students shall do case studies, market surveys, visual presentations, site visits and drawings. **Note:** Market surveys to be conducted to find out the commercial and technical names, sizes, wastages, BIS and codes for materials, testing, fabrication, commercial methods of pricing, billing etc.

Reference Books:

1. Bindra, S.P. and Arora, S.P. Building Construction: Planning Techniques and Methods of Construction, 19th ed. Dhanpat Rai Pub., New Delhi, 2000.
2. Moxley, R. Mitchell's Elementary Building Construction, Technical Press Ltd.
3. Rangwala, S.C. Building Construction 22nd ed. Charota Pub. House Anand, 2004.
4. Sushil Kumar. T.B. of Building Construction 19th ed. Standard Pub. Delhi, 2003.
5. Chowdary, K.P. Engineering Materials used in India, 7th ed. Oxford and IBH, New Delhi,1990.
6. Rangwala, S.C. Building Construction: Materials and types of Construction, 3rd ed. John Wiley and Sons, Inc., New York, 1963.
7. Francis D. Ching, Building Construction Illustrated, Wiley publishers, 2008.

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
II	ID21B2P1	MODEL MAKING WORKSHOP – II	1	0	3	4	100	-	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the importance and skill of photography in interiors	5,6,9	2,3,6
CO2	To acquire the knowledge on carpentry modelling with wood and its Derivatives	5,6,9	2,3,6
CO3	To gain the knowledge on various uses of cane & bamboo in interior spaces	5,6,9	2,3,6
CO4	To know of different types of modelling with metals and application in Interiors	5,6,9	2,3,6
CO5	To gain the knowledge of textile weaving & fabric printing	5,6,9	2,3,6

MODULE – I (CO1)

Wood: Working with wood and wood derivatives to understand material parameters. Wooden joinery and its strength, Wood polishes and other finishes – colour and surface quality. Making of elements of various scales in the built form, such as, interior space making elements, furniture forms, various products, Art & Artifacts by using wood. Understanding the material and tools by making objects which allow students to explore the forms, surfaces, textures and patterns. Explore different joinery, support conditions, and woven surfaces.

MODULE – II (CO2)

Cane & Bamboo: Introduction to cane, bamboo, working with bamboo/cane and their products to understand material parameters. Bamboo and cane joinery and its strength. Polishes and other finishes. Expected Output: With the above knowledge the students should make an useful interior product in wood / cane or bamboo along with a written report for internal & external assessment.

MODULE – III (CO3)

Metal: Types of metals, properties of metals, definitions of terms with reference to properties and uses of metals, various methods of working with metals, fixing and joinery in metals, finishing and treatment of metals., finishes on metals. Standard specifications. Metals in built form activity – horizontal, vertical and inclined surfaces in interior environment elements- products and furniture forms - doors, windows, grilles, railing, stair etc. Metals and other materials – form and joinery.
Expected Output: With the above knowledge the students should make an useful interior product in metal along with a written report for internal & external assessment.

MODULE – IV (CO4)

Textiles – Weaving & printing: Introduction to fibers and yarns, table loom and floor loom, preparing warp, setting up loom for weaving. Basic weaves and their variations. Variation weaves and design quality, weaves as light controlling device, weaves and its quality for upholstery, curtains and floor coverings, Rugs and durries–motifs design, patterns and color variations. Development of textile design in different cultures from primitive art to contemporary designs. Criteria of design of the elements and principles of textile

design. Analysis of a motif, developing repeat as a basic Module of design in textile printing

MODULE – V (CO5)

General Printing – developing block, understanding the material used, colors, types and their mixing process, various color printing. Screen printing – design evolution for wall hangings, preparing screen and understanding the technique, printing on paper and printing on fabric.

MODULE – VI (CO5)

Extensive market survey of available fabrics for interior spaces – product specifications and manufacturers.

Expected Output: With the above knowledge the students should make a portfolio of swatches & techniques of block and screen printing along with a report to be made for Internal & external assessment.

Reference Books:

1. Carol Strangler, The crafts and art of Bamboo, Rev. updated edition, Lark books, 2009.
2. Dr Angelika Taschen, Bamboo style: Exteriors, Interiors, Details, illustrated edition, 2006.
3. Albert Jackson & David Day, The complete manual of wood working, Knopf publishers, 1996.
4. Lonnie Bird, Jeff Jewitt, Thomas lie- Nielsen, Taunton's Complete Illustrated Guide to Woodworking, Taunton, 2005.
5. Peter Korn, Wood working Basics : Mastering the essentials of craftsmanship, Taunton , 2003
6. John .F. Pile, Interior Design, Harry. N Abrams, Inc. New York . 1995.
7. Ron Fournier, Metal Fabricator's Handbook, Rev. Illustrated edition, HP Books, 1990.
8. Liz Gibson, Weaving Made Easy: 17 Projects Using a Simple Loom (Paperback), Interweave press, 2008
9. Deoborah Chandler, Learning to weave, Revised edition, Interweave press, 2009.
10. Kirsten Glasbrook, Tapestry Weaving, Search Press, 2002.
11. June Fish, Designing and printing textiles, Crowood press, 2005
12. R.W.Lee, Printing on Textiles by Direct and Transfer Techniques, Noyes Data Corporation, 1981

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
II	ID21B2P2	COMPUTER AIDED DRAWING FOR INTERIOR DESIGN	1	0	2	3	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the basic components of operating on menu and setup wizard	1,6	2,3
CO2	To understand the co-ordinate systems, UCS, shortcuts in AutoCAD & work on the settings of environment	1,6	2,3
CO3	To learn basic skills of modelling, scripting (rendering) in CAD, and to exercise methods of interface within CAD.	1,6	2,3
CO4	To work on drafting a plan with dimensioning and layers	1,6	2,3
CO5	To understand various tools on Photoshop and its practices in interior Design	1,6	2,3

MODULE – I (CO1)

Starting AutoCAD: Introduction to the menu, starting drawings from scratch. Creating and using templates- starting drawings with setup wizards. Saving and closing a file.
Using co-ordinate systems – The UCS. Working with Cartesian and polar coordinate systems. Using displays with shortcuts.

MODULE – II (CO2)

Setting up the drawing environment – setting the paper size, setting units, grid limits, drawing limits, snap controls. Use of paper space and model space.

MODULE – III (CO3 & CO4)

Basic commands dealing with drawing properties: Layer control, change properties, line weight control.
Inquiry methods: Using data base information for objects, calculating distance, angle, areas etc.

MODULE – IV (CO5)

Dimensioning commands and blocks: Dimensioning the objects in linear, angular fashions along with quick time dimensioning etc. Creating and working with blocks, creating symbols, use of blocks in creating a layout, of a residential area- one exercise to be done as lab assignment.

MODULE – VI (CO3)

Basics of Adobe Photoshop:

Tool box (Moving, marquee tool), Magic ward selection, Crop tool, Paint Brush, Opacity, tent Styes, Blue tool, Sharpening Tool, Color correction, Layer, moving Tool, Masking tool. & properties

MODULE – VI (CO3)

Plotting and presentation. Printing and plotting.

Reference Books:

1. Carol Strangler, The crafts and art of Bamboo, Rev. updated edition, Lark books, 2009

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
II	ID21B2A1	COMMUNICATION SKILLS	2	0	0	2	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the role of communication in personal and professional success.	7,11,12	1,3
CO2	To acquire confidence with verbal, written and graphic communication and presentation skills to communicate efficiently and effectively with clients and Others	7,11,12	1,3
CO3	To apply effective communication skills in a variety of public and interpersonal settings.	7,11,12	1,3
0 CO4	To enhance the communicative competence with focus on syntax and fluency	7,11,12	1,3
CO5	To excel in oral and written medium and prepare them for employability	7,11,12	1,3

MODULE – I (CO1)

Communication: Importance of Communication; Elements of good individual communication; organizing oneself; different types of communication; Barriers in the path of Communication

MODULE – II (CO1)

Listening skills: Listening to conversation and speeches (Formal and Informal) Reading: Techniques of reading, skimming, Scanning, SQ3R technique

MODULE – III (CO2)

Creative Writing: Scope of creative writing; Writing skills Signposting, Outlines, Rephrasing

Writing a report/ format of the report; Paragraph, Letter Writing, Essay writing, Memo, Circular, Notice, Cover Letter, Resume, Writing with a thesis, Summary, Précis, Product description – Description of projects and features

Oral Report; Periodical Report; Progress Report; Field Report

Preparation of minutes; Video conference; Tele conference / Virtual meeting

MODULE – IV (CO3)

Speaking: How to converse with people, How to communicate effectively; Language and grammar skills; Pronunciation drills, Phonetics, vowels, Diphthongs, consonants, Stress, Rhythm and intonation, Conversational skills

MODULE – V (CO4)

Features of effective speech- practice in speaking fluently –role play – telephone skills – etiquette.
Short Extempore speeches – facing audience – paper presentation – getting over nervousness – Interview techniques – preparing for interviews – Mock Interview – Body Language.

MODULE – VI (CO5)

Impact of internet on communication; communication through computers; voice mail; broadcast messages; e-mail auto response; etc.

Reference Books:

1. Krishna Mohan &Meera Banerji: Developing Communication Skills Macmillan India
2. C S Rayudu: Principles of Public Relations, Himalaya Publishing House
3. K. Ashwathappa: Organizational Behavior, Himalaya PublishingHouse
4. Daniel Colman: Emotional Intelligence

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
II	MC21B201	ENVIRONMENTAL STUDIES	1	0	0	0	-	-	-

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the importance of environment and natural resources	6, 7	1, 2
CO2	To acquire the knowledge on various principles of eco- systems and their functions.	6, 7	1, 2
CO3	To gain the knowledge on various principles, threats and conservation of bio diversity.	6, 7	1, 2
CO4	To understand the importance of national and international concern for protection of environment from various pollutants	6, 7	1, 2
CO5	To understand various social Issues related to Environment	6, 7	1, 2
CO6	To understand the impact of human population on the environment.	6, 7	1, 2

MODULE – I (CO1)

Environmental studies–Introduction: - Definition, scope and importance, Measuring and defining environmental development indicators.

Environmental and Natural Resources: Renewable and non-renewable resources - Natural resources and associated problems - Forest resources - Use and over - exploitation, deforestation, case studies - Timber extraction, dams- benefits and problems.

MODULE – II (CO2)

Basic Principles of Ecosystems Functioning: Concept of an ecosystem. -Structure and function of an ecosystem. - Producers, consumers and decomposers. - Energy flow in the ecosystem Ecological succession. - Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of the following ecosystem:

a) Forest Ecosystem
b) Grassland Ecosystem
c) Desert Ecosystem
d) Aquatic Ecosystem (Ponds, Streams, Lakes, Rivers, Oceans, Eustuaries)

MODULE – III (CO3)

Biodiversity and its conservation: Introduction – Definition- genetic, species and ecosystem diversity. Bio-geographical classification of India

Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts. - Endangered and endemic species of India.

Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

MODULE – IV (CO4)

Environmental Pollution: Definition, Cause, effects and control measures of

a) Air pollution
b) Water pollution
c) Soil pollution
d) Marine pollution
e) Noise pollution
f) Thermal pollution
g) Nuclear hazards

MODULE – V (CO5)

Social Issues and the Environment: From unsustainable to sustainable development -Urban problems related to energy -Water conservation, rain water harvesting, and watershed management - Climate change, global warming, acid rain, ozone layer depletion , nuclear accidents and holocaust. Case Studies. – Waste land reclamation

MODULE – VI (CO6)

Human Population and the Environment: Population growth, variation among nations. Population explosion Role of information Technology in Environment and human health. - Case Studies.

Field work: Visit to a local area to document environmental assets River /forest grassland/hill/mountain - Visit to a local polluted site-Urban/Rural/industrial/ Agricultural Study of common plants, insects, birds. - Study of simple ecosystems- pond, river, hill slopes, etc.

Text books:

1. Erach Bharucha, A Text Book of Environmental Studies for Under graduate Courses, University Grants Commission.
2. Perspectives in environmental Studies, Anubha Kaushik and C P Kaushik, New Age International Publishers, New Delhi, 2018. 2. A Textbook of Environmental Studies, Shashi Chawla, McGraw Hill Education, New Delhi, 2017.

Reference Books:

1. Environmental Studies by Benny Joseph, McGraw Hill Education, New Delhi, 2017.
2. Fundamentals of environmental studies, Mahua Basu and S Xavier, Cambridge University Press, New Delhi, 2017.

SEMESTER – III

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
III	ID21B3S1	INTERIOR DESIGN STUDIO - I	1	0	9	10	100	100	200

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the character and nature of spaces, as well as their scale and numerous layers of design	1,2,4	2,3,6
CO2	To analyze place in relation to its surroundings and context. Understanding the psychology and behavior of users	1,2,4	2,3,6
CO3	To improve understanding of the fundamental issues in designing spaces	1,2,4	2,3,6
CO4	To develop skills to create designs considering all factors that influence and affect design of a space	1,2,4	2,3,6
CO5	To develop creative conceptual visualization, hand skill building, and the process of design.	1,2,4	2,3,6

MODULE – I (CO1, CO2, CO3, CO4, CO5)

The primary focus should be on –

- Anthropometry
- Design methodology
- Conceptual exploration and representation.
- Creativity
- Scale/proportion
- Documenting space
- Graphic design (page layout and composition)
- Concepts sketching
- Application of design principles and elements
- Portfolio development

The list of suggested topics to be covered as design problems shall be a single space like: Single room residence, Doctor's clinic, kindergarten class room, Crèche, Architect's studio, Lawyer's office, small cafeteria, bank extension counter, florist shops, medical outlets, clothing store, shoe store, accessory store, book shop, waiting lounges for – hospitals, corporate, hotels, etc.

Note: At least one major exercise and one minor design/time problems should be given. Internal marking shall be done in stages project wise:

- Schematic layouts

- Final layout
- Sectional elevations
- Typical details
- Complete project with all details
- 3D drawings with colour rendering

Reference Books:

1. Karlen Mark, Space planning Basics, Van Nostrand Reinhold, New York, 1992.
2. Joseph D Chiara, Julius Panero, & Martin Zelnick, Time Saver standards for Interior Design & space planning, 2nd edition, Mc-Graw Hill professional, 2001.
3. Francis.D. Ching & Corky Bingelli, Interior Design Illustrared, 2nd edition, Wiley publishers, 2004.
4. Julius Panero & Martin Zelnick, Human Dimension & Interior Space : Asource book of Design Reference standards, Watson – Guptill, 1979.
5. Maureen Mitton, Interior Design Visual Presentation: A Guide to Graphics, Models, and Presentation Techniques. John Wiley and Sons, 2003
6. Mark.W. Lin, Drawing and Designing with Confidence: A step-by-step guide, Wiley and Sons, 1993
7. Robert Rengel, Shaping Interior Space, Fairchild Books & Visuals ,2002

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
III	ID21B3S2	INTERIOR CONSTRUCTION DETAILS	1	0	4	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand different types of wall finishes, plastering, doors and windows	1,2	1,2
CO2	To focus on the preparation of detailed drawings for Interior Design execution.	1,2	1,2
CO3	To understand preparation of construction details of different types of wood work with specific requirements.	1,2	1,2
CO4	To understand on the fabric materials and its application in interior design	1,2	1,2
CO5	To understand presentation of design at the built form level, product & and furniture design at finishing level.	1,2	1,2

MODULE – I (CO1)

Details of Interior civil work: wall finishes, wall plastering, chamfered corners, gulta finish, dado, wall cladding, fixing of doors & windows, etc.

Details of floor finishes: tiling/ stone flooring, wooden flooring, access flooring

Plans, sections & elevations of staircases: Types of staircase, different materials – RCC, wood, steel staircase, etc.

MODULE – II (CO1, CO2)

Detailed plan, sections & elevations of:

All woodworks: joinery, types of doors, windows, etc.

Partition walls: all types of partitions – full height, half & dwarf, double skinned, single skinned, frameless glass, etc.

Wall paneling: plywood, leather, acoustic boards, etc.

False Ceiling: all types, with full system, insulation, acoustical, etc.

MODULE – III (CO3,CO2)

Detailed plan, sections, elevations and isometrics of the standard residential furniture like:

Sofas – double, single seat

Tables – peg, nested, dining, etc. Chairs –study, dining, sofa chairs, etc. Beds with side tables – TW frame, box frame, with storage, etc.
Storage & display units: dressing table units, showcase, cutlery cabinets, home bar, entertainment units, book case, tall boy units, chest of drawers, etc.

Bar counter with bar stool, Detailed plan, sections, elevations with one-point perspectives of kitchen with details of each units, etc.

MODULE – IV (CO3,CO4)

Detailed plan, sections, elevations and isometric views of office furniture – hierarchy of work stations, tables, return units, filing units, Reception table, etc

MODULE – V (CO5)

Detailed plan, sections, elevations and isometric views of furniture of Institutional spaces, Retail spaces & hospitality spaces – bank counters, reception counters/ tables, restaurant service counters, storage & display, awnings, etc.

MODULE – VI (CO5)

Details of soft furnishings: types of Draperies, curtains, blinds, types stitches, valences, linings, tiebacks, hanging details, etc.

Note:

Students shall prepare detailed drawings of all the above of utilitarian design as per standards. The students shall be required to submit all manual drawings of:

- Plans, elevations, sections
- Isometric views / 2-point perspective view with colour rendering denoting the finish of the furniture.
- Market survey for latest hardware for specification writing
- Specification writing: detailed specification of materials, pre & post execution, mode of measurements, manufacturer's details & brand names, etc
- Joinery details
- At least 2 full size details per furniture

All drawings to be done manually End exam shall be a 3-hr. drawing exam.

Reference Books:

1. Macy, W. Frank, Specification in details, 5th edition, Technical Press Ltd, London, 1955
2. Shah, M G & others, Building Drawing : An Integrated approach to build Environment, 3rd edition, Tata McGrow Hill Publications Company Ltd, New Delhi, 1996
3. Kilmer, Working Drawings & Details for Interiors, John Wiley & Sons

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
III	ID21B3C1	INTRODUCTION TO ERGONOMICS	2	0	2	4	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To analyze and design furniture forms scientifically and sensitizes the student's visual perception of furniture as a single form and as a system in a given interior space	1,5	2,4,6
CO2	To understand and use basic theories if design to develop furniture in different styles.	1,5	2,4,6
CO3	To apply principles of universal design to create comfortable furniture	1,5	2,4,6
CO4	To refer from history and other case studies to get inspired and apply learnings to their designs	1,5	2,4,6
CO5	To express concepts with appropriate terms and reflect the design by developing furniture of different categories.	1,5	2,4,6

MODULE – I (CO1)

Introduction to Ergonomics: Design today- Human aid to lifestyle, Environmental factors influencing human performance, Ergonomics in India: scope for exploration.
Discipline approach: Ergonomics/ Human factors, Journey, Fitting task to man their contractual structure, Domain, Philosophy and Objective.
Mutual task comfort: two-way dialogue, communication model, Ergonomics/ human Factors fundamentals, Physiology (work physiology) and stress.

MODULE – II (CO2)

Human physical dimension concern: Human body- structure and function, anthropometrics, Anthropometry: body growth and somatotypes, Static and dynamic anthropometry, Stand Posture- erect, Anthropometry landmark: Sitting postures.
Anthropometry: squatting and cross-legged postures, Anthropometric measuring techniques, Statistical treatment of data and percentile calculations

MODULE – III (CO3)

Human body structure and function: Posture and job relation, Posture and body supportive devices, Chair characteristics, Vertical work surface, Horizontal work surface, movement, work Counter.

MODULE – IV (CO4)

Behavior and perception: Communication and cognitive issues, Psycho-social behavior aspects, behavior and stereotype, Information processing and perception, Cognitive aspects and mental workload, Human error and risk perception.

Visual ergonomics: Visual performance, Visual displays, visual comfort and designing for different functions and designing for differently abled.

MODULE – V (CO1)

Ergonomic design process: Ergonomics design methodology, Ergonomics criteria/check while designing, Design process involving ergonomics check, Some checklists for ease of task.

MODULE – VI (CO2)

Performance support and design intervention: Occupational safety and stress at workplace in view to reduce the potential fatigue, errors, discomforts and unsafe acts: Workstation design, Furniture support , Vertical arm reach and design application possibility .

Reference Books:

1. Bridger, RS: Introduction to Ergonomics, 2nd Edition, Taylor &Francis, 2003.
2. Dul, J. and Weerdmeester,B.Ergonomics for beginners, a quick reference guide, Taylor & Francis, 1993.
3. Green, W.S. and Jordan,P .W, Human Factors in & Product Design, Taylor rancis, 1999
4. D. Chakrabarti, Indian Anthropometric Dimensions for ergonomic design practice, National Institute of Design,Ahmedabad, 1997
5. G.Salvendy (edit), Handbook of Human Factors and ergonomics, John Wiley & Sons, Inc., 1998
6. Singh,S (Edt),Ergonomics Interventions for Health and Productivity, Himanshu Publications, Udaipur, New Delhi, 2007
7. Robbie. G. Blakemore, History of Interior Design and Furniture: From Ancient Egypt to Nineteenth-Century Europe, Wiley publishers, 2005.
8. Bradley Quinn, Mid-Century Modern: Interiors, Furniture, Design Details, Conran Octopus Interiors, 2006.
9. Jim Postell, Furniture Design, Wiley publishers, 2007.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
III	ID21B3C2	HISTORY OF INTERIOR DESIGN	3	0	1	4	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the importance of culture and tradition in interior	8	1,3,4
CO2	To understand the shapes and patterns that emphasize the elements in Interiors	8	1,3,4
CO3	To learn the different types of materials that could bring changes in the Country	8	1,3,4
CO4	To understand about imperialism and colonialism in Indian context	8	1,3,4
CO5	To learn about the different contemporary styles in interiors	8	1,3,4

MODULE – I (CO1)

Elements of style and determinants of Interior environments in Ancient Civilization, Classical world & the Middle ages: emphasis shall be on Architectural elements, furniture, decorative arts, colors & materials.

- Egyptian
- The ancient Near East - Samarians, Babylonians, Assyrians, Persians
- The Classical World – Greek, Roman
- The Middle Ages - Early Christian and Byzantine, Romanesque and Gothic Renaissance in Italy, Spain, France and England, Baroque, Rococo, Neoclassicism.
- Eastern influences - China and Japan

MODULE – II (CO1)

Reviewing Industrialization: - Industrial revolution and its influence on social, economic conditions of that period, Scientific and technological progress, invention of new materials. An overview of Art and Crafts movement in Europe and America

- Art Noveau, Bauhaus, International style, Post Modernism.
- 20 century Birth of modern art, Cubism, Impressionism, Post impressionism and others.

MODULE – III (CO2)

Indian architecture and interiors-

- Hindu and Islamic, Secular architecture of the princely states like Rajasthan, etc.
- Critical Regionalism and the neo-vernacular with examples from Jammu and Kashmir, Southern India,

  Gujarat, Himachal Pradesh, states of North & eastern India, Maharashtra, Uttar Pradesh, Orissa etc.

  Assignment : Interior Documentation

MODULE – IV (CO3)

History of modern movement in interior Design and architecture – developments of modern movements – various fields of design affecting interior ambiences directly – international modernism, regionalism and concerns with vernacular, color, etc. Introduction to art movement of 1920-modern:
abstract art, constructivism action painting, use of modern materials and technique

MODULE – V (CO4)

Designers and their works with respect to interior architecture and interior elements of design. Contemporary expressions of styles and art forms.

- Theories and projects of F L Wright; Le Corbusier; Gaudi; Gropius; Aalto; Mies; Eisenmann; Zaha Hadid; Soleri; Hasan Fathy; Ando; Bawa; Gehry; Libeskind; Toyo Ito; Louis Khan; Tschumi; Greg Lynn; Assymptote
- Theories and projects of Indian Architects like : B V Doshi; Ananth Raje; Raj Rewal; Laurie Baker; Nari Gandhi; Kanvinde, Shirish Beri, Charles Correa, I M Kadri, etc

MODULE – VI (CO5)

Elements of Style - Ornamentation and decoration – quality of space – Colonial, Regency, Indo Sarcenic - examples and case studies

Range of contemporary Indian interiors – constituents of 'earthy Indian interiors' – Colors, materials, motifs and elements associated with Indian Interiors. Exercises and case studies.

Reference Books:

1. John F. Pile, Ahistory of interior design, 2nd edition, Laurence King Publishing, 2005.
2. Jeannie Ireland, History of Interior Design, air child publications, illustrated ed., 2009.
3. Elaine, Michael Dywer, Christopher Mackinnon, Norman A. J. Berisford Denby , A History of Interior Design, Rhodec International, 1983.
4. Giedion Sigfried, Space, Time and Architecture: The growth of a new tradition, 4th ed. Harvard University Press, Cambridge, 1962.
5. Tadgell Cristopher, The History of Architecture in India: From the dawnof civilization to the End of the Raj , Om Book Service, New Delhi, 1990.
6. Rowl Bejamin. Art and Architecture ofIndia.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
III	ID21B3K1	SKILL/JOB ORIENTED COURSE – 01 COMPUTER DESIGN AND DIGITAL FABRICATION	1	0	3	2	100	-	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the importance of software's in interiors design.	6	1,2
CO2	To gain the knowledge of digital image structures.	6	1,2
CO3	To understand different creative potential of image editing.	6	1,2

MODULE – I (CO1)

Introduction to Google Sketch-up: Understanding all the tools and toolbars of Sketchup. Advanced understanding of Sketchup and doing basic geometrical shapes and playing with all the Sketchup workplace. & properties.

MODULE – II (CO1)

Understanding the application of materials, and color combinations in Google Sketchup. Preparing for construction of 3D model and Interior Views.

MODULE – III (CO2)

Scene setup involves arranging virtual objects, lights, cameras, and other entities on a scene which will later be used to produce a still image or an animation.

MODULE – IV (CO2, CO3)

Application of different rendering techniques like Vray, Lumion, etc.

MODULE – V (CO3)

Introduction to REVIT ,Learning to use basic tools such as wall, roof floor ,staircases, dimensioning, plotting etc.

Reference Books:

1. A complete Guide to Digital Graphic Design by Thames & Hudson The llex Press Limited (2005).
2. Digital Imaging by Mark Galer & Les Horvat Focal Press (2005).
3. Creative Photoshop CS5: Digital Illustration and Art Techniques by Darek Lea Focal Press (March 24, 2009)

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
III	ID21B3E1	ADAPTIVE REUSE & RECYCLE	3	0	0	3	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the importance of adaptive reuse and recycle methods.	4,5,8	1,4,6
CO2	To focus on materials in interiors and apply the principles, techniques to create a sustainable and recycle interior projects.	4,5,8	1,4,6
CO3	To understand the need for reuse of old heritage buildings and applications of using recycled materials.	4,5,8	1,4,6
CO4	To understand the various stages in conservation of interiors	4,5,8	1,4,6
CO5	To understand the interior application of spatial components in heritage buildings.	4,5,8	1,4,6

MODULE – I (CO1, CO2)

Need for Adaptive Reuse – Introduction to Adaptive Reuse. Cultural inheritance – heritage buildings and old structures — strategies of adaptive reuse – investigation into material finishes etc.

MODULE – II (CO1, CO2)

The logic behind recycling – recycling of steel, wood, glass, and other materials – estimating the grade of recycled lumber – recycling standards for steel, glass, and other materials Benefits and constraints of adopting adaptive reuse and recycle technologies and materials, and the principles followed during the reuse and recycling process.

MODULE – III (CO3)

Sustainability as a concept – Declaration of the Earth Summit – Definition of Sustainability – Economic, Social, and Environmental Issues Discuss and explain sustainable criteria, through which environmentally friendly, healthy, and socially adaptive reuse and recycling can be achieved. – green rating of buildings – LEED rating criteria, discuss and explain sustainable criteria, through which environmentally friendly, healthy, and socially adaptive reuse and recycling can be achieved.

MODULE – IV (CO4)

Definition of term conservation, heritage, culture in Indian context,

Various stages in conservation such as preservation, restoration, adaptation, consolidation

Study of history of conservation movement and need for conservation in modern context

MODULE – V (CO4)

Architectural conservation — preservation of historic and notable structures, levels of construction intervention, handicrafts, ornamentation, and finishes, and so on. Revival of old building techniques and finishes.

MODULE – VI (CO5)

Interiors of heritage buildings, cultural heritage, Case studies of adaptive reuse and recycle methods and materials in various spatial components of building interiors, as well as construction techniques and inferences.

Reference Books:

1. Hari Mohan Pillai – Heritage conservation and cultural continuity – Saraswathi publishers, 2002.
2. Sustainable building design manual – TERI publication, 2004.
3. Waste management and recycling – Compiled by C.T. Lakshmanan, SRM University.
4. Sandra F Mendler - The HOK Guide book for sustainable design – John Wiley and Sons, Canada,2002.
5. Conservation guidelines for Pondicherry – DTCP, Pondicherry – INTACH 2000.

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
III	ID21B3E2	PSYCHOLOGY OF SPACE AND BEHAVIOURAL SCIENCE	3	0	0	3	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To provides an overview of the relationship between man and space and behaviour patterns of human beings in space planning.	8,10,11 ,12	1,2,4
CO2	To acquire the knowledge to design a space for the based on his perception and behaviour to the space.	8,10,11 ,12	1,2,4
CO3	To gain knowledge about integration of psychology and user behaviour in space planning.	8,10,11 ,12	1,2,4

MODULE – I (CO1)

Perception of space through understanding associative aspects relating to space.

Understanding cognitive theories and Gestalt principles of psychology related in the field of space making to develop an understanding of place making.

MODULE – II (CO1)

Relationship of spatial elements like floor, column, wall, window, door, stair, roof, light, color, textures to the psychology and perception of space.

MODULE – III (CO2)

Kinesthetic – Understanding perception while in movement and space organization around such a phenomenon.

MODULE – IV (CO2)

Analysis of human mind and his/her image of the world - social behavior patterns, traditional thinking and behavior and reflection of social world into physical environment. Perception of our society and culture – scientific knowledge of what is sociology, anthropology, culture etc. Major role of these aspects in Interior Design and how they create design bound dimensions.

MODULE – V (CO3)

Various human elements of society – modernization and change in society, change in thought process and behavior patterns. Role of communication media in change patterns. Behavior patterns and its correlation to design elements. Perception of Indian value systems and assimilation of 'East & West'.

MODULE – VI (CO3)

Human being and his behavior in various public and private areas – change of patterns in various cultures. Human behavior in a group. Activities and its relationship with grouping of people
Assignment: Conceptual Space planning for public areas - restaurant, café, theatre lounge, waiting rooms, hotel foyer etc based on analysis of human behaviour and perception of space

Reference Books:

1. Bryan Lawson, Language of Space, Architectural Press, 2001.
2. Yi- Fu Tuan, Steven Hoelscher, Space and Place: The perspective of experience, University of Minnesota Press, 2001.
3. Setha. M. Low, Denise Lawrence – Zunigias, Anthropology of Space and place: Locating Culture, Wiley – Blackwell publishers, 2003.
4. Irwin Altman & Erwin. H. Zube, Public spaces and places, (Human Behavior and environment), Springer link, 1989.
5. Roger Downs, David Stea, Kenneth. E. Boulding, Image and environment, Transaction Publishers, 2005.

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
III	ID21B3O1	OPEN ELECTIVE-I	2	0	0	2	100	-	100

Course Overview

The topics of the open elective are displayed as per department discretion at the beginning of semester. Emerging topics will be introduced as open elective by each department of the university. The student can opt any of those electives which they feel would emphasize their academic/personal potential. The course is structured to understand and develop the skills of the open elective opted. The effective time span of the open elective will be decided and informed to students as per university norms.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
III	MC21B301	INDIAN CONSTITUTION (AICTE)	1	0	0	0	-	-	-

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To Know the background of the present constitution of India.	6, 7	1, 2
CO2	To Understand the working of the union, state and local levels.	6, 7	1, 2
CO3	To Gain consciousness on the fundamental rights and duties.	6, 7	1, 2
CO4	To understand the functioning and distribution of financial resources between the centre and states.	6, 7	1, 2
CO5	Be exposed to the reality of hierarchical Indian social structure and the ways the grievances of the deprived sections can be addressed to raise human dignity in a democratic way.	6, 7	1, 2
CO6	To understand the international relations of India with the surrounding Countries	6, 7	1, 2

MODULE – I (CO1)
Evolution of the Indian Constitution: 1909 Act, 1919 Act and 1935 Act. Constituent Assembly: Composition and Functions; Fundamental features of the Indian Constitution.
MODULE – II (CO2)
Union Government: Executive-President, Prime Minister, Council of Minister State Government: Executive: Governor, Chief Minister, Council of Minister Local Government: Panchayat Raj Institutions, Urban Government
MODULE – III (CO3)
Rights and Duties: Fundamental Rights, Directive principles, Fundamental Duties
MODULE – IV (CO4)
Relation between Federal and Provincial units: Union-State relations, Administrative, legislative and Financial, Inter State council, NITI Ayog, Finance Commission of India
MODULE – V (CO5)
Statutory Institutions: Elections-Election Commission of India, National Human Rights Commission, National Commission for Women
MODULE – VI (CO6)

India's External Relations: Cold War and Post-Cold War era.What is Foreign Policy? Basic Determinates of Foreign Policy Indian and its Neighbours India's Extended Neighbourhood in West Asia and South East Asia. India's relations with the United States and Russia. India and the World Organisations India in the 21st century

Reference Books:

1. D.D. Basu, Introduction to the constitution of India, Lexis Nexis, New Delhi
2. Subhash Kashyap, Our Parliament, National Book Trust, New Delhi
3. Peu Ghosh, Indian Government &Politics, Prentice Hall of India, New Delhi
4. B.Z. Fadia & Kuldeep Fadia, Indian Government &Politics, Lexis Nexis, New Delhi

SEMESTER – IV

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
IV	ID21B4S1	INTERIOR DESIGN STUDIO – II	1	0	9	10	100	100	200

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand spaces in urban context and be able to create concepts that will enhance the knowledge towards modernity.	1,2,4	2,3,6
CO2	To explore and create spatial design with respect to different eras.	1,2,4	2,3,6
CO3	To provide skills for designing medium scale interior spaces or products etc	1,2,4	2,3,6
CO4	To develop creative conceptual visualization, hand skill building.	1,2,4	2,3,6
CO5	To understand the Use of standards, functions of spaces and application	1,2,4	2,3,6

MODULE – I (CO1, CO2, CO3, CO4, CO5)

The primary focus should be on

i. Documenting space (sketch and photo documentation)
ii. Space planning process (block diagram, concept statement)
iii. Concept sketching
iv. Application of design principles and elements
v. Creativity /originality
vi. Design Process/methodology
vii. Structural integration
viii. Style
ix. Color Rendering
x. Anthropometry and ergonomics
xi. Furniture Design
xii. Material selection
xiii. Graphic design (page layout and composition)
xiv. Portfolio development

Design portfolio to include designs in response to today's situation of urban society, i.e., contemporary spaces required in modern society – needs, realities, value system etc. The spaces to be considered shall be: home, office, bank, school, college, public level spaces - restaurant, lounge (hotel), etc.

The list of suggested topics to be covered as design problems:

- Thematic space making with Art and craft forms of our own culture in India – East, West, North, Central and so on.

- Design of built units of various geographical locations and culture by involving historical periods, styles and use of craft in its inherent quality and form - integrating craft and living environment.

Note: At least 1 major exercise and 1 minor time problems should be given. Internal marking shall bedone in stages and project wise:

- Schematic layouts
- Final layout
- Sectional elevations

Designs & details Submission & marking of project work shall be done in stages for internals. In the end exam, which is a viva- voce the students have to present the entire semester work for assessment.

Reference Books:

1. Karlen Mark, Space planning Basics, Van Nostrand Reinhold, New York, 1992.
2. Joseph D Chiara, Julius Panero, & Martin Zelnick, Time Saver standards for Interior Design & space planning, 2nd edition, Mc-Graw Hill professional, 2001.
3. Francis.D. Ching & Corky Bingelli, Interior Design Illustrared, 2nd edition, Wiley publishers, 2004.
4. Julius Panero & Martin Zelnick, Human Dimension & Interior Space : Asource book of Design Reference standards, Watson – Guptill, 1979.
5. Maureen Mitton, Interior Design Visual Presentation: A Guide to Graphics, Models, and Presentation Techniques. John Wiley and Sons, 2003
6. Mark.W. Lin, Drawing and Designing with Confidence: A step-by-step guide, Wiley and Sons, 1993.
7. Robert Rengel, Shaping Interior Space, Fairchild Books & Visuals ,2002
8. Neufert Ernest, Architect's Data, Granada pub. Ltd. London, 2000.
9. John F. Pile, Ahistory of interior design, Laurence King Publishing, 2005.
10. Robin D. Jones, Interiors of Empire: Objects, Space and Identity within the Indian Subcontinent, Manchester University Press; illustrated edition, 2008.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
IV	ID21B4S2	INTERIOR WORKING DRAWINGS	1	0	3	4	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To create, compose sheets using different drawing tools on different mediums for interiors	1,2,6	2,3
CO2	To impart training in the preparation of working drawings	1,2,6	2,3
CO3	To understand working drawings	1,2,6	2,3

MODULE – I (CO1, CO2 & CO3)

Preparation of working drawings –Suitable scales of drawings, methods of giving dimensions and standards on plans, sections, elevations, details etc.

MODULE – II (CO2 & CO3)

Preparation of plans – Architectural plans, furniture layout floor plans with clearances, different level floor plans, and detailed floor plans of each room / space.

MODULE – III (CO2 & CO3)

Elevations and Sections – Detailed sectional elevations of all the walls in the interior with all the required dimensions and specifications.

MODULE – IV (CO3)

Details of all services – layouts for flooring, ceiling, electrical, plumbing, lighting, firefighting etc., toilet details, interior finishing details, material, color and texture details, fixture and fixing and joinery details.

MODULE – V (CO1)

Specifications writing – Writing detailed clause by clause specifications for materials pre and post execution, mode of measurements, manufacturers details and specifications etc.

MODULE – VI (CO1)

Manufacturer's specifications – Database of manufacturers specifications for the following materials based on surveys

Glass, plywood and laminates, hardware, electrical, wiring, accessories, plumbing fitting and fixtures, flooring, cladding etc.,

Note: Students shall prepare at least 3 working drawing sets, 1 major for a large public space & 2 minor/time problem for a small residence / for a small office / retail store / small restaurant .

The sets of working drawings required shall be:

- All level plans with 4 side aspects – room wise
- Detail of each item of furniture
- Electrical layout plan
- Sanitary layout plan,

- False ceiling plan
- Floor pattern,
- Typical door / window details, etc
- One minor set of WD shall be submitted as manual drawings and the rest by Computer Aided. Drawings

Reference Books:

1. Leibing. W. Ralph, Architectural Working Drawings, 4th edition, John Wiley and sons, New York 1999.
2. Macey. W. Frank, Specification in detail, 5th edition, Technical press ltd, London, 1955.
3. Shah, M.G.; and others, Building Drawing: An integrated approach to build environment, 3rd edition, Tata McGraw Hill Pub. Co. Ltd, New Delhi, 1996.
4. Fredd Stitt, Working Drawing Manual, McGraw-Hill Professional; 1st edition,1998.
5. Kilmer, Working Drawings and Details for Interiors, John Wiley and Sons.

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
IV	ID21B4C1	THEORY OF FURNITURE DESIGN	1	0	2	3	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the working of kitchen and storage access system.	1,5	2,5
CO2	To understand the basics of storage system design.	1,5	2,5
CO3	To understand the importance of modular systems to achieve volume of work.	1,5	2,5
CO4	To explore the use of various materials and its manufacturing process.	1,5	2,5
CO5	To understand the theories of design by various designers.	1,5	2,5

MODULE – I (CO1, CO2)

Functional and formal issues in design: study and evaluation of popular dictums such as "Form follows function", Form and function are one", "God is in Details", "Less is more" or "Less is bore" etc.

Evaluation of visual design: study of Gestalt theory of design – law of closure, law of proximity, law of continuity etc.

Typology of furniture with respect to the different states in India.

MODULE – II (CO1, CO2)

Human factors, engineering and ergonomic considerations: Principles of Universal Design and their application in furniture design. Evolution of furniture from Ancient to present: Various stylistic transformations. Furniture designers and movements.

MODULE – III (CO3, CO4)

Design approaches in furniture design. An introduction of various manufacturing processes most frequently adopted in furniture design such as Injection Molding, investment casting, sheet metal work, die casting, vacuum - forming etc.

Assignments: Survey of different types of molded or casted furniture available for different functions in the market

MODULE – IV (CO3, CO4)

Modular approach to furniture design – various materials, combination of materials, their hardware and applications. Cost criteria of furniture design.

Assignments: Survey of several modular systems available for different functions in the market

MODULE – V (CO4, CO5)

Furniture categories – role of furniture in interior design, exploration of the idea of furniture as elements of living units, education institutes, health facilities, street elements office, educational institutes, banks, stores, street furniture, etc.

Seating Design: Different types of seating with a focus on the following –

- Functionality

- Aesthetics
- Style

- Human factors and ergonomics
- The other component to be considered is the cost of the designed furniture piece.

Suggested Assignment: Design with wood, metal and combination of materials. Drawings, details. Market survey of available products and economics of products.

Design of furniture for upper middle, middle and lower middle income groups - elements of living units, educational institutes, health facilities, street elements etc.

Exploration of wood, metal, glass, plastics, FRP, etc as materials for furniture design – traditional and modular. Cost criteria of furniture design.

MODULE – VI (CO4,CO5)

Storage systems: Functional analysis of storage systems and thereby deriving types of cabinets needed for interior spaces – kitchen cabinets, wardrobes closets, book cases, show cases , display systems, compactors, mechanical storage, etc. and hardware for modular kitchen. Survey of several modular systems available for different functions in the market.

Suggested Assignment: Exercise to design kitchen cabinets for a given kitchen in details. End exam shall be a theory exam.

Reference Books:

1. Joseph Aronson, The Encyclopedia of Furniture: Third Edition ,1961
2. Bradley Quinn, Mid-Century Modern: Interiors, Furniture, Design Details, Conran Octopus Interiors, 2006.
3. Jim Postell, Furniture Design, Wiley publishers, 2007.
4. Edward Lucie-Smith , Furniture: A Concise History (World of Art) , Thames and Hudson, 1985
5. Robbie. G. Blakemore, History of Interior Design and Furniture: From Ancient Egypt to Nineteenth- Century Europe, Wiley publishers, 2005.
6. John.F. Pile, Interior Design, 2nd edition, illustrated, H.N.Abrams, 1995.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
IV	ID21B4C2	INTERIOR LANDSCAPE AND SIGNAGES	2	0	1	3	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand landscape design in built environment.	1,3	1,2,3
CO2	To understand the Plant biology.	1,3	1,2,3
CO3	To understand the principles of design w.r.t landscape	1,3	1,2,3
CO4	To understand indoor and outdoor linkage to spaces	1,3	1,2,3
CO5	To understand signage design	1,3	1,2,3

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MODULE – I (CO1,CO2)

Introduction and role of landscape design in the built environment. Types of natural elements – stones, rocks, pebbles, water forms, plants, and vegetation. Introduction to the study of plants in relation to landscape design and interiors.

MODULE – II (CO1,CO2)

Types of indoor plants, plant characteristics; size, biology, soil, moisture, light, nutrient, atmospheric conditions, growing medium, pests & diseases. Market survey & costs. Flowers, its colors, texture and its visual perception in various indoor spaces. Science of flower arrangement.

MODULE – III (C03)

Design with plants – Basic principles of designs Elements of interior landscape. The physical attribute of plants and relation to design. Interior landscape application for residential, commercial and other public use spaces.

MODULE – IV (CO3)

Design concepts related to using of sculpture, lighting, garden furniture, architectural feature and grouping them into meaningful compositions for visual and functional effects.

MODULE – V (CO4,CO5)

Landscaping design parameters for various types of built forms- indoor and outdoor linkage to spaces.
Landscaping of courtyards- residential and commercial forms. Indoor plants and their visual characteristics- Science of maintaining and growing greenery.
Automatic irrigation costing and installation of micro irrigation systems.

MODULE – VI (CO4, CO5)

Signage and Graphics – Environmental graphics: signage categories and materials.
Importance of signage design in Landscape.

A detailed study involving the design aspects of signage.

Reference Books:

1. Laurie, Michael, An Introduction to Landscape. 2nd edition, Prentice Hall, New Jersey, 1986.
2. Trivedi. P.Prathiba. Beautiful Shrubs. Indian council of AgriculturalResearch. New Delhi, 1990.
3. Hacheat, Blan. Plant Design.
4. Gerald Robert Vizenor , A Guide to Interior Landscapes, Univ of Minnesota Press, 1990.
5. Nelson Hammer and Mel Green, Interior Landscape Design, Mc Graw Hill, 1991.
6. Joseph DeChiara, Julius Panero, and Martin Zelnik Time-Saver Standards for Interior Design and Space Planning, 2nd edition, Mc-Graw Hill Professional,2001.
7. Andreas Uebele, Signage Systems and Information Graphics , Thames and Hudson, 2007
8. Craig Berger, Wayfinding: Designing and Implementing Graphic Navigational Systems, Rotovision, 2009.
9. Chris Calori, Signage and Wayfinding Design: A Complete Guide to Creating Environmental Graphic Design Systems, Wiley and sons, 2007.
10. David Gibson, The Wayfinding Handbook: Information Design for Public Places, Princeton Architectural Press; 1st edition, 2009.
11. Rayan Abdullah and Roger Hubner, Pictograms, Icons and Signs, Thames and Hudson, illustrated edition, 2006.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
IV	ID21B4C3	BUILDING SERVICES FOR INTERIOR DESIGN	2	0	1	3	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To impart knowledge required for understanding the building services of water supply.	1,3	1,2,3
CO2	To understand building sanitation, plumbing and their integration with architectural interior designs.	1,3	1,2,3
CO3	To understand waste management, etc.	1,3	1,2,3
CO4	To develop the knowledge and skills required for understanding the mechanical services like firefighting and HVAC	1,3	1,2,3
CO5	To understand the basic functions, layouts and conditions of the services in a building.	1,3	1,2,3

MODULE – I (CO1)

WATER SUPPLY

General idea of sources of water supply. Standards for quality of water. Domestic water systems, suction and storage tanks and their capacity. Pipes and their sizes and jointing. Consumption of water. Down take supply to various fittings

MODULE – II (CO2)

SANITARY FITTINGS

Types of fittings like taps, ball valves, hot water supply systems, bathtubs, showers, jets, cocks, valves etc. Faucets for kitchens, bathrooms and toilets. Check valves, foot valves, sump pump check valves

MODULE – III (CO3)

SANITATION

Basic principles of sanitations and disposal of waste materials from buildings. Connection to outdoor drainage system, size requirements, types of pipes available in the market and their joining.

Bathroom interior layouts, extensive market survey of products available, and different flushing systems.

Waste management: Refuse, different forms of refuse garbage, house refuse, refuse chutes, rainwater harvesting etc.

MODULE – IV (CO4)

Heating Ventilation & Air Conditioning (HVAC) systems: Air conditioning, Mechanical ventilation – mechanical inlet and extraction systems. Functions of air conditioning, Principles of AC.

Types of AC systems – window AC, split, duct, central AC and their details. Air distribution systems – ducts, air inlets.

Fire – causes and spread of fire. Design considerations for fire safety, Devices for firefighting – portable, built-in wet riser system, sprinkler system, fire hydrant. Class of fire and occupancy, study of fire regulations as per NBC

MODULE – V (CO5)

Electrical Installations: Building wiring system. Service wires, metering distribution boards, circuits, MCB cutouts. Conductors, wiring methods, switch boards, electrical devices in the buildings, light and power circuits. Indian electricity rules, relevant provisions of NBC.

Preparation of electrical layout scheme for a interior using standard electrical symbols

MODULE – VI (CO5)

Services for multi storied buildings - Vertical transportation systems – Introduction – lifts, escalators-vertical & horizontal, definition, location, arrangement, structure, drives, traffic analysis, supervisory control, remote monitoring.

Reference Books:

1. Hussain S.K, T.B of water supply and sanitary engineering, 3rd edition, Oxford and IBH pub. Ltd., New Delhi, 1994
2. Kshirsagar, S. R, Water supply engineering, 6th ed, Roorkee publications, 1980.
3. Rangwala, S.C. water supply and Sanitary Engineering: Environmental Engineering, 19th ed, Charotar pub house, Anand, 2004.
4. Electrical wiring and contracting (vol. 1 to vol.4), London. The New era Publishing Company.
5. Dr Frith Abnwos and others, Electrical Engineering hand book.
6. William. J. Guinness, Mechanical and Electrical Systems for Buildings, New York: Mc Graw Hill.
7. Faber, Oscar and Kell, J.R. Heating and Air conditioning of Building. Architectural Press, surrey, 1945.
8. Prasad Manohar, Refrigeration and air-conditioning. 5th ed, New Age Intl. pub, New Delhi, 1996.
9. Derek Clements-Croome, Derek J. Croome, Intelligent buildings: Design, Management and Operation, Thomas Telford Books, London, 2004.
10. Albert Ting-pat So, Wai Lok Chan, Intelligent Building Systems, Kluwer Academic Publishers, 1999.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
IV	ID21B4E1	TRADITIONAL / ARTS AND CRAFTS OF INDIA	3	0	0	3	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	Understand belief, culture and materials and its influence on arts and crafts of India	8	1,2,6
CO2	Focus on how arts and crafts in India evolved as concept and as various expressions in Design.	8	1,2,6
CO3	To understand the link between traditional and modern arts and crafts	8	1,2,6
CO4	To understand the art forms in different states of India	8	1,2,6
CO5	Emphasize on the role of craft and technology in the discipline of interior Architecture	8	1,2,6

MODULE – I (CO1, CO2, CO3, CO4, CO5)

Introduction to Arts and Crafts – Application in interiors, Purpose of adapting crafts in the elements of interiors.

Understanding the Relevance of Arts and crafts design elements to Interiors with examples w.r.t different states.

Example:

Rajasthan-Varied Perspectives on Art and Crafts - Blue pottery and its application in interior design,

Andhra Pradesh- Introduction to traditional arts and crafts -The Bidri Craft, Bronze castings

MODULE – II (CO1, CO2, CO3, CO4, CO5)

Wall, and ceiling –motif and patterns used. Understanding metal work-bidriware, lacquer toys etc Carvings paintings, ceramic and tile work with an example.

Traditional designs and motifs used on interior surfaces-Floor, wall ceiling with examples. Karnataka-Introduction to traditional arts and crafts-stone, woodcarving, Glass work, Inlay work, mirror work application in interior.

MODULE – III (CO1, CO2, CO3, CO4, CO5)

Techniques developed in art, craft and design. Materials developments in art, craft and design.

Enamel work, mirror mud work, application of natural fibers in interior spaces, Natural fiber craft-sisal, Cora grass, screw pine, golden grass, and its application in interior.

MODULE – IV (CO1, CO2, CO3, CO4, CO5)

Motifs used on objects -metal ware., wood crafts etc, Kerala- Introduction to traditional arts and crafts -Chinese Ceramics, Brass-Inlay Casket.

Motifs used on objects including pottery and stone with photographs and images Accessories - Urulis, Teapots,

Tin Candle Stands, Bells and Lamps. Establishing Inter- Relationships and Exploring Applications of architecture elements like- Jails and jherokha.
MODULE – V (CO4, CO5)
Wall mural and its application, methods of installation the Wall mural. Contemporary techniques and materials application of art, crafts in design.
MODULE – VI (CO4, CO5)
Ancient Indian Crafts in Modern interior Design, Application of Indian Crafts in Modern interior with Images and photographs.

References Books:

1. Coles, J and House, N. "The Fundamentals of Interior-Architecture", Ava Publishing, 2007
2. Hudson, J. "Interior-Architecture Now", Laurence King Publishers, 2007
3. Parmar, V.S. "Wood Carvings of Gujarat", Pub. Division, Ministry of Information and Broadcasting, Govt. of India, 2001, New Delhi
4. Ranjan, Aditi and Ranjan, M.P. (Ed.) "Crafts of India: Handmade in India", Council of Handicraft Development Corporations (COHANDS), New Delhi, Development Commissioner (Handicrafts), New Delhi, National Institute of Design (NID), Ahmedabad, and Mapin Publishing, Ahmedabad, 2005
5. Pandya, Yatin. "Concepts of Space Making in Traditional Indian Architecture", MapinPub.Pvt.Ltd., Ahmadabad, 2005
6. Contemporary crafts in the interior architecture of Geoffrey Bawa

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
IV	ID21B4E2	THEORY OF AESTHETICS & DESIGN	3	0	0	3	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the importance of design and aesthetics in interiors.	1,4	2,4
CO2	To understand the social and economic aspects of interiors.	1,4	2,4
CO3	To understand the elements of aesthetics.	1,4	2,4
CO4	To understand the visual aesthetics and colour theory	1,4	2,4
CO5	To understand the applications of elements in interior design	1,4	2,4

MODULE – I (CO1, CO2)

Defining design and aesthetic - Design's purpose, importance of aesthetics and response to interiors, various sectors of design - The nature of good design Theoretical foundations for all current design disciplines are discussed.

MODULE – II (CO1, CO2)

Social and economic aspects of aesthetical interiors. Functionality vs aesthetics, Principles and vocabulary of design – Balance, symmetry, contrast, rhythm, harmony, unity, scale, proportion etc.,

MODULE – III (CO3, CO4)

Space: elements of space making and their combinative principles

Form: elements of form and the resultant configurations

Scale: Human scale & its manifestations. Qualifiers of space & form: light, color, material & texture.

MODULE – IV (CO3, CO4)

Visual aesthetics: balance, color, movement, pattern, scale, shape and visual weight.
Issues of idea & theme as ordering mechanisms – of space, material, form, color & light. Perception and response to visual phenomena.

MODULE – V (CO1, CO4)

Design related cognitive learning. Color theory & application to the interior environment, principal color systems, methods of color harmony. Appreciation of various arts; painting, murals sculpture, architecture etc. Interior Design in the context of other arts.

MODULE – VI (CO1, CO4)

Understanding of Texture through presentation of spaces, relationship between the elements of interior design, understanding of the design process through example Interior spaces, Understanding of space through design criteria.

Reference Books:

1. Jonathan Pore, Interior Color by Design, Volume 2: A design tool for Home owners, Designersand Architects, Rockport publishers, 2005.
2. Ethel Rompilla, Color for Interior Design, Harry N. Abrams, 2005.
3. Itten, Johannes. Design and Form: The basic course at the Bauhaus, Thames and Hudson

Ltd., London 1997.

4. Krier, Rob. Architectural Composition, Academy Editions, London, 1988.
5. Meiss, pierre Von. Elements of Architecture: Form to place, E and FN Spon, London, 1992.
6. Johanness Itten, The Art of Colour.
7. Pipes, Alan. Drawing for 3-Dimensional

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
IV	ID21B4O1	OPEN ELECTIVE-II	2	0	0	2	100	-	100

Course Overview

The topics of the open elective are displayed as per department discretion at the beginning of semester. Emerging topics will be introduced as open elective by each department of the university. The student can opt any of those electives which they feel would emphasize their academic/personal potential. The course is structured to understand and develop the skills of the open elective opted. The effective time span of the open elective will be decided and informed to students as per university norms.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
IV	ID21B4K1	ADVANCED COMMUNICATION SKILLS	0	2	0	2	100	-	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To develop various elements of soft and effective communication skills.	9,10, 12	2, 3,6

Advanced communication skills (including laboratory)

The student must learn **Soft skills and Advanced communication skills (including laboratory)** which can be dealt by course instructor allotted by the department head.

Suggested Input Learnings:

- **Soft skills:**
  - JAM
  - Oral Presentation
  - Group Discussion
  - Debate
  - Role Play

- **Advanced Communication Skills Laboratory:**
  - Listening Skills
  - Note Taking/Note making
  - Resume/CVV writing
  - PPT slides
  - Interview Skills- Mock Interview/ Public speaking

Note:

Marks can be awarded based on internal assessment such as submissions, performance, viva voce etc.
Total marks:100

- 50M - Day to day performance, Record, Viva, Attendance &
- 50M –{soft skills- 25M (Write up - 10M, Performance - 15M) , AELCS- 25M (Write up – 10M, Performance – 15M)}

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
IV	MC21B401	ESSENCE OF INDIAN TRADITIONAL KNOWLEDGE (AICTE)	1	0	0	0	-	-	-

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To Identify the concept of Traditional knowledge and its importance.	6, 7	1, 2
CO2	To Explain the need and importance of protecting traditional knowledge.	6, 7	1, 2
CO3	To Illustrate the various enactments related to the protection of traditional knowledge.	6, 7	1, 2
CO4	To Interpret the concepts of Intellectual property to protect the traditional knowledge.	6, 7	1, 2
CO5	To Explain the importance of Traditional knowledge in Agriculture and Medicine.	6, 7	1, 2
CO6	To understand the importance of Indian ancient education system and benefits	6, 7	1, 2

MODULE – I (CO1)

Introduction to traditional knowledge: Define traditional knowledge, nature and characteristics, scope and importance, kinds of traditional knowledge, Indigenous Knowledge (IK), characteristics, traditional knowledge vis-a-vis indigenous knowledge, traditional knowledge Vs western knowledge traditional knowledge.

MODULE – II (CO2)

Legal framework and TK: The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, Plant Varieties Protection and Farmer's Rights Act, 2001 (PPVFR Act); The Biological Diversity Act 2002 and Rules 2004, the protection of traditional knowledge bill, 2016.

MODULE – III (CO3)

Protection of traditional knowledge: The need for protecting traditional knowledge Significance of TK Protection, value of TK in global economy, Role of Government to harness TK.

MODULE – IV (CO4)

Traditional knowledge and intellectual property: Systems of traditional knowledge protection, Legal concepts for the protection of traditional knowledge, Patents and traditional knowledge, Strategies to increase protection of traditional knowledge.

MODULE – V (CO5)

Traditional Knowledge in Different Sectors: Traditional knowledge and engineering, Traditional medicine system, TK in agriculture, Traditional societies depend on it for their food and healthcare needs, Importance of conservation and sustainable development of environment, Management of biodiversity,
Food security of the country and protection of TK

MODULE – VI (CO6)

Education System in India: Education in ancient, medieval and modern India, aims of education, subjects, languages, Science and Scientists of Ancient India, Science and Scientists of Medieval India, Scientists of Modern India.

Text books:

1. Traditional Knowledge System in India, by Amit Jha, 2009.
2. Narain, “Examinations in ancient India”, Arya Book Depot, 1993
3. Satya Prakash, “Founders of Sciences in Ancient India”, Vijay Kumar Publisher, 1989
4. M. Hiriyanna, “Essentials of Indian Philosophy”, Motilal Banarsidass Publishers, ISBN 13: 978- 8120810990, 2014

Reference Books:

1. "Knowledge Traditions and Practices of India" Kapil Kapoor1, Michel Danino2.
2. “Science in Samskrit”, Samskrita Bharti Publisher, ISBN 13: 978-8187276333, 2007
3. Kapil Kapoor, “Text and Interpretation: The India Tradition”, ISBN: 81246033375, 2005
4. “Science in Samskrit”, Samskrita Bharti Publisher, ISBN 13: 978-8187276333, 2007
5. NCERT, “Position paper on Arts, Music, Dance and Theatre”, ISBN 81-7450 494-X, 200
6. Narain, “Examinations in ancient India”, Arya Book Depot, 1993
7. Satya Prakash, “Founders of Sciences in Ancient India”, Vijay Kumar Publisher, 1989
8. M. Hiriyanna, “Essentials of Indian Philosophy”, Motilal Banarsidass Publishers, ISBN 13: 978- 8120810990, 2014

SEMESTER – V

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
V	ID21B5S1	INTERIOR DESIGN STUDIO – III	1	0	9	10	100	100	200

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand projects of commercial value with a theme	1,3,4	2,3,6
CO2	To explore and create spatial design with respect to various genres	1,3,4	2,3,6
CO3	To understand spaces and be able to create concepts that will enhance the knowledge towards modernity	1,3,4	2,3,6

MODULE – I (CO1, CO2 & CO3)

Introduction to Design: The primary focus should be on –

- Introduction to building codes
- Way finding, Signage and graphics
- Universal Design, Accessible design, Design for the Disabled
- Materials, furniture and finish selections
- Construction detailing
- Ergonomics and Human Factors
- Digital representation (3D modeling)
- Space planning process
- Color psychology
- Interior environmental control issues
- Rendering

The list of suggested topics to be covered as design problems:

- Retail Design – clothing outlets, boutiques, medical, musical, etc
- Healthcare Design – hospitals, poly clinic, multi-specialty nursing homes, crèches, geriatric care facility, etc.
- Office systems - Institutional spaces in urban & semi-urban contexts – like: library, corporate office, software office, etc.
- Mobile units – buses, cars, railway coaches, boats, metro rail, etc

Design issues in addition to the primary focus for the above are statement of institutional character, creation of a corporate identity through interior environmental responses to site and context, integration of interior architectural elements to other interior elements, interpretation of institutional activities and their spatial correlation.

Note: At least 1 major exercise and 1 minor design/time problems should be given to be drafted

manually.

Internal marking shall be done in stages project wise:

- Schematic layouts
- Final layout
- Sectional elevations
- Full project with all details

In the end exam, which is a viva-voce the students have to present the entire semester work for assessment by the external jury.

Reference Books:

2. Karlen Mark, Space planning Basics, Van Nostrand Reinhold, New York, 1992.
3. Joseph D Chiara, Julius Panero, & Martin Zelnick, Time Saver standards for Interior Design & space planning, 2nd edition, Mc-Graw Hill professional, 2001.
4. Francis.D. Ching & Corky Bingelli, Interior Design Illustrared, 2nd edition, Wiley publishers, 2004.
5. Julius Panero & Martin Zelnick, Human Dimension & Interior Space: A source book of Design Reference standards, Watson – Guptill, 1979.
6. Maureen Mitton, Interior Design Visual Presentation: A Guide to Graphics, Models, and Presentation Techniques. John Wiley and Sons, 2003
7. Mark.W. Lin, Drawing and Designing with Confidence: A step-by-step guide, Wiley and Sons, 1993. Robert Rengel, Shaping Interior Space, Fairchild Books & Visuals, 2002
8. Neufert Ernest, Architect's Data, Granada pub. Ltd. London, 2000.
9. Maryrose McGowan & Kelsey Kruse, Interior Graphic Standards, Wiley and sons, 2004.
10. Robert F. Erlandson, Universal and Accessible Design for Products, Services, and Processes, CRC; 1st edition, 2007.
11. Oliver Herwig & L. Bruce, Universal Design: Solutions for Barrier-free, Birkhäuser Basel; 1st edition, 2008

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
V	ID21B5S2	ESTIMATION & PROJECT MANAGEMENT	1	0	2	3	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand management of the projects based on time and budget	5,11,12	2,4,5
CO2	To understand methods for working out quantities and costs to make an estimate of the project with all specifications	5,11,12	2,4,5
CO3	To impart preparing schedules of time and budget for the projects to execute Efficiently	5,11,12	2,4,5

MODULE – I (CO1)

Measurements – types of measurements, modes of measurements: methods of taking out quantities, preparation of schedule or bill of quantities. The rate of analysis for various items involved in the interior design. Data collection for interior works.

MODULE – II (CO2)

Specifications – Definition, purpose & importance of Specifications, general or brief specifications, detailed specifications, writing of specifications for interior works. Explore the various specifications of material.

MODULE – III (CO2)

Rate analysis of various items of work – preparation of various items of work in the interior works.

Estimating interior items manually and through spreadsheet programs, types of estimates, abstract and detailed estimates for interior works.

MODULE – IV (CO2 & CO3)

Introduction to project management for interior works – Definitions and meanings, Importance, Reasons or shortfall in its performance, Planning and control. Introduction to project management strategies

MODULE – V (CO3)

Project organization: matrix organization, task forces, And project teams: monitor and control of project.

Project management strategies: Introduction to Tools and techniques for project management, new techniques of management by objectives (MBO).

MODULE – VI (CO2 & CO3)

Development of project network : Introduction to PERT and CPM. Difference between PERT & CPM.

Methods of Scheduling - Integrated reporting system, flow diagrams, bar charts, milestone charts, GHANTT chart. An overview of Techniques of monitoring of development works.

Reference Books:

1. Carol Simpson, Estimating for Interior Designers, Watson Guptill, Rev. Sub edition, 2001.
2. Carol E Farren, Planning and Managing Interior projects, Robert Snow Means Company, 2000.
3. Barbori Balboni, Interior Cost Data, R.S. Means company, 2001.
4. Harold Kerzner, Project Management : A systems approach to planning, scheduling and controlling, 2006

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
V	ID21B5C1	CLIMATOLOGY AND THERMAL COMFORT	2	0	0	2	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To equip the students with the basic understanding of climatic types in India and the impact on requirements of Interior design	10	1,2
CO2	To introduce them for planning for day lighting, familiarize them with the data, methods, principles, standards and tools for planning and designing of lighting for visual comfort	10	1,2
CO3	To impart scientific interior design of a built space as related to climate, particularly to tropical climates as found in India by giving importance for human comfort in interior spaces through natural elements.	10	1,2

MODULE – I (CO1)

Introduction – Climate and built form interaction: Earth and Global Climate: Introduction to climatology

- Movement of earth around sun,
- Elements of climate (Wind, temp, humidity, precipitation, pressure). Implications of climatic forces in nature of spaces and forms.
- Climatic zones of the world
- Ecological balance

MODULE – II (CO3)

Climatic Zones – Study of the different climatic zones of India (Hot –dry, Hot-Humid, Composite, Cold-dry, Cold-humid) along with data analysis.

Study measurement and analysis of micro climatic elements and its use for a Designer.

MODULE – III (CO2)

Thermal comfort and heat flow – Thermal comfort factors, physiological and aspects.

- Body heat balance
- Physiological comfort - indoors,
- heat flow within buildings
- steady state conditions and periodic flow
- Thermal performance of indoor building elements.

MODULE – IV (CO2)

Introduction to basics of:

- comfort diagrams thermal units
- theory of heat flow heat transmission thermal properties of materials
- Introduction and objectives of solar passive design.

Introduction to Passive Solar heating system (direct gain, indirect gain, isolated gain)

MODULE – V (CO2)

Wind Control – Orientation for Wind, path of wind – with special reference to the seasonal wind & prevailing wind pattern in India and its relation to a built space

Solar – Introduction to Passive solar heating & cooling (direct solar radiation, convective cooling, conductive cooling, evaporative cooling system)

Reference Books:

1. Markus, T.Aand Morris. E.N. Buildings. Climate and Energy, Pitman Pub Ltd., London, 1980.
2. Kukreja. C.P. Tropical Architecture. Tata McGraw Hill Pub. Co. Ltd. New Delhi, 1978
3. KoeinsbergeRer, O.H. and others, Manual of Tropical Housing and Building. OrientLongman, Chennai, 2003.
4. Konya Allan, Design for Hot Climates.
5. Kukreja. C.P. Tropical Architecture. Tata McGraw Hill Pub. Co. Ltd. New Delhi, 1978.
6. Markus, T.Aand Morris. E.N. Buildings. Climate and Energy, Pitman Pub Ltd., London, 1980.
7. Poella. L. Leslie, Environmental Acoustics.
8. Moore J.E., Design of good acoustics, the architectural press, London, 1961.
9. Burris, Harold, Acoustics for Architect.

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
V	ID21B5C2	BASICS OF STRUCTURAL DESIGN	2	0	0	2	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand various built elements used in the building construction.	2,3,4	2,6
CO2	To understand the concept of structural systems in building and their importance in load transfer	2,3,4	2,6
CO3	To be familiar with the loads acting on building	2,3,4	2,6
CO4	To understand behavior of buildings during the action of various loads acting on it.	2,3,4	2,6
CO5	To describe the structural properties of materials used in the building.	2,3,4	2,6

MODULE – I (CO1)

Introduction to built elements – study of built elements in the interiors with respect to materials used. Basic construction methods and general specifications. General types and classification of different types of buildings: overview of different functional, structural and architectural elements.

MODULE – II (CO1)

Introduction to basic structural systems, elements of structure, their functions and behavior, beams, slabs, columns, walls, foundations, frame structures, composite structures, load bearing wall systems, trusses, rigid frames, linear and curved elements, simply supported, cantilever and overhanging beams for various loads.

MODULE – III (CO1,CO2)

Construction of elements like lintels, sunshades, staircases, arches – parts, types, types of columns – RCC, fabricated, built-up brick column, floating column, etc. Primary and secondary forces acting on the structures – gravitational force, live load, wind.

MODULE – IV (CO3, CO4)

Characteristic requirements of a structural design – stress and strains, strength, stiffness and stability. Discussion on factors affecting them and the ways of satisfying these requirements.

MODULE – V (CO4, CO5)

Structural properties of basic materials like masonry, timber, concrete and steel etc. Light weight space structure, small- and large-scale surface structure.

MODULE – VI (CO4 CO5)

Structural systems and their layout for a small building. Structural systems for elements of interior spaces – false ceilings, false flooring, suspended floors & ceilings, etc. Structural system for urban interior spaces – Awnings, space frames, etc.

Reference Books:

1. Rowland J. Mainstone : Development of Structural Form
2. Rangwala : Engineering Materials
3. S.P.Bindra, S.P.Arora, Building Construction
4. B.C. Punmia : Strength of Materials vol - I

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
V	ID21B5K1	SKILL ORIENTED COURSE 3 - INTEGRATED PROJECT WORK	0	0	2	2	100	-	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To produce a project feasibility report for the specific design undertaken in the design studio	3,4,8	1,2,4
CO2	To sensitize the student to the technical and socio-economic feasibility of the design project	3,4,8	1,2,4
CO3	To analyze a design project for technical and socio-economic feasibility	3,4,8	1,2,4

MODULE – I CO1, CO2, CO3

The report may consist of the following -

- Environmental impact assessment of the project following the standards and specifications
- Socio-economic appraisal of the project and the design considering factors such as behavioral aspects, security considerations, costs for different user groups, aesthetic preferences etc.
- Technical feasibility – through execution and detailing of different spaces and elements of design, checking the feasibility of layout for service systems and specifications
- Costing of the project – bill of quantities, schedule of rates, specifications etc. economic viability and financial viability
- Space planning aspects/ issues – user activity spaces, access to physically challenged, fire safety, other services, green rating etc.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
V	ID21B5P1	CRITICAL RESEARCH SEMINAR	1	0	2	2	100	-	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To produce a project feasibility report for the specific design undertaken in the design studio	3,4,8	1,2,4
CO2	To sensitize the student to the technical and socio-economic feasibility of the design project	3,4,8	1,2,4
CO3	To analyze a design project for technical and socio-economic feasibility	3,4,8	1,2,4

MODULE – I CO1, CO2, CO3

- Research Methods: Introduction to the nature & purpose of research and its role in problem solving and theory in the field of interiors.

- Discussion of various principles & approaches to research. Suggested areas for research 1. Studies of Indian art & craft. Influence of location, tradition, culture and socio-economic development on art & craft in rural & urban India.

1. Visit to traditional craft pockets, documenting people, life, culture & craft and understand the materials, tools, technology, processes and forms. Suggest suitable changes in technology to improve the products so as to make it acceptable in today's context.
2. Studies of the work of different interior designers through observation, interview and research. Understanding of the concepts of space, structure, organization, symbolism, form, colour, modes of presentation etc.
3. The student may choose any other area of interest in consultation with the concerned faculty for research. The study would be presented as a term paper with supporting illustrations. It will be periodically reviewed and presented as a seminar for final assessment

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
V	ID21B5E1	VISUAL MERCHANDISING	3	0	0	3	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To various technical aspects of retail design and visual merchandising	3,8,9	1,2,4
CO2	To equip the knowledge about the technical aspects of retail design and visual merchandising.	3,8,9	1,2,4
CO3	To equip the students with skills required for preparation of store layouts.	3,8,9	1,2,4

MODULE – I CO1

Introduction to Visual Merchandising. The History of Visual Merchandising, Role of a visual Merchandiser, The Visual Merchandiser's Studio, The day-to-day responsibilities of a Visual Merchandiser. Overview of Visual merchandising of Departmental Stores, multiple chain stores and small retail outlets.

MODULE – II CO2

Store Design: Introduction to store design and its importance in retail success. Store layout and zoning for successful visual merchandising. Techniques for creating effective store layouts. Importance of Product Presentation.

MODULE – III CO2

Windows: Understanding the window sizes and technical aspects involved, Types of windows, planning a window display, budgeting. Principles needed to create a impactful and inspiring shopping experience. Understanding window display trends on the high Mannequin styling & dressing principles.

MODULE – IV CO3

Designing a window display: Layout, props, Signage, Graphics, colour and lighting. Window prepping, installing the window display. Presentation on how to effectively use Colour, lighting and graphics within window display.

MODULE – V CO1 & CO3

In-Store Visual Merchandising: Product Adjacencies, Floor Layouts, Fixtures, Wall Fixtures, Product Handling, Trend areas, Point of Purchase and add-on sales. A presentation discussing case study examples of the process of planning and installing "Pop up stores"

MODULE – VI CO1

Topics related to the store space and product placement, such as:

- Store design technics
- Analyze and integrate a brand's identity in retail
- The importance of impactful shopping experience in a digital era
- Develop a store layout and learn tactics to create sections
- Understand customer behavior and how to build a costumer flow in the store space
- How to choose fixtures to improve profitability
- Understand ergonomic's impact in sales

Reference Books:

1. Tony Morgan, 'Visual Merchandising: Window and in-store displays for retail', Laurence King Publishing, 2011.
2. Swati Bhalla, Anurag S, 'Visual Merchandising', Tata McGraw Hill Education Pvt. Ltd. 2010.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
V	ID21B5E2	FURNITURE DESIGN AND DETAILING	3	0	0	3	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To provide hands on working with materials used for the production of furniture.	5,6,9	2,3,6
CO2	To Understanding the process that is involved from the pre- design to the finishing of furniture.	5,6,9	2,3,6
CO3	To give an exposure to the materials and introduce various tools and techniques & processes in making furniture.	5,6,9	2,3,6
CO4	Ability to make products and elements of various scales for interiors	5,6,9	2,3,6

MODULE – I (CO1,CO2)

Introduction – Use of anthropometry, ergonomics, and handling of space and application of knowledge gained from other subjects, and design a piece of furniture

MODULE – II (CO2, CO3 & CO4)

Design approach – Design approach with limited constraints inherent in furniture design. Evolving the strategy of design with integration of technical complexities and lifestyle influences

MODULE – III (CO3 & CO4)

Development of the design – Design development of a furniture piece to specific interiors and prevailing trends. Broad based approach towards innovative design and application to multi products and multi materials in manufacturing interior products and lifestyle accessories.

MODULE – IV (CO2)

Making of the furniture – Making of the furniture in various scales – a scaled model, template

Prototype making

Design & execute a piece of furniture – Design and execute a piece of furniture with wood or metal or combination of materials. Drawings, details, templates and prototype of the same piece of furniture with detailed study and documentation

Reference Books:

1. Laura Slack, What is product Design? Roto Vision publishers, 2006
2. Treena Crochet and David Vleck, Designer's Guide to Decorative Accessories, Prentice Hall, Ist edition, 2008.
3. Michael Ashby, Kara Johnson, Materials and Design: The Art and Science of material selection in product design, Butter worth Heinemann, 1st edition, 2002.
4. International Design Yearbook, 1995: Furniture, Lighting, Tableware, Textiles and Products, Books Nippan, 1996.
5. Karl. T. Ulrich, Steven D. Eppinger, Product Design and Development, McGraw-Hill

Education Singapore; 4th edition, 2007

6. William Lidwell, Kritina Holden, Jill Butler ,Universal principles of Design

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
V	ID21B5O1	OPEN ELECTIVE -III	2	0	0	2	100	-	100

Course Overview

The topics of the open elective are displayed as per department discretion at the beginning of semester. Emerging topics will be introduced as open elective by each department of the university. The student can opt any of those electives which they feel would emphasize their academic/personal potential. The course is structured to understand and develop the skills of the open elective opted. The effective time span of the open elective will be decided and informed to students as per university norms.

Open elective topic has been mentioned in annexure

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
V	ID21B5CSP	Community Service Project	(During Vacation) 180 hours			4	100	-	100
COs	Course Outcomes							POs	BLTs
	The student will be able to								
CO1	Involve in community development and service activities and applies the experience to personal and academic development.							2, 9, 10	2,3

Introduction:

- Community Service Project is an experiential learning strategy that integrates meaningful community service with instruction, participation, learning and community development.
- Community Service Project involves students in community development and service activities and applies the experience to personal and academic development.
- Community Service Project is meant to link the community with the college for mutual benefit. The community will be benefited with the focused contribution of the college students for the village/ local development. The college finds an opportunity to develop social sensibility and responsibility among students and also emerge as a socially responsible institution.

Objective:

Community Service Project should be an integral part of the curriculum, as an alternative to the 2 months of Summer Internships / Apprenticeships / On the Job Training, whenever there is an exigency when students cannot pursue their summer internships.

The specific objectives are;

- To sensitize the students to the living conditions of the people who are around them,
- To help students to realize the stark realities of the society.
- To bring about an attitudinal change in the students and help them to develop societal consciousness, sensibility, responsibility and accountability.
- To make students aware of their inner strength and help them to find new /out of box solutions to the social problems.
- To make students socially responsible citizens who are sensitive to the needs of the disadvantaged sections.
- To help students to initiate developmental activities in the community in coordination with public and government authorities.
- To develop a holistic life perspective among the students by making them study culture, traditions, habits, lifestyles, resource utilization, wastages and its management, social problems, public administration system and the roles and responsibilities of different persons across different social systems.

Implementation of Community Service Project:

- Every student should put in a 6 weeks for the Community Service Project during the summer vacation.
- Each class/section should be assigned with a mentor.
- Specific Departments could concentrate on their major areas of concern.
- A log book has to be maintained by each of the student, where the activities undertaken/involved to be recorded.

- The logbook has to be countersigned by the concerned mentor/faculty incharge.
- Evaluation to be done based on the active participation of the student and grade could be awarded by the mentor/faculty member.
- The final evaluation to be reflected in the grade memo of the student.
- The Community Service Project should be different from the regular programmes of NSS/NCC/Green Corps/Red Ribbon Club, etc.
- Minor project report should be submitted by each student. An internal Viva shall also be conducted by a committee constituted by the principal of the college.
- Award of marks shall be made as per the guidelines of Internship/apprentice/ on the job training.

Procedure

- A group of students or even a single student could be assigned for a particular habitation or village or municipal ward, as far as possible, in the near vicinity of their place of stay, so as to enable them to commute from their residence and return back by evening or so.
- The Community Service Project is a twofold one –
  - First, the student/s could conduct a survey of the habitation, if necessary, in terms of their own domain or subject area. Or it can even be a general survey, incorporating all the different areas. A common survey format could be designed. This should not be viewed as a duplication of work by the Village or Ward volunteers, rather, it could be another primary source of data.
  - Secondly, the student/s could take up a social activity, concerning their domain or subject area. The different areas, could be like –

Agriculture	Law & Order
♣ Health	♣ Excise and Prohibition
♣ Marketing and Cooperation	♣ Mines and Geology
♣ Animal Husbandry	♣ Energy
♣ Horticulture	♣ Internet
♣ Fisheries	♣ Free Electricity
♣ Sericulture	♣ Drinking Water
♣ Revenue and Survey	♣ Irrigation
♣ Natural Disaster Management	

EXPECTED OUTCOMES

BENEFITS OF COMMUNITY SERVICE PROJECT TO STUDENTS

Learning Outcomes

- Positive impact on students' academic learning
- Improves students' ability to apply what they have learned in "the real world"
- Positive impact on academic outcomes such as demonstrated complexity of understanding, problem analysis, problem-solving, critical thinking, and cognitive development
- Improved ability to understand complexity and ambiguity.

Personal Outcomes

- Greater sense of personal efficacy, personal identity, spiritual growth, and moral development
- Greater interpersonal development, particularly the ability to work well with others, and build leadership and communication skills.

Social Outcomes

- Reduced stereotypes and greater inter-cultural understanding.
- Improved social responsibility and citizenship skills.

- Greater involvement in community service after graduation.

Career Development

- Connections with professionals and community members for learning and career opportunities.
- Greater academic learning, leadership skills, and personal efficacy can lead to greater opportunity.

Relationship with the Institution

- Stronger relationships with faculty.
- Greater satisfaction with college.
- Improved graduation rates.

BENEFITS OF COMMUNITY SERVICE PROJECT TO FACULTY MEMBERS

- Satisfaction with the quality of student learning.
- New avenues for research and publication via new relationships between faculty and community.
- Providing networking opportunities with engaged faculty in other disciplines or institutions.
- A stronger commitment to one's research.

BENEFITS OF COMMUNITY SERVICE PROJECT TO COLLEGES AND UNIVERSITIES

- Improved institutional commitment.
- Improved student retention.
- Enhanced community relations.

BENEFITS OF COMMUNITY SERVICE PROJECT TO COMMUNITY

- Satisfaction with student participation.
- Valuable human resources needed to achieve community goals.
- New energy, enthusiasm and perspectives applied to community work.
- Enhanced community-university relations.

SUGGESTIVE LIST OF PROGRAMMES UNDER COMMUNITY SERVICE PROJECT

The following the recommended list of projects for Engineering students. The lists are not exhaustive and open for additions, deletions and modifications. Colleges are expected to focus on specific local issues for this kind of projects. The students are expected to carry out these projects with involvement, commitment, responsibility and accountability. The mentors of a group of students should take the responsibility of motivating, facilitating, and guiding the students. They have to interact with local leadership and people and appraise the objectives and benefits of this kind of projects. The project reports shall be placed in the college website for reference. Systematic, Factual, methodical and honest reporting shall be ensured. For Engineering Students

1. Water facilities and drinking water availability	21. Plant diseases
2. Health and hygiene	22. Yoga awareness and practice
3. Stress levels and coping mechanisms	23. Health care awareness programmes and their impact
4. Health intervention programmes	24. Use of chemicals on fruits and vegetables
5. Horticulture	25. Organic farming
6. Herbal plants	26. Crop rotation
7. Botanical survey	27. Floury culture
8. Zoological survey	28. Access to safe drinking water
9. Marine products	29. Geographical survey
10. Aqua culture	30. Geological survey
11. Inland fisheries	31. Sericulture
12. Animals and species	32. Study of species
13. Nutrition	33. Food adulteration
14. Traditional health care methods	34. Incidence of Diabetes and other chronic diseases

15. Food habits	35. Human genetics
16. Air pollution	36. Blood groups and blood levels
17. Water pollution	37. Internet Usage in Villages
18. Plantation	38. Android Phone usage by different people
19. Soil protection	39. Utilization of free electricity to farmers and related issues
20. Renewable energy	40. Gender ration in schooling level-observation

Complementing the community service project the students may be involved to take up some awareness campaigns on social issues/special groups. The suggested list of programmes are:

Programmes for School Children

1. Reading Skill Programme (Reading Competition)
2. Preparation of Study Materials for the next class.
3. Personality / Leadership Development
4. Career Guidance for X class students
5. Screening Documentary and other educational films
6. Awareness Programme on Good Touch and Bad Touch (Sexual abuse)
7. Awareness Programme on Socially relevant themes.

Programmes for Women Empowerment

1. Government Guidelines and Policy Guidelines
2. Womens' Rights
3. Domestic Violence
4. Prevention and Control of Cancer
5. Promotion of Social Entrepreneurship

General Camps

1. General Medical camps
2. Eye Camps
3. Dental Camps
4. Importance of protected drinking water
5. ODF awareness camp
6. Swatch Bharath
7. AIDS awareness camp
8. Anti Plastic Awareness
9. Programmes on Environment
10. Health and Hygiene
11. Hand wash programmes
12. Commemoration and Celebration of important days.

Programmes for Youth Empowerment

1. Leadership
2. Anti-alcoholism and Drug addiction
3. Anti-tobacco
4. Awareness on Competitive Examinations
5. Personality Development

Common Programmes

1. Awareness on RTI
2. Health intervention programmes
3. Yoga
4. Tree plantation
5. Programmes in consonance with the Govt. Departments

Role of Students:

- Students may not have the expertise to conduct all the programmes on their own. The students then can play a facilitator role.
- For conducting special camps like Health related, they will be coordinating with the Governmental agencies.
- As and when required the College faculty themselves act as Resource Persons.
- Students can work in close association with Non-Governmental Organizations like Lions Club, Rotary Club, etc or with any NGO actively working in that habitation.
- And also with the Governmental Departments. If the programme is rolled out, the District Administration could be roped in for the successful deployment of the programme.
- An in-house training and induction programme could be arranged for the faculty and participating students, to expose them to the methodology of Service Learning.

TIMELINE FOR THE COMMUNITY SERVICE PROJECT ACTIVITY

Duration: 8 weeks

1. Preliminary Survey (One Week)

- A preliminary survey including the socio-economic conditions of the allotted habitation to be conducted.
- A survey form based on the type of habitation to be prepared before visiting the habitation with the help of social sciences faculty. (However, a template could be designed for different habitations, rural/urban.
- The Governmental agencies, like revenue administration, corporation and municipal authorities and village secreteriats could be aligned for the survey.

2. Community Awareness Campaigns (One Week)

- Based on the survey and the specific requirements of the habitation, different awareness campaigns and programmes to be conducted, spread over two weeks of time. The list of activities suggested could be taken into consideration.

3. Community Immersion Programme (Three Weeks)

Along with the Community Awareness Programmes, the student batch can also work with any one of the below listed governmental agencies and work in tandem with them. This community involvement programme will involve the students in exposing themselves to the experiential learning about the community and its dynamics. Programmes could be in consonance with the Govt. Departments.

4. Community Exit Report (One Week)

- During the last week of the Community Service Project, a detailed report of the outcome of the 8 weeks work to be drafted and a copy shall be submitted to the local administration. This report will be a basis for the next batch of students visiting that particular habitation. The same report submitted to the teacher-mentor will be evaluated by the mentor and suitable marks are awarded for onward submission to the University.
- Throughout the Community Service Project, a daily log-book need to be maintained by the students batch, which should be countersigned by the governmental agency representative and the teacher-mentor, who is required to periodically visit the students and guide them.

SEMESTER – VI

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
VI	ID21B6S1	INTERIOR DESIGN STUDIO –IV	1	0	9	10	100	100	200

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	to provide skills for designing larger scale institutional and commercial projects	1,3,4	2,3,6
CO2	To develop skills for a comprehensive design approach and to integrate dimensions of functions to interior spaces	1,3,4	2,3,6
CO3	To develop the skill of design vocabulary, enhancement and sensitization of student in design preparation	1,3,4	2,3,6

MODULE – I (CO1, CO2 & CO3)

The primary focus should be on –

- Interior Construction Detailing
- Way finding/signage and graphic identification
- Decorative Accessories
- Building Codes.
- Rendering (computer generated).
- Custom designed furniture and cabinetry
- Specification Writing
- Cost estimating / analysis
- Selection of sustainable/green materials

The list of suggested topics to be covered as design problems:

- Hospitality Design - of hotels, coffee house, restaurant, pub & bars, lounge bars, hookah bar, banquette halls,
- Ports – air ports, Bus stations / terminals, MMTS / Metro Railway stations, sea / river ports, cruise terminals, etc
- Institutional spaces in urban, semi-urban and rural contexts with an aim to explore and understand transformation and adaptive re-use.

Note: One major design in detail and 2 minor design/time problems should be given.

Reference Books:

1. Karlen Mark, Space planning Basics, Van Nostrand Reinhold, New York, 1992.
2. Joseph D Chiara, Julius Panero, & Martin Zelnick, Time Saver standards for Interior Design &

space planning, 2nd edition, Mc-Graw Hill professional, 2001.

3. Francis.D. Ching & Corky Bingelli, Interior Design Illustrared, 2nd edition, Wiley publishers, 2004.
4. Julius Panero & Martin Zelnick, Human Dimension & Interior Space: A source book of Design Reference standards, Watson – Guptill, 1979.
5. Maureen Mitton, Interior Design Visual Presentation: A Guide to Graphics, Models, and Presentation
Techniques. John Wiley and Sons, 2003
6. Mark.W. Lin, Drawing and Designing with Confidence: A step-by-step guide, Wiley and Sons, 1993.
7. Robert Rengel, Shaping Interior Space, Fairchild Books & Visuals, 2002
8. Neufert Ernest, Architect's Data, Granada pub. Ltd. London, 2000.
9. Maryrose McGowan & Kelsey Kruse, Interior Graphic Standards, Wiley and sons, 2004.
10. Mary Jo Peterson, Universal Kitchen and Bathroom Planning: Design That Adapts to People, McGraw- Hill Professional Publishing, 1998.
11. David Kent Ballast, Interior Construction & Detailing for Designers and Architects, Professional Publications, Inc.; Fourth Edition, 2007.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VI	ID21B6C1	ACOUSTICS AND LIGHTING DESIGN	4	0	0	3	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To impart scientific interior design in relation to Acoustics and thermal controls for human comfort in interior spaces	10	1,2
CO2	To understand tools for application of acoustical Design in interiors.	10	1,2
CO3	To deal with acoustic and ventilation problems within buildings	10	1,2

MODULE – I (CO1)

Natural lighting – as a source of light

Day light and its advantages, admitting daylight, controlling daylight – window treatments – soft dressing like draperies, blinds, and sun control films, etc

Introduction to GREEN Design:

- Potentials of day lighting as an energy resource.

MODULE – II (CO1 & CO2)

Artificial lighting – color characteristics of artificial lighting, integration of day lighting with artificial lighting, lighting controls, switches, dimmers, etc

- An introduction to intelligent building systems for lighting,

Quality and quantity of different sources of artificial light –incandescent, fluorescent, halogen, electric gas discharge, high discharge, neon, cold cathode, mercury, sodium vapor etc. lighting levels, visual field.

Survey of lamps available in the market with cost and technical specifications is to be taken up.

MODULE – III (CO2)

Acoustics – Need to study acoustics, methods used for good acoustics. Basic theory: Generation, propagation, transmission, reception of sound: Frequency, wave length and velocity of sound, sound intensity, inverse square law, and Decibel scale.

Room acoustics: Behavior of sound in enclosed spaces. Sound paths, effect of geometry and shapes, sound absorption, sound absorption coefficients, Sabine's formula, reverberation and resonant panels.

MODULE –IV (CO2)

Noise Reduction – Noise reduction, sound isolation, transmission loss. TL for walls, sound leaks in doors, noise reduction between rooms, construction details for noise reduction. Overview of Noise reduction from mechanical equipment & material like - Rubber mounts, etc, vibration isolation guidelines, noise in AC

ducts vibration isolation of pumps and generators.

MODULE – V (CO2 & CO3)

Sound – Human ear & its Loudness perception, subjective effects, Speech privacy and annoyance, background noise. Communication in open plans, electronic sound systems, P A system layout.

Acoustic Design – process in different types of buildings – auditoriums, concert halls, cinema halls, seminar rooms, lecture halls, classroom, open offices, open arena, stadium, function halls, etc

MODULE – VI (CO2)

Planning lighting – general aims, lighting needs, overview of calculation of lighting levels, intensity levels, energy and installation costs and other factors, selection of fixtures, location and placing of fixtures.

Lamps and lighting fixtures –

- Direct lighting: Floor, table and desk, wall mounted, ceiling units, built in lighting, miscellaneous types, decorative lighting, spot lighting, task lighting, underwater lighting etc.
- Indirect lighting : cove, backlit, etc

Note: Detailed acoustic design and lighting design should be done for any one type of building.

Reference Books-

1. John.F. Pile, Interior Design, 2nd edition, illustrated, H.N.Abrams, 1995.
2. Wanda jankowski, Lighting: In Architecture and Interior Design, pbc intl, 1995.

3. Moore Fuller, Concepts and practice of Architectural Day lighting, Van Nostrand Reinhold co., New York, 1985.

4. David Egan. M. Concepts in Architectural lighting Mcgraw Hill Book Company, New York, 1983.

5. Lord, Peter and Tempelton, Duncan, The Architecture of sound, Designing places of Assembly, Architectural press ltd, London, 1986.

6. Egan David, Architectural acoustics, Mc-Graw Hill Book Company, New York, 1988.

7. John.F. Pile, Interior Design, 2nd edition, illustrated, H.N.Abrams, 1995.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VI	ID21B6C2	PRODUCT DESIGN AND INNOVATION	2	0	2	4	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	Product Design and Innovation course is intended to introduce overall awareness of the product design process.	1,4,9	1,2,3
CO2	To give an understanding of methods, tools and techniques applied in product design.	1,4,9	1,2,3
CO3	To generate creative ideas in to product design, considering human factors aspects.	1,4,9	1,2,3

MODULE – I CO1

Innovation and Design - Need for Innovation and design, User Innovation, Introduction to product and Product Design, Difference between Product development and product design. Influence of Bauhaus school in design. Creative design solution in product design. Evaluation of visual design for functional objects.

MODULE – II CO1

Overview - Definitions of material, process and product. History and examples of product design. Fundamentals of product development cycle. Overview of materials and processes Environmental graphics: signage categories and materials.

MODULE – III CO2

Problem Identification - Need/Problem Identification User study by contextual enquiry, Questionnaire study, Interview techniques, Persona and scenario mapping, Product Study and market study. Gestalt theory of design: Law of closure, law of proximity, law of continuity etc
MODULE – IV CO2
Human Factors - Importance of Human factors in product design, Physical Ergonomics principles and issues, Ergonomic assessment tool, Cognitive issues in product design. Human factors engineering and Ergonomic considerations; Principles of Universal Design and their application in furniture and product design.
MODULE – V CO3
Design aspects - Creative techniques and tools for Concept generation, concept evaluation. A detailed study involving the design aspects of any on of the following: Lifestyle accessories, Luminaire design, a piece of furniture, Point of Purchase design, Signage.
MODULE – VI CO2 & CO3
Product prototyping/ model - Product prototyping/ model making work flow, tools and techniques for model making and prototyping, introduction to prototype driven innovation. Evaluation tools and techniques for user-product interactions.

Reference Books:

1. Eppinger, S., & Ulrich, K.(2015). Product design and development. McGraw- Hill Higher Education.
2. Green, W., & Jordan, P. W.(Eds.).(1999).Human factors in product design: current practice and future trends. CRC Press.
3. Sanders, M. S., & McCormick, E. J. (1993). Human factors in engineering and design. McGRAW- HILL book company.
4. Roozenburg, N. F., & Eekels, J. (1995). Product design: fundamentals and methods (Vol. 2). John Wiley & Sons Inc.
5. Lidwell, W., Holden, K., & Butler, J.(2010). Universal principles of design, revised and updated: 125 ways to enhance usability, influence perception, increase appeal, make better design decisions, and teach through design. Rockport Pub

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VI	ID21B6C3	LIFESTYLE ACCESSORIES DESIGN	2	0	1	3	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To develop systematic design approach and integration of designed accessories with the interior	1,4,9	1,2,6
CO2	To understand the socio-cultural and historical aspects that influence the design of accessories and products based on their life style	1,4,9	1,2,6
CO3	To enhance the aesthetic perception, materials, design and working parameters in designing products and life style accessories	1,4,9	1,2,6

MODULE – I (CO1)

Accessories – Insight of various products and lifestyle accessories in the interiors. Role of accessories in interiors. Integration of accessories in interior design. Design approaches in product and lifestyle accessories design with a focus on functionality, ergonomics, aesthetics, multiple usages etc.

MODULE – II (CO1 & CO2)

Decorative accessories – Stylistic development of decorative accessories from the past to present with insight into technological advances and the influences of social, economic and political factors on their design. Brief study of period room settings with the context of decorative accessories complementing the architecture and interior design.

MODULE – III (CO1 & CO2)

Study of materials and processes – adopted in accessories design. Basic understanding of construction principles, anthropometrics, principles of sizes and proportions, modeling, rapid prototyping, color, texture etc. With broad orientation to socio-cultural and historical context of the sector. Orientation to Indian as well as global context of interiors, trends and market.

MODULE – IV (CO2 & CO3)

Design approach – with limited constraints inherent in accessory products. Evolving the strategy of design with integration of technical complexities and lifestyle influences. Study and evaluation of artifacts, historic examples and their applicability.

MODULE – V (CO2 & CO3)

Development of the design of products and accessories – to specific interiors and prevailing trends. Broad based approach towards innovative design and application to multi products and multi materials in manufacturing interior products and lifestyle accessories.

MODULE – VI (CO3)

A detailed study - involving all the design aspects of any of the following lifestyle accessories: luminaire design, glassware, lighting fixtures, textiles, mirrors, clocks, wall & floor coverings etc. Styles of Interiors – Italian, English, French, Japanese styles etc.

Reference Books:

1. Laura Slack, What is product Design? Roto Vision publishers, 2006
2. Treena Crochet and David Vleck, Designer's Guide to Decorative Accessories, Prentice Hall, Ist edition, 2008.
3. Michael Ashby, Kara Johnson, Materials and Design: The Art and Science of material selection in product design, Butter Worth Heinemann, 1st edition, 2002.
4. International Design Yearbook, 1995: Furniture, Lighting, Tableware, Textiles and Products, Books Nippan, 1996.
5. Karl. T. Ulrich, Steven D. Eppinger, Product Design and Development, McGraw-Hill Education Singapore; 4th edition, 2007
6. William Lidwell, Kritina Holden, Jill Butler ,Universal principles of Design, Rockport publishers, 2003.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VI	ID21B6C4	PRE-THESIS SEMINAR	1	0	2	3	100	-	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand some emerging concepts in Interior design & its complexity	1,3	2,4,6
CO2	To equip the student with adequate Interior design research methods for the realization of thesis concept	1,3	2,4,6
CO3	To impart knowledge to students, on the tools and methods needed to handle a design project of reasonable complexity individually	1,3	2,4,6

MODULE – I (CO1)

Introduction to Interior Design thesis Project, Difference between design thesis and design studio, selection of topics for Interior design thesis, based on building typologies, preparation of synopsis, Methodology of design thesis

MODULE – II (CO1 & CO2)

Emerging concepts in Interior Design due to changes in social, economic, technological variables. Review of design projects related to real world instances and relevant to community on the whole. Review of projects of design complexity, involving themes, sub themes and design expressions.

MODULE – III (CO2)

Research in Interior Design: Tools and Methods required to handle a design project. Scientific methods of research with special emphasis on design research methods, enquiry, visual, observations, questionnaire formats of enquiry.

MODULE – IV (CO2 & CO3)

Literature Review and desktop case studies. Data analysis techniques interpretation of data. Preparation of analysis, inference and conclusion of the data.

MODULE – V (CO2 & CO3)

Thesis report writing and presentation;

- Formats for presentation of data, desk top case studies and analysis.
- Formats for presentation of thesis design- media appropriate in the Interior Design profession such as two dimensional drawing, physical model three dimensional computer models.

MODULE – VI (CO1, CO2 & CO3)

Report Writing: Techniques in report writing, presentation of contextual information relevant to interpretation of the data collected and design; reporting the design development from concept to design solution, explain the relation of the design to existing knowledge on the topic in the form of coherently written thesis report.

The inputs to the students on various design thesis topics would be in the form of Expert/Guest Lectures. Each student in consultation with the faculty shall choose thesis topics, collect necessary data, review literature on the chosen topic and present a written paper and seminar at the end of the semester.

Reference Books:

1. Mukhi, H.R. Technical Report Writing: Specially prepared for Technical and Competitive Examinations, New Delhi: Satya Prakashan, 2000.
2. Barrass, Robert. Writing At work \b a guide to better writing in administration, business and management, London: Routledge, 2003.
3. Seely, John, The Oxford guide to effective writing and speaking, 2nd ed., Oxford; New York: Oxford University Press, 2005.
4. Jo Ray McCusn, Anthony Winkler. Readings for writers, 9th ed., Fort Worth Harcourt Brace College Publishers, 1998.
5. Treece, Maira. Effective reports, 2nd ed., Boston: Allyn and Bacon,

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VI	ID21B6E1	DESIGN ETHNOGRAPHY	3	0	0	3	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To articulate the ways in which design ethnographic techniques make for a more efficacious product.	4,8,11	2,3,4
CO2	To understand core anthropological principles and their connection to the design field	4,8,11	2,3,4
CO3	To recognize the ways in which design ethnography enhances the overall design of a given product to technology	4,8,11	2,3,4

MODULE – I (CO1)

Introduction to Ethnography, relation to design & product, relation to the user, relation to culture, language, history.

MODULE – II (CO1 & CO2)

Understanding Human behavior as a mechanism for change, application of ethnography and use in industry.

MODULE – III (CO2 & CO3)

Relevance of anthropology in Ethnology, Cultural anthropology, relevance of Ergonomics to Ethnography.

MODULE – IV (CO1 & CO2)

Problems of Ethnocentrism, seeing things from someone else's point of view, Linking Ethnography and Day to day design.

MODULE – V (CO2 & CO3)

Methods in the study of Ethnography, People's behavior to be studied in everyday context, the approach to data collection, the analysis of the data, rapid ethnography.

MODULE – VI (CO2 & CO3)

Ethnographic Filed Methods: Case Studies, analysis & inferences.

Note : Every student shall take up one project and do a complete research and design a new product or re-design lifestyle accessory

Reference Books:

1. Rothstein, P. (2010). Ethnographic research: Teaching a young professional old tricks. Innovation. 19(4): 32.
2. Robert M. Emerson, Rachel I. Fretz, and Linda L. Shaw. Writing Ethnographic Field notes. (2011)
3. M Hammersley, P Atkinson – 2007 Ethnography: Principles in practice, 3rd edition, Routledge.
4. Kurt A. Raaflaub (Editor), Richard J. A. Talbert (Editor): Geography & Ethnography: Perceptionsof the world in Pre-Modern Societies, (2013)

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VI	ID21B6E2	FOUNDATION OF LIGHTING DESIGN	3	0	0	3	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand lighting design for interior lighting and technical aspects of lighting design	8,9	1,2
CO2	To equip knowledge regarding Lighting design concepts and selection and placement of fixtures to provide optimal lighting and aesthetically satisfying spaces for visual tasks	8,9	1,2
CO3	To develop the basic skills involved in solving lighting design problems	8,9	1,2

MODULE – I (CO1 & CO2)

Introduction to Lighting Design - Light - Electromagnetic radiation, Visual task requirements, Units of Light, Light, Vision and Buildings, Standards of Lighting and Visual comfort. The sky as a source of light, Daylight factor, Lighting - Windows, Room proportions and other building elements, Daylight penetration, Calculation of daylight factor

MODULE – II (CO1 & CO2)

Style of Luminaries – General lighting system - Direct light - Indirect light - defused light - Types of fittings - Down - lighters - wall washers - up - lighter Task lighting – Accent lighting - terminology like Lux , Lumens - illuminations required in Various areas - Variety of Lamps - Incandescent lamps - Tungsten Halogen lamps - Fluorescent lamps - Mercury lamps - sodium vapor lamps - Emergency lighting - Lighting Accessories - Protection devices-etc..

Down lights, Troffers, commercial fluorescent fixtures, recessed cove lighting, Direct / Indirect pendent lighting, Recessed & surface down lighters, task light, under cabinet light, vanity lights & Exit lights. Light Control devices – Switches, Dimmers, motion sensors, timers & photo switches.

MODULE – III (CO1 & CO2)

Artificial lighting and different types of Planning for lighting:- Position of lighting points – strength of light – type of light –type of light& its cover Type of fixtures, Elements of fixtures etc… Different type of lighting system in residential , commercial and office interiors planning and design

Patterns of Brightness: Direction and distribution of light, surface finishes & Reflections, Glare and Sparkle. - Position of lighting points – strength of light – type of light –type of light& its cover Type of fixtures, Elements of fixtures etc.

MODULE – IV (CO2 & CO3)

Colour of Light: Colour temperature, colour rendering, surface finishes and colour of light

Measurement of Light: General discussion on the topics – Electromagnetic spectrum, Visible light waves, Wave length & Light energy. Quantitative illumination and selection of light sources for optimal lighting in interior spaces.

MODULE – V (CO2 & CO3)
Luminaries: Housings, Light & Glare control, Decorative Luminaries. Study of Electric lamps – Incandescent, fluorescent & sodium vapor lamps. Residential Lighting Design – types of luminaries used in living room, bed room, dining room, kitchen and Toilet.
MODULE – VI (CO2 & CO3)
Interior lighting – Room surface inter-reflection, industrial, residential, office departmental stores, indoor stadium, theatre and hospitals, Flood Light, street light, transport lighting, lighting for displays - neon signs, LED - LCD displays beacons

Reference Books:

1. Designing with Light: The art, science and practice of architectural lighting design by Jason Livingston.
2. Interior Lighting for Designers by Gary Gordon

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
VI	ID21B6O1	OPEN ELECTIVE -IV	2	0	0	2	100	-	100

Course Overview

The topics of the open elective are displayed as per department discretion at the beginning of semester. Emerging topics will be introduced as open elective by each department of the university. The student can opt any of those electives which they feel would emphasize their academic/personal potential. The course is structured to understand and develop the skills of the open elective opted. The effective time span of the open elective will be decided and informed to students as per university norms.

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
VI	ID21B6K1	SKILL/JOB ORIENTED COURSE 4 – ONLINE WORKSHOP	0	0	2	2	100	-	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To gain knowledge on any advanced courses related to Interior Design domain through online workshop	1,2	1,2,3,4, 5,6

The students must finish a certified course on any subject related to their particular domain/interdisciplinary/Industry through online providers and submit the certificate to the concerned instructor allotted by the department head.

SEMESTER – VII

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VII	ID21B7TH	DESIGN THESIS	2	0	16	18	200	200	400

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To explore the design options in a project	All	2,34,6
CO2	To reflect the knowledge gained from all the courses undertaken by the student in all the previous semesters.	All	2,34,6
CO3	To provide skills for developing assimilation, synthesis and application of research in Interior Design.	All	2,34,6
CO4	To be in a position to comprehend the design philosophy, theories, data analysis and application in a chosen area of study.	All	2,34,6

MODULE – I (CO1,CO2,CO3 & CO4)

- Each student is expected to prepare a design thesis based on the preliminary work undertaken in the Interior design studio under an approved guide.
- Thesis should reflect the knowledge gained from all the courses undertaken by the student in all the previous semesters.
- The particulars of the schedule, content, presentation, format etc is to be decided by the department from time to time and shall be strictly followed.
- At the end of the semester a student shall be expected to submit original drawings, theory content, analysis, etc prepared as per the department specifications. Three copies of the report in the specified format should be submitted to the department after the approval of the respective guides for final viva-voce to the external examiner in the documented format.
- The department shall schedule the viva voce at its convenience only after the receipt of the thesis by the guide. The performance sheet submitted by the guide and thesis committee should be the basis for allowing the student to appear for the final viva voce.
- The final viva-voce shall be conducted by a jury comprising of an external examiner, guide and head of the department or his nominee.

Reference Books:

1. Ching, Francis D.K. Architecture Form, space, and Order, 2nd ed. Van Nostrand Reinhold, New York, 1996.
2. Hanks, A.David. Decorative Designs of Frank Lloyd Wright, Dover Publications, Inc. New York, 1999.
3. Helper, E.Donald, Wallach, I.Paul. Architecture Drafting and Design, 3rd ed. McGraw-Hill Book Company, New York, 1977.
4. John.F. Pile, Color in Interior Design, Mc-Graw Hill professional, Ist edition, 1997
5. Johannes Item, The Art of color, John Wiley & Sons; Revised edition, 1997

6. Jonathan Pore, Interior Color by Design, Volume 2: A design tool for Home owners, Designers and Architects, Rockport publishers, 2005.
7. Ethel Rompilla, Color for Interior Design, Harry N. Abrams, 2005.
8. Itten, Johannes. Design and Form: The basic course at the Bauhaus, Thames and Hudson Ltd., London 1997.
9. Krier, Rob. Architectural Composition, Academy Editions, London, 1988.
10. Meiss, pierre Von. Elements of Architecture: Form to place, E and FN Spon, London, 1992.
11. Johanness Itten, The Art of Colour.
12. Pipes, Alan. Drawing for 3-Dimensional Design. Thames and Hudson Ltd., London, 1990.
13. Wucius, Wong. Principles of two Dimensional Design. Van Nostrand Reinhold 1972

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VII	ID21B7C1	PROFESSIONAL PRACTICE	3	0	0	3	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand about entrepreneurship and projects	5,6,7,11	1,2,4
CO2	To understand issues in professional practice and to provides an overview of rules and regulations in Interior Design practice.	5,6,7,11	1,2,4
CO3	To explain about tender and its applications	5,6,7,11	1,2,4
CO4	To explore materials and its application in interiors	5,6,7,11	1,2,4
CO5	To explain about volumetric estimation in interiors.	5,6,7,11	1,2,4

MODULE – I (CO1)

Role of Interior Designer in society: Interior Design Profession as compared to other professions. Difference between profession and business. IIID and other organizations related to interior design profession.

MODULE – II (CO2)

Interior Designers approach to works, ways of getting works: types of works, works partly executed by other Interior Designers: various precautions to be taken before taking up the work, conditions of engagement between interior Designer and client: commencement of work.

MODULE – III (CO3)

Interior Designer's duties: drawings to be prepared: Interior Designer's relation with other parties connected with works such as client, contractor, sub-contractors, consultants and authorities. IIID Code of professional conduct: scale of charges. Inspection of work, certificate of payment to contractor.

Preliminary knowledge of Consumer protection Act and other related acts on Interior Designers

MODULE – IV (CO4)

Issues of professional practice: Professional behavior, Ethics, Types of clients, Career opportunities, styles of interior design practice, relationship between client and professional, type of fees, process of fees negotiations, billing methods, tax liabilities – Service Tax, Professional tax, GST, duties,

MODULE – V (CO5)

Contracts, Tenders, Arbitration: as defined in terms of Interior Design field and current day context. Work contracts – types of contracts – item rate, labor, lump sum, cost plus percentage etc. Clerk of work and his duties, bill of quantities, schedule of rates, tenders, public, limited and negotiated tender documents and allied formalities.

MODULE – VI (CO5)

Types of offices for interior design practice: staff structure, filing of records, correspondence and drawings, maintenance of accounts, presentations in meetings, recording minutes of meeting.

Note: a report to be prepared by each student after visiting an interior designer's office. Knowledge of role of consultants and coordination between different consultants on a big project.

Reference Books:

1. Indian Institute of Architects. H.B. Professional Practice, the Architects pub. Bombay.
2. Namavati. H. Roshan. Professional Practice. 8th edition, Lakshani Book Depot, Bombay, 2001.
3. Christine .M. Piotrowski , Professional practice for Interior Designers, 3rd edition, Wiley and sons, 2001.
4. Cindy Coleman, Interior Design Handbook practice, Mc Graw Hill professional, 1st edition, 2001
5. Ronald Veitch, Professional practice for Interior Designers, Penguins Publishers, Limited, 1987.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VII	ID21B7E1	BIOPHILIC APPROACH TO INTERIORS	3	0	0	3	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able	1,3	1,2,3
CO1	Understanding the importance of Biophilic approach in Interiors	1,3	1,2,3
CO2	To understand environmental human psychology	1,3	1,2,3
CO3	To study about the principles and outcomes in different spaces	1,3	1,2,3
CO4	To understand the design aspects of Biophilic in different spaces	1,3	1,2,3
CO5	To understand the application of Biophilic strategies	1,3	1,2,3

MODULE – I (CO1,CO2)

Biophilic approach in Interior design, Need and importance, Connection of indoor space with nature. Human nature relationship in Interior space.
Elaborate it with Modern examples.

MODULE – II (CO1,CO2)

Different categories of strategies to implement biophilic design and specific examples for each one of them. Environmental human psychology.

MODULE – III (C03)

Attributes of Biophilic Design, direct experience and indirect experience of nature

MODULE – IV (CO3)

Biophilic design in practice: principles, processes and outcomes. At the small scale: fixtures, fittings, fabrics and finishes.

MODULE – V (CO4, CO5)

Studies on different aspects of the biophilic design process, and outcomes: In the home: residential design. In school: learning environments. In the store: retail experience. In the office: workplace experience. In the hotel: hospitality experience.

MODULE – VI (CO4, CO5)

The Participation of Biophilic Design in the Design of the Post-Pandemic Living Space.

References Books:

1. Biophilic Design: The Theory, Science and Practice of Bringing Buildings to Life Hardcover – Illustrated, 19 February 2008.
2. Nature by Design: The Practice of Biophilic Design, Stephen R. Kellert
3. Kellert, S. and Calabrese, E. 2015. The Practice of Biophilic Design. www.biophilic-design.com

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VII	ID21B7E2	BARRIER-FREE BUILT-ENVIRONMENT	3	0	0	3	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To know about Indian Disabilities Act is promulgated in 1995 for the purpose of ensuring equal opportunities to persons with disabilities in society for their development through education, training and rehabilitation services	8,11	2,3,4
CO2	To know about principle objective is to ensure their full participation by preventing discrimination and integrating them into the mainstream of society	8,11	2,3,4
CO3	To plays a very crucial role in the endeavor by designing the needed barrier free environment an Interior Designer	8,11	2,3,4
CO4	To know the objectives of this course are to acquaint the students regarding the various provisions of designing a barrier free built environment.	8,11	2,3,4
CO5	To gain Multi sectoral collaborative approaches in design for persons with disabilities and elderly persons, to Inculcate skills required for designing a barrier free built environment for physically challenged persons. Techniques involved in making such provisions.	8,11	2,3,4

MODULE – I (CO1)

Introduction to Provisions of persons with Disabilities (Equal, opportunities, Protection of Rights and Full Participation) Act, 1995, Type of disabilities – Orthopedic, Hearing, Visual impairments, National policy for provisions for elderly persons, Concept of equal opportunity, human rights, social justice and empowerment of physically challenged persons.

MODULE – II (CO2)

Introduction to similar efforts in other countries. Initiatives at global and international level of protection of rights of disabled and also elderly person, American disabilities Act 1990 etc.

MODULE – III (CO3,CO4 & CO5)

Design principles for creating environments friendly for various types of physically challenged persons. Educational institutions, Hospitals, Transportation terminals such as bus, railway stations and airports for barrier free spaces. Study of Standards as given in TS

MODULE – IV (CO3,CO4 & CO5)

Provisions in design of public buildings – Details in, ramps, guide rails, lifts, dimensions of wheel chairs, accessibility in public buildings, Signage, audio visual facilities etc.

MODULE – V (CO3,CO4 & CO5)

Design of Toilets and interior spaces for use of physically challenged. Exercises in design of user friendly spaces for physically challenged persons.

Reference Books:

1. Micheal J. Badnar. “Barrier Free Environments”, Dowden, Hutchinson and Ross, Ive 1977.
2. Ministry of Urban Affairs and Employment. Central Public Works Department India, “guidelines and Space Standards for Barrier Free Environment for Disabled and Elderly Person, 1998.
3. Unnati. “Design Manual for a Barrier – Free Built Environment”. Handicap International, December, 2004.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VII	ID21B7K1	Skill/Job Oriented Course – 5 MOOCs	-	2	-	2	100	-	100
COs	Course Outcomes							POs	BLTs
	The students will be able								
CO1	To gain knowledge on any advanced courses related to Interior Design through MOOCs.							1,2,4	2,3

The students must finish a certified course on any subject related to their particular domain/interdisciplinary/Industry through Swayam/NPTEL MOOCs providers and submit the certificate to the concerned instructor allotted by the department head.

Note:

1. Students can enrol any course from Swayam/NPTEL providers, during at the course duration and can submit the certificate at the end of VII semester.

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
VII	ID21B7IN	Industrial / Research Internship	-	-	-	4	100	-	100
COs	Course Outcomes							POs	BLTs
	The students will be able								
CO1	To gain practical knowledge on the application of interior design in the industry/research							NA	NA

The student must submit and present a seminar report on the internship done

Pattern of Evaluation for Industrial/ Research – 100 Marks

1. Internship Report : 40 Marks
2. Presentation : 40 Marks
3. Internship certificate issued by the organization : 20 Marks

SEMESTER – VIII

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VIII	ID21B8PT	PRACTICAL TRAINING	0	0	0	18	100	100	200

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To reflect the knowledge gained from all the courses undertaken by the student in all the previous semesters.	All	2,3,4,6
CO2	To provide skills for developing assimilation, synthesis and application of research in Interior Design.	All	2,3,4,6
CO3	To provide experience in Interior Design.	All	2,3,4,6
CO4	To provide skills required for an interior designer to grow into a complete professional.	All	2,3,4,6

MODULE – I (CO1,CO2,CO3 & CO4)

Every student shall work in an interior designer's or architect's (Dealing on Interior Projects) office as a full time trainee for a period of 20 calendar weeks (excluding viva – voce) from the date of commencement of training. The Chief Interior Designer in the firm should preferably be:

- An Architect: Should be registered with the Council of Architecture for a minimum of 5 years. Should be having practical/ professional experience in the field of Interior Design.
- A 4 years degree holder in Interior Design: with a minimum of 10yrs years of practical/ professional experience in the field of Interior Design after his /her graduation.
- A 1-year diploma holder in Interior Design: with a PG Degree in any subject and a minimum of 15yrs years of practical/ professional experience in the field of Interior Design after his /her graduation.

The student should involve herself /himself in various aspects of work in an office like working drawings, presentation drawings, quantity estimation, site supervision etc. Students should understand professional practice methods of various interior designers, design process from client contacts to production documents, tender documents, production drawings for various works, site supervision etc. for various types of works. They should also learn the coordination of various agencies – client, members of design team, consultants, contractors, craftsmen and construction supervisors.

Detailed instructions regarding the training, the frequency of reporting to the department etc shall be issued at the end of Seventh semester, which the student shall strictly follow.

After completion of training, every student will have to submit a detailed report with a set of drawings on at least four projects on which she/he has worked during the practical training period.

Evaluation:

- The Internal Assessment shall be evaluated at the end/towards the end of the training period and shall be conducted by the faculty deputed by the department in the institute.

- The Internal Assessment shall be of 100 marks. Each college can decide on the mode of evaluation of the work, either by deputing a faculty member of the College to visit the architect's or interior designer's office or by assessing the work at the Institute, just preceding the External Assessment. The monthly reports, Log book maintained, and reports from the Architect or Interior Designer will be considered for Valuation. Each College will follow a uniform policy for all students in the College.
- The detailed report and drawings prepared during practical training by students will be evaluated at a viva-voce by a jury consisting of one External member, one Internal member, Practical Training Co-ordinator or his nominee and Head of the Department or his nominee.

The Department shall arrange for the conduct of the viva-voce examination after submission of the report for External Assessment.

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
VIII	ID21B8IN	Industrial Project / Internship	-	-	-	12	100	-	100
COs	Course Outcomes							POs	BLTs
	The students will be able								
CO1	To gain practical knowledge on the application of interior design in the industry/research							NA	NA

The student must submit and present a seminar report on the internship done

Pattern of Evaluation for Industrial/ Research – 100 Marks

1. Project Report : 40 Marks
2. Presentation : 40 Marks
3. Training certificate issued by the organization : 20 Marks

ANNEXURE

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
III	ID21B3O1	OPEN ELECTIVE – I Human Behaviour and Built Environment	2	0	0	2	100	-	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To analyze place in relation to its surroundings and context. Increase awareness of the role of physical environment in their lives	3,4,8	2,4
CO2	Improvise Critical thinking mind frame around social and spatial issues at the individual level.	3,4,8	2,4
CO3	Learn to critically examine the built environment around us.	3,4,8	2,4
CO4	Understanding the psychology and behavior of users	3,4,8	2,4
CO5	Design a relationship between the buildings and the human experience of the space.	3,4,8	2,4

MODULE – I (CO1)

The elements and principles of design influence the physical and sensory elements found within the interior space, its impact on occupant's emotions, health, and overall well-being.

Elements of design- Point, line, shape, form, space, texture, value, color and material.

Principles of Design - Unity, balance, symmetry, proportion, scale, hierarchy, rhythm, contrast, harmony,focus.

MODULE – II (CO2)

Design theory - Designer's unique approach to a creative problem-solving process based on HumanBehavior and perception and Functional needs.

MODULE – III (CO3)

Sensory Considerations - The principles and elements of design work together with acoustics, lighting, visual stimuli, color theory, scent, and tactile qualities to create a design solution. Special populations, including children and the elderly, may experience these qualities differently.

MODULE – IV (CO4)

Work, Learning and Leisure Environment - Human Behaviour on various building typology, its space design - considering elements, principles, and sensory consideration. Human Activities and its relationship with group of people.

MODULE – V (CO4, CO5)

Ergonomics, Anthropometrics, Proxemics - Use of anthropometry, ergonomics, and Space handling and designing, Visual performance, Visual displays, visual comfort and designing for different functions and designing for differently abled.

MODULE – VI (CO5)

The Ambient Environment - The Temperature of Spaces, The Sound of Spaces, The Smell of Spaces, The Illumination of Spaces. Emotional response to the built environment.

Assignment: Student has to select any one building typology and study the building and its function based on analysis of human Behaviour and perception of space, through literature study, desktop study, questionnaire survey and final submission should be in a report format.

Reference Books:

1. Francis D. Ching, Architecture: Form, Space, and Order, 2014
2. Setha. M. Low, Denise Lawrence – Zunigias, Anthropology of Space and place: Locating Culture, Wiley – Blackwell publishers, 2003.
3. Dak Kopec, Environmental Psychology for Design, 2018
4. Roger Downs, David Stea, Kenneth. E. Boulding, Image and environment, Transaction Publishers, 2005.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
IV	ID21B4O1	OPEN ELECTIVE -II GREEN INTERIORS	2	0	0	2	100	-	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the concept and importance of green interiors	7,8,9	1,2
CO2	Understand about green technologies in interiors and impact on environments	7,8,9	1,2
CO3	To be aware of green rating and certifications for Interiors	7,8,9	1,2
CO4	Understand about current and innovative materials for interiors	7,8,9	1,2
CO5	Familiarize with various green technologies in interiors with case studies	7,8,9	1,2

MODULE – I (CO1)

Introduction to Green interiors - Principles of Green Interiors, Concept of Green interior design, Importance and need of green interiors. Social responsibilities of a designer.

MODULE – II (CO2)

Benefits and its impacts of green interiors – Economic, Environmental, Functional, Aesthetic of Green materials in interiors. Occupant comfort by green interiors.

MODULE – III (CO3)

Introduction to Rating systems – Needs and importance of rating system, Categories for rating system, Levels and points of Rating system, green building rating system and Green interior rating system. Category of Green building rating systems.

MODULE – IV (CO3)

Green building rating system – IGBC, GRIHA, LEED – Introduction, rating systems, Category and credits with relevant example.

MODULE – V (CO4)

Green materials - Introduction to Green materials for Interiors, Effect of Green materials to environment, Local Materials, Natural materials, Categories of interior materials, Low-Emitting Materials.

MODULE – VI (CO5)

Case Studies - Exercise: Case studies relevant to Green certification - IGBC, GRIHA, LEED

Assignment: Case studies for any one building typology – residence, office, institutions, etc. Students has to submit the assignment in report format.

Reference Books:

1. GREEN INTERIOR DESIGN 1st Edition, Lori Dennis
2. ECBC CODE 2007, BUREAU OF ENERGY EFFICIENCY, New Delhi Bureau of Energy Efficiency Publications Rating System, TERI Publications –GRIHA Rating System.
3. Woolly &Kimmins, GREEN BUILDING HANDBOOK, E & FN Spon, 1997.
4. LEED v4 for INTERIOR DESIGN AND CONSTRUCTION
5. GREEN BUILDING MATERIALS-A guide to product selection and specification, Ross Spigel and
6. Dru Meadows, John Wiley publications.
7. IGBC Green interiors for new & existing interior fit-out version 1.0, October 2015

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
V	ID21B5O1	OPEN ELECTIVE -III CULTURAL EXPRESSION IN INTERIORS	2	0	0	2	100	-	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understands the evolution of interior in relationship with culture through ages.	4,8	1,2
CO2	To understand the influence of belief, culture and art, in the interiors	4,8	1,2
CO3	To learn relevance of belief, culture and art, and its impact in the interiors.	4,8	1,2
CO4	Studying different art forms and materials in different periods	4,8	1,2
CO5	Explore different art forms and materials.	4,8	1,2

MODULE – I (CO1)

Cultural Expressions – The purpose of studying cultural expressions in interior design. Introduction to pre-historic cave paintings. Influence of culture in interior spaces in different regions of India.

MODULE – II (CO2)

Influence of culture in interior spaces – Kerala – Nair houses(Tarawads), Kerala, Muslim houses(Mappilah houses),. Temples, Palaces and theatres – Thattchushastra, Chettinad Houses (Chettiars) & Palaces, Karnataka – Gutthu houses (land owning community), Andhra Pradesh –Kaccha buildings religious practices, beliefs & culture influencing the interiors.

MODULE – III (CO3)

Introduction to Documentation - Need for Documentation. Methodology. Measuring methods – various techniques applied for the measurement of the building.

MODULE – IV (CO2)

Understanding the historical background-culture, Identifying the architectural style and influences. Studying different interior elements and materials.

MODULE – V (CO4)

Anthropology's importance to ethnology, cultural anthropology, and ergonomics' relevance to ethnography.

MODULE – VI (CO5)

Application of ethnography, understanding of human behaviour as a tool for change, and use in industry.

Reference Books:

1. Robbie G Blakemore; Julie L Rabun, History of Interior design & furniture from ancient Egypt to nineteenth-century Europe, Hoboken.N.J..2nd Edition, Wiley 2006
2. Joseph Aaronson, The encyclopedia of furniture, Newyork, Crown publishers 1965
3. Traditional buildings of India, Ilay Cooper, Thames and Hudson Ltd., London
4. Rothstein, P. (2010). Ethnographic research: Teaching a young professional old tricks. Innovation. 19(4): 32.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VI	ID21B6O1	OPEN ELECTIVE-IV MARKETING INTERIORS	2	0	0	2	100	-	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	The student will be able to understand the knowledge on current marketing techniques	8,10	3,4
CO2	The student will be able to understand the different marketing approaches.	8,10	3,4
CO3	Develop Knowledge about positioning the firm in the market Knowledge on Digital marketing.	8,10	3,4
CO4	To understand the different Branding Strategies.	8,10	3,4
CO5	To understand the concept of E-Marketing Strategy		

MODULE – I (CO1)

Marketing – Define Marketing in the 21st century. Introduction to marketing at current practice. Fundamentals of marketing, Role of marketing in interiors.

MODULE – II (CO2)

Concept of the marketing mix, 4P's Marketing approaches. Various environmental factors affect marketing functions.

MODULE – III (CO2)

Marketing analysis, positioning the firm in the market. Socio economical behavior and its impact on the market.

Understanding the need and preferences of consumers. Promotional materials, Contracts, and Letters of Agreement.

MODULE – IV (CO2)

Introduction to Digital Marketing. Marketing of services through Digital technologies. License, Legalese, Copyright, trademarks, and Patents.
Difference between tactical and strategic objectives of marketing.

MODULE – V (CO3)

Introduction to Brand Strategy –Brand partnership, self-publishing/custom publishing.
Brand Identity - Personal Logo, Business Letterhead, Business card.
Introduction to Promotion Strategy and Distribution Strategy.

MODULE – VI (CO3)

Introduction to E-Marketing Strategy - Presentation, Portfolio – Academic and Professional

Reference Books:

1. Marketing Interior Design by Lloyd Princeton, Allworth Press; 1 edition (July 28,2009).
2. Philip Kotler, Kevin Lane, Abraham Koshy-"Marketing Management" – A South Asian Perspective-Pearson/Prentice Hall India Ltd, 2017
3. Marketing and Client Relations for Interior Designers by Mary V. Knackstedt, Wiley;
4. Interior Design Clients: The Designer's Guide to Building and Keeping a Great Clientele by Thomas L. Williams, Allworth; 1 edition (June 29, 2010)
5. Branding + Interior Design: Visibility and Business Strategy For Interior Designers by Kim Kuhte, Publication Date: December 4, 2017, Amazon Digital
6. Progressive Business Plan for a Home Staging Service: A Fill-in-the Blank Template with an Comprehensive Marketing Plan by Chiaffarano MBA, Nat ,2017