Model Framework for 2023-27

B.Int. Des (Interior Design)										
Model Framework- 2023-27 (4 yrs degree)								Total Credits = 200		
	PC1	AC1	PC2	CC1	PC3	AECC1	AECC2	VAC1	VAC2	Crs
	3	3	6	3	4	2	2	1	1	25
	IND101	IND102	IND103	IND104	IND105	IND106	ENV101	CAS106	BPV13	
Sem I	Principles of Composition	St.Systems	ID Studio-I	Interior Materials & Application-I	Interior Graphics-I	History of Arts and Crafts	EVS-I	Architectural Communications	Foreign Business Language	
	PC4	AC2	PC5	CC2	PC6	AECC3	AECC4	SEC1	VAC3	
	3	3	6	3	4	1	2	2	1	25
Sem II	Furniture Design	History of ID	ID Studio-II (Residential)	Interior Materials & Application-II	Interior Graphics-II	Workshop Practice-I	EVS-II	Upholstery & Furnishings	Foreign Business Language	
	PC7	AC3	PC8	CC3	PC9	AECC5		AC4	SEC2	
	3	3	6	3	4	1	3	1	1	25
Sem III	Thermal Comfort & Climatology	Sustainable ID	ID Studio-III (Office interiors)	Services Design- I(P.H)	Interior Graphics-III	Workshop Practice-II	Biophillic Design	Interior Accessories Design	Programming with 'C'	
	PC10	AC5	PC11	CC4	PC12	AECC6		AC6	SEC3	
	3	3	6	3	3	2	3	1	1	25
Sem IV	Interior Landscape Design	Conservation of Interiors	ID Studio-IV (Hotel interiors)	Services Design- II (Lighting & Elec)	Graphics & Computers-I	Building Specifications	Kinetic Design	Photography Skills	Digital Branding	
	PC13	AC7	PC14	CC5	PC15	AECC7		AC8	SEC4	
	3	3	6	3	3	2	3	1	1	25
Sem V	Product Design	Intelligent Building Interiors	ID Studio-V(Shops and Malls Interi	Services Design- III (HVAC)	Graphics & Computers-II	Estimating & Costing	Modular Design	Contemporary Crafts	Floral Design	
	PC16	AC9	PC17	PC17	PC18	AECC8		OE1		
	3	3	6	3	3	3	3	1		25
Sem VI	Ergonomics	Disaster Mgmt	ID Studio-VI (Banks & institutions)	Services Design- IV (Fire Safety & Communication Systems)	Presentation Skills	Professional Practice	Visual Communication	Open Elective I (Vaastu Shastra)		
			NTCC					PAECC2		
			20			3		2		25
SemVII	Training Project					Project Report		Seminar		
			NTCC			SPEC		PAECC1		
			20			3		2		25
SemVIII	Thesis Project					Elective I A/B		Research Skills		

Elective I A/B
Arch. Journalism/ Exhibition Space Design

Open Elective I
VAASTU SHASTRA

Program Structure for B.I.D. 2023-27

Semester-Wise Programme structure for B.I.D (scheme 2022-26)								
Sr. No.	**Year 1**		**Year 2**		**Year 3**		**Year 4**	
	Semester 1	**Semester 2**	**Semester 3**	**Semester 4**	**Semester 5**	**Semester 6**	**Semester 7**	**Semester 8**
1	**Principles of Composition** [**CU :3**, L-2, T-1] {PCC}	**Furniture Design** [**CU:3**, L-2, T-1] {PCC}	**Thermal Comfort & Climatology** [**CU:3**, L-3] {PCC}	**Interior Landscape Design** [**CU:3,**L-2, SW-1] {PCC}	**Product Design** [**CU:3,** L-2, PS-1, SW-1] {PCC}	**Ergonomics** [**CU:3,** L-3] {PCC}	**Training Project** [**CU:20,** SW-20] {NTCC}	**Thesis Project** [**CU:20,** PS-4, SW-16] {NTCC}
2	**Structure Systems-I** [**CU:3**, L-2,T-1] {AC}	**History of Interior Design** [**CU:3**, L-2, T-1] {AC}	**Sustainable Interior Design** [**CU:3,** L-3] {AC}	**Conservation of Interiors** [**CU:3,** L-2, T-1] {AC}	**Intelligent Building Interiors** [**CU:3,** L-2, T-1] {AC}	**Disaster Management** [**CU:3**, L-3] {AC}	**Project Report** [**CU:3, ,**SW-3] {NTCC}	**Elective I A-ArchItectural Journalism/ I B-** Exhibition Space Design [**CU:3**, L-3] {SP.EC}
3	**Interior Design Studio-I** [**CU:6**, PS-2, AR/Des Studio-4] {PCC}	**Interior Design Studio-II** [**CU:6,** PS-2 , AR/Des Studio-4] {PCC}	**Interior Design Studio-III** [**CU:6**, PS-2, AR/Des Studio-4]	**Interior Design Studio-IV** [**CU:6**, PS-2, AR/Des Studio-4] {PCC}	**Interior Design Studio-V** [**CU:6**, PS-2, AR/Des Studio-4] {PCC}	**Interior Design Studio-VI** [**CU:6**, PS-2, AR/Des Studio-4] {PCC}	**Seminar** [**CU:2,** SW-1, PS-1] {NTCC}	**Research Skills** [**CU:2**, L-2] {PCC}
4	**Interior Materials & Application-I** [**CU:3**, AR/Des Studio-3] {CC}	**Interior Materials & Application-II** [**CU:3**, AR/Des Studio-3] {CC}	**Services Design- I** [**CU:3**, L-3] {CC}	**Services Design- II** [**CU:3**, L-3] {CC}	**Services Design- III** [**CU:3**, L-3] {CC}	**Services Design-IV** [**CU:3]** {PCC}		
5	**Interior Graphics-I** [**CU:4,** AR/ Des Studio-4] {PCC}	**Interior Graphics-II** [**CU:4,** AR/Des Studio-4] {PCC}	**Interior Graphics-III** [**CU:4,** PS-4, AR/Des Studio-2] {PCC}	**Graphics & Computers-I** [**CU:3,** PS-6] {PCC}	**Graphics & Computers-II** [**CU:3,** PS-6] {PCC}	**Presentation Skills** [**CU:3**, R/Des Studio-3] {PCC}		

6	**History of Arts & Crafts** **[CU:2**, L-2] {AEC}	**Workshop Practice-I** **[CU:1,** PS-2] {AEC}	**Workshop Practice-II** **[CU:1**, PS-2] {AEC}	**Building Specifications** **[CU:2,** L-2] {AEC}	**Estimating & Costing** **[CU:,2** L-2] {AEC}	**Professional Practice** **[CU:3**, L-3] {AEC}		
7	**Environmental Studies -I** **[CU:2,** L-2] {AEC}	**Environmental Studies - II** **[CU:2**, L-2] {AEC}	**Biophilic Design** **[CU:3**, PS-2, AR/Des Studio-2] {AEC}	**Kinetic Design** **[CU:3**, PS-2, AR/Des Studio-2] {CC}	**Modular Design** **[CU:3**, PS-2, AR/Des Studio-2] {AEC}	**Visual Communications** [**CU:3**, PS-2, AR/Des Studio-2] {AEC}		
8	**Architectural Communications** **[CU:1**, L-1] {VAC}	**Upholstery & Furnishings** **[CU:2**, L-2] {SEC}	**Interior Accessories Design** **[CU:1,**L-1] {AC}	**Photography Skills** **[CU:1**, PS-1, SW-1] {SEC}	**Contemporary Crafts** [**CU:1**, L-1] {AC}	**Open Elective I** - Vaastu Shastra [**CU:1**, L-1] {OE}		
9	**Foreign Business Language** **[CU:1,** L-1] {VAC}	**Foreign Business Language** **[CU:1**, L-1] {VAC}	Programming with 'C' **[CU:1**, P-2] {SEC}	**Digital Branding** **[CU:1**,L-1] {AC}	**Floral Design** **[CU:1**, PS-1, SW-1] {AC}			
Credits	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**
Total Program Credits								**200**

Program Structure for Ist Sem

Courses shown in blue colour below are the courses offered by Department of Architecture & Design and the syllabi of the same were proposed in the meeting.

Sr. No	Course Code	Course Title	Course Type		Credit					Credit Units
				L	T	PS	FW	SW	AR/Des Studio	
1	IND101	Principles of Composition	Professional Core Courses	2	1	0	0	0	0	3
2	ND102	Structure Systems-I	Allied Courses	2	1	0	0	0	0	3
3	ND103	ID Studio-I	Professional Core Courses	0	0	2	0	0	4	6
4	ND104	Interior Materials & Application-I	Core Courses	0	0	0	0	0	3	3
5	ND105	Interior Graphics-I	Professional Core Courses	0	0	0	0	0	4	4
6	ND106	History of Arts & Crafts	Ability Enhancement Courses	2	0	0	0	0	0	2

7	ENV101	EVS-I	Ability Enhancement Courses	2	0	0	0	0	0	2
8		Architectural Communications	Professional Core Courses	1	0	0	0	0	0	1
9	FBL101	Foreign Business Language	Value Added Courses	1	0	0	0	0	0	1
		Total Credits						**Min Required: 25 Semester Credits: 25**		

Course Design Contents:

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
2	0	1	1	03

Course Title: PRINCIPLES OF COMPOSITION
Course Code: IND101
Credit Units: 03
Course Level: UG
Course Objectives: To develop basic understanding of Interior Design Theory in relation to Practice.
Prerequisites: Basic knowledge of Interiors Spaces and its understanding.
Course Contents/syllabus:

Unit I: Elements of Composition	**12 Hours**
Elements of Design in 2D and 3D and its definitions in terms of a lines, form, shape, texture, value, points, materials and colors. Point to Line movement, shape, solids, volumes & their geometrical evolution	
Unit II: Principles of Interior Design	**14 Hours**
Definitions and meaning of Design, Role and Importance of Design, Examples of Design and inspirations from Nature, Introduction to the principles of design in 2 & 3 Dimension in terms of Symmetry, proportions, balance, scale, hierarchy, contrast, rhythm, harmony, focus, repetitions, and patterns. To Understand in detail about the role and importance of quality design, studying examples through the surrounding areas and learning the varied elements of design. The principle of designs is present all around and in products which enhances the quality of spaces. Discussing the examples and learning through texts, pictures and interpret the designs in terms of principle of design.	
Unit III: Design Theories and Practices	**14 Hours**
Geometry of shapes, primitive forms, understanding of combination of forms, conversion from 2D to 3D, Case examples of Modern Interiors of a Residence, Hotel, showroom, bathroom, restaurant etc. Imagination uses of design forms, sustainable design, introduction to materials. Learning the interpretation of geometric forms and their conversion. Studying various materials in use. Case examples of modern/contemporary building to relate it with the geometric forms and materials. The trending materials and practices i.e sustainable design shall be studied. Recycled interiors, industrial interiors shall be studied through texts and images.	

Unit IV: Understanding the Project Designs	14 Hours
Introduction to a Project, Studying principles of Interior design through Case examples and Live projects. Modern interiors and demand of the industry, role and importance of furniture and interior design. Understanding interior projects through Case studies of a building. Case study shall be supported by photographs, manual drawings and report writing explaining the details of the project. Modern/contemporary trends in the projects. Studying trends of demand and role of interior designers in the industry. Studying role and importance of quality of furniture design.	

Course Learning Outcomes:

CL01	Understanding of History and Evolution of Interior Design.
CL02	Understand the overview of Theories and Practices in Interior Design
CL03	Knowledge of design elements and its uses.
CL04	Developing a sense of colours, shapes and materials.

Text / Reference Books:

Author	Title	Publisher	Year	ISBN No	Pages
Robbie G. Blakemore	History of Interior Design and Furniture:From Ancient Egypt to Nineteenth Century Europe	John Wiley & Sons	2006	978-0471464334	448

Jeannie Ireland	History of Interior Design	Fairchild Books an Imprint of Bloomsbury Publishing Inc	2018	978-1501319884	603
Chris Grimley, Kelly Harris Smith	Universal Principles of Interior Design: 100 Ways to Develop Innovative Ideas, Enhance Usability, and Design Effective Solutions	Rockport Publishers	2022	978-0760372128	216

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
3	0	0	0	3

Course Title: STRUCTURE SYSTEMS-I
Course Code: IND102
Credit Units: 3
Course Level: UG
Course Objectives: The teaching of this subject shall help the students to understand the Role and Importance of Structures in a interior spatial layouts

Prerequisites: Basic knowledge of solids and volumes

Course Contents/syllabus:

Unit I: Structural Elements-I	**12 Hours**
Spatial Volumes, and types of layouts in context with spanning and functional hierarchy. **Load Bearing and Non-load bearing structural elements.** Defines of zones, Activities that will take place in those zones, define circulation pattern and move through the space. Basics points to be considered for layout of the room. Different types of layouts, like site plan, floor plan wall plan etc. The function and hierarchy of these plans. Concept of load bearing and non-load bearing elements. The use of load bearing and load bearing elements in structure.	
Unit II: **Structural Elements-II**	**14 Hours**
Structural connotations of beam, slab, columns, walls, floors, pilasters, arches, lintels and their replication in alternate materials for sub-dividing / expanding spaces. Concept of structural elements. Role of different structural elements in transferring loads. Different types of walls and their use. The types of floor and the suitability of particular type. Use of arches and lintels for openings and terminology used for arches and lintels. Classification of arches and lintels based on shape and material of construction.	
Unit III: Structure & Services	**14 Hours**
Integrating Services with the structural components- jhiri or shafts/ ducts for laying Mechanical, Electrical, Public Health, Fire protection, Fiber cables, gas, CCTV, sensors, satellite TV connections etc.	

Different types of services in case of buildings to be provided. The integration of building services with structural arrangement. The different layouts of services in buildings. Electrical layout, fire protection layout understanding. Identification of points to install service points.	
Unit IV: Sustainable & Green solutions	**14 Hours**
Introducing sustainable and green solutions for interior cubicles/ workstations/ open-plan spaces like airports/ mega malls etc. Introduction to concept of sustainability and its significance. Various types of green materials for construction. The need for green buildings, the application of passive and active use of renewable energy, materials and waste through the sustainability concepts.	

Course Learning Outcomes:

CL01	The physical-mechanical essence of the subject matter.
CL02	Orienting Architectural design elements to modulate Form and Space
CL03	Relating structural components and services to the building
CL04	Importance and Role of Sustainable aspects for interiors.

Author	**Title**	**Publisher**	**Ed/year**	**ISBN No**	**Pages**
Salvadori, **Oakley,** and Heller	Structure in Architecture- The building of Buildings	Pearson; 4th dition	2016	978-0132803205	240

Surjeet Kumar	Theory of Structures	Vayu	2014	978-9380097879	234
Angus J. Macdonald	Structure and Architecture	Routledge	2018	978-1138629226	360
Daniel Schodek Martin Bechthold	Structures	Pearson; 7th edition	2013	978-0132559133	576

Annexure **'CD-01'**

L/DS	T	P/S/J	SW/FW	Total Credit Units
4	0	1	1	6

Course Title: INTERIOR DESIGN STUDIO- I
Course Code: IND103
Credit Units: 6
Course Level: UG
Course Objectives: To make the students aware of Visual 3D perception. The students will develop skills to identify and utilize simple geometric shapes for various 2D and 3D compositions

Prerequisites: Basic knowledge of Drawing and sketching.

Course Contents/syllabus:

Unit I: Elements of Design	**21 Hours**

Understanding the role of the following basic elements like Point, Lines, Planes, Patterns, Shapes, Forms, Spaces, Color, Texture. Exercises in Point, line and shapes; Exploring schemes in a visual composition and in architectural forms and spaces; Collage with a given theme; Development of geometric pattern by division, subtraction, and addition, and express them with the use of colors; Two- & Three-dimensional Design Exercises involving real and imaginary objects, drawing compositions and models to form an appropriate base for subsequent Architectural design and theory.	
Unit II: Principles of Design	**21 Hours**
Understanding and using basic principles like Repetition, Rhythm, Symmetry, Unity, Harmony, Balance Contrast etc. Learning the application of Principles of Design in form finding to achieve focus and interest in design using different 3d elements Exercises involving study models of different materials viz. Colored papers, wires, match Sticks etc. made by themselves.	
Unit III: Anthropometrics	**21 Hours**
Role of human dimensions in design including provisions for the physically challenged. Idea of human scale and proportion. Anthropometrics: human body as a basis of measurement. Relating space and self. Human scale. Basic ergonomics; measurement and perception of movement, single activity/ function spaces. The relation of human body with furniture design -like height of seat and knee height etc. Color theory and visual composition.	
Unit IV: Application of Anthropometrics	**21 Hours**
Study of human dimensions and proportions as applied to designing spaces with furniture layout. Exercises on anthropometric studies for postures and single/multiple person activities, design of furniture items like chairs, tables for self/specific person. Layout of furniture based on anthropometrics. Anthropometrics for physically challenged persons. Exercises in order to experiment basic proportions, body relations and spatial concepts. Design exercise on threshold conditions and small-scale domestic space Field trips to relevant architectural sites.	

Site Visits/ Case Studies:24 sessions

- Design problems will be introduced on the basis of live case studies and site visits as mandatory component of design studio to impart experiential learning.
- Field visits to enrich students' knowledge of context development for anthropometrics, scale and proportion.

Course Learning Outcomes:

CLO1	Understanding elementary Design (all forms of Art) and delineate interior design as the origin of all Art forms
CLO2	Outline Design Principles and its application in interior design.
CLO3	Harness multi-dimensional volumes through modeling spaces.
CLO4	Evaluate the aptitude of creative imagination under a set of constraints.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Donald Watson, Michael Crosbie, John Cllender	Time Saver Standard for Architectural Design Data	McGraw-Hill Education	1997	0070685061	1024
Francis D.K.Ching	Architecture Form, Space and Order	John Wiley & Sons,	2014	9781118745083	464
V.S.Pramar	Design Fundamentals in Architecture	Somaiya Publications Pvt.Ltd., New Delhi	1997.	8170391709	270
Ernst Neufert	Neuferts Architects Data	John Wiley & Sons	2000	9788126517619	636
Broadbent, G.	Design in Architecture - Architecture and Human Science	John Wiley and Sons. New York	1973	978-471105831	600

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
3	0	0	0	3

Course Title: INTERIOR MATERIALS & APPLICATION-I
Course Code: IND104
Credit Units: 3
Course Level: UG
Course Objectives: To build knowledge bank on construction materials and their application in Interior design.
Prerequisites: Basic awareness of materials around us

Course Contents/syllabus:

Unit I: Introduction to Materials	**12 Hours**
i. Wood - Soft and hardwood, plywood, laminated wood and particle boards – properties, manufacture & uses. ii. Synthetic Materials – Different types of Glass, their properties, manufacturing processes and uses. iii. Plastics – injection molding & other manufacturing methods, etc. iv. Fabrics – textile, Jute, leather etc. different types and their uses.	
Unit II: Types & uses of Materials for specific use.	**12 Hours**
i. Determining materials in interior spaces intended for specific usage like Studios/ offices/ Homes etc. ii. Preparing conceptual design sketches for commercial and residential interiors along with listing of materials to be prescribed	
Unit III: Building Components-I	**12 Hours**
i. Foundation - Brick Footing - RCC footing ii. Flooring - Concrete flooring, - plinth beam - floor finish	
Unit IV: Building Components-II	**12 Hours**
iii. Walls - sill level	

- lintel beam - doors and windows iv. Ceiling - RCC ceiling	

Site Visits/ Case Studies:6 sessions

- The students to gather samples of primary building materials and learn their applications in building construction.
- Students will observe measure, sketch and annotate what they see at site and submit a site visit report to the teachers concerned for evaluation. This award shall form part and parcel of the sessional work for internal assessment.

Course Learning Outcomes:

CL01	Knowledge of materials and construction in various spaces.
CL02	Gaining experience from quality Site visits about construction details.
CL03	Analyses of Industry Prices with study of types of materials for various spaces.
CL04	Learning through case examples and replicating the same in projects.

Text / Reference Books:

Author	**Title**	**Publisher**	**Ed/year**	**ISBN No**	**Pages**
R Barry	Building Construction	East West Press, New Delhi.	1999	8176710059	180
Don A. Watson	Construction Materials and Processes	McGraw Hill Co	1972	9780070684676	418
S.K. Duggal	Building Materials	New Age International Publishers	2021	9789387788398	600
Dr. B.C. Punmia,	Building Construction	Laxmi Publications (P) LTD	2017	9788131804285	668

Ashok K. Jain, Dr. Arun K. Jain					

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
4	0	1	1	6

Course Title: Interior **GRAPHICS-I**
COURSE CODE: IND105
Credit Units: 6
Course Level: UG
Course Objectives: To familiarize students with the principles and theories in graphics and architectural composition.vis, the development of art in Pencil.

Prerequisites: Basic knowledge of drawing and sketching.

Course Contents/syllabus:

	Hours
Unit I: Pencil as an effective presentation tool.	**24 Hours**
• **Free hand line work-**Understanding the Free hand drawing appropriate to visual & architectural representation, indoor & outdoor sketching, drawing from observation, terminology & abbreviations used in visual representation • **Compositions, and patterns with different strokes/grades in pencil -**Exercises in line & shape, tone & texture, figure & ground, Color & value, dimensioning, shading, symbols & scale.	
Unit II: Calligraphy	**24 Hours**
• **Lettering, writing styles, developing Architectural hand** To build understanding of importance of good writing, learning the meaning of the fonts for formal and informal activities	

• **Exercises in graffiti/ posters/ murals etc.** Learning the role of posters and its information, importance of logos and their meaning • **Composing Logo Cover page designing for various printed materials** Visual importance and its role in drawing and graphics.	
Unit III: Architectural Connotations	**24 Hours**
• **Understanding Architectural Connotations in freehand sketching-**To inculcate the importance of Architectural rendering techniques for building exteriors and interiors using pencils, color, values, tones, etc. • **Representing 2-D drawings of simple landscape features in pencil. Vis- crowns of trees, shapes of trees, textures of grass, rocks, tiles, cladding materials-** Architectural representation of trees, foliage and landscape elements. • **Depicting scale with the use of human figures in the sketches-** Architectural representation of, human figures, cars, and anthropometric symbols etc.	
Unit IV: Simple geometrical Volumes	**24 Hours**
• **Effect of light and shade & textures on solids- shapes and forms; human figures, trees and vehicles -** Sketching exercises along with inputs of light, shade, scale and proportion including but not limited to objects such as Pen, Television, Flowerpot, Teapot, Cups etc., Human figures / Postures, Furniture • **Sketches of scenes and activities from memory involving public spaces like markets, festivals, recreational spaces-** Enclosed Spaces in courtyards, Plazas, Chowks, Buildings, Canteen& Restaurant etc.	

Site Visits/ Case Studies:12 sessions

Outdoor sketching of simple shapes and volumes; viz treating building forms, human figures, trees and vehicles as live models.

Course Learning Outcomes:

Explain and illustrate usage of pencil as a tool in Interior Design profession.
Develop design hand using calligraphy
Identify and develop understanding of interrelationship between 2D and 3D form of simple object, with the help of sketching
Depiction of 3D scenes engaging scale and proportion to determine anthropometric representations.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Pratap Mulick	Sketching	Jyotsna Prakashan	2006	9788179251041	
Gill Robert W	Rendering with Pen & Ink	Thames & Hudson	1984	9780500680261	400
Ching, F. D. K	A Visual Dictionary of Architecture	John Wiley & Sons	2011	978-470648858	336
Morris, I. H.	Geometrical Drawing for Art Students.	Longmans.	2006	978-8125026099	100
Francis D.K. Ching	Architectural Graphics	CBS Publishers and Distributers PVT. LTD.	2015	978-1119035664	272

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
2	0	0	0	2

Course Title: HISTORY OF ARTS AND CRAFTS
Course Code: IND106
Credit Units: 2
Course Level: UG
Course Objectives: Understanding the development of artwork in early periods of Indian subcontinent in relation to climate, culture, religion and socio-economic circumstances and selection of materials and style in relation to architecture.
Prerequisites: Basic knowledge of History.

Course Contents/syllabus:

Unit I: Introduction to Indian Art and Culture	**9 Hours**
i. Brief introduction of Indian art and culture, sense of aesthetics, its origins and manifestation at various levels. Introducing to the concepts and beginning of culture and civilization. Introduction to art and culture of pre-historic ages along with classification under Paleolithic age, Mesolithic age, Neolithic age and the age of metals.	
Unit II: Early and prehistoric Indian art	**9Hours**
i. Early and prehistoric Indian art: Rock art, rock shelters and other rock carvings. Examples- Bhimbetka in central India and Edakal caves in Kerala. Introduction to the evolution of art in pre-historic Indian art with studying the examples of Bhimbetka in Madhya Pradesh. The reach of Indian art in various regions, discussions on Painting and artwork in Edakal caves in kerala.	
Unit III: Study of Civilizations in India	**9Hours**
i. Indus valley civilization: Bronze, terracotta and stone figurines, seals, motifs, ornaments etc. ii. **Vedic period: Vedic symbols, ritualistic designs and description of aesthetics and beauty in ancient Indian scriptures.** Introduction to various art forms such as artifacts, mural, sculptures, paintings etc. of Harappan and Vedic period civilization. Introduction to art & culture of ancient Indian Vedic culture. Art and culture of Medieval India such as Rajput and Islamic art and culture. Spread of Indian culture other parts of the world. Architecture and town planning of Harappan civilization such as towns of Lothal, MohenjoDaro, Dholavira, Kalibanga etc. Understanding of Vedic architecture, and settlements.	
Unit IV: Study of Art in India	**9 Hours**
i. Maurayan Art: Lion capitol of Ashoka and rock cut architecture. ii. **Buddhist art: rock cut art of Ajanta with cave-1,2,16,17,19, 29 Greco-Buddhist style, sculptures and development of indo-Corinthian capital at Gandhara.**	

Study of chronological development of religious and secular Hindu architecture and settlement planning; Early examples of monolithic and rock-cut architecture of South India. Development of Nagara and Dravidian temple architecture under different dynasties, such as like Cholas, Vijaynagar, Chandels, Hampi. Characteristic features of East, South, Central, West, and North Indian temple architecture for plan, shikhara, pillars, decoration, sculpture, etc. Theoretical base of Indian Architecture; examples from treatises like Mayamatam, Manasara, Samarangana Sutradhara etc.	

Course Learning Outcomes:

Understanding the development of art work in early periods of Indian subcontinent.
Analyzing the art work in relation to climate, culture, religion and socio-economic circumstances and selection of materials and style in relation to interior design.
Understanding the evolution of civilization in early periods of Indian subcontinent.
Evaluating the evolution of civilization in relation to climate, culture, religion and socio-economic circumstances and selection of materials and style in relation to interior design.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Meenakshi Dubey	Indian Rock Art - Prehistoric Paintings of the Pachmarhi Hills.	Bradshaw Foundation	1999	8176710059	180
Kanti Chandra Pandey	Comparative aesthetics. Vol. I. Indian aesthetics. Second edition.	Cambridge University Press	2009	8170804450	1368
David G. Saile	Architecture in Cultural Change: Essays in Built Form and Culture Research	School of Architecture and Urban Design, University of Kansas,	1986	--	175
Alan Colquhoun	Modern Architecture, History of Arts	Oxford University Press	2002	9780192842268	406

Frederick M. Asher	Art of India: Prehistory to the Present	Encyclopedia Britannica	2003	0852298137	501
Percy Brown	Indian Architecture (Buddhist and Hindu)	Kiran Book Agency	2016	9788123924571	216

Annexure **'CD-01'**

Course Title: ENVIRONMENTAL STUDIES 1
Credit Units: 2
Course Level: B. Sc.
Course Objectives: To develop basic understanding of the environment and role of humans in shaping it.
Prerequisites: Basic knowledge of environment around us.
Course Contents/syllabus:

	Hours
Unit-1- Multidisciplinary nature of environmental studies	**09 Hours**
Multidisciplinary nature of environmental studies: Definition, scope and importance; components of environment –atmosphere, hydrosphere, lithosphere and biosphere. Concept of sustainability and sustainable development.	
Unit-2-Ecosystems	**09 Hours**

Ecosystem: What is an ecosystem; Structure and function of an ecosystem; Energy flow in the ecosystem; Food chains, food webs and ecological succession. Case studies of the following ecosystems: Forest ecosystem Grassland ecosystem Desert ecosystem Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).	
Unit-3- Natural Resources	**09 Hours**
Natural resources: Land resources and land use change, land degradation, soil erosion and desertification. Deforestation: causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal population. Water Resources-Use and over-exploitation of surface and groundwater, floods, drought, conflicts over water (international and inter-state). Heating of earth and circulation of air; air mass formation and precipitation. Energy resources- renewable and non-renewable energy sources, use of alternate energy sources, Growing energy needs, Case studies.	
Unit-4- Biodiversity and its conservation	**09 Hours**
Biodiversity: Levels of biological diversity: genetic, species and ecosystem diversity; Biogeographic zones of India; biodiversity patterns and global biodiversity hot spots. India as a mega–biodiversity nation; endangered and endemic species of India. Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; conservation of biodiversity: *in-situ* and *ex-situ* conservation of biodiversity. Ecosystem and biodiversity services: ecological, economic, social, ethical, aesthetic and information value.	

Course Learning Outcomes: At the end of this course, the students will be able to develop:

- Appreciate the multi-disciplinary nature of environmental science

- Understand natural resources and evaluate limitations surrounding renewable and non-renewable resources
- Understand the nuances of ecosystem and learn about behaviour of various ecosystem
- Learn about the types, services and threats to our biodiversity and importance of conserving it.

Text / Reference Books:

AUTHOR	TITLE	Publisher	Year of publication	ISBN
William P. Cunningham, Mary Ann Cunningham	Principles of Environmental Science	McGraw-Hill	2019	9781260219715
Dash and Dash	Fundamentals of ecology	Tata McGraw-Hill Education	2009	978-0070083660
William P. Cunningham, Mary Ann Cunningham, Barbara Woodworth Saigo	Environmental Science: A global concern,	McGraw-Hill	2021	9781260363821
Gaston K.J. and Spicer, J. I.	Biodiversity – An Introduction 2nd edition	Blackwell Publishing	2004	978-1-405-11857-6

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
1	0	0	0	1

Course Title: ARCHITECTURAL COMMUNICATIONS
Course Code:
Credit Units:1
Course Level: UG
Course Objectives: To introduce the students to the architectural vocabulary in a graded manner.
Prerequisites: Basic knowledge of English.

Course Contents/syllabus:

Unit I: Grammar	**03 Hours**
• **Agreement of verb and subject, articles, prepositions, punctuation, change of voice, narration, common errors in English-**Introduction to communication, language, speaking skills and writing skills. Exercises related to building vocabulary, building sentences, pronunciation drills, conversational skills, language, the writing process, writing with a thesis, writing topic sentences, writing a paragraph • **Vocabulary of Architecture -**Introduction to building construction components to learn vocabulary of architecture, understanding relation between architectural designs, building components (Foundation, plinth, wall, sill, lintel, roof, doors, windows, ventilators, staircases, sunshades etc.) along with the building materials.	
Unit II: Writing for Events	**04 Hours**
• **Writing pertaining to events/activities. Paper presentation-** Writing and selecting a theme for an event. Preparing and delivering simple and interactive presentations on a selected theme using computer software. Public speaking for above types of presentations.	
Unit III: Technical composition	**04 Hours**
• **Technical composition (e.g., reports, papers essays) writing. Writing reports on Design projects/complexes** • **Presenting architectural concepts and proposals with the help of text, images, slides, video, photographs, models etc-**Preparing and delivering simple and interactive presentations on a selected theme using computer software. Public speaking for above types of presentations.	
Unit IV: Review Writing	**04 Hours**
• **Article reviews, Presentations and Seminars to be done in individual and group work on selected themes-** Understanding sequences and framework for presentation, importance of posture, gesture, pronunciation, tone etc. on presentation quality. Decision regarding selection of appropriate media such as text, photographs, videos, etc. for effective communication.	

Course Learning Outcomes:

CL01	Acquire fluency in spoken and written English
CL02	Able to communicate and understand with clarity, precision and confidence in the Architectural workplace.

CL03	Apply understanding of cultural, historical, and current perspectives on the manmade and natural environment
CL04	Ability to present an idea / theme / concept / notion effectively and confidently

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Francis D.K. Ching	A Visual Dictionary of Architecture Paperback – Illustrated	Wiley	1995	978-470648858	320
Das	An Introduction to Professional English and Soft Skills	Cambridge University Press	2009	978-8175966727	272
Kul Bhushan Kumar and R.S. Salaria	Effective Communication Skills	Khanna Publishing	2018	9789382609940	404
S. Freeman	Written Communication in English	Orient BlackSwan	1977	8125004262	224

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
1	0	0	0	1

Course Title: FRENCH GRAMMAR
Course Code:
Credit Units: 1
Course Level: UG/PG

Course Objectives: This course enables the students to read, comprehend, and analyze a wide range of texts such as small paragraphs and comprehensions in French. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French as well as demonstrate cultural awareness.

Course Contents/syllabus:

	Teaching Hours
Unit-I : My family and my house	**4**
Descriptors/Topics • Talk about your family members • Usage of possessive adjectives • Describe your house/apartment • Prepositions of location • Negation	
Unit-II- Lifestyle	**3**
Descriptors/Topics • Talk about your hobbies and pastimes • Usage of appropriate articles : definite and contracted • Talk about your daily routine • Usage of pronominal verbs	
Unit-III- In the city	**3**
Descriptors/Topics • Filling up a simple form • Ask for personal information • Usage of interrogative adjectives • Give directions about a place • Ordinal numbers • Usage of demonstrative adjectives	
Unit-IV- Week-end	**3**
Descriptors/Topics	

• Talk about your week-end plans • Usage of disjunctive pronouns • Usage of Near Future tense • Talk about weather • Write a simple post card	

Course Learning Outcomes: At the end of this course, the students will be able to interact in a simple way on everyday topics. This course content focuses on the speech of the students in a lucid and a concurrent manner using appropriate vocabulary and pronunciation techniques. Extra stress will be given on their understanding of grammatical structures and the foreign accent of the language. At the end of the course, the student shall be able to:

CLO1	Understand information; Express in his own words; Paraphrase; Interpret and translate
CLO2	Apply information in a new way in a practical context
CLO3	Analyze and break-down information to create new ideas
CLO4	Evaluate and express opinion in a given context

Annexure **'CD-01'**

Course Title: GERMAN GRAMMAR
Course Code:
Credit Units: 1
Course Level: UG/PG

L	T	P/S	SW/FW	Total Credit Units
1	0	0	0	1

Course Objectives: To help students learn:

- how to tell time.
- to write simple sentences and conversations using irregular verbs.
- to frame sentences with one subject and direct objects also revising the Nominative case done in the previous semester.

Course Contents/syllabus:

	Teaching Hours

Module I: Time (Uhrzeit); People and the World: Land, Nationalität und Sprache	**4**
• Introduction of time • Read text related to time and teach the students the time expressions • Exercises related to Time • Adverbs of time and time related prepositions • Vocabulary: Countries, Nationalities, and their languages • Negation: “nicht/ kein” • Ja/Nein Fragen. • All the colors and color related vocabulary, adjectives, and opposites • Exercises and comprehension for the same.	
Module II: Irregular verbs (unregelmässige Verben)	**3**
• Introduction to irregular verbs and their conjugation e.g. fahren, essen, lesen etc • Read a text related to the eating habits of Germans • Vocabulary: Obst, Gemüse, Kleiderstück with usage of irregular verbs • Free time and hobbies • Food and drinks	
Module III: Accusative case: articles and pronouns (Akkusativ Kasus: Artikel und Pronomen)	**3**
• Introduction to the concept of object (Akkusativ) • Formation of sentences along with the translation and difference between nominative and accusative articles • Usage of accusative Definite articles • Usage of accusative Indefinite articles	
Module IV: Accusative case: possessive pronouns (Akkusativ Kasus: Possessivpronomen) Family and Relationship	**3**
• Accusative Personal Pronouns: - Revision of the nominative personal pronouns and introduction of accusative. Applicability of pronouns for both persons and things. • Usage of accusative Personal Pronouns • Introduction of accusative possessive pronouns • Difference between nominative and accusative possessive pronouns • usage of accusative possessive pronouns	

Course Learning Outcomes: After completing these modules, the students will be capable of constructing sentences with possessive and demonstrative adjectives in German. In addition, they will be proficient in formulating meaningful sentences as they will be capable of applying

their knowledge of all the irregular verbs they have learnt during the session. They will also have an idea of German culture by studying about various German festivals.

At the end of the course, the student shall be able to:

CLO1	Understand information; Express in his own words; Paraphrase; Interpret and translate
CLO2	Apply information in a new way in a practical context
CLO3	Analyze and break-down information to create new ideas
CLO4	Evaluate and express opinion in a given context

Program Structure- 2nd sem

Courses shown in blue colour below are the courses offered by Department of Architecture & Design and the syllabi of the same were proposed in the meeting.

Sr. No	Course Code	Course Title	Course Type			Credit				Credit Units
				L	T	PS	FW	SW	AR/Des Studio	
1		Furniture Design	Professional Core Courses	2	1	0	0	0	0	3
2		History of ID	Allied Courses	2	1	0	0	0	0	3
3		ID Studio-II	Professional Core Courses	0	0	2	0	0	4	6

4		Interior Materials & Application-II	Core Courses	0	0	0	0	0	3	3
5		Interior Graphics-II	Professional Core Courses	0	0	0	0	0	4	4
6		Workshop Practice-I	Ability Enhancement Courses	0	0	2	0	0	0	1
7		EVS-II	Ability Enhancement Courses	2	0	0	0	0	0	2
8		Upholstery & Furnishings	Skill component -Core Courses	2	0	0	0	0	0	2
9		Foreign Business Language	Value Added Courses	1	0	0	0	0	0	1
		Total Credits						**Min Required: 25 Semester Credits: 25**		

Annexure **'CD-01'**

L/DS*	T	P/S/J	SW/FW	Total Credit Units
2	0	1	1	3

Course Title: FURNITURE DESIGN

Credit Units: 3
Course Level: UG
Course Objectives:

To develop the knowledge of furniture design.
To Impart the knowledge of various styles, system and products available in the market. And enhance the knowledge of ergonomics, materials, design and working parameters in designing furniture. Develops systematic design approach and space planning through furniture as elements of design.

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Prerequisites: Basic awareness of materials around us

Course Contents/syllabus:

Unit I: Introduction to Furniture Design	**10 Hours**
• Classification and Typology of Furniture: Residential, Business, Institutional, health care and Industrial; space saving alternatives and multi-use furniture. • Measurement and measurement systems for cast in-situ/ knock down/ modular furniture construction: drawers, dining chairs, sofa, settee, cots etc.	
Unit II: Furniture Construction Techniques	**10 Hours**
• Types of wood, steel and composite materials for layout techniques and machining plans. • Fabrication techniques - stapling, gluing. • Furniture Joinery - screw joinery, nail joinery, Mortise & tenon joints, Dovetail joints, Dowel joints, Edge joints etc. • Detailed construction drawings & explaining construction and material finishes.	
Unit III: Standards for Furniture	**10 Hours**
• Furniture Design Standards; Standard Industrial Classification (SIC) codes • Introduction to sustainability certifications for furniture like BIFMA- Business & Institutional Furniture Manufactures Association standards and certification • Laboratory facility design and planning in compliance with SEFA-Scientific Equipment and Furniture Association for laboratory furniture standards and certifications	
Unit IV: Furniture Model-Making	**10 Hours**

Preparation of block models of 'Home Art/Architecture Studio Furniture' viz; craft table, organization and storage systems for scrapbooks/portfolios/art equipment/ workspaces etc.	

Site Visits/ Case Studies:14 sessions

- To introduce the students to primary building materials and their applications in building construction.
- Students will observe measure, sketch and annotate what they see at site and submit a site visit report to the teachers concerned for evaluation.

Course Learning Outcomes:

CLO1	To gain Knowledge of styles, systems and products available in the market
CLO2	Acquire hands-on skills through case studies and Site visits
CLO3	To apply the enhance the knowledge of ergonomics in designing furniture.
CLO4	To evaluate space planning through furniture as elements of design.

Text / Reference Books:

- Furniture Design Standards – WoodBin
- What is a SIC Code? - SICCODE.com
- TIME SAVER STANDARDS FOR INTERIOR - [Download PDF] (vdocuments.net)

Author	Title	Publisher	Ed/year	ISBN No	Pages
R Barry	Building Construction	East West Press, New Delhi.	1999	8176710059	180
Don A. Watson	Construction Materials and Processes	McGraw Hill Co	1972	978-0070684676	418
Hanks, A. David	Decorative Designs of Frank Lloyd Wright	Dover Publications, Inc. New York	1979	978-0-525-24522-3	272
Jerzy Smardzewski	Furniture Design	Springer	2015	978-3319195339	994

Gary Rogowski	The Complete Illustrated Guide to Joinery	Taunton	2002	978-1561584017	400
Swedish Wood	Joinery Handbook for softwood furniture production	Swedish Forest Federation	2020	978-9198521467	114

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
2	1	0	0	3

Course Title: HISTORY OF INTERIOR DESIGN
Credit Units: 3
Course Level: UG
Course Objectives: To gain insight into developments of interior elements in response to social, religious, aesthetic and environmental factors.
Prerequisites: Basic knowledge of solids and volumes

Course Contents/syllabus:

Unit I: Pre- Industrial Era	**12 Hours**
Prehistoric Art, Greek Art, Roman Art Elements of style and determinants of Interior environments in Egypt, Mesopotamia, Babylonia, Chinese, Japan, Greece, Rome and Europe in Early Christian, Romanesque, Gothic, Byzantine, Renaissance, Baroque and Rococo period; Elizabethan and Neoclassic styles	
Unit II: Post- Industrial Era and Styles of Design	**14 Hours**

Forces of industrialization in Europe, changes in social structure, production systems, changes in technology and its impact on the life styles, arts and crafts and interior environments. An overview of Victorian, Art Nouveau arts and crafts, Cubism, surrealism, Romanticism etc.	
Unit III: History of Modern Movement in Interior Design	**14 Hours**
Art Deco, Industrial Design, Emergence and Spread of Modernism, Late Modernism.(Van Gogh, Paul Gauging, Paul Cezanne) Fauvism (Hennery Matisse). Evolution of Interior Design in India. Elements of style, interior environment, furniture etc.	
Unit IV: Post Impressionism	**14 Hours**
Cubism (Picasso, Peit Mondrian) (Relate the western art with Architecture, costumes & textiles of the particular period). various fields of design affecting interior ambiences directly – international modernism, regionalism and concerns with vernacular etc Designers and their works with respect to interior architecture and interior elements of design. Contemporary expressions of styles and art forms	

Course Learning Outcomes:

CL01	Acquire the knowledge to identify the common characteristics among the monuments of a particular style.
CL02	Acquire graphic skills to present and analyze the elements and explain its composition
CL03	Relating good practices of Interior Design in the past to the present applications
CL04	Assess historical themes and concepts for contemporary designs

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Dr. Meenakshi Dubey	Indian Rock Art - Prehistoric Paintings of the Pachmarhi Hills.	Bradshaw Foundation	1999	8176710059	180

Kanti Chandra Pandey	Comparative aesthetics. Vol. I. Indian aesthetics. Second edition.	Cambridge University Press	2009	8170804450	1368
David G. Saile	Architecture in Cultural Change: Essays in Built Form and Culture Research	School of Architecture and Urban Design, University of Kansas,	1986	--	175
Alan Colquhoun	Modern Architecture, History of Arts	Oxford University Press	2002	9780192842268	406
John Pile, Judith Gura	A History of Interior Design	Laurence King Publishing Ltd.	2005	9781856694186	464
Frederick M. Asher	Art of India: Prehistory to the Present	Encyclopedia Britannica	2003	0852298137	501
Percy Brown	Indian Architecture (Buddhist and Hindu)	Kiran Book Agency	2010	9781446510216	216
Percy Brown	Indian Architecture (Islamic Period)	Sun glory Enterprises	2005	9788123924564	125

Annexure **'CD-01'**

L/DS	T	P/S/J	SW/FW	Total Credit Units
4	0	1	1	6

Course Title: INTERIOR DESIGN STUDIO- II
Credit Units: 6

Course Level: UG

Course Objectives: To impart an understanding of perception of interior space through architectural elements

To develop the design of single-storeyed structure laying the emphasis on form, function and structure systems.

Prerequisites: Basic knowledge of Drawing and sketching.

Course Contents/syllabus:

Unit I: Parameters of Space Design	**21 Hours**
Introduction to design methodology. Detailed study of spaces such as living, dining, bedrooms, kitchen, toilet etc. including the furniture layout, circulation, clearances, lighting and ventilation, etc. Case study of existing house and analysis of the spaces.	
Unit II: Residential Spaces	**21 Hours**
Bedroom/Drawing room: Concepts in bedroom & living room interiors – various layout of these spaces – the use of furniture and accessories to create a certain type of ambience – materials & finishes – lighting, color & texture.	
Unit III: Kitchen spaces	**21 Hours**
Work triangle, planning for activity – anthropometrics – types of kitchen- Modular kitchens. Materials used in counters, shelves, worktops, washing areas & their comparative study. Lighting & color scheme – natural & artificial light.	
Unit IV: Toilets & Conveniences	**21 Hours**
Anthropometry – various types of sanitary ware and their use – types of layouts – concepts in modern day toilet interiors – materials & finishes – color, texture & pattern.	

Site Visits/ Case Studies:24 sessions

- Design problems will be introduced on the basis of live case studies and site visits as mandatory component of design studio to impart experiential learning.

- Field visits to enrich students' knowledge of context development for living/ working spaces and anthropometrics.

Course Learning Outcomes:

CLO1	Understanding the fundamental issues in designing spaces
CLO2	Develops the skill to create floor plans
CLO3	Analyze layouts with respect to anthropometric data.
CLO4	Evaluate the factors affecting spatial composition.

Text / Reference Books:

Author	**Title**	**Publisher**	**Ed/year**	**ISBN No**	**Pages**
Donald Watson, Michael Crosbie, John Cllender	Time Saver Standard for Architectural Design Data	McGraw-Hill Education	1997	0070685061	1024
Francis D.K.Ching	Architecture Form, Space and Order	John Wiley & Sons,	2014	9781118745083	464
V.S.Pramar	Design Fundamentals in Architecture	Somaiya Publications Pvt.Ltd., New Delhi	1997.	8170391709	270
Ernst Neufert	Neuferts Architects Data	John Wiley & Sons	2000	9788126517619	636
Broadbent, G.	Design in Architecture - Architecture and Human Science	John Wiley and Sons. New York	1973	978-471105831	600

Roger, K. L.	Architect? A Candid Guide to the Profession	Cambridge: The MIT Press	1998	0262621215	304
Gopal Dwivedi	Modular Kitchen Planning & Designing Guide: A-Z Modular Kitchen Guide for Indian Homes	Notion Press	2020	978-1636339733	244
Charlotte Baden-Powell	Architect's Pocket Book of Kitchen Design	Routledge	2016	978-1138134638	232

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
2	0	1	1	3

Course Title: INTERIOR MATERIALS & APPLICATION-II
Credit Units: 3
Course Level: UG
Course Objectives: To familiarize the students with detail of various building components
To introduce the building materials their properties and application in building construction.

Prerequisites: Basic awareness of materials around us

Course Contents/syllabus:

Unit I: Introduction to Wall Construction	**12 Hours**
Walls- Types of Masonry Different types - Stone walls – random rubble, coursed rubble, square rubble, polygonal rubble & Ashlar etc Brick masonry -Types of bonds - single & double Flemish bond, header bond, stretcher bond, rat trap bond, ornamental bonding	
Unit II: Wall Paneling and Cladding	**12 Hours**
Paneling – Using wooden planks, laminated plywood, cork sheets, fibre glass wool & fabric for sound insulation and wall paneling for thermal insulation	
Unit III: Doors & Window (Wooden, Aluminum & Glass)	**12 Hours**
Types including, openable, sliding, folding pivoted Lodged and braced, paneled doors, glazed doors, Joinery details for doors. Window Types – Casement, fixed, horizontal sliding, vertical sliding, pivoted, and top hung types Ventilators- top hung, bottom hung, pivoted, louvered, fixed types. Joinery details for windows, ventilatorsfloor finish	
Unit IV: Staircase	**12 Hours**
Types according to profile – straight flight, doglegged, quarter turn, half turn, bifurcated, spiral & helical. Types based on materials (timber, wood, steel, synthetic materials). Details of handrails & balusters. Designing and detailing for physically handicapped	

Site Visits/ Case Studies:6 sessions

- Students will observe measure, sketch and annotate what they see at site and submit a site visit report to the teachers concerned for evaluation. This award shall form part and parcel of the sessional work for internal assessment.

Course Learning Outcomes:

CL01	Understand classifications and usage of traditional building materials and their use in simple building work
CL02	Gaining experience from quality Site visits about construction details.
CL03	Select and apply appropriate building materials in specific situations
CL04	Evaluate the case studies and innovate solutions in projects.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
R Barry	Building Construction	East West Press, New Delhi.	1999	8176710059	180
Don A. Watson	Construction Materials and Processes	McGraw Hill Co	1972	9780070684676	418
S.K. Duggal	Building Materials	New Age International Publishers	2021	9789387788398	600
Dr. B.C. Punmia, Er. Ashok K. Jain, Dr. Arun K. Jain	Building Construction	Laxmi Publications (P) LTD	2017	9788131804285	668

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
4	0	0	0	4

Course Title: INTERIOR GRAPHICS-II
Credit Units: 6
Course Level: UG
Course Objectives: To impart the techniques of rendering in different media and skills of three dimensional visualization and presentation..

Prerequisites: Basic knowledge of drawing and sketching.

Course Contents/syllabus:

	Hours
Unit I: Pen and Ink as presentation tools.	**24 Hours**
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 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 et Calligraphy handwriting	
Unit II: Pencil Crayons and Oil Pastels	**24 Hours**
Rendering of various surfaces such as brick, stone, grass, timber etc. Trees, Human figures, Automobiles, Lamp Posts, Street furniture in Plan, Elevation and Perspective in Crayons and Oil Pastels	
Unit III: Perspective	**24 Hours**
Characteristics of perspective drawings, perspectives of simple geometric solids and spaces and complex geometries. Advanced examples in one point or parallel perspective, two point or angular perspective. Introduction to three point perspective. Interior perspectives of rooms. Rendering of the perspectives in different media through drawing pencil, pen, brush, charcoal, crayons, color, monochrome, wash rendering etc,. Integrating landscape elements, human figures, shadows, foreground etc in the perspective	
Unit IV: Introduction to Sciography	**24 Hours**
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 Drawing from imagination – speculative drawings, diagramming, drawing compositions, concept sketches, design development sketches, presentation sketches Presentation drawings, Graphical presentations etc	

Site Visits/ Case Studies:12 sessions

Outdoor sketching to understand shades and shaows cast by diffeent shapes and volumes likebuilding components, human figures, trees and vehicles.

Course Learning Outcomes:

CLO1	Understand the techniques of architectural drawing pertaining to 3D views and perspectives, sciography and rendering.
CLO2	Develop handwriting using calligraphy
CLO3	Identify and develop understanding of three dimensional visualization and presentation.
CLO4	Evaluate rendering methods in different media

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Pratap Mulick	Sketching	Jyotsna Prakashan	2006	9788179251041	
Gill Robert W	Rendering with pen & ink	Thames & Hudson	1984	9780500680261	400
Ching, F. D. K	A Visual Dictionary of Architecture	John Wiley & Sons	2011	978-470648858	336
Morris, I. H.	Geometrical Drawing for Art Students.	Longmans.	2006	978-8125026099	100
Francis D.K. Ching	Architectural Graphics	CBS Publishers and Distributers PVT. LTD.	2015	978-1119035664	272

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
0	0	2	0	1

Course Title: WORKSHOP PRACTICE-I
Credit Units: 1
Course Level: UG

Course Objectives: To familiarise students with different types of materials and manufacturing techniques for creating art forms/ models.
Prerequisites: Basic knowledge of drawing

Course Contents/syllabus:

Unit I: Identifying Tools and Materials for Craft Work	**9 Hours**
• Introduction to the use of different types of tools used in carpentry/ model making with variety of materials like paper, thermocol, clay, ceramic, plastic sheet, sheet metal, wood etc. • Rules, safely and precautions • Learning the usage of various materials in 2D and 3D art work • Create an art work with the above materials by hand	
Unit II: Wooden Joints	**9 Hours**
• Different types of joints, joinery details (which are commonly used in timber construction and interiors). • Learning to handle machine tools • Application of machine tools for art work	
Unit III: Soap carving	**9 Hours**
• Study of application of art work in design field • Creation of art work for design presentation • Soap carving to create sculptural forms	
Unit IV: Brick and Stone Masonry	**9 Hours**

• Scaled live examples in construction courtyard- brick and stone masonry	

Course Learning Outcomes:

CL01	To sensitize the usage of various materials for production of art work
CL02	To apply different mediums and machine tools for production various types of art work
CL03	To analyze different mediums for create art forms
CL04	Build and Create, 3D models, of simple built forms, using hand tools and crafting technique

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Eugene Felder & Emmett Elvin	The complete book of drawing techniques.	Charotar Publishing House Pvt. Limited.	2010	978-9380358178	720
Catherine Norman, Ryland Peters & Small	Paper Scissor Glue	S Chand	2014	978-121939263	456
Tim Mc Creight & Nicole Bsulla	Color on Metal	GUILD Pub	2001		126

Annexure **'CD-01'**

Course Title: Environmental Studies-II

Credit Units: 2

Course Level: B. Sc.

Course Objectives: To develop basic understanding of the environment and role of humans in shaping it.

Prerequisites: Basic knowledge of environment around us.

Course Contents/syllabus:

	Total Hours
Unit-1- Environmental Pollution	**9 hours**
Environmental Pollution: types, Cause, effects and controls –Air, water, soil, chemical and noise pollution. Nuclear hazard and human health risk Solid waste Management-control measures of urban and industrial waste. Pollution case studies.	
Unit-2- Environmental Policies and practices	**9 hours**
Environmental Policies and practices: Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture. Environment laws: Environment Protection Act; Air (Prevention and Control of Pollution) Act; Water (Prevention and Control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act, international agreements: Montreal and Kyoto protocols and convention on biological diversity(CBD), The Chemical Weapons Convention (CWC). Natural reserves, tribal population and rights and Human-wildlife conflict in Indian context.	
Unit-3- Human communities and the Environment	**9 hours**
Impacts on environment, human health and welfare. Carbon foot-print. Resettlements and rehabilitation of project affected persons, case studies. Disaster management: floods, earthquake, cyclone and landslides. Environmental movements: Chipko, Silent valley, Bishnois of Rajasthan.	

Environmantal ethics: Role of Indian and other religions and cultures in environmental conservation. Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).	
Unit-4- Field work	**9 hours**
• Visit to an area to document environmental assets: river/forest/flora/fauna, etc. • Visit to local polluted Site-Urban/Rural/Industrial/Agricultural • Study of common plants, insects, birds and basic principles of identification. • Study of simple ecosystems-pond, river, Delhi Ridge, etc.	

Course Learning Outcomes: At the end of this course, the students will be able to develop:

- Understanding the types of pollution and their impact on environment and human health.
- Understand the environmental concerns and their impact on humans and agriculture.
- Able to analyse the impacts of natural and manmade disaster on human population and settlements.
- Sensitization about the environmental issues and concerns leading to proactive actions to improve the environmental conditions in our daily life.
- Able to imbibe practical approach and solution to solve environmental concerns.

Text / Reference Books:

AUTHOR	TITLE	Publisher	Year of publication	ISBN	Pages
William P. Cunningham, Mary Ann Cunningham	Principles of Environmental Science	McGraw-Hill	2019	9781260219715	--
William P. Cunningham, Mary Ann Cunningham, Barbara Woodworth Saigo	Environmental Science: A global concern,	McGraw-Hill	2021	9781260363821	--
Gurjar B. R., Molina L.T., Ojha C.S.P. (Eds.)	Air Pollution: Health and Environmental Impacts	CRC	2010	9781439809624	--
Elaine M.A. and Bugyi G.(Eds.)	Impact of Water Pollution on Human Health and Environmental Sustainability (Practice,	Idea Group, U.S	2016	978-1466695597	--

	Progress, and Proficiency in Sustainability)				
Bryant E.	Natural Hazards, 5th Edition	Cambridge University Press	2004	978-0521537438	--
Keith Smith	Environmental Hazards Assessing Risk and Reducing Disaster	Oxford University Press	2013	978-0415681063	--

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
2	0	0	0	2

Course Title: UPHOLSTERY & FURNISHINGS
Credit Units: 2
Course Level: UG

Course Objectives: To familiarise students with the need and requirement of upholstery and furnishings and their construction methods.

Prerequisites: Basic knowledge of fabrics

Course Contents/syllabus:

Unit I: Introduction to Fabrics	**9 Hours**
i. Fabric, yarn and fiber structure, ii. Fabric structure- woven- warp, weft, selvedge ,knitted- course, non-woven, iii. Fabric types and classification- iv. **woven,** including plain, twill, satin, Jacquard, crepe and pile weaves, v. **knitted**- including single knit, double knit, tricot knit, pile knit, lace and net , vi. **Non-woven-including** felts webs and films, identification and properties of fabrics, yarns and fibers.	
Unit II: Application of elements and Principles of Furnishing Design	**9 Hours**
i. Application of elements and principles of design across a range of textiles ii. Textile arts and crafts in interiors, traditional and modern materials and methods.	
Unit III: Upholstery fabrics	**9 Hours**
Cotton, linen, silk, rayon, acrylic, vinyl, polyester, etc. Preparing samples on tie and die printing, macramé and braiding.	
Unit IV: Furnishings	**9 Hours**
i. Furnishings-classification, types of curtain, curtain construction, selection criteria relation to backgrounds in walls, floors and ceilings. ii. Draperies, shades, blinds ,cushion covers, bed linen and table linen Floor coverings - rugs and carpets, types selection, care and maintenance, installation of floor coverings	

Course Learning Outcomes:

CL01	Acquaint with fabric materials for production of art work
CL02	Apply different textiles for production various types of art work
CL03	Analyze samples of fabrics useful for applique work in interiors
CL04	Evaluate modeling technique for various surfaces in interiors

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
R Barry	Building Construction	East West Press, New Delhi.	1999	8176710059	180
Don A. Watson	Construction Materials and Processes	McGraw Hill Co	1972	9780070684676	418
Hanks, A. David	Decorative Designs of Frank Lloyd Wright	Dover Publications, Inc. New York	1979.	9780525245223	272
K. K. Goswami	Advances in Carpet Manufacture (The Textile Institute Book Series)	Woodhead Publishing	2017	9780081011317	542
Martand Singh, Rta Kapur Chishti and Rahul Jain	Handcrafted Indian Textiles: Tradition and Beyond	Lustre Publication	2009	8174360840	149

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
1	0	0	0	1

Course Title: FRENCH GRAMMAR
Credit Units: 1
Course Level: UG/PG

Course Objectives: This course enables the students to read, comprehend, and analyze a wide range of texts such as small paragraphs and comprehensions in French. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French as well as demonstrate cultural awareness.

Course Contents/syllabus:

	Teaching Hours
Unit-I : My family and my house	**4**
Descriptors/Topics • Talk about your family members • Usage of possessive adjectives • Describe your house/apartment • Prepositions of location • Negation	
Unit-II- Lifestyle	**3**
Descriptors/Topics • Talk about your hobbies and pastimes • Usage of appropriate articles : definite and contracted • Talk about your daily routine • Usage of pronominal verbs	
Unit-III- In the city	**3**
Descriptors/Topics • Filling up a simple form • Ask for personal information • Usage of interrogative adjectives • Give directions about a place • Ordinal numbers • Usage of demonstrative adjectives	
Unit-IV- Week-end	**3**
Descriptors/Topics • Talk about your week-end plans • Usage of disjunctive pronouns • Usage of Near Future tense • Talk about weather • Write a simple post card	

Course Learning Outcomes: At the end of this course, the students will be able to interact in a simple way on everyday topics. This course content focuses on the speech of the students in a lucid and a concurrent manner using appropriate vocabulary and pronunciation techniques. Extra stress will be given on their understanding of grammatical structures and the foreign accent of the language. At the end of the course, the student shall be able to:

- Understand information; Express in his own words; Paraphrase; Interpret and translate.
- Apply information in a new way in a practical context
- Analyze and break-down information to create new ideas
- Evaluate and express opinion in a given context

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN No
Christine Andant, Catherine Metton, Annabelle Nachon, Fabienne Nugue,	A Propos - A1, Livre de l'élève et Cahier d'exercices.	Langers International Pvt. Ltd.	2010	978-9380809069
Collins Dictionaries	Easy Learning French Complete Grammar, Verbs and Vocabulary	Collins	2016	978-0008141721
Nikita Desai, Samapita Dey Sarkar	Apprenons La Grammaire Ensemble - French	Langers International Pvt. Ltd.	2017	978-8193002681

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
1	0	0	0	1

Course Title: GERMAN GRAMMAR
Credit Units: 1

Course Level: UG/PG

Course Objectives: To help students learn:

- how to tell time.
- to write simple sentences and conversations using irregular verbs.
- to frame sentences with one subject and direct objects also revising the Nominative case done in the previous semester.

Course Contents/syllabus:

	Teaching Hours
Module I: Time (Uhrzeit); People and the World: Land, Nationalität und Sprache	**4**
• Introduction of time • Read text related to time and teach the students the time expressions • Exercises related to Time • Adverbs of time and time related prepositions • Vocabulary: Countries, Nationalities, and their languages • Negation: “nicht/ kein” • Ja/Nein Fragen. • All the colors and color related vocabulary, adjectives, and opposites • Exercises and comprehension for the same.	
Module II: Irregular verbs (unregelmässige Verben)	**3**
• Introduction to irregular verbs and their conjugation e.g. fahren, essen, lesen etc • Read a text related to the eating habits of Germans • Vocabulary: Obst, Gemüse, Kleiderstück with usage of irregular verbs • Free time and hobbies • Food and drinks	
Module III: Accusative case: articles and pronouns (Akkusativ Kasus: Artikel und Pronomen)	**3**
• Introduction to the concept of object (Akkusativ) • Formation of sentences along with the translation and difference between nominative and accusative articles • Usage of accusative Definite articles • Usage of accusative Indefinite articles	
Module IV: Accusative case: possessive pronouns (Akkusativ Kasus: Possessivpronomen) Family and Relationship	**3**

• Accusative Personal Pronouns: - Revision of the nominative personal pronouns and introduction of accusative. Applicability of pronouns for both persons and things. • Usage of accusative Personal Pronouns • Introduction of accusative possessive pronouns • Difference between nominative and accusative possessive pronouns • usage of accusative possessive pronouns	

Course Learning Outcomes: After completing these modules, the students will be capable of constructing sentences with possessive and demonstrative adjectives in German. In addition, they will be proficient in formulating meaningful sentences as they will be capable of applying their knowledge of all the irregular verbs they have learnt during the session. They will also have an idea of German culture by studying about various German festivals.

At the end of the course, the student shall be able to:

- Understand information; Express in his own words; Paraphrase; Interpret and translate.
- Apply information in a new way in a practical context
- Analyse and break-down information to create new ideas
- Evaluate and express opinion in a given context

Text / Reference Books:

Author	Title	Publisher	Year	ISBN No	Pages
Dora Schulz, Heinz Griesbach	Deutsche Sprachlehre Fur Auslander	Max Hueber Verlag	1984	978-3190010066	-
Hartmut Aufderstrasse, Jutta Muller, Helmut Muller	Themen Aktuell: Glossar Deutsch	Max Hueber Verlag	2003	978-3190816903	-
Giorgio Motta	Wir Plus Grundkurs Deutsch fur Junge Lerner Book German Guide	Goyal Publishers	2011	9788183072120	248

Program Structure- 3rdsem

Courses shown in blue colour below are the courses offered by Department of Architecture & Design and the syllabi of the same were proposed in the meeting.

Sr. No	Course Code	Course Title	Course Type			Credit				Credit Units
				L	T	PS	FW	SW	AR/Des Studio	
1		Thermal Comfort & Climatology	Professional Core Courses	3	0	0	0	0	0	3
2		Sustainable ID	Allied Courses	3	0	0	0	0	0	3
3		ID Studio-III	Professional Core Courses	0	0	2	0	0	4	6

4		Services Design-I(P.H)	Core Courses	3	0	0	0	0	0	3
5		Interior Graphics-III	Professional Core Courses	0	0	4	0	0	0	4
6		Workshop Practice-II	Ability Enhancement Courses	0	0	2	0	0	0	1
7		Biophilic Design	Ability Enhancement Courses	0	0	2	0	0	2	3
8		Interior Accessories Design	Allied Courses	1	0	0	0	0	0	1
9		Digital Branding	Allied Courses	1	0	0	0	0	0	1
		Total Credits						**Min Required: 25 Semester Credits: 25**		

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
3	0	0	0	03

Course Title: THERMAL COMFORT & CLIMATOLOGY
Credit Units: 03
Course Level: UG
Course Objectives: To develop basic understanding of comfort zone and climatology.
-To impart scientific building design and site planning as related to climate, particularly to tropical climates as found in India by giving importance for human comfort in interior spaces through natural elements
-To familiarize the students with the data, methods, principles, standards and tools for planning and designing for climatic comfort.

Prerequisites: Basic knowledge of Interiors Spaces and its understanding.
Course Contents/syllabus:

Unit I: Introduction to the Thermal Comfort	**12 Hours**
Why do we build buildings. Effects of climate on people Thermal comfort and heat flow: Thermal comfort factors, physiological aspects. Body heat balance. Building climatological site analysis, application of comfort diagrams	
Unit II: Theory of Heat Flow	**14 Hours**
Introduction to basic thermal units, heat transmission, thermal properties of materials, human heat balance. Bodily heat transfer Shelter and Environment	
Unit III: Physiological Comfort	**14 Hours**
Climate regions in India, Outdoors and indoors, heat flow within buildings, steady state conditions and periodic flow, thermal performance of building elements Comfort zone	
Unit IV: Sun and Design Process	**14 Hours**
Solar charts, sun angles and shadow angles, Orientation for sun, sun control, Design of shading devices, radiation, glare, solar energy and its technical applications. Climate and material choices, color and texture choices for interior spaces	

Course Learning Outcomes:

CL01	Understand scientific building design and site planning as related to climate,
CL02	Understand the climatic types in India and the impact on requirements of building design
CL03	Analyze the data, methods, principles, standards and tools for planning and designing for climatic comfort.
CL04	To be able to predict climatic conditions in a given building and redesign for given parameter

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Arvind Krishan; Nick Baker; Simos Yannas & S V Szokolay	Climate responsive architecture: A design handbook for energy efficient buildings	Tata McGraw-Hill Pub. Co	First, 2017	978-0074632185	409
Otto H. Koenigsberger	Manual of tropical housing and building	Longman	First, 1975	978-0582445451	320
Richard Hyde	Climate Responsive Design: A Study of Buildings in Moderate and Hot Humid Climates	Taylor & Francis	First, 2000	978-0419209706	256
The Energy and Resources Institute (TERI)	Griha Introduction to National Rating system	India: TERI Press	2013	-	-
Rohinton Emmanuel	Urban Climate Challenges In The Tropics: Rethinking Planning And Design Opportunities	Imperial College Press	2016	978-1783268405	384

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
3	0	0	0	3

Course Title: SUSTAINABLE INTERIOR DESIGN
Credit Units: 3
Course Level: UG
Course Objectives: To create awareness of sustainable materials and technologies – traditional & new innovations for the construction of furniture, furnishings and products.

Prerequisites: Basic knowledge of interior components.

Course Contents/syllabus:

Unit I: Traditional Sustainable materials & technologies in the construction and interior space design industries	**12 Hours**
Adobe • Bamboo • Managed Forests • Recycled/Up-cycled material	
Unit II: Innovations in sustainable materials and technologies associated to the construction & Interior space design industries	**14 Hours**
Bamboo construction materials • Prefabricated construction • Recycled and up-cycled materials • Renovation and restoration	
Unit III: Innovations in sustainable thinking for the future	**14 Hours**
UN Sustainable Development Goals • The Paris Climate Agreement	
Unit IV: Renewable Energy Vs. Non-Renewable Energy	**14 Hours**

Imapct of non-renewable i.e. traditional fossil fuel based energies. • Renewable energy systems and technology innovations • Sustainable energy schemes and initiatives in India	

Course Learning Outcomes:

CL01	Understand the benefits of using sustainable materials on adhering to Green Building legislation
CL02	Understand the benefits of using sustainable materials on adhering to Green Building legislation
CL03	Investigate and explore methods to integrate sustainable design and systems into their design work and create spaces that have limited impact on the environment
CL04	Develop research and analytical skills with reference to sustainable designers and their work.

Text / Reference Books:

Author	**Title**	**Publisher**	**Ed/year**	**ISBN No**	**Pages**
Linda Reeder	Guide to Green Building Rating Systems: Understanding LEED	Green Globes	2010	9780470401941	222
Jerry Yudelson,	The Green Building Revolution	Island Press	2007	9781597261784	272
Krishan A.	Climate Responsive Architecture	McGraw Hill Education	2017	978-0074632185	4089
.K. Nayak & J.A. Prajapati	Handbook of Energy Conscious Buildings	Indian Institute of Technology, Bombay and Solar Energy Centre, Ministry of Non-conventional Energy Sources, Government of India.	2016	-	80
Mili Majumdar	Energy Efficient Buildings in India	TERI-The **Energy** and Resources Institute,	2009	978-8185419824	250

Louise Jones	Environmentally Responsible Design: Green and Sustainable Design for Interior Designers	Wiley	2008	978-0471761310	432

Annexure **'CD-01'**

L/DS	T	P/S/J	SW/FW	Total Credit Units
4	0	1	1	6

Course Title: INTERIOR DESIGN STUDIO- III
Credit Units: 6
Course Level: UG
Course Objectives: To develop the design of office buildings with respect to site, landscape, climate and Socio-economic conditions in urban context. & the application of anthropometrics

Prerequisites: Basic knowledge of Drawing and sketching.

Course Contents/syllabus:

Unit I: General offices & Workstations	**21 Hours**
Interior designing for multi-functional, multi-level planning, design and detailing of various work spaces, interactions zones.	
Unit II: Front Office and Public Interaction Spaces	**21 Hours**
Design of Interactive spaces including reception desk, Atria, Lounges-Formal & Informal	

Unit III: Private offices	21 Hours
Planning for small offices – office of professionals viz; architects, interior designers, lawyer, journalists Cas and auditors – individual layouts, Modular units:-play with levels, color scheme & Lighting – natural & artificial light etc.	
Unit IV: MNC Interiors	**21 Hours**
Design of corporate Environments such as BPO, corporate offices for large scale Multi-National Organizations, BPOs etc.	

Site Visits/ Case Studies: 24 sessions

- Design problems will be introduced on the basis of live case studies and site visits as mandatory component of design studio to impart experiential learning.
- Field visits to enrich students' knowledge of context development for well-designed residences and public spaces.

Course Learning Outcomes:

CLO1	Develop understanding of workspace ambience
CLO2	Outline Design hierarchy of workspaces and its application in interior design.
CLO3	Create multi-dimensional interaction spaces for public offices
CLO4	Evaluate the parameters of office interiors in specific settings and iterate customized solutions.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Donald Watson, Michael Crosbie, John Cllender	Time Saver Standard for Architectural Design Data	McGraw-Hill Education	1997	0070685061	1024

Francis D.K.Ching	Architecture Form, Space and Order	John Wiley & Sons,	2014	9781118745083	464
V.S.Pramar	Design Fundamentals in Architecture	Somaiya Publications Pvt.Ltd., New Delhi	1997.	8170391709	270
Ernst Neufert	Neuferts Architects Data	John Wiley & Sons	2000	9788126517619	636
Broadbent, G.	Design in Architecture - Architecture and Human Science	John Wiley and Sons. New York	1973	978-471105831	600
Roger, K. L.	Architect? A Candid Guide to the Profession	Cambridge: The MIT Press	1998	0262621215	304
Nicola Gillen	Future Office: Next-generation workplace design	RIBA Publishing	2019	978-1859468456	176
Susan Szenasy	Office Furniture (The Office Book Design Series)	Facts On File Inc	1985	978-0871968111	96
Ana Martins	Where We Work: Design Lessons from the Modern Office	Frame Publishers BV	2021	978-9492311504	320

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
3	0	0	0	3

Course Title: SERVICES DESIGN-I(P.H.)
Credit Units: 3
Course Level: UG
Course Objectives: To acquaint the students with the basic principles used in all basic building services with regards to Water supply, Sanitation, and storm water drainage

Prerequisites: Basic awareness of materials around us.

Course Contents/syllabus:

Unit I: Water Supply	**12 Hours**
Requirements of water supply to different types of buildings, fixtures, methods of distribution of water sizing of vessels for storage - Types of hot water systems- Central system, Solar heaters	
Unit II: Municipal water distribution systems	**14 Hours**
underground and overhead water tanks. Brief description of rainwater harvesting and water table recharging techniques.	
Unit III: Sanitation Systems	**14 Hours**
Classification of sanitary fixtures Ablution fixtures - wash basins - sinks- Kitchen, Janitor Bathroom fixtures – shower trays - Bathtubs - Soil fixtures Water Closets - WC - floor & wall mounted - Indian water closet – Anglo – Indian water closets – Urinals Bowl, Stall , Aqua free - Squatting plate - Bidet – Slop sinks	

Refuse, different form of refuse: garbage/solid waste, storm water, their collection and disposal systems. ,	
Unit IV: Drainage	**14 Hours**
Drainage layout for building premises, kitchen, utility and toilet layouts, fixtures and fittings. Types of traps,manholes, grease chambers, inspection chambers, intercepting traps. Ventilation of drains and sewers, principles of design of sewer lines	

Site Visits/ Case Studies: 09 sessions

- Layouts of services will be introduced on the basis of live case studies and site visits as mandatory component of Services design to impart experiential learning.
- Field visits to enrich students' knowledge of context development for well-designed residences and public spaces.

Course Learning Outcomes:

CL01	Gain knowledge of sanitary and water supply systems in the interiors.
CL02	Understand principles and installations of general and specialized services in the interiors.
CL03	Analyze the significance of design and functioning of water and sewerage systems as essential components in Interior Design
CL04	Design the layout, functioning and application of utilities and P.H. services in the interior

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Birdie, J. S. & Birdie, G. S	Water Supply and Sanitary Engineering	Dhanpat Rai Publishing Company (p) Ltd	2010	978-8187433798	984
Fred Hall, Roger Greeno	Building Services Handbook	Routledge	2015	978-1138805637	768

Bureau of Indian Standards	The National Building Code	BIS Publications	2020	978-8170610991	2246
Gurcharan Singh	Water Supply and Sanitary Engineering	Standard Publishers & Distributors	2020	978-8180140297	968
Rangwala	Water Supply And Sanitary Engineering	Charotar Publishing House Pvt. Ltd.	2016	978-9385039201	800

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
4	0	0	0	4

Course Title: INTERIOR GRAPHICS-III
Credit Units: 5
Course Level: UG
Course Objectives: To develop perception; presentation of simple architectural forms & buildings.

Prerequisites: Basic knowledge of drawing and sketching.

Course Contents/syllabus:

	Hours
Unit I: Perspective Drawing- Grid Point Method	**12 Hours**
Perspective Drawing: Introduction to Grid Point Method. Exercises on One point Interior perspectives	
Unit II: Measurement Point method	**14 Hours**
Exercises on Two-point perspective views using Measurement Point method	
Unit III: Introduction to AutoCAD	**14 Hours**
• Basic concepts: Opening a file, Saving a file, Closing a file • Setting up the documents: Viewing documents, Using rulers, Changing sizes • filing and setting drawing units • Using co-ordinate systems – The UCS. Working with Cartesian and polar coordinate systems. Using displays with shortcuts	
Unit IV: Annotating Objects	**14 Hours**
• Basic commands dealing with drawing properties: Layer control, change properties, line weight control, etc. • Adding text to drawing limits that size and dimensioning, calculating distance, angle, areas etc. • Lettering and Hatching the drawing • Setting up of drawing of various simple objects with complete text and dimensioning.	

Course Learning Outcomes:

CLO1	Orient two and three dimensional objects in space
CLO2	Develop 3D design using perspective drawing
CLO3	Identify and develop understanding of presentation and visualization of interiors using CAD
CLO4	Exercise methods of interface within CAD.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages

James A. Leach, Shawna Lockhart	AutoCAD 2022 Instructor	SDC Publications	2021	978-1630574208	1300
Bhatt, N. D.	Engineering Drawing ; Plane and Solid Geometry.	Charotar Publishing House Pvt. Limited.	2010	978-9380358178	720
Dhawan R K	Fundamentals of Engineering Drawing	S Chand	2014	978-121939263	456
Sandeep Dogra	AutoCAD 2022 for Architectural Design: A Power Guide for Beginners and Intermediate Users	CADArtifex	2021	978-8195345250	482
Dean Muccio	AutoCAD 2020 for the Interior Designer	SDC Publications	2021	978-1630574284	426
Munir Hamad	AutoCAD 2022 3D Modeling	Mercury Learning & Information	2021	978-1683927273	400

Annexure **'CD-01'**

L/DS*	T	P/S/J	SW/FW	Total Credit Units
2	0	2	0	3

Course Title: BIOPHILIC DESIGN
Credit Units: 3
Course Level: UG
Course Objectives: To build connection with lifelike processes, nature and ecosystems in interior environments.

Prerequisites: Basic Knowledge of environmental science

Course Contents/syllabus:

Unit I: Biophilia, biomimicry and bio-urbanism.	**12 Hours**
• An introduction to Biophilic Design and Biophilia, underpinned by research studies and insights into the causes of health and wellbeing issues in our urban environments. • Design methods that draw inspiration from nature, such as biophilia, biomimicry and bio-urbanism. • Nature oriented interior design • Relevance of Biophilic design today • Benefits of biophilic design, Categories of Biophilic Design • Usage of biophilic elements	
Unit II: Human-Nature Connection	**14 Hours**
• Environment and Evolution • Environmental Psychology • The Circadian Rhythm • The Biophilic Values	
Unit III: Implementing Biophilic Design	**14 Hours**
• Elements & Attributes: Environmental Features • The Biophilic Design Principles: Natural Shapes & Forms; Natural Patterns & Processes; Light & Space; Place-based Relationships; Evolved Human-Nature Relationships	
Unit IV: Case studies	**14 Hours**
• Biophilic design in Schools • Biophilic design in Hospitals • Biophilic design in the Workplace • Biophilic design at Home • Some case examples of ‘back-to-nature’ architectural designs from different corners of the world, challenging old-fashioned buildings for a greener and more nature-oriented future: • Barbican Centre – London, UK;	

• One Central Park – Sydney, Australia; • Second Home – Lisbon, • Portugal; Bosco Verticale – Milan, Italy	

Site Visits/ Case Studies:9 sessions

- Students will observe measure, sketch, and annotate what they see at site and submit a presentation portfolio to the teachers concerned for evaluation. This award shall form part and parcel of the sessional work for internal assessment.

Course Learning Outcomes:

CLO1	Understanding the human tendency to connect with nature in interior spaces
CLO2	Identify processes and methods to affiliate with nature
CLO3	Analyze evolutionary adaptation as response to specific conditions
CLO4	Evaluate design solutions for physical, psychological and cognitive function benefits.

Text / Reference Books: https://www.terrapinbrightgreen.com/wp-content/uploads/2014/09/14-Patterns-of-Biophilic-Design-Terrapin-2014p.pdf

Author	Title	Publisher	Ed/year	ISBN No	Pages
Julie Illana Gordonson	Biophilic Design: More Than Just Plants Examining The Status Quo And Identifying Barriers To A Diverse Practice	https://ecommons.cornell.edu//bitstream/handle/1813/64866/Gordonson_cornell_0058O_10410.pdf?sequence=1&isAllowed=y	2018	-	138
Stephen R. Kellert, Judith Heerwagen, Martin Mador	Biophilic Design: The Theory, Science and Practice of Bringing Buildings to Life	Wiley	1st edition (April 23, 2013)	978-0470163344	400

Oliver Heath	Design a Healthy Home: 100 ways to transform your space for physical and mental wellbeing	DK	(August 31, 2021)	978-0744038033	192
William D. Browning, Catherine O. Ryan	Nature Inside: A biophilic design guide	RIBA Publishing	September 1, 2020	978-1859469033	192

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
0	0	2	0	1

Course Title: WORKSHOP PRACTICE-II
Credit Units: 1
Course Level: UG

Course Objectives: To train the students in basic skills of Scrap Models
Prerequisites: Basic knowledge of drawing

Course Contents/syllabus:

Unit I: Product Design	**9 Hours**
Design & Model Making of Furniture, Lamp shades and other Interior & Exterior Elements	

Unit II: Sculpture Making	**9 Hours**
Sculptures in Plaster of Paris, Wires, Scrap, Wood, Soap etc.	
Unit III: Clay Modelling	**9 Hours**
Study of application of Pinching, Coiling Techniques, Slab Techniques Soap carving to create sculptural forms	
Unit IV: Model Making	**9 Hours**
Preparation of wooden base for model making. Making of Study Model of one of Design Project done during the Semester. or of a Small Buildings	

Course Learning Outcomes:

CL01	Gain hands-on experience on various aspects of model making
CL02	Apply different methods and tools for producing various types of models
CL03	Analyze different techniques for creating scale models
CL04	Develop 3D models of simple design projects using hand crafting techniques

Text / Reference Books:

Author	**Title**	**Publisher**	**Ed/year**	**ISBN No**	**Pages**
Eugene Felder & Emmett Elvin	The complete book of drawing techniques.	Charotar Publishing House Pvt. Limited.	2010	978-9380358178	720
Catherine Norman, Ryland Peters & Small	Paper Scissor Glue	S Chand	2014	978-121939263	456
Tim Mc Creight & Nicole Bsulla	Color on Metal	GUILD Pub	2001		126

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
1	0	0	0	1

Course Title: INTERIOR ACCESSORIES DESIGN
Credit Units: 1
Course Level: UG

Course Objectives: To enhance the aesthetic perception, materials, design and working parameters in designing products and lifestyle accessories
Prerequisites: Basic knowledge of drawing

Course Contents/syllabus:

Unit I: Accessories in the Interiors.	**4.5 Hours**
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	
Unit II: Materials and Processes	**4.5 Hours**
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	
Unit III: Design Strategy	**4.5 Hours**

Design approach with limited constraints inherent in accessory products. Evolving the strategy of design with integration of technical complexities and lifestyle influences. 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	
Unit IV: Design Aspects of Lifestyle Accessories	**4.5 Hours**
A detailed study involving all the design aspects of any of the following lifestyle accessories: luminaire design, glassware, lighting, textiles, mirrors, clocks, wall coverings etc	

Course Learning Outcomes:

CL01	Understand the socio-cultural aspects that influence the design of accessories and products based on their lifestyle.
CL02	Apply knowledge of various styles, systems and products available in the market to design projects
CL03	Analyze integration of designed accessories with the interior.
CL04	Evaluate the aesthetic perception, materials, design and working parameters in designing products and lifestyle

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Treena Crochet and David Vleck	Designers Guide to Decorative Accessories	Prentice Hall	Ist edition, 2008	9780132050418	288
Laura Slack	What is product Design	Roto Vision publishers	2006	9782940361243	256
Karim Rashid	International Design Yearbook, 1995: Furniture, Lighting, Tableware, Textiles and Products	Abbeville Press	2003	9780789207883	224

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
0	0	2	0	1

Course Title: PARAMETRIC ARCHITECTURE-II
Credit Units:1
Course Level: UG
Course Objectives: To introduce the students with Programing Languages
To enable the students in understanding the function and user interface of a program.

Prerequisites: Basic knowledge of Computers

Course Contents/syllabus:

Unit I:	**06 Hours**
Introduction to programming languages, Basic structure of a C program; preliminary concept about header files, Constants, Variables and Keywords, Programming Instructions, Compilation and Execution.	
Unit II:	**08 Hours**
Concept of basic functions like main() and input-output functions; data types of variables with a particular emphasis on integer, floating point and character type variables.	
Unit III:	**08 Hours**
Statements and expressions; control and loop; how to write functions; concept and use of pointers; arrays; graphics Decision, Loop and Case Control Structures	
Unit IV:	**08 Hours**
Structures and Classes, Input and Output functions. Writing small programs for architectural uses.	

Course Learning Outcomes:

CL01	Understanding the basics of procedural programming languages like 'C'
CL02	Gain knowledge of system programming language to write an operating system
CL03	Familiarising with C language for developing an operating system or compiler development.
CL04	Evaluating the codes procedures and the concepts of structured programming using C language

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Trivedi, Bhushan	Programming in ANSI C++"	Oxford University Press India.	2012	9780198083962	644

Program Structure- 4thsem

Courses shown in blue colour below are the courses offered by Department of Architecture & Design and the syllabi of the same were proposed in the meeting.

Sr. No	Course Code	Course Title	Course Type			Credit				Credit Units
				L	T	PS	FW	SW	AR/Des Studio	
1		Interior Landscape Design	Professional Core Courses	2	0	0	0	1	0	3
2		Conservation of Interiors	Allied Courses	2	1	0	0	0	0	3
3		ID Studio-IV	Professional Core Courses	0	0	2	0	0	4	6
4		Services Design- II (Lighting & Elec)	Core Courses	3	0	0	0	0	0	3
5		Graphics & Computers-I	Professional Core Courses	0	0	6	0	0	0	3
6		Building Specifications	Ability Enhancement Courses	2	0	0	0	0	0	2
7		Kinetic Design	Core Courses	0	0	2	0	0	2	3
8		Photography Skills	Allied Courses	0	0	1	0	1	0	1
9		Digital Branding	Allied Courses	1	0	0	0	0	0	1
		Total Credits						**Min Required: 25 Semester Credits: 25**		

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
2	0	1	1	03

Course Title: INTERIOR LANDSCAPE DESIGN
Credit Units: 03
Course Level: UG
Course Objectives: To familiarize students with the various elements of landscape and the principle of landscape design and conservation.
To develop and strengthen the competence in dealing with the analytic, artistic and technical aspects of designing open spaces at different scales

Prerequisites: Basic knowledge of Interiors Spaces and its understanding.

Course Contents/syllabus:

Unit I: Introduction to Interior Landscaping	**12 Hours**
Definition of Landscape – meaning and importance, types of garden, garden components, garden design – formal and informal, principles of landscape gardening. Types of natural elements – stones, rocks, pebbles, plants and vegetation. Elements of interior landscape.	
Unit II: Physical requirements of plants	**14 Hours**
classification of plants, indoor plants and their functions, layout & components,Floriculture – commercial, ornamental, Selection of plants & pest control	

Physical requirements of plants – light, temperature, water, planting medium, soil separator, weight of plants, acclimatization & maintenance Techniques to meet physical requirements of plants	
Unit III: Interior Landscaping Elements & Principles	**14 Hours**
Various interior landscaping elements – water bodies - pools, fountains, artifacts, paving & lighting Roof and deck landscape, Protection of the integrity of the roof and structure, provisions for drainage, light weight planting medium, irrigation, selection of materials, water proofing, provision for utilities and maintenance Bonsai – meaning, plants suitable for bonsai culture, techniques and styles. Artificial indoor plants and their caring techniques	
Unit IV: Exercise on Interior Landscape	**14 Hours**
Landscape design parameters for various types of built forms – indoor and outdoor linkage to spaces. Landscaping of courtyards- residential and commercial forms Courtyard design, room design with indoor landscape elements, terrace garden	

Course Learning Outcomes:

CL01	Understand the principles of Landscaping Interior Spaces
CL02	Apply methods to acclimatize plants in indoor spaces Theories and Practices in Interior Design
CL03	Analyze features of fountains, rockery, and terrace gardening elements appropriate for indoor spaces
CL04	Evaluate design Development with landscape elements in interior spaces

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Grant W. Reid	From Concept to Form in Landscape Design	Wiley	2007	978-0470112311	256

Charles Harris, Nicholas Dines	Time-saver Standards for Landscape Architecture	McGraw-Hill Education	2017	978-1259004100	1200
William R. Nelson	Planting Design: A Manual of Theory And Practice	Stipes Pub Llc	2004	978-1588743589	315
C. Tandy	Handbook of Urban Landscape	Architectural Press	2002	978-0851396903	275
Bimal Das Chowdhury, T.K Bose, S.P Sharma	Tropical Garden Plants in Colour	Horticultural & Allied Publishers	1991	978-8190017114	779

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
2	1	0	0	3

Course Title: CONSERVATION OF INTERIORS
Credit Units: 3
Course Level: UG
Course Objectives: The teaching of this subject shall help the students to understand the Role and Importance of Structures in a interior spatial layouts

Prerequisites: Basic knowledge of solids and volumes

Course Contents/syllabus:

Unit I: Definitions of conservation	**12 Hours**
• Definitions of conservation, preservation, restoration, reconstruction and adaptation. • Objectives. Principles and concepts of conservation and its application • Role of architect in conservation program. • Identification and study of problems, issues involved and solutions available in promoting conservation, preservation and management of heritage/architecture conservation.	
Unit II: Policies, legislations and agencies of conservation	**14 Hours**
• Planning and management aspects in conservation re-use and redevelopment of historic buildings and areas	
Unit III: conservation in the Indian context.	**14 Hours**
• Study and critical analysis of existing Institutional framework at local, state, national level for heritage/architecture conservation in the Indian context. • Study and analysis of available legal framework at local, state, national level for heritage/architecture conservation in the Indian context.	
Unit IV: Case studies of heritage	**14 Hours**
• Study of existing policy framework available at national/state level for heritage/architecture conservation. • Case studies of heritage/architecture conservation with specific reference to the state of Punjab	

Course Learning Outcomes:

CL01	Understand the role of conservation of historical and locally nationally important buildings
CL02	Develop critical thinking skills in relation to the repair and renovation of buildings and interior spaces.
CL03	Analyse issues and topics associated with conservation, resoration and renovation of buildings and inerior spaces

CL04	Develop research and written skills in recording restoration problems and propose solutions

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
D. Dayalan	Conservation and Management of Cultural Heritage	Aryan Books International	2019	978-8173056369	230
Aylin Orbasli	Architectural Conservation: Principles and Practice	Wiley-Blackwell	2007	978-0632040254	240
Jukka Jokilehto	A History of Architectural Conservation	Routledge	2017	978-1138639997	494
Peter Bille Larsen, William Logan	World Heritage and Sustainable Development: New Directions in World Heritage Management	Routledge	2018	978-1138091405	310
Patrick Ngulube	Handbook of Research on Heritage Management and Preservation	IGI Global	2018	978-1522531371	400
Jigna Desai	Equity in Heritage Conservation: The Case of Ahmedabad, India	Routledge	2020	978-0367663018	212
Norman Weiss, Kyle Normandin, Deborah Slaton	Cleaning Techniques in Conservation Practice: A Special Issue of the Journal of Architectural Conservation	Routledge	2005	978-1873394748	154

L/DS	T	P/S/J	SW/FW	Total Credit Units
4	0	1	1	6

Course Title: INTERIOR DESIGN STUDIO- IV
Credit Units: 6
Course Level: UG
Course Objectives: To develop creative conceptual visualization, hand skill building, and the process of design. Further emphasis on graphic layout and elevations as a design process

Prerequisites: Basic knowledge of Drawing and sketching.

Course Contents/syllabus:

Unit I: Elements of Hospitality Spaces	**21 Hours**
Interior designing for multi-functional Restaurants and Banquet halls, multi-level planning, design and detailing of various work spaces, interactions zones. Design elements of hospitality spaces such as theme -based restaurants, corporate banquet venues etc.	
Unit II: Design of Restaurant Interiors	**21 Hours**
The design exercise may include fine-dining restaurant with partly open-air area with due importance to differently abled user(Universal design), for a realistic site. (Carpet Area not less than 80.00 sq.mts)	
Unit III: Design of Bars and Café Interiors	**21 Hours**
Theme Café Interior spaces upto 100 sq.m. or bars for 3-star hotel may be introduced as design problem	
Unit IV: Design of Hotel Interiors	**21 Hours**
Exercises in order to evolve multi-cuisine restaurants with boarding and lodging spaces Field trips to relevant architectural sites.	

Site Visits/ Case Studies: 24 sessions

- Design problems will be introduced on the basis of live case studies and site visits as mandatory component of design studio to impart experiential learning.
- Field visits to enrich students' knowledge of context development for well-designed residences and public spaces.

Course Learning Outcomes:

CLO1	Understand the skills of planning of Hospitality spaces
CLO2	Outline design principles and their application to hotel industry.
CLO3	Apply functionality, space usage and concept/theme, use of contemporary materials, construction techniques and advanced services required for the design project
CLO4	Present individual professional design acumen with enhanced skills of planning interior spaces related to Hospitality spaces

Text / Reference Books:

Author	**Title**	**Publisher**	**Ed/year**	**ISBN No**	**Pages**
Donald Watson, Michael Crosbie, John Cllender	Time Saver Standard for Architectural Design Data	McGraw-Hill Education	1997	0070685061	1024
Francis D.K.Ching	Architecture Form, Space and Order	John Wiley & Sons,	2014	9781118745083	464
V.S.Pramar	Design Fundamentals in Architecture	Somaiya Publications Pvt.Ltd., New Delhi	1997.	8170391709	270
Ernst Neufert	Neuferts Architects Data	John Wiley & Sons	2000	9788126517619	636

Broadbent, G.	Design in Architecture - Architecture and Human Science	John Wiley and Sons. New York	1973	978-471105831	600
Roger, K. L.	Architect? A Candid Guide to the Profession	Cambridge: The MIT Press	1998	0262621215	304
Schiffer Publishing Ltd	Designs for Restaurants and Bars : Inspiration from Hundreds of International Hotels	Schiffer Publishing Ltd	2002	978-0764317521	176

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
3	0	0	0	3

Course Title: SERVICES DESIGN-II (Lighting & Electricals)
Credit Units: 3
Course Level: UG
Course Objectives: To Introduce students to designing and application of Lighting.

Prerequisites: Basic awareness of materials around us.

Course Contents/syllabus:

Unit I: Lights & Luminaires	**12 Hours**
Types of lights or lamps and its application in lighting system (task lighting, accent lighting, and general lighting).	

Unit II: Lighting Systems	**14 Hours**
Forms of lighting (Indoor and outdoor). Illumination standards and artificial lighting design and lighting power density. Day light integrated lighting systems, timers and sensors.	
Unit III: Application of Lighting design	**14 Hours**
Study of lighting fixtures and fittings used in interior spaces, special lighting systems for malls or displays Different areas (house, malls, offices, exhibition, shops, landscaping, etc.); task performance; improve appearance of an area.Psychological effects of lighting design on occupants	
Unit IV: Electrical Layout	**14 Hours**
Provisions of standards and energy codes related to interior electrical services. • Automation in lighting industry Electrical layout for building premises, service zones and fittings. Designing layout for a small residential building	

Course Learning Outcomes:

CL01	Gain knowledge of lighting systems in the interiors.
CL02	Understand principles and installations of general and specialized services in the interiors.
CL03	Analyse the significance of design and functioning of electrical and lighting systems as essential components in Interior Design
CL04	Design the layout, functioning and application of lighting fixtures in the interior spaces.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages

V.K. Jain	Handbook of Designing and Installation of Services in Building Complex	Khanna Publisher, New Delhi,	1998	8174092455	932
BARRY R	Building Services	John Wiley and Sons Ltd	1998	0246112638	136
N N Basak	Environmental Engineering	McGraw Hill Education	2017	0070494630	312
J.B Gupta	Electrical Installation, Estimating	S.K Kataria& Sons, New Delhi	2002	8188458996	200

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
0	0	6	0	3

Course Title: GRAPHICS & COMPUTERS-I
Credit Units: 5
Course Level: UG
Course Objectives: Introduction and the use of software available for architectural applications.

Prerequisites: Basic knowledge of drawing and sketching.

Course Contents/syllabus:

	Hours
Unit I: AutoCAD 2D Advanced commands	**12 Hours**
Working with layers Object properties: Changing color, line type, line-weight Working with blocks: concepts of blocks, formation of blocks, inserting blocks, exploding blocks, layers, colors, line types and line-weight of blocks	
Unit II: Plotting Drawings:	**14 Hours**
Plotting drawings in AutoCAD, plotting drawing using the plot dialog box, adding plotter, plotting with PDF/ JPEG, plotting sheets in a sheet set Exercises on Two-point perspective views using Measurement Point method	
Unit III: AutoCAD 3D	**14 Hours**
Orientation towards 3D : 2D to 3D conversion, perspective view, walk through the layout. Extrude, revolve, loft, sweep, mesh create, Editing: press-pull, union, subtraction, intersect, fillet, chamfer, slice	
Unit IV: Presentation Ribbon Commands	**14 Hours**
Rendering and presentation Modify: move, offset, copy, trim, extend, array, stretch Render: create light, sun status, material apply	

Course Learning Outcomes:

CLO1	Understand computer modeling techniques using AutoCAD
CLO2	Produce correct and professionally presented drawings, design ideas, proposals and models
CLO3	Demonstrate and apply basic knowledge of commands of AutoCAD
CLO4	Present sketching, model making, technical drawing and AutoCAD, into an acceptable professional standard of communication

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages

James A. Leach, Shawna Lockhart	AutoCAD 2022 Instructor	SDC Publications	2021	978-1630574208	1300
Sandeep Dogra	AutoCAD 2022 for Architectural Design: A Power Guide for Beginners and Intermediate Users	CADArtifex	2021	978-8195345250	482
Dean Muccio	AutoCAD 2020 for the Interior Designer	SDC Publications	2021	978-1630574284	426
Munir Hamad	AutoCAD 2022 3D Modeling	Mercury Learning & Information	2021	978-1683927273	400

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
2	0	0	0	2

Course Title: BUILDING SPECIFICATIONS
Credit Units: 2
Course Level: UG
Course Objectives: To impart training in the preparation of DNIT for buildings with specific reference to code of practice and incorporating specifications as complementary to the working drawings.
Prerequisites: Basic knowledge of materials

Course Contents/syllabus:

Unit I: Introduction to Specifications	06 Hours
Definition • Objectives, Importance • Use of Specifications Principals of Specifications writing	
Unit II: Specifications Writing	**08 Hours**
Classification of Specifications, Points for Framing of Specifications Writing detailed clause by clause specifications for materials pre and post execution, tests, mode of measurements, manufacturers details and specifications etc.	
Unit III: Standards of Specifications	**08 Hours**
C.P.W.D.specifications Writing specifications for civil works as:-Damp proof course, Brick masonry,Concreting,Flooring, Plastering & pointing. Timber doors & windows, Steel doors & windows, Painting, varnishing, Services, sanitary fixtures & electric wiring . 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., Writing Detailed specification for various basic building components for a single storey structure	
Unit IV: On-site Management	**08 Hours**
Assessing Technical feasibility through execution and detailing of different spaces and elements of design, comparing the feasibility of layout for service systems and specifications in design project with the help of tender documents	

Course Learning Outcomes:

CLO1	Understanding the importance of specifications
CLO2	Apply the knowledge of framing specifications to DNIT.
CLO3	Analyze the appropriateness of materials as per specifications
CLO4	Evaluate the feasibility of materials to the design as prescribed in tender document

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages

BIS	National Building Code of India Vol 1-12	Bureau of Indian Standards, New Delhi	2005	81-7061-026-5	--
Reznikoff S C	Specifications for Commercial Interiors	Whitney Library of Design		978-0823048939	-
Frederic Richard Farrow	Specifications for Building Works and How to Write Them: A Manual for Architectural Students	Forgotten Books	2018	978-1334195242	158

Annexure **'CD-01'**

L/DS*	T	P/S/J	SW/FW	Total Credit Units
2	0	2	0	3

Course Title: KINETIC DESIGN
Credit Units: 3
Course Level: UG
Course Objectives: To enable students overcome the imposition of prefixed architectural forms in order to enhance performance-driven design and responsive kinetic solutions that interact with humans and environment.
To explore a range of disciplines including architecture as well as mechanics, electronics, and software that are part of the engineering of kinetic environments.

Prerequisites: None
Course Contents/syllabus:

Unit I: Kinetic sculpture- A Vocabulary for Motion	**12 Hours**
Definition – Choreographing motion in Product design. Aspects of Deformation, juxtaposition, superimposition, absence, disturbance, and repetition to express virtual motion and change. Understanding the the notion of motion through virtual and physical methods	
Unit II: Spatio-temporal possibilities and strategies	**14 Hours**

Technological innovation and flexible spaces; robotic technologies and new approaches to mobility, portability, and nomadic culture. like robotic pack animals, tentacle arms, and even self-assembling robots. Illustrating motion in sketch models with simple materials like foamcore, tape, hot glue, and balsa wood and recording the repeatability of movements.	
Unit III: Incorporating motion in Buildings	**14 Hours**
Motion-based emerging technologies in faucet design, façade design, revolving floors, movable partitions and roof coverings etc.	
Unit IV: Performance Evaluation	**14 Hours**
Iimpact.of the integration of motion into the built environment viz aesthetics, design, and performance of buildings. And assess the issues like the sculptural qualities of the mechanism, light, materials, and the poetic qualities of motion	

Site Visits/ Case Studies:9 sessions

- The practical part will involve design experimentation and model construction using robotics technologies

Course Learning Outcomes:

CLO1	Develop a basic understanding to define building parameters and factors
CLO2	Identify and develop understanding of factors relationships, involve environmental and human sensors
CLO3	Develop methods to optimize the building solutions in smart kinetic systems with annotation
CLO4	Apply design solutions to live projects.

Text / Reference Books:

- https://www.gsd.harvard.edu/course/kinetic-architecture-fall-2005/
- https://www.core77.com/posts/12642/kinetic-design-and-the-animation-of-products-by-ben-hopson-12642#
- https://www.pbslearningmedia.org/resource/arct14.sci.dssculpt/kinetic-sculpture/
- https://www.thorntontomasetti.com/capability/kinetic-design

Author	Title	Publisher	Ed/year	ISBN No	Pages
Russell Fortmeyer	Kinetic Architecture: Designs for Active Envelopes	Images Publishing Group Pty Ltd	1 March 2014	978-1864704952	224
Sandra Persiani	Biomimetics of Motion: Nature-Inspired Parameters and Schemes for Kinetic Design	Springer	1st ed. 2019	978-3319930787	185

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
0	0	1	1	1

Course Title: PHOTOGRAPHY SKILLS
Credit Units: 1
Course Level: UG

Course Objectives: To familiarize students with different types of materials and manufacturing techniques for creating art forms/ models.
Prerequisites: Basic knowledge of drawing

Course Contents/syllabus:

Unit I: Compact & SLR Camera & accessories.	**6 Hours**
Components & working of Compact & SLR Camera, Peripheral equipment like cables, lights, flashguns, lenses, filters, tripods etc. Assignments oriented towards using camera, Indoor & outdoor photography	
Unit II: Basics of using camera & Techniques.	**6 Hours**
Techniques of using camera, basics in optics, light, exposure, focus, depth of field, aperture. Dark room techniques, digital printing. Assignments oriented towards using camera, Indoor & outdoor photography.	
Unit III: Reading a photograph, Understanding subject in a for various types of applications.	**6Hours**
Reading a photograph, Understanding subject in a photograph, composition basics, light, exposure to various types of photography like nature, portraits, wildlife, sports, documentation, journalism etc. Assignments oriented towards using photography for presentation	
Unit IV: Photographic investigation of a location and situation	**6 Hours**
Photographic investigation of a location and situation. Assignments culminating into a small presentation investigating a case	

Site Visits/ Practical Studies: 12 sessions

- Cameras, accessories, and photography techniques will be introduced on the basis of live case studies and site visits as mandatory component of photography skills to impart experiential learning.

Field visits to enrich students' knowledge of context development for techniques, compositions, anthropometrics, scale, and proportions.

Course Learning Outcomes:

CL01	Understanding the use of Photography as a means of communication and Documentation
CL02	Treating camera as a tool to demonstrate concepts and ideas, document situations, & objects in general
CL03	Familiarising with camera, film, digital technology & techniques and applying aesthetics of photography

CL04	Evaluating the aesthetics of photography, Composition and light

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
John Child	Studio Photography: Essential Skills	Routledge	2008/Third Edition	9780240520964	720
Mark Galer	Introduction to Photography: A Visual Guide to the Essential Skills of Photography and Lightroom	Routledge	2015	1138854514	174
Mark Galer	Digital Photography: Essential Skills	Focal Press	2008	0240521129	246
David Taylor	The Advanced Photography Guide: The Ultimate Step-by-Step Manual for Getting the Most from Your Digital Camera	DK	2018	978-0241301920	192
George Haines	Learn Photography: An All-Colour Guide Packed with Information for the Beginner	Hamlyn young books	1991	978-1850516378	144

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
1	0	0	0	1

Course Title: DIGITAL BRANDING
Credit Units: 1
Course Level: UG

Course Objectives: To enable students understand the value of a brand in a marketing and business environment, and how to build, manage, and protect a brand. Specific areas covered.

Prerequisites: None

Course Contents/syllabus:

Unit I: Digital Platforms for Branding	**4.5 Hours**
• Definition, basics of business building as an organization's visual identity- what is a brand and why it matters, how a brand creates value, ways to measure and understand the value of a brand, managing new and established brands, extending a brand through licensing, and the role of consumer insight in managing a brand • Introduction to platforms like Adobe Photoshop/ Illustrator/ Sketch/ Figma etc.	
Unit II: Brand Planning	**4.5 Hours**
• The story of Brand, Brand Building blocks, elements and identity, experiences and relationship	
Unit III: Sustainability Branding	**4.5 Hours**
• Sustainable Marketing, Corporate Social Responsibility • Branding Concepts Place Branding- defining essence, white space and future proof • Strategies to Create, reinforce, revitalize & reinvent	
Unit IV: Digital Content	**4.5 Hours**
• Creative brief, developing First concepts for various platforms- trends moodboard, sketching, applying design-LOGO system on digital platforms	

Course Learning Outcomes:

CL01	understanding of the aspects of designing a brand system
CL02	Design and establish visual identities and brand standards across a variety of mediums
CL03	Design a logo and apply the logo across a variety of platforms and applications

CL04	Evaluating business overview, looking at its market competition and customers.

Text / Reference Books:

- www.thelabdesignstudio.com
- Course Modules: Branding: A Practical View (harvard.edu);

Author	Title	Publisher	Ed/year	ISBN No	Pages
Kevin Lane Keller	Strategic Brand Management	Pearson Prentice Hall	2015	*978-0-13-266425-9*	616

Program Structure- 5th sem

Courses shown in blue colour below are the courses offered by Department of Architecture & Design and the syllabi of the same were proposed in the meeting.

Sr. No	Course Code	Course Title	Course Type			Credit				Credit Units
				L	T	PS	FW	SW	AR/Des Studio	
1		Product Design	Professional Core Courses	2	0	1	0	1	0	3
2		Intelligent Building Interiors	Allied Courses	2	1	0	0	0	0	3
3		ID Studio-V	Professional Core Courses	0	0	2	0	0	4	6
4		Services Design- III (HVAC)	Core Courses	3	0	0	0	0	0	3
5		Graphics & Computers-II	Professional Core Courses	0	0	6	0	0	0	3
6		Estimating & Costing	Ability Enhancement Courses	2	0	0	0	0	0	2
7		Modular Design	Ability Enhancement Courses	0	0	2	0	0	2	3

8		Contemporary Crafts	Allied Courses	1	0	0	0	0	0	1
9		Floral Design	Allied Courses	0	0	1	0	1	0	1
		Total Credits						**Min Required: 25 Semester Credits: 25**		

VthSEM

Annexure **'CD-01'**

L/DS	T	P/S	SW/FW	Total Credit Units
2	0	1	1	03

Course Title: PRODUCT DESIGN
Credit Units: 03
Course Level: UG
Course Objectives: To introduce the students with small products used in interior design.
To enable the students in understanding the function and requirement of product design.

Prerequisites: Basic knowledge of Interiors Spaces and its understanding.

Course Contents/syllabus:

Unit I: INTRODUCTION	**09 Hours**
A brief introduction to Product Designing, elements of product design History of Product Design, Definition of Product Design, Understanding of Product Design, Purpose of Product Design Role of Product Designers.	
Unit II: Human factors	**12 Hours**
Definition of human factors, Application of human factors data Study of Anthropometry & Design criteria involved for small accessories and products design which includes Sofa, settee, couch, Cupboards, shelves, lamps, clocks, study table, display furniture etc.	
Unit III: Principles of design & detailing	**12 Hours**
Form – Color - Symbols, materials & finishes – Wood, Glass, Metal, Plastics and Upholstery - include various finishes, fabrication Techniques involved, multiple Utility Oriented Approaches to Product Design.	
Unit IV: Prototype of product	**12 Hours**
Type and requirement of products, Developing prototype of product .	

Site Visits/ Project Exercises: 9 sessions

- Residential: Seating, Sleeping, Storage & Children's furniture
  Commercial: Showcases, Counters, Display units, Restaurant furniture, Bar furniture
- Office: Adjustable desks & storage, Mobile & Resilient chairs, Portable chairs, Movable Tables, Lounge seating.

Course Learning Outcomes:

CL01	Understand the principles of Product Design.
CL02	Apply scale and measurement to design and development of product prototype
CL03	Analyze the fabrication techniques in developing products
CL04	Evaluate modules and prototype models for common usage in daily life

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Eugene Felder & Emmett Elvin	The complete book of drawing techniques.	Charotar Publishing House Pvt. Limited.	2010	978-9380358178	720
Catherine Norman, Ryland Peters & Small	Paper Scissor Glue	S Chand	2014	978-121939263	456
Tim Mc Creight & Nicole Bsulla	Color on Metal	GUILD Pub	2001		126
Don Norman	Hachette India The Design of Everyday Things: Revised And Expanded Edition	Basic Books; 2nd edition	2013	978-0465050659	368
Nir Eyal	Hooked: How to Build Habit-Forming Products	Portfolio; Illustrated edition	2014	978-1591847786	256

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
3	0	0	0	3

Course Title: INTELLIGENT BUILDING INTERIORS
Credit Units: 3

Course Level: UG

Course Objectives: To promote understanding of advance building systems, advance building materials, building technologies.
To enable the students to demonstrate design ideologies in the field of interior design

Prerequisites: Basic knowledge of interior spaces

Course Contents/syllabus:

Unit I: Introduction to Intelligent Building systems	**12 Hours**
Introduction to Intelligent bldg systems, History and emergence i.e. need and necessity. Concept of color, significance of color in the interiors and exteriors & Psychological aspects of Colors	
Unit II: Building management system(BMS);	**14 Hours**
Types of Building Control Systems for various building Services Safety-entry control; CCTV; Fire and smoke detection, alarm; Thermal and working environment - temperature, humidity, air movement, light level; Occupancy sensors; Simulation techniques.	
Unit III: Home Automation	**14 Hours**
Working principles of building automation systems, office automation systems, and communication systems	
Unit IV: Preparing Repair Proposal	**14 Hours**
Basic knowledge of the construction and installation of the structured cabling system enabling integrated system connections	

Course Learning Outcomes:

CL01	Understand the concept of Intelligent Buildings
CL02	Apply the skills of Building Management Systems to Interiors

CL03	Analyze Smart tools and automation methods for designed spaces
CL04	Evaluate Cabling systems for in-situ projects.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Derek Clements-Croome	Intelligent Buildings: An Introduction	Routledge	2020	9781135008369	232
Derek Clements-Croome	Intelligent Buildings: Design, Management and Operation	ICE Publishing	2013	9780727757340	
Abraham Warszawski	Industrialized and Automated Building Systems : A Managerial Approach	Routledge		9781135818883	484

Annexure **'CD-01'**

L/DS	T	P/S/J	SW/FW	Total Credit Units
4	0	1	1	6

Course Title: INTERIOR DESIGN STUDIO- V
Credit Units: 6
Course Level: UG

Course Objectives: To make the students aware of Visual 3D perception. The students will develop skills to identify and utilize simple geometric shapes for various 2D and 3D compositions

Prerequisites: Basic knowledge of Drawing and sketching.

Course Contents/syllabus:

Unit I: Elements of Commercial space Design	**21 Hours**
Shops & Showrooms: Product display – windows/internal displays/hierarchy of product display/power of visual communication/graphics Exhibition spaces – display for exhibition Lighting design for commercial spaces – task/display/atmospheric/focal lighting Coloring commercial spaces – coding/decoding/visual communication Design of commercial Environments such as Malls, Shopping Arcades Etc..	
Unit II: Design of Stores	**21 Hours**
Planning for retail activity – anthropometrics – types of Shop layouts for individual merchandise like garments/ stationery/book stores/footwear etc.	
Unit III: Departmental shops/Malls	**21 Hours**
Designing multi-functional commercial spaces under one roof Evolving Modular units as Bay shops and cultural centres	
Unit IV: Thematic Interiors for Commercial spaces	**21 Hours**
Identifying Materials to be used in counters, shelves, worktops, for theme based commercial centres . Lighting & color scheme – arts and craftsmanship.	

Site Visits/ Case Studies:24 sessions

- Design problems will be introduced on the basis of live case studies and site visits as mandatory component of design studio to impart experiential learning.
- Field visits to enrich students' knowledge of context development for well-designed commercial

Course Learning Outcomes:

CLO1	Acquiring knowledge of commercial activity spaces

CLO2	Outline Design Principles of retail functions and their application in interior design.
CLO3	Iterating multi-dimensional volumes through modeling spaces.
CLO4	Evaluate the solutions under defined set of constraints.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Donald Watson, Michael Crosbie, John Cllender	Time Saver Standard for Architectural Design Data	McGraw-Hill Education	1997	0070685061	1024
Francis D.K.Ching	Architecture Form, Space and Order	John Wiley & Sons,	2014	9781118745083	464
V.S.Pramar	Design Fundamentals in Architecture	Somaiya Publications Pvt.Ltd., New Delhi	1997.	8170391709	270
Ernst Neufert	Neuferts Architects Data	John Wiley & Sons	2000	9788126517619	636
Broadbent, G.	Design in Architecture - Architecture and Human Science	John Wiley and Sons. New York	1973	978-471105831	600
Roger, K. L.	Architect? A Candid Guide to the Profession	Cambridge: The MIT Press	1998	0262621215	304

Alessandra Wood	Designed to Sell: The Evolution of Modern Merchandising and Display	Routledge; 1st edition	2020	9781138344723	196
Syed Jibran Hashmi, Horst Kreimes, Stellios Plainiotis	Dynamic Energy Simulation Of Shopping Mall: A Detail Analyses of Energy Modelling and Design Comparisons On Shopping Mall	LAP LAMBERT Academic Publishing	2016	978-3330027343	92
David Smiley	Sprawl and Public Spaces: Redressing the Mall: NEA Design Series - (Nea Series on Design)	Princeton Architectural Press; 1st edition	2002	978-1568983769	112
Stephen Anderson, Lynne Mesher	Retail Design: Basics Interior Design	Bloomsbury Visual Arts; 2nd edition	2019	9781474289252	192
Marriott Field	City Architecture Or Designs For Dwelling Houses, Stores, Hotels, Etc.: In Twenty Plates, With Descriptions, And An Essay On The Principles Of Design (1853)	Kessinger Publishing Co	2009	978-1104015909	120

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
3	0	0	0	3

Course Title: SERVICES DESIGN-III (HVAC)
Credit Units: 3
Course Level: UG
Course Objectives: To Introduce students to designing and application of HVAC systems

Prerequisites: Basic awareness of materials around us

Course Contents/syllabus:

Unit I: Introduction to HVAC	**12 Hours**
Fundamental principles of Heating Ventilation And Airconditioning, Indoor Air Quality, comfort conditions, gas laws	
Unit II: Refrigeration Cycle	**14 Hours**
Refrigeration cycle, A/C equipment, compressor heat exchangers, condenser, evaporators	
Unit III: Types of Air Conditioning Systems	**14 Hours**
Types of Air-conditioning: single zone, multi zone, window air conditioners, split air conditioners, ductable air conditioners, package system and central air conditioning	
Unit IV: HVAC Layout	**14 Hours**
All air systems and chilled water systems.A/C plant room, AHU's Building ducting, diffusers and grills, FC units... Designing layout for a small residential building	

Course Learning Outcomes:

CL01	Gain knowledge of HVAC systems in the interiors.
CL02	Understand principles and installations of general and HVAC services in the interiors.
CL03	Analyse the significance of design and functioning of HVAC systems as essential components in Interior Design
CL04	Design the layout, functioning and application of HVAC systems in the interior spaces.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Marko Pinterić	Building Physics: From physical principles to international standards	Springer	2021	978-3030673710	286

Carl-Eric Hagentoft	Introduction to Building Physics	Professional Pub Service	2001	978-9144018966	444
R.S. Khurmi	Textbook Of Refrigeration And Air-Conditioning	S Chand	2019	978-8121927819	720
W. Larsen Angel	HVAC Design Sourcebook	McGraw-Hill Education	2011	978-0071753036	400
C P Arora	Refrigeration and Air Conditioning	McGraw-Hill Education	2021	978-9390385843	968

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
0	0	6	0	3

Course Title: GRAPHICS & COMPUTERS-II
Credit Units: 3
Course Level: UG
Course Objectives: Introduction and the use of software tools for architectural applications.

Prerequisites: Basic knowledge of drawing and sketching.

Course Contents/syllabus:

	Hours
• **Unit I: Google Sketch-up**	**12 Hours**
i. Introduction to the Google Sketch-up ii. Preparing drawing in CAD for sketch-up modeling iii. Exploring the Interface: change template, add large tool bar, select tool, push/ pull tool, pan, orbit, move tool, etc. iv. Viewing Tools	
Unit II: Commands Interface:	**14 Hours**
i. Shortcut Keys ii. Adding textures, materials iii. Manipulation Tools Enhancing and presenting the file	
Unit III : Introduction to Adobe PhotoShop	**14 Hours**
Introduction to Adobe PhotoShop, tool palettes, layers and addition of colors, masking etc	
Unit IV: Editing in PhotoShop	**14 Hours**
Importing Images & Editing in PhotoShop. Rendering and presentation, Importing Images & Editing in PhotoShop Rendering and presentation	

Course Learning Outcomes:

CLO1	Understand computer modeling techniques using Google Sketchup
CLO2	Produce correct and professionally presented drawings, design ideas, proposals and models
CLO3	Demonstrate and apply basic knowledge of commands of Adobe Photoshop
CLO4	Present images as per professional standards

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Pratap Mulick	Sketching	Jyotsna Prakashan	2006	9788179251041	

Gill Robert W	Rendering with pen & ink	Thames & Hudson	1984	9780500680261	400
Ching, F. D. K	A Visual Dictionary of Architecture	John Wiley & Sons	2011	978-470648858	336
Morris, I. H.	Geometrical Drawing for Art Students.	Longmans.	2006	978-8125026099	100
Scott Onstott	Enhancing Architectural Drawings and Models with Photoshop	Sybex; Pap/Dvdr edition	**2010**	978-0470916568	360
Horst Sondermann	Photoshop® in Architectural Graphics	Springer; 2009th edition	**2009**	978-3211715918	328

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
2	0	0	0	2

Course Title: ESTIMATING & COSTING
Credit Units: 2
Course Level: UG
Course Objectives: To inculcate awareness, regarding factors affecting cost of building

To familiarize the student with commonly used method of preparing estimate of architectural projects.

To enable the student to have idea regarding the quality and quantity of materials, quantity and classes of skilled and unskilled labours required for the project

Prerequisites: Basic knowledge of History.

Course Contents/syllabus:

Unit I: Introduction and Types of Estimates	**12 Hours**
Introduction to methods of estimate Preparing Bill of Quantity for material of various items of work e.g. earthwork, brickwork, flooring roofing etc units of measurement and payment..	
Unit II: Analysis of Rates of Material	**14 Hours**
Analysis of rates of material and labour required for various items of work. Methods of taking out RCC. Construction case study/practical exercise in preparing a detailed estimate of one storied building with respect to quantities of material and labour required as well as analysis of rates of material and labour	
Unit III: Principles of Economics	**14 Hours**
Basic principles of Economics as applied to the building and factors affecting cost of building.	
Unit IV: Fundamentals of Valuation	**14 Hours**
Fundamentals of valuation and methods of valuation.(theoretical introduction)	

Course Learning Outcomes:

CLO1	Understanding the calculation methods for working out Bill of Quantities.
CLO2	Apply Rates as per prevailing standards to prepare draft estimates
CLO3	Analyze the estimates to cut costs and plan for construction schedules
CLO4	Develop Valuation of projects for loans and advances

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
D D Kohli, R C Kohli	A Textbook of Estimating and Costing	S Chand Publishing	2013	978-8121903325	504

BN Dutta	Estimating and Costing in Civil Engineering (Theory and Practice)	CBS Publishers & Distributors Private Limited	2020	978-8174767707	904
Simran Bir Singh, Amit Kumar	Building Estimation Notes: A Complete Practical Handbook for Civil Engineers	Red Bricks Academy of Civil Engineering	2020	-	254
Holm Leonard, E. Schaufelberger John, Griffin Dennis, Cole Thomas	Construction Cost Estimating: Process and Practices	Pearson Education	2017	978-9332552623	388

Annexure **'CD-01'**

L/DS*	T	P/S/J	SW/FW	Total Credit Units
2	0	2	0	3

Course Title: MODULAR DESIGN
Credit Units: 3
Course Level: UG
Course Objectives: To introduce the students with Modular designs wherein modules form the basis of design. The course aims in making students acquainted to the simplified customization resulting space-saving design, leverage leading-edge design, structural and product engineering, quality fabrication and role of installation partners to push forward breakthrough ideas that advance the design and construction process

Prerequisites: Basic knowledge of Interiors Spaces

Course Contents/syllabus:

Unit I: INTRODUCTION	**12 Hours**
• Defining and explaining “Modularity” an approach for innovation in designing of furniture • Functional allocations of the modular designs	
Unit II: CHARACTERISTICS	**14 Hours**
Defining characteristics of Modular Furniture on the following parameters with case examples: • **Reusability**-arrangement of the modules and built up of the modules according to various designs or matrices for developing diverse type of furniture • **Discreteness**- autonomous properties of the individual modules and functionality distinction in comparison with other modules in the matrix • **Adaptability**- Breaking down of an existing modular design in to modules and reconstructing it into another modular design serving a different purpose • **Scalability-** Modular design is scalable, i.e., its size, shape and dimensions can be varied by rearranging, increasing or decreasing (as per requirement) the number of modules used in building it • **Simplicity and Reliability** • **Cost Minimization and Space Utilization**	
Unit III: CLASSIFICATIONS	**14 Hours**
• Detailed understanding of various classification of Modular Furniture based on its design and components- single bodied, multi bodied, universal for completion, on a frame, for hanging	
Unit IV: MODELLING PROTOTYPE DESIGN	**14 Hours**
• Concept of Design, Preconstruction, fabrication & Installation • Understanding of space and detailed measured drawings of the space for creating customized Prototype	

• The prototype can be created for the following project: Residential: Seating, Sleeping, Storage & Children's furniture Commercial: Showcases, Counters, Display units, Restaurant furniture, Bar furniture Office: Adjustable desks & storage, Mobile & Resilient chairs, Portable chairs, Movable Tables, Lounge seating.	

Site Visits/ Case Studies:9 sessions

- The practical part will involve design experimentation and model construction using robotics technologies

Course Learning Outcomes:

CLO1	Understand the interchangeability of modules
CLO2	Identify and develop understanding of standardization and customization in interior products
CLO3	Analyze the market needs and adaptive changes
CLO4	Evaluate cost-effective manner towards modular design , fabrication and installation.

Text / Reference Books:

ModularDesign+ | Customized Modular Building Solutions (modulardesignplus.com)

What's Modularity and How Modular Design is Beneficial - UX studio (uxstudioteam.com)

Modular Kitchen Designs | Kitchen Interior Ideas - Livspace

Author	Title	Publisher	Ed/year	ISBN No	Pages
Ali K. Kamrani, Sa'Ed M. Salhieh, Sa'ed M. Salhieh	Product Design for Modularity	Springer Science & Business Media	2002	9781402070730	223
Mark Lawson, Ray Ogden, Chris Goodie	Design in Modular Construction	CRC Press	2014	978-0415554503	280

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
1	0	0	0	1

Course Title: CONTEMPORARY CRAFTS
Credit Units: 1
Course Level: UG

Course Objectives: To familiarise students with the Contemporary Crafts as an exciting and über-current art movement that focuses on unique handmade objects and artworks..
Prerequisites: Basic knowledge of crafts

Course Contents/syllabus:

Unit I: Introduction to Mosaic	**4.5 Hours**
Historical & contemporary use, types of materials, tools ,terminology ,methods used in mosaic art	
Unit II: Types of Sculpture	**4.5 Hours**
Purposes and subjects,materials,social status of sculptor,anti sculpture movement, modernism in sculpture movement, contemporary movement, contemporary genres ,conservation and techniques .	
Unit III: Lithography	**4.5 Hours**
Lithography: Principles, lithography on lime stones, process, micro and nano lithography, Photolithography Types of Relief plaque, history of relief plaque .	
Unit IV: Etching	**4.5 Hours**
Types of etchings, basic methods, history, innovations, variants,nontoxic etching, photo etching, types of metal plates used in etching, Copper etching. Plaster Experiments	

Course Learning Outcomes:

CL01	Acquaint with mosaic for production of crafts
CL02	Gain hands-on exploration of possible mediums such as ceramics, sculpture, paper-mache and various combinations of the above
CL03	Analyze case studies for replicating crafting techniques in interiors
CL04	Evaluate methods and mediums for decorating various surfaces in interiors

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Jean Johnson	Exploring Contemporary Craft: History, Theory and Critical Writing	Coach House Books	1998	978-1552451076	124
Stephen J. Eskilson	Graphic Design :A New History	Yale University Press	2007	9780300120110	464
Alan Smith	Etching: a Guide to Traditional Techniques	The Crowood Press Ltd	2004	978-1861265975	160
John Whitfield Harland	The Printing Arts: An Epitome of the Theory, Practice, Processes, and Mutual Relations of Engraving, Lithography, and Printing in Black and in Colours	Forgotten Books	2017	978-1527766044	198
Monique Robert	Papier Mache Design: advanced techniques	CreateSpace Independent Publishing Platform	2012	978-1477608906	136
Peter Parkinson	Making Sculpture from Scrap Metal	Crowood Press; Illustrated edition	2016	978-1785000218	96
Jo Hammond	Willow Basketry and Sculpture	Crowood Press; Illustrated edition	2014	978-1847976819	96
Richard Sweeney	Paper Sculpture: Fluid Forms	Gingko Press	2016	978-1584236382	128

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
0	0	1	1	1

Course Title: FLORAL DESIGN
Credit Units: 1
Course Level: UG

Course Objectives: To familiarise students with different types of materials and manufacturing techniques for creating floral art forms/ models.
Prerequisites: Basic knowledge of flowers

Course Contents/syllabus:

Unit I: **Fundamentals of Design**	**6 Hours**
introduction to flower and foliage shapes and their use; cut flower care; corsage practice; containers and designer aids. Florist tools for preparation and design of floral arrangements.	
Unit II: Principles and elements of floral line arrangements	**6 Hours**
• Structural design principles for floral line arrangements including horizontal, vertical, Inverted T, L-shape, and crescent arrangements • vase arrangements, presentation bouquets & Wire flowers	
Unit III: Advanced design concepts	**6 Hours**
• Effect of color in design; Color wheel: Complementary colors; Primary, secondary, and tertiary colors; Triads • Symmetrical and Asymmetrical Arrangements: elements of space (positive, negative, and voids) into floral arrangements • Integrating textures into advanced contemporary floral techniques • care and use of tropical flowers and foliages. • Design styles: Topiary; High style arrangements using exotic flowers • Positive and negative space;. Voids; Armature; Vegetative	

Unit IV: Contemporary Floral Design for events like weddings	6 Hours
• Non-floral materials; Seasonal Materials • Conditioning Materials: Treatments for different types of flowers; Foliage and fillers • Contemporary arrangements including high style and free-form designs • principles, practices, and methods used by florists in designing and creating wedding arrangements: Wedding displays • Venue decorations: ceremony site; seating • Reception decorations: cake table; head table; buffet table; guest tables	

Site Visits/ Practical Studies: 12 sessions

- Tools, accessories, and decorating techniques will be introduced on the basis of live case studies and site visits as mandatory component of photography skills to impart experiential learning.

One portfolio comprising of photos of weekly design projects with accompanying journal entries listing materials and describing methods for each project.

Course Learning Outcomes:

CL01	Name and properly use the tools and mechanics in floral design
CL02	Demonstrate proper standards of care and handling of fresh floral materials
CL03	Create fresh floral arrangements and distinguish between the different types of design styles
CL04	Evaluating the knowledge of retail flower shop operation.

Text / Reference Books:

https://ag.santarosa.edu/floral-design-curriculum

Author	Title	Publisher	Ed/year	ISBN No	Pages

Rebecca Wellner, Bo Morgan	Floral Design: A Beginner's Guide to Floral Arrangements	Independently published	2019	978-1097423958	184

Program Structure- 6th sem

Courses shown in blue colour below are the courses offered by Department of Architecture & Design and the syllabi of the same were proposed in the meeting.

Sr. No	Course Code	Course Title	Course Type			Credit				Credit Units
				L	T	PS	FW	SW	AR/Des Studio	
1		Ergonomics	Professional Core Courses	3	0	0	0	0	0	3
2		Disaster Mgmt	Allied Courses	3	0	0	0	0	0	3
3		ID Studio-VI (Banks & institutions)	Professional Core Courses	0	0	2	0	0	4	6
4		Services Design- IV (Fire Safety & Communication Systems)	Professional Core Courses		0	0	0	0	0	3
5		Presentation Skills	Professional Core Courses	0	0	0	0	0	3	3
6		Professional Practice	Ability Enhancement Courses	3	0	0	0	0	0	3
7		Visual Communications	Ability Enhancement Courses	0	0	2	0	0	2	3

8		Open Elective I (Vaastu Shastra)	Open Elective Courses	1	0	0	0	0	0	1
		Total Credits						**Min Required: 25 Semester Credits: 25**		

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
3	0	0	0	03

Course Title: ERGONOMICS
Credit Units: 03
Course Level: UG
Course Objectives: To introduce the students with industry standards in interior design.

Prerequisites: Basic knowledge of Interiors Spaces and its understanding.

Course Contents/syllabus:

Unit I: INTRODUCTION	**12 Hours**
Definition and domains of ergonomics. Different work postures, hand grips for different tasks, general aspects of hand tool design, different ergonomics design criteria	
Unit II: Affects and Outcomes	**14 Hours**
Outcomes of poor ergonomics: Human error, causes of accidents	

Anthropometric safety features in furniture design and spatial layouts	
Unit III: Concept of man and machine	**14 Hours**
Design of a work station Manual material handling. Analogy of musculoskeletal system with mechanical systems, material handling aids and devices Man Machine System: The concept of man machine system, nature of loads, influence of environmental factors **Design of Retail Display Sections** 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.	
Unit IV: Detailing for Ergonomic Design of Spaces	**14 Hours**
Design of a layout for movement of people Human eye and lighting: The capabilities and limitations of human eye, design aspects of lighting Integration of spaces and function in the Retail Space Design Visual analysis of designed spaces noted for comfort and spatial quality; analysis of solid and void relations, positive and negative spaces. Minimum and optimum areas for activities.	

Course Learning Outcomes:

CL01	Understand the principles of Ergonomic Design.
CL02	Identify outcomes of poor ergonomics: Human error, accidents and safety
CL03	Develop design solutions to suit the musculoskeletal system of human body
CL04	Evaluate designed spaces for comfort and spatial quality

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages

Mitton, Maureen	Residential Interior Design 3ed	Wiley	2006	978-1-119-01407-2	288
Love, Mini	The Interior Design Reference & Specification Book	Rockport,	2019	9781631593802	287
Julius Panero & Martin Zelnick	., Human Dimension & Interior Space A source book of Design Reference standards	, Watson – Guptill	, 1979.	9780823072712	320
Joseph D Chiara, Julius Panero, & Martin Zelnick	Time Saver standards for Interior Design & space planning	Mc-Graw Hill professional	2nd edition, 2001	9780071346160	1728
Karlen Mark	Space planning Basics	Van Nostrand Reinhold, New York	1992.	9781118882009	178
Frida Ramstedt	The Interior Design Handbook	Penguin Books Limited	2020	9780141992433	240

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units

3	0	0	0	3

Course Title: DISASTER MANAGEMENT
Credit Units: 3
Course Level: UG
Course Objectives: To make the students understand the various pre & post disaster design and management measures.
Prerequisites: Basic knowledge of interior spaces

Course Contents/syllabus:

Unit I: Introduction to Disaster Management	**12 Hours**
Introduction to disaster management. Types of disasters (natural or manmade). Causes of disaster risks and preparedness Principals of Emergency Management, Safety precautions and standards in work environment Actors in Disaster Management, Organizing Relief measures at National and Local Level	
Unit II: Emerging approaches in Disaster Management	**14 Hours**
Emerging approaches in disaster management –three stages Pre –disaster stage(preparedness) Emergency stage Post disaster stage-rehabilitation Carrying Out Rehabilitation Work, Government Response in Disaster	
Unit III: Disaster Resistant Design	**14 Hours**
Problems & design issues in disaster-prone zones General Principles of designing for resisting disasters	
Unit IV: Special Construction Techniques and Measures	**14 Hours**

General requirements, principles and measures for building design for Fire, floods, cyclones, avalanche, etc. Special construction techniques available for adopting measures	

Course Learning Outcomes:

CL01	Creating Awareness of disasters
CL02	Identifying approaches to manage disasters
CL03	Analyse design principles to resist losses caused by disasters
CL04	Evaluating measures in rehabilitation efforts and reconstruction post-disasters

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Pardeep Sahni, Alka Dhameja, Uma Medury	Disaster Mitigation; Experience and Reflection	PHI Learning Pvt. Ltd	2001	9788120319141	232
Donald Hyndman & david hydman	Natural hazards & disaster	cengage learning	2005	1305581695	490
Dr. N S.Varandani	Basics of Environmental Studies	Books India Publications	2013	B073TZTJSP	18648 KB file

Annexure **'CD-01'**

L/DS	T	P/S/J	SW/FW	Total Credit Units
4	0	1	1	6

Course Title: INTERIOR DESIGN STUDIO-VI (Banks & Institutions)
Credit Units: 6
Course Level: UG
Course Objectives: To develop the design of small buildings with respect to site, landscape, climate and Socio-economic conditions in urban context.& the application of anthropometrics

Prerequisites: Basic knowledge of Drawing and sketching.

Course Contents/syllabus:

Unit I: Design of Banking Spaces	**21 Hours**
Understanding the hierarchy in financial Institutions and developing customer interaction zones like banks, finance corporations,post offices etc.	
Unit II: Contextual Design	**21 Hours**
Developing design solutions in regional settings w.r.t, geographical parameters. Climate, economic and cultural background for a finance institution with banking extension counter and ATM facility. Preliminary design and volumetric study. Final design with detailed volumetric study and 3D Visualizations	
Unit III: Design of institutional Areas	**21 Hours**
Developing ambient learning spaces, cultural academies, Coaching Centres etc. in urban regions. Minimum area of design problem has to be 2000 sq.m. Library and Proto type Studies Site analysis and site planning	
Unit IV: Barrier-free Design	**21 Hours**
Collecting anthropometric data for for disabled friendly users and making provisions for them in design solutions.	

Site Visits/ Case Studies:24 sessions

- Design problems will be introduced on the basis of live case studies and site visits as mandatory component of design studio to impart experiential learning.
- Field visits to enrich students' knowledge of context development for well-designed banking spaces and institutional areas

Course Learning Outcomes:

CLO1	Familiarise with hierarchy of working spaces in financial and institutional sector
CLO2	Develop design in context with regional settings
CLO3	Analyse spaces for barrier-free solutions accessible to all the users
CLO4	Evaluate the iterations with respect to site scale and location.

Text / Reference Books:

Author	**Title**	**Publisher**	**Ed/year**	**ISBN No**	**Pages**
Donald Watson, Michael Crosbie, John Cllender	Time Saver Standard for Architectural Design Data	McGraw-Hill Education	1997	0070685061	1024
Francis D.K.Ching	Architecture Form, Space and Order	John Wiley & Sons,	2014	9781118745083	464
V.S.Pramar	Design Fundamentals in Architecture	Somaiya Publications Pvt.Ltd., New Delhi	1997.	8170391709	270
Ernst Neufert	Neuferts Architects Data	John Wiley & Sons	2000	9788126517619	636

Broadbent, G.	Design in Architecture - Architecture and Human Science	John Wiley and Sons. New York	1973	978-471105831	600
Roger, K. L.	Architect? A Candid Guide to the Profession	Cambridge: The MIT Press	1998	0262621215	304
NA	Bank Interior	HI-DESIGN PUBLISHING	2012	978-9881970763	
Ben She	Bank Interior Design	Dalian University of Technology Press Co.,Ltd	2012	978-7561167403	199
Hanlin Liu	Modern Bank Designs	Design Media Publishing (UK) Limited; Sew edition	2014	978-9881545084	272
Grove Jenny	Interior Design: A Professional Guide	**RIBA Publishing**		9781859465851	176
Linda L. Nussbaumer	Inclusive Design: A Universal Need	**Fairchild Books**	2011	978-1563679216	352

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
3	0	0	0	3

Course Title: SERVICES DESIGN-IV (Fire Safety & Communication Systems)
Credit Units: 3
Course Level: UG
Course Objectives: To provide the knowledge of the basics services on fire safety and its applications in the field of building construction
Prerequisites: Basic awareness of materials around us

Course Contents/syllabus:

Unit I: Fire Safety Systems	**12 Hours**
Fire – causes and spread of fire, Mechanism of fire spread in building and prevention Fire safety standards Fire safety systems – firefighting provisions, types and applications.	
Unit II: Concepts in Fire Protection	**14 Hours**
-Design consideration for fire safety Fire retarding materials, fire rated doors etc. Devices for fire detection and fighting Fire-fighting installation and requirements - Heat sensitive detectors – Smoke detectors Automatic water sprinkler system- Foam systems	
Unit III: Types of Communication	**14 Hours**
Types of communication- data, telephone systems and their usage and application, server rooms.	
Unit IV: Vertical Circulation	**14 Hours**
Interior small Lifts Conveyer Belts Escalators	

Course Learning Outcomes:

CL01	Gain knowledge of fire protection & Communication systems in the interiors.
CL02	Understand principles and installations of fire protection & Communication services in the interiors.
CL03	Analyse the significance of design and functioning of fire protection & Communication systems as essential components in Interior Design
CL04	Design the layout, functioning and application of fire protection & Communication fixtures in the interior spaces.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
B.M.Sen	Fire Fighting Vol-1	Techno World	2021	B08N12HN32	175
IPS N. C. Asthana	Fire Fighting	Aavishkar Publishers, Distributors	2015	9788179104910	216

Annexure **'CD-01'**

L/DS*	T	P/S/J	SW/FW	Total Credit Units
3	0	0	0	3

Course Title: PRESENTATION SKILLS
Credit Units: 3
Course Level: UG

Course Objectives: To familiarize students with the principles and theories in graphics and architectural composition.vis, the development of art in Pencil.

Prerequisites: Basic knowledge of drawing and sketching.

Course Contents/syllabus:

	Hours
Unit I: Developing Working details as presentation tool.	**9 Hours**
Complete set of working drawings of a retail shop including floor plans and interior spaces with furniture layout.	
Unit II: Presenting Materials in Drawings	**12 Hours**
Materials used in building interiors with construction details	
Unit III: Sectional Details	**12 Hours**
Partition walls-role, functions, materials, principles and details	
Unit IV: Modules and Circulation Details	**14 Hours**
Elevators, Escalators, Travellators- the study and details of construction Modular Construction- structural modules in interiors.	

Site Visits/ Case Studies:24 sessions

- Students will observe measure, sketch, and annotate what they see at site and submit a presentation portfolio to the teachers concerned for evaluation. This award shall form part and parcel of the sessional work for internal assessment.

Course Learning Outcomes:

CLO1	Develop a basic understanding through market research and current trends
CLO2	Identify and develop understanding of interrelationship materials and aesthetics
CLO3	Illustrate Construction details with annotation
CLO4	Evaluate drawings for supervising the erection at site

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Brand: Taylor & Francis Ltd	Working Drawings Handbook	Routledge	2012	0750663723	300
Bhatt, N. D.	Engineering Drawing; Plane and Solid Geometry.	Charotar Publishing House Pvt. Limited.	2010	978-9380358178	720
Dhawan R K	Fundamentals of Engineering Drawing	S Chand	2014	978-121939263	456
Thomas, Marvin	Architectural Working Drawings: A Professional Technique	McGraw-Hill Inc.,US	1978	978-0070642409	192
Osamu (Art) A Wakita, Nagy R. Bakhoum, Richard M. Linde	The Professional Practice of Architectural Working Drawings, 5th Edition	Wiley	2017	978-1-118-88052-4	688

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
3	0	0	0	3

Course Title: PROFESSIONAL PRACTICE
Credit Units: 3
Course Level: UG
Course Objectives: To enable a student to work independently, and exercise informed judgements on the demands of the subject at high level.

Prerequisites: Basic knowledge of History.

Course Contents/syllabus:

Unit I: Introduction to Professional Management	**12 Hours**
Concept, Organization, Presentation, Ethics, responsibilities & significance of professional code of conduct	
Unit II: Structure of Interior Designer's Office	**14 Hours**
Conditions of engagement, Office management Scale of professional fee & charges, Duties of employer under labour welfare provisions	
Unit III: Tenders & Contracts	**14 Hours**
Definition & meaning of tender & contract, tender notice, tender document, types of tender	
Unit IV: Types of Contract	**14 Hours**
Articles of agreement, execution, scope of contract, duties and liabilities of contractor, legal aspects of contract	

Course Learning Outcomes:

CLO1	Understand the professional code of conduct
CLO2	Apply the knowledge base to routine office management
CLO3	Analyse the legal aspects of contracts
CLO4	Evaluate duties and liabilities as per the articles of Agreement.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages

M Chakraborti	Estimating, Costing, Specification & Valuation In Civil Engineering	Chakraborti	2006	818530436X	856
Dr Roshan H Namavati	Professional Practice: With Elements of Estimating, Valuation, Contract and Arbitration	Lakhani Book Depot	2016	9385492667	545
Philip King	Professional Practice Management	Law Book Co of Australasia	1995	0455213364	300
Hedley Smyth	Managing the Professional Practice: In the Built Environment	Blackwell Publishing Ltd	2011	9781405199759	200

Annexure **'CD-01'**

L/DS*	T	P/S/J	SW/FW	Total Credit Units
2	0	2	0	3

Course Title: VISUAL COMMUNICATIONS
Credit Units: 3
Course Level: UG

Course Objectives: To introduce the students to visual means of communication and the technicalities of the communication studies.

Prerequisites: Basic knowledge of Principles, Elements and Values of Design and Computer Operations

Course Contents/syllabus:

Unit I: Basics of Visual Communications	**12 Hours**
• **Visual Understanding** – the physiology and psychology of vision • **Graphic Design** -using design elements and principles to create meaning • **Analogy-Metaphor-Symbolism-Iconography** – tapping into prior knowledge • **Semiotics** – the cultural creation of meaning	
Unit II: Brand Identity	**14 Hours**
• **The Photographic Truth** – a close look at mediated reality • Creating a brand identity through business cards, packaging, and advertising • Design of digital logos • Visual UX, UI •	
Unit III: Digital Media Presence	**14 Hours**
• **Rip, Mix, Burn** – remix culture, appropriation and intellectual property Typography and Typesetting (New media, Posters, Signages, Books, Mailers, Motion graphics etc. Study of grids and layouts) • **Going Viral**– visual communication in the age of social media, crowdsourcing & citizen journalism • Digital Blogging • Commercial Broadcasting (Exploring various digital platforms like Instagram, Facebook, LinkedIn etc.) • Critiques: constructive criticism, when evaluating the design work of peers • Introduction to Coral DRAW software	
Unit IV: Portfolio Development	**14 Hours**
• Project: Development of the student's Digital Portfolio through application of acquired knowledge using Adobe Photoshop, Coral Draw and Microsoft Word.	

Site Visits/ Case Studies:9 sessions

- Students will observe measure, sketch, and annotate what they see at site and submit a presentation portfolio to the teachers concerned for evaluation. This award shall form part and parcel of the sessional work for internal assessment.

Course Learning Outcomes:

CLO1	Develop a basic understanding of visual vocabulary and graphic design
CLO2	Develop a toolbox of skills and techniques for communicating visually.
CLO3	Ideate experiences and memories with visual aids
CLO4	Evaluate media presence with marketing strategies

Text / Reference Books:
https://publish.illinois.edu/teaching-and-learning/course-syllabus/

Author	Title	Publisher	Ed/year	ISBN No	Pages
Jonathan Baldwin, Lucienne Roberts	Visual Communication: From Theory to Practice	AVA Publishing	2006	978-2940373093	175
Stephen Coles	The Anatomy of Type: A Graphic Guide to 100 Typefaces	Harper Design	2012	978-0062203120	256

Annexure **'CD-01'**

L	T	P/S	SW/FW	Total Credit Units
1	0	0	0	1

Course Title: Open Elective I (VAASTU SHASTRA)
Credit Units: 2
Course Level: UG
Course Objectives: To Introduce students to Vaastu Shastra

Prerequisites: Basic knowledge of Design

Course Contents/syllabus:

Unit I: Introduction to Vaastu Shastra	**4.5 Hours**
Introduction to Vaastu Purusha Mandala, Origin of Vaastu Shastra, Purpose of Vastu System, Philosophy of Vaastu Shastra , Scope of Vaastu Shastra	
Unit II: Site selection, shape of plots, orientation aspects	**4.5 Hours**
recommendation on sites, plots, location layouts, configuration of various areas, inner and outer spaces within and outside the building etc.	
Unit III: Vastu Principles and Modern Architecture	**4.5 Hours**
Vaastu principles and its affect, art of building as per Vastu Application of Vaastu, role of various mandalas and vastu-purushmandla.in design of Bed Room, Drawing Room, Pooja room, Kitchen and cooking spaces	
Unit IV: Case studies and practical remidies for houses and commercial building as per vaastu etc.	**4.5 Hours**
Technical Aspects -Use of Compass Identifying Vaastu Doshas and Remedies, Points to be checked for the identification of Vaastu dosha. Vaastu Dosha And Remedy Related to Extensions and curtailments, Door Planning, Water reservoirs. Distribution of rooms and sitting-sleeping postures	

Course Learning Outcomes:

CL01	Acquainting with the essence of the Vaastu Purusha.
CL02	Identifying design elements with Vaastu rules
CL03	Relating structural components and services to the Vaastu Shastra
CL04	Evolving Design solutions in compliance with the principles of Vaastu and rectifying Dosha if any

Text / Reference Books:

Author	**Title**	**Publisher**	**Ed/year**	**ISBN No**	**Pages**
Bhojraj Dwivedi	Sampuran Vaastu Shastra	Diamond Books	1998	978-8171821952	224
Pandit Y.N Maggirwar	Vaastu Simplified	Sri Sri Publications Trust	2014	978-9382146759	52

Program Structure- 7th sem

Courses shown in blue colour below are the courses offered by Department of Architecture & Design and the syllabi of the same were proposed in the meeting.

Sr. No	Course Code	Course Title	Course Type			Credit				Credit Units
				L	T	PS	FW	SW	AR/Des Studio	
1		Training Project	Non-Teaching Credit Courses	0	0	0	0	20	0	20
2		Project Report	Non-Teaching Credit Courses	0	0	0	0	3	0	3
3		Seminar	Non-Teaching Credit Courses	0	0	1	0	1	0	2
		Total Credits						**Min Required: 25 Semester Credits: 25**		

Annexure **'CD-01'**

L/DS	T	P/S/J	SW/FW	Non Teaching Credit Units
0	0	0	20	20

Course Title: TRAINING PROJECT
Credit Units:20
Course Level: UG

Course Objectives: The purpose of this study is to expose the students to practical field of design and construction to understand the application of academic knowledge acquired in the college.

Prerequisites: Basic knowledge of Professional Skills & Software.

Course Contents

Introduction to the professional Training & Guidelines
• Introduction to General Guidelines, Norm for office selection, Approval of the Offices • Rules and Regulations of Internship, Intern Assessment by The Office
Schedule for Sending Monthly Progress Report
• Schedule for Sending Monthly Progress Report • Criteria of Evaluation of Reports, Schedule of Marks
Guidelines for Viva-Voce
Guidelines of Work to Be Presented for The Viva Voce
Student Presentation Work
• Student Internship Office-Work Seminar Presentation, • Requirement of The Final drawing in a stamped format.

Course Learning Outcomes:

CLO1	• To experience the Day-to-day working of an Architect's Office and Correspondence.
CLO2	• To study the Presentation techniques, Working Drawings, and detailed drawings.
CLO3	• To apply and Prepare estimates, checking of contractor's bills
CLO4	• To learn the construction process during Site Visit and Supervise the work.

Text / Reference Books: Training Manual

Annexure **'CD-01'**

L/DS	T	P/S/J	SW/FW	Non Teaching Credit Units
0	0	0	3	03

Course Title: PROJECT REPORT
Credit Units:03
Course Level: UG
Course Objectives: The purpose of this study is to expose the students to document the already built project and to learn the Design, Services, Structure and construction methods/techniques present on the site.

Prerequisites: Basic knowledge of Professional Skills & Software for report making.

Course Contents/syllabus:

Unit/Stage- I: Guidelines of Building Study Project Report	
• Introduction to General Guidelines, Norm for case study project selection • Student shall learn the Building Study Report preferably built & Designed in the Internship Office.	
Unit/Stage- II: Schedule for Sending Building Study Report	
• Schedule for Sending Building Study Report in 2-3 stages • Criteria of Evaluation of Building study Reports, Schedule of Marks	
Unit/Stage- III: Guidelines for Viva-Voce of Building Study Report	
Guidelines of Work to Be Presented for The Viva Voce	
Unit/Stage- IV: Student Presentation Work	
• Student Building Study Report Seminar Presentation, • Requirement of The Final report printing in a stamped format.	

Course Learning Outcomes:

CLO1	To document the Building project and study the services, Structure and Arch spaces.
CLO2	To study the Presentation & formatting of reports for having pictures, Working Drawings, and detailed drawings.
CLO3	To analyse the construction side facets of design at site.
CLO4	To review the construction techniques.

Text / Reference Books: Training manual

Annexure **'CD-01'**

L/DS	T	P/S/J	SW/FW	Non Teaching Credit Units
0	0	1	1	2

Course Title: SEMINAR
Credit Units: 02
Course Level: UG
Course Objectives: The purpose of this study is to expose the students to document & present the already built project and the work done in the office.

Prerequisites: Basic knowledge of Communication skills, Professional Skills & Software for presentation making.

Course Contents/syllabus:

Guidelines of Presentation
• Introduction to General Guidelines for Work done in office & case study project selected. • Format for Selection of Building Study Report, preferably built & Designed in the Internship Office.
Format of presentation
• Contents/Format of presentation for Work done in office & Building Study Project Report
Evaluation for Viva-Voce of Building Study Report
Evaluation Criteria for the mentioned presentation/ viva-voce.
Student Presentation Submission

Student Building Study Report Seminar Presentation will be submitted as per the dept criteria. The presentation to be made under following heads: • Selection of Topic • Collection of Review • Assimilation of Literature • References Used • Presentation Ability • Preparation of Visual Aids • Self Understanding& Level of Confidence • Response / Queries of Examiners / Faculty / Audience • Physical Appearance / Presence • Technical Writing/Report Prepared On the Selected Topic.

Course Learning Outcomes:

CLO1	To present and document the Building project and study the services, Structure and Arch spaces.
CLO2	To learn and check the level of knowledge gained during internship.
CLO3	To document and learn the aspects while being in the office.
CLO4	To learn the communication skills for the profession.

Text / Reference Books: Training manual;
: Higher Education Language & Presentation Support (HELPS) University of Technology Sydney; available at *https://www.uts.edu.au/.../2018-06/intensive_presentation_student.pdf*

Program Structure- 8th sem

Courses shown in blue colour below are the courses offered by Department of Architecture & Design and the syllabi of the same were proposed in the meeting.

Sr. No	Course Code	Course Title	Course Type			Credit				Credit Units
				L	T	PS	FW	SW	AR/Des Studio	
1		Thesis Project	Non-Teaching Credit Courses	0	0	4	0	16	0	20
2		Elective I A/B	Specialization	3	0	0	0	0	0	3

			Enhancement Courses							
3		Research Skills	Professional Core Courses	2	0	0	0	0	0	2
		Total Credits					**Min Required: 25 Semester Credits: 25**			

Annexure **'CD-01'**

L/DS	T	P/S/J	SW/FW	Non Teaching Credit Units
0	0	4	16	20

Course Title: THESIS PROJECT
Credit Units:20
Course Level: UG
Course Objectives:

- To prepare student to independently handle and present all aspects of an Interior design, from its evolution to final solution in totality. To prepare a detailed design & research report.
- To demonstrate the students' capability of synthesizing Interior, Architecture engineering systems, social sciences and humanities through a capstone project which showcases creative and critical thinking abilities and skills developed through the course.

Prerequisites: Basic knowledge of Interior Research & Report writing.

Course Contents/syllabus:

Unit I: Introduction to Interior Thesis
• A report on Synopsis, Project Formulation and Report having project' proposed areas, Library studies, Case Studies & their inferences, comparison and analysis, Stage discussions of the project. • The stage includes design discussions with the experts.
Unit II: Stage discussions, Submissions & Viva-voce
• Design Concept, Design development Stages mentioning zoning, areas with model, Pre-Liminary design stage discussions. • The stage includes design discussions with the experts.
Unit III: Pre-Final Stage Submission
• Pre-final Submission, area formulations, design improvements, Detailing of Architectural Design with forms & model. A draft compiled Stage report. • The stage includes design discussions with the experts.
Unit IV: Final Stage Submission
• Final Submission, design improvements, Detailing of Architectural Design with forms & model. A final compiled Stage report with final design viva-voce.

Course Learning Outcomes:

CLO1	Understanding the independence of handling a Live project while dealing with different issues pertaining to site selection.
CLO2	Understanding & deal with defining scope and preparing designing brief.
CLO3	Understanding the design methodology required in project selection.
CLO4	To showcase Analysis, knowledge and understanding of planning, designing, construction, structure, Services etc.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Donald Watson, Michael Crosbie, John Cllender	Time Saver Standard for Architectural Design Data	McGraw-Hill Education	1997	0070685061	1024
Francis D.K.Ching	Architecture Form, Space and Order	John Wiley & Sons	2014	9781118745083	464
V.S.Pramar	Design Fundamentals in Architecture	Somaiya Publications Pvt.Ltd., New Delhi	1997.	8170391709	270
Ernst Neufert	Neuferts Architects Data	John Wiley & Sons	2000	9788126517619	636
Broadbent, G.	Design in Architecture - Architecture and Human Science	John Wiley and Sons. New York	1973	978-471105831	600
Roger, K. L.	Architect? A Candid Guide to the Profession	Cambridge: The MIT Press	1998	0262621215	304

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
3	0	0	0	3

Course Title: Elective-IA: ARCH. JOURNALISM
Credit Units: 3
Course Level: UG
Course Objectives: To familiarize the students with detail of various building components
To introduce the building materials their properties and application in building construction.

Prerequisites: Basic awareness of materials around us

Course Contents/syllabus:

Unit I: Introduction to Architectural journalism	**12 Hours**
Role of media in profession of Architecture. Journalism & its types. News, Values, Responsibility of Reporter.	
Unit II: Documenting and Analysing Data	**14 Hours**
• Analyzing data to find out trends and new angles • Presenting data for media audience. • Understanding the Audience, gathering Intelligence through Research • Principles of writing: Authorial Voice and Structure of material. Preparing press note, Photo-series & Skills of Photojournalism, writing captions.	
Unit III: Computer Assisted Reporting	**14 Hours**
• Computer assisted reporting: Use of search engines and web (twitter etc.) • Blog writing & managing a blog. • Techniques of writing features, News, Articles, Profiles of personalities Interviews, Advertisements. • Editorials: Structure of Editorials, Editorial Board Writing letter to editor, Columns Middles & Editorial cartoons.	
Unit IV: Reviewing Art Innovations and Festivals	**14 Hours**
• Reviewing Art & Architecture Festivals, Reporting Live performances, Seminars, Conferences, Events, Disasters, Court cases, judgments. • Reporting on innovations by industry,Ethics of Reporting.	

Course Learning Outcomes:

CL01	Understand the methods of Journalism
CL02	Apply media toolset to gather information.
CL03	Analyse computerized aids to present views and reports
CL04	Review innovative art solutions in projects.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Mohammad Al-Asad, Majd Musa	Architectural Criticism & Journalism	Umberto Allemandi & Co	2007	978-8842214809	208
Pappal Suneja	Exploration of Architectural Journalism in India	Copal Publishing	2019	978-1072583271	180
Pappal Suneja	Myriad Disciplines of Architectural Writing	White Falcon Publishing	2019	978-9388459587	186
Pappal Suneja	Literature Study & Technical Writing in Architecture	Lambert Academic Publishing	2018	978-3330007109	144
Robin Wilson	Image, Text, Architecture: The Utopics of the Architectural Media	Routledge	2016	978-1138573260	251

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
3	0	0	0	3

Course Title: Elective-IA: EXHIBITION DESIGN
Credit Units: 3
Course Level: UG
Course Objectives: To develop the knowledge regarding exhibition design**.**

Prerequisites: Basic awareness of Interior Design fundamentals.

Course Contents/syllabus:

Unit I: Introduction to Exhibition Spaces	**12 Hours**
Importance of Exhibition designs, lighting, circulation and materials.	
Unit II: Elements of Design Process	**14 Hours**
To understand various elements of process like space, function, materials.	
Unit III: Structural systems	**14 Hours**
To understand and explore various structural systems, forms and material possibilities in Exhibition design	
Unit IV: Design of Exhibition Pavilion	**14 Hours**
Design layout for exhibition on metropolitan scale adopting instances from case studies and prevailing examples	

Course Learning Outcomes:

CL01	Understand the use of Exhibitions and their design.
CL02	Gaining experience of materials and structure of exhibitions
CL03	Select and apply appropriate materials as per the functions.
CL04	Understanding the Permanent and temporary nature of the structure and related services.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Donald Watson, Michael Crosbie, John Cllender	Time Saver Standard for Architectural Design Data	McGraw-Hill Education	1997	0070685061	1024
Francis D.K.Ching	Architecture Form, Space and Order	John Wiley & Sons,	2014	9781118745083	464
V.S.Pramar	Design Fundamentals in Architecture	Somaiya Publications Pvt.Ltd., New Delhi	1997.	8170391709	270
Ernst Neufert	Neuferts Architects Data	John Wiley & Sons	2000	9788126517619	636
Broadbent, G.	Design in Architecture - Architecture and Human Science	John Wiley and Sons. New York	1973	978-471105831	600
Roger, K. L.	Architect? A Candid Guide to the Profession	Cambridge: The MIT Press	1998	0262621215	304

Annexure **'CD-01'**

L/DS*	T	P/S	SW/FW	Total Credit Units
2	0	0	0	2

Course Title: RESEARCH SKILLS
Credit Units: 2

Course Level: UG

Course Objectives: To enable the student to analyze and evaluate architectural projects etc. and also understand architectural research with special emphasis on India.

Prerequisites: Basic knowledge of Research and Writing.

Course Contents/syllabus:

Unit I: Design Evaluation	**9 Hours**
• **Introduction**: An introduction to Design evaluation in general and definition, purpose, scope and its applications to Interior Design, fine arts literature etc. • **Techniques:** Techniques of analysis and evaluation employed in buildings, projects competitions etc. methods of appraisal / evaluation of building complexes and exhibitions.	
Unit II: Value of Appraisal	**9 Hours**
• **Appraisal / evaluation**: Value of appraisal / evaluation reports and reviews in the field of interior Design, fine-arts, literature, their scope, and merits. • **Report and review writing**: Techniques of report and review writing, their application to Interior Design publications.	
Unit III: Interior Design Research	**9 Hours**
• **Interior Design Research**: An introduction to Interior Design in general and in profession, its purpose and scope. Interior Design research in India from earliest time to the present era. Research methods, evaluation of results and its application.	
Unit IV: Research Methodology	**9 Hours**
• Introduction to Research Methodology, methods of Research. • Research Design, Techniques of preparing a project report. • Ethical issues related to publishing, Plagiarism Importance of Referencing, Different styles of referencing.	

Course Learning Outcomes:

CLO1	Understanding the Introduction to research methods, process and research methodology
CLO2	Understanding the Review of an interior design book prescribed by subject teacher.
CLO3	Understanding the Writing a report on ongoing project in Interior design.
CLO4	Learning an Ethical Research report for the Interior design projects.

Text / Reference Books:

Author	**Title**	**Publisher**	**Ed/year**	**ISBN No**	**Pages**
Groat L.	Architectural Research Methods	Wiley India Exclusive(Others)	2018	8126571942	200
Elzbieta Danuta Niezabitowska	Research Methods and Techniques in Architecture	Wiley India Exclusive(Others	2018	9781138055988	350
Sanoff, H.	Methods of Architectural Programming	Dowden Hutchinson and Ross Publishing Inc. Vol.29, Community Development Series	2018	9780367023669	198
Ajla Akšamija	Research Methods for the Architectural Profession	Routledge	2021	0367433966	214