

**PROPOSED CURRICULAR FRAMEWORK FOUR YEAR
GRADUATE PROGRAM/ FIVE YEARS MASTERS
PROGRAMING UNIVERSITIES OF KARNATAKA
STATE**

**INTERIOR DESIGN AND
DECORATION**

Submitted to

**MANGALORE UNIVERSITY,
MANGALORE**

PREAMBLE

Interior design is a multi-faceted profession in which creative and technical solutions are applied within a structure to achieve a built interior environment. These solutions are functional, enhance the quality of life and culture of the occupants and are aesthetically attractive.

Designs are created in response to and coordinated with the building shell and acknowledge the physical location and social context of the project. Designs must adhere to code and regulatory requirements, and encourage the principles of environmental sustainability.

The interior design process follows a systematic and coordinated methodology, including research, analysis and integration of knowledge into the creative process, whereby the needs and resources of the client are satisfied to produce an interior space that fulfills the project goals.

The professional interior designer is qualified by education, experience, and examination to enhance the function and quality of interior spaces for the purpose of improving the quality of life, increasing productivity, and protecting the health, safety, and welfare of the public.

There are various paths that one can take to become a professional interior designer. Training through an institution such as a college, art or design school or university is a more formal route to professional practice.

A formal education program, particularly one accredited by or developed with a professional organization of interior designers, can provide training that meets a minimum standard of excellence and therefore gives a student an education of a high standard. There are also university graduates and Ph.D. programs available for those seeking further training in a specific design specialization. i.e. healthcare design or those wishing to teach interior design at the university level.

An interior designer may wish to specialize in a particular type of interior design in order to develop technical knowledge specific to that area. Types of interior design include residential design, commercial design, hospitality design, healthcare design, universal design, exhibition design, spatial branding, etc

The profession of Interior Design is relatively new, constantly evolving, and often confusing to the public. It is an art form that is consistently changing and evolving. Not only is it an art, but it also relies on research from many fields to provide a well-trained designer influenced by their environments.

The course curriculum for under graduate studies under choice based credit system (CBCS) for B.Sc. in Interior Design and Decoration (Basic/Hons.) is framed in this document. This exercise was undertaken as part of the nationwide curriculum restructuring initiative by the National Education Policy-2020. This curriculum is a fresh exercise, but also represents a continuous effort of deliberations with the University and College teachers.

As enshrined in the National Education Policy-2020 vision of introducing course curriculum for undergraduate studies under Choice Based Credit System (CBCS), the main objective of framing this curriculum of B.Sc. (Basic/Hons.) in Interior Design and Decoration is to impart the students a holistic understanding of the subject giving substantial weightage to the core contents, skill, value-based and ability enhancement.

The syllabus has given due importance on the main streams of the body of knowledge on "Interior Design" with due recognition of its wide spectrum. The ultimate goal of the syllabus is to enable the students to have an in-depth knowledge on the subject and enhance their scope of employment at every level of exit. Adequate emphasis has been given on the new and emerging techniques and understanding of the subject under the changing regime and global context.

The model curriculum envisages catering to the developmental trends in higher education, incorporating multi-disciplinary skills, professional and soft skills such as team work, communication skills, leadership skills, and inculcating human values, professional ethics, and the spirit of innovation/entrepreneurship and critical thinking among students and promoting avenues for display of these talents, linking general studies with professional courses. Besides imparting disciplinary knowledge to the learners, curriculum should aim to equip the students with competencies like problem solving, analytical reasoning and moral and ethical awareness.

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EXIT OPTIONS AND CREDIT REQUIREMENTS

Progressive Certificate, Diploma, Bachelor of Science Degree, Bachelor of Science Degree with Honors, Masters of Science Degree in Interior Design and Decoration/Interior Design Management will be awarded at the completion of every progressive year respectively.

EXIT WITH	CREDIT REQUIREMENTS
CERTIFICATE At the successful completion of First year (Two Semesters) of the Four Year Undergraduate Degree Programme.	52 credits
DIPLOMA At the successful completion of Second year (Four Semesters) of the Four Years Undergraduate Degree Programme.	100 credits
BACHELOR OF SCIENCE DEGREE At the successful completion of Three year (Six Semesters) of the Four Years Undergraduate Degree Programme.	144 credits
BACHELOR OF SCIENCE DEGREE WITH HONOURS At the successful completion of Four year (Eight Semesters) of the Four Years Undergraduate Degree Programme.	226 credits
MASTERS OF SCIENCE DEGREE At the successful completion of Five year (Ten Semesters) of the Five Years Integrated Programme.	265 credits

A student will be allowed to enter/re-enter only at the Old semester and can only exit after even semester. Re-entry at various as lateral entrants in academic programmes based on the above mentioned earned credits and proficiency test records.

The validity of the earned credit will be for a maximum period of seven years or as specified by the academic bank of credits (ABC).

**1.C. MODEL- PROGRAM STRUCTURES FOR THE UNDER-GRADUATE PROGRAMS IN UNIVERSITIES AND COLLEGES IN KARNATAKA
BACHELOR OF INTERIOR DESIGN (BASICS/ HONS) IDD/ TDM WITH INTERIOR DESIGN AS CORE SUBJECT**

SEM	DISCIPLINE CORE (DSC) (CREDITS) (L+T+P)	DISCIPLINE ELECTIVE (DSE)/ OPEN ELECTIVE (OE) (CREDITS) (L+T+P)	ABILITY ENHANCEMENT COMPULSORY COURSES (AECC), LANGUAGES (CREDITS) (L+T+P)		SKILL ENHANCEMENT COURSES (SEC)			TOTAL CREDITS
					SKILL BASED (CREDITS) (L+T+P)	VALUE BASED (CREDITS) (L+T+P)		
1	ID 1 : FUNDAMENTALS OF INTERIOR DESGN (3+2)	OE 01: BASICS OF INTERIOR DESIGN (3+0) OE 01 : COLOUR CONCEPTS IN INTERIORS(3+ 0)	L1-1 (3) L2-1(3) (4 HRS, EAC H)		SEC-1 ALTERNATIV E SEC IN PLACE OF DIGITAL FLUENCY (2) (1+0+2)	PHYSICAL EDUCATION - YOGA(1) (0+0+2)	HEALTH & WEAKNES S (1) (0+0+2)	26
	ID 2: CONSTRUCTION MATERIALS – 1 (3+2)							
	ID 3 : 2 D & 3 GRAPHICS (0+3)							
2	ID 4 : ERGONOMICS (3+2)	OE 02 : HOME DÉCOR (3+0) OE 02 : LANDSCAPING (3+0)	L1- 2(3) L2- 2(3) (4 HRS, EAC H)	ENVIRON MENTAL STUDIES (2)		PHYSICAL EDUCATION - SPORTS (1) (0+0+2)	S/R&R (S&G)/ CULTURA L(1) (0+0+2)	26
	ID 5: CONSTRUCTION MATERIALS- II (3+2)							
	ID 6: CAD IN INTERIORS-1 (0+3)							
EXIT OPTION WITH CERTIFICATE DESIGN-1D & D/ IDM (WITH A MANIMUM OF 52 CREDITS)								

- 1 Credit in theory is equal to 1 hour of lecture per week.
- 1 Credit in Practical is equal to 2 hours of practical hours per week.
- 3 Credits of theory is equal to 3 lectures hours per week.
- 2 Credits of Practical is equal to 4 hours of practical per week.
- 3 Credits of Practical is equal to 6 hours of practical per week.

DETAILS OF PAPERS FOR FIVE YEAR IN INTERIOR DESIGN & DECORATION/INTERIOR DESIGN MANAGEMENT

- Total Discipline Core (DSC) = 28 Papers
- Total Discipline Specific Elective (DSE) = 07 Papers (Two elective papers will be offered in 5th to 10 semester; student has an option of choosing one elective paper).
- Open Elective (OE) = 04 papers (Each student has to choose 1 Open Elective each in 1st, 2nd, 3rd & 4th Semester. At each semester there are 2 options provided. The student can select any one).
- Vocational Courses = 6 Vocational course will be offered, one each from 5th semester.
- Internship is offered as vocational course in 5th semester.
- Research Project is offered in 8th & 10th semester.
- Research Methodology is offered in 7th semester.
- Ability Enhancement Compulsory Course (AECC) = 8 Papers (Language) + 2 papers (Environmental Studies and Constitution) = 10 Papers

- Skill Enhancement Course (SEC)= 6 (Skill Based) + 6 (Value based) = 12 Papers

TABLE FOR BIRDS EYE VIEW OF PAPERS OFFERED AS PER 1 C MODEL

SEM	COURSE CODE	CATEGORY OF COURSE CORE/DSC/OE	THEORY/PRACTICAL	CREDITS	PAPER TITLES	MARKS	
						SA	IA
1	ID-T 1.1	DSC	THEORY	3	Fundamentals of interior design	60	40
	ID-P 1.1	DSC	PRACTICAL	2	Fundamentals of interior design	25	25
	ID-T 1.2	DSC	THEORY	3	Construction materials-1	60	40
	ID-P 1.2	DSC	PRACTICAL	2	Construction materials-1	25	25
	ID-P 1.3	DSC	PRACTICAL	3	2d & 3d Graphics	50	50
	ID-OE-1	OE-1	THEORY	3	Basics of interior design/ color concepts in interiors	60	40
2	ID-T 2.1	DSC	THEORY	3	Ergonomics	60	40
	ID-P 2.1	DSC	PRACTICAL	2	Ergonomics	25	25
	ID-T 2.2	DSC	THEORY	3	Construction materials-II	60	40
	ID-P 2.2	DSC	PRACTICAL	2	Construction materials-II	25	25
	ID-P 2.3	DSC	PRACTICAL	3	Cad in interiors	50	50
	ID-OE-2	OE-II	THEORY	3	Home décor/Landscaping	60	40

PROGRAMME OUTCOMES, EXIT OPTIONS AND JOB OPPORTUNITIES

- A) Name of the Degree: **B Sc (Basic/Hons)**
- B) Specialization: **Interior Design and Decoration**
- C) **Programme Articulation Matrix:** This matrix lists only the core courses that are essential for every student to earn his /her degree. It includes Theory, lab, tutorial, Project, Filed Work, Internships, Research and Educational tour. Electives are not part of this list.

Sem ester	Programme Code	Outcomes
I	POIT	Have developed knowledge and understanding of the Creative subject, and able to appreciate the essence of art and design
	POIP	Be able to analyze the Graphical language in design Exposure to type of Building Materials in Interiors.
11	P02T	Have developed sound knowledge of Basic Anthropometrics with related to Interior furniture's, Understanding of Building materials usage and its application procedures in Construction industry.
	P02P	Be able to Draw and compose Furniture's sketch to an appropriate paper scale, relating to actual scale within the given drawing Sheet. Understanding Computer aided Design (CAD) tools to Continue on digital platform.
Job opportunities for the Exit option with Certificate		
<ul style="list-style-type: none"> • Drafting job in design firms on CAD drawings • Interns in building material showrooms • Assistance to Cad Lab Instructor in educational institutions • Sampling and execution assistant in carpentry workshops. 		

DETAILED PAPER
SEMESTER-1
TITLE OF THE COURSE: INTERIOR DESIGN AND DECORATION

ID-T 1.1 FUNDAMENTALS OF INTERIOR DESIGN		ID-P 1.1 FUNDAMENTALS OF INTERIOR DESIGN			
Number of Theory Credits	Number of lecture hours/semester	Number of Theory Credits	Number of Practical hours/semester		
3	42	2	56		
ID-T 1.2 CONSTRUCTION MATERIALS		ID-P 1.2 CONSTRUCTION MATERIALS		ID-P1.3 2 D & 3 D GRAPHICS	
Number of Theory Credits	Number of lecture hours/semester	Number of Practical Credits	Number of Practical hours/semester	Number of Practical Credits	Number of Practical hours/semester
3	42	2	56	3	84

OBJECTIVES:

- Understand the principles of design familiar with the meaning and purpose of design.
- Training them in visual composition using two dimensional and three-dimensional objects.
- To introduce to the students the fundamentals of design and development of design vocabulary, to nurture design thinking and to enable them to apply the same thought process in developing three-dimensional compositions

CONTENT OF COURSE ID-T 1.1: FUNDAMENTALS OF INTERIOR DESIGN.	
UNIT 1: Foundation of design:	10 Hours
<p>Chapter-I Introduction to interior design and decoration- importance scope &, Aspects of interior design, difference between Interior design and decoration, role of the designer and decorator</p> <p>Chapter-2 Definition and classification of design - Structural and decorative, Classification of decorative design: Naturalistic, stylized, geometric and abstract.</p> <p>Chapter3 Importance and requirements of good design, Evaluation of good design-criteria for evaluation.</p>	
UNIT 2: Elements and Principles of Design:	20Hours
<p>Chapter 4: Elements of Design - Point, Line, Shape and Form, Texture, Space And Pattern- Meaning, importance, characteristics of each element and their use in designing.</p> <p>Chapter 5: Principles of Design - Balance, Proportion, Rhythm, Emphasis and Harmony - Meaning, types and significance in designing.</p> <p>Chapter 6: Application of principles of design in: Room arrangement, Interior display and Furniture arrangement.</p>	
UNIT 3: Colour and Colour Application:	12 Hours.
<p>Chapter-7: Introduction to Concept of color - significance of color in the interiors and exteriors-Dimensions of color - Hue, value, intensity, Effects of Hue, value and Intensity, Colour Schemes and types, Colour harmonies in interiors and exteriors.</p> <p>Introduction to Colour Schemes and types, Colour harmonies-related and contrast, Advanced and receding factors considered in selecting color harmonies, Application of color harmonies in the-Effects of light, form, surface qualities, Distances and scales on color, Illusion of color, effect of color on each other</p>	

<p>CHAPTER- 8</p> <p>Psychological impact of colors – warm, cool and neutral color, impact of specific hue, problems of color, use of color in various functional contexts- Residential interior, Non-residential interiors, use of colors in special situations- outdoor/indoor spaces, accessories, art works.</p> <p>CHAPTER-9</p> <p>Color systems: Prang Munsell, color systems in practice, simplified color system, color terminology, special color issues, mixed color effects, effects of texture, using color system.</p>	
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REFERENCES:

1. Chaira Joseph De; Others, Time Savers Standard for Interior design and Space Planning (2001), McGraw Hill, New York
2. Neufert, Ernst (1970), Ernst, Neufert, "Architects Data" by Lockwood and sons, London
3. Chiara, Francis J.D., and Callender, John(ed.), (1983), "Time Savers Standards for Building Types", Mc Graw Hill Book Co., NY
4. Burden (1984), "Design Presentation", Mc Graw Hill, London.
5. The National Building Code (2000), IS Publications, India
6. "Interior Design Principles and Practice(2005)", M. Pratap Rao , Standard Publishers, Delhi
7. "Interior design" Reference + Specification book by Chris Grimley
8. "Interior Design and decoration" by Premavathi Seetharaman Praveen Pannu

CONTENT OF COURSE ID-P1.2: FUNDAMENTALS OF INTERIOR DESIGN		
UNIT-I	Basic Application of Design: Types of Design: Structural and decorative Design Decorative designs: Naturalistic, stylized, geometric and abstract.	12 Hours
UNIT-2	Basic Application of elements of Design in interior Design- Line, Point, form and shape, size, color, light, pattern, texture and space. Basic Application of principles of design in interior Design. -Balance, rhythm, emphasis, harmony, proportion, Unity,	18 HOURS
UNIT-3	Dimension of the color: Hue, Value, Intensity Color wheel Color Schemes: Harmonious Color Schemes: Monochromatic & analogous Non Harmonious Color Schemes: Triad, Complementary, Double Complementary SpiltComplementary, Double Complementary,	26 HOURS

	<p>Tetrad, Polychromatic.</p> <p>Neutral color harmonies & Accented Neutral.</p> <p>Impact of Colors on Psychology: Advancing, Receding, Warm Cool Color.</p>	
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CONTENT OF COURSE ID-T 1.2: CONSTRUCTION MATERIALS		
<p>OBJECTIVES:</p> <ul style="list-style-type: none"> • To know the basic materials used in construction. • To understand the methods of interior construction techniques 		
UNIT 1 : Brick and Stone masonry		15 Hours
<p>Chapter-1 : Brick masonry- Brick in interiors, manufacturing process, physical and chemical properties. Applications: foundation, walling material, types of brick walls, brick masonry (English, Flemish, rat, trap bond) detailed brick layout at corners, junctions and brick piers, Style of construction. Exposed brick work, madras terrace roof, jack arch roof, brick paving, brick arches and domes, reinforced brick roof and walls. Types of bricks- traditional , wire-cut, moulded bricks and its size, advantages and disadvantages.</p> <p>Chapter-2: stone masonry introduction, properties and applications. Types of stones, dressing of stone, finishes, its application in interiors. Geological classification of rocks- stones (Granite, limestone, Quartzite, Marble, Slates etc.)</p> <p>CHAPTER-3: uses of stone, deterioration and preservation of stone, availability, properties and applications of stones for construction in india. Stone for finishing, cutting and polishing, Granite and marble. Types of stone masonry.</p>		
UNIT 2: CEMENT, MORTAR AND ASPHALT AND BITUMEN		15 HOURS

<p>CHAPTER-1: cement and its applications, properties of cement, types of cement- Portland, pozzolona etc</p> <p>CHAPTER-2:mortar its application properties, types of mortar- lime mortar and cement mortar, concrete and admixures, R.C.C, R.B. concrete.</p> <p>CHAPTER-3: definition, classification, properties, uses if bitumen and aspalt in interiors.</p>	
<p>UNIT-3: TIMBER, METAL, PLASTIC</p>	<p>12 HOURS</p>
<p>Chapter-I Timber and its usage in construction -Introduction and Properties. Timber - as a building material, Seasoning & preservation of timber, Hardwood & softwood. Industrial timber - Ply woods, Block boards, Fibre board Market survey- sizes & rates, brands.</p> <p>Chapter-2: Ferrous and non-ferrous metals - Introduction and Properties, Alloys and its application in interiors. Steel and its application, Steel alloys. Aluminum and its application in interiors, Aluminum alloys</p> <p>Chapter-3: Plastics and miscellaneous Materials- Introduction and Properties, Types of plastics, use of plastics in interiors, fiber plastic, silicon and its usage.</p>	

REFERENCE BOOK

1. Sushil Kumar (2008), "Building Construction." Standard Publishers and Distributers, Delhi.
2. Sanjay Mahajan (2014), "Building Construction I and II". Satya Prakashan, New Delhi.
3. Gurucharn Singh (2014), "Building Materials." Standard Publishers and Distributers, Delhi.
4. Sucheta Singh, Veena Gandotra and Promila Sharma (2009), "Organic Building Materials in Residential constructions." Concept Publishing Company, New Delhi.
5. Chakraborti (2015), "Civil Engineering Drawing." Bhaktivedanta Book Trust, Kolkata. XI ed.
6. "Construction materials reference book" edited by David Doren, Bob Cather.
7. "Materials in construction" by G.D. Taylor.

CONTENT OF COURSE ID-P 1.2 : CONSTRUCTION MATERIALS		
UNIT-1	Type of stones ,available in Market Application of Stones, Market Survey on stones and Market Rates of stones. Sketching of different types of Stones-representation skills.	14 Hours
UNIT-2	Drafting of Brick Wall plan and elevations using different bonding agent Brick Bond, Stretcher, and Header, English and Flemish bonds and Market Survey on Types of Bricks & Rates.	14 Hours
UNIT-3	Types of Timber- Identification, Properties and application in Interiors, Market Survey on Types of Timber available in market, Plywood's, MDF, Veneer	28 Hours.
	Site visits to Timber yard, Stone Showrooms and Brick Kiln, make a Report on the Process of Preparation of Bricks, Report on Timber Preservation, Cutting Process of Timber.	

CONTENT OF COURSE ID-P1.3: 2 D & 3 D

GRAPHICS

OBJECTIVES:

- Introducing students to fundamental techniques of architectural representation and to equip with the basic principles of representation.
- Enhancing the skills in developing a graphical language of architecture

UNIT-1	Drafting of Different Types of lines, different Symbols used in architecture, dimensioning, and scales. Rendering Skills, Material Representations	28 HOURS
UNIT-2	Orthogonal projections, drafting of plans and elevations of various Types of objects, Development of Surfaces of Objects. Constructions of Geometrical Shapes,	28 HOURS
UNIT-3	Drafting of isometric views, Axonometric Views and Oblique Views, different objects and interior related views & Objects. Drafting of perspective drawings of simple and complex objects, one point and two- point perspective of interiors and exteriors, sectional perspective	28 HOURS

REFERENCE BOOKS:

1. Francis D. K. Ching, 'Architectural Graphics', John Wiley and Sons, 2012.
2. Charles George Ramsey, Harold Reeve Sleeper, Architectural Graphic Standards: Students Edition 11th Edition, Paperback Publishers, ISBN: 13978-0470085462
3. Ivo.D. Drpic, Sketching and Rendering of Interior Space, Watson- Guptill, 1988.
4. Maureen Mitton, Interior Design Visual Presentation: A Guide to graphics, models and presentation techniques, 3rd edition, Wiley publishers, 2007
5. Stephen Kliment, Architectural Sketching and Rendering: Techniques for Designers and Artists,

7. Martin, L. C. (1970). Architectural Graphics. 2nd Ed. Macmillan Pub Co.
8. Morris, I. H. (1902). Geometrical Drawing for Art Students. Longmans.
9. Zell, Mo. (2008). The Architectural Drawing Course. 1st Ed. Thames and Hudson.

I SEMESTER-OPEN ELECTIVES
ID OE 01: BASICS OF INTERIOR DESIGN
Total Teaching Hours= 42; Total Credits= 3

OBJECTIVES;	
<ul style="list-style-type: none"> • To enable the students understand the elements and principles of art and design. • To train students to develop skill of creating designs. 	
UNIT-1 FOUNDATION OF DESIGN	12
<p>Chapter-1 Design fundamentals. Definition and classification of design. –Structural and decorative</p> <p>Chapter-2 Structural design- importance and requirements of good structural design decorative design- importance and requirements of good decorative design classification design Decorative design: Naturalistic, stylized, geometric and abstract</p> <p>Chapter- 3 Folk and Tribal designs. Development of designs using motives for various purposes</p>	
UNIT-2 ELEMENTS AND PRINCIPLES OF DESIGN	15
<p>Chapter-4 Meaning and importance, characteristics of each element and their use in designing. Line- types, line and direction- vertical, horizontal, diagonal, curved, zigzag, characteristics and uses. Shape- types – square, Triangle, circle and polygons. Forms- Three dimensional, Texture- visual texture and tactile textures. Space, Proportions, Pattern.</p> <p>CHAPTER-5 Color theories, color wheel, color schemes, color psychology: effects of colors, color mixing, intensity, Color dynamics; color planning in design application.</p> <p>CHAPTER-6 Principles of design- Meaning, nature, types and significance in designing. Balance: meaning and definition, classification. Rhythm: meaning and definition, types. .Emphasis- meaning and definition, types and methods of achieving. Proportion: meaning and definition, Greek / Golden oblong in space division.. Harmony: meaning and definition, methods of achieving.</p>	
UNIT-3 ACCESSORIES IN INTERIOR	15
<p>CHAPTER-7 Accessories: Definition and importance Classification- functional, decorative and both.</p> <p>CHAPTER-8 Selection and placement of accessories Pictures, Art and Craft objects, Sculpture, Antiques, indoor plants and flowers as accessories.</p> <p>CHAPTER-9 Developing designs suitable for accessories and preparation of an accessory.</p>	

REFERENCE BOOKS

1. Premavathy Seetharaman and Parveen Pannu (2005), "Interior Design and Decoration." CBS Publishers and Distributors Private Limited, New Delhi.
2. Prathap Rao (2016), "Interior Design Principles and Practice." Standard Publishers and Distributors, Delhi.

3. Richard Box (2004), "Basic Drawing Techniques." Search Press Limited, Kent.
4. Sally Walton (2002), "Colour Your Home." Parragon Book, UK.
5. "The New Smart Approach to Home Decorating." - Creative Home Owner, New Jersey.

ID-OE 1: COLOUR CONCEPTS IN INTERIORS
 Total Teaching Hours = 42; Total Credits= 3

OBJECTIVES: <ul style="list-style-type: none"> • To enable the students to learn the concepts of color and colorschemes. • To understand the importance, history and effect of color on Interiors. 	
UNIT -1 INTRODUCTION	15 HOURS
Chapter-1 : Color introduction, Relationship of color and light, Decision in color selection Chapter-2: History of colors – Aristotle, Leonardo da Vinci, Adolf Haze, Albert Munsell, Ewald Hering Chapter- 3 : Primary, secondary, tertiary color, dimension of color, color scheme- Harmonious and non-harmonious	
UNIT-2 COLOR PSYCHOLOGICAL	15 HOURS
Chapter-4: Warm and cool colors, advancing and receding colors, heaviness and lightness of color, effect of colors Chapter-5: Color mixing and appearance- dye and pigmentation, pigment primaries, RYB, CMY, CMYK, additive colors, color mixing. Chapter-6 Color perception in nature - effect of light on color perception, biological color and technical interpretation of light, color temperature	
UNIT-3 COLOR APPLICATION	12 HOURS
Chapter-7: Color application to design principles and elements Chapter-8: Interior and exterior application of color. Adjusting scale and volume of space using color. Chapter-9: Color aid system, and color system in practice, simplified color system, color terminology, special color issues, mixed color effects, effects of texture, using color systems	

REFERENCE BOOKS:

1. Faulkner, R. and Fatllkner's. (1987), Inside Today's Home, Rine hart publishing company,New York.
2. Judy. (1994), How to see, how to paint it, Harpencolling publishers, London.
3. Pratap R.M (1988) Interior Design Principles and practice, Standard publishers' distribution,Delhi.
4. Seetharam, P and Pannu, P. Interior Design and Decoration, CBS publishers and distributors,New Delhi.
5. Stewart and Sally. W, (1997), The Complete Home Decorator, Annes publishers Ltd., NewYork

SEMESTER II

ID-T 2.1		ID-P 2.1			
ERGONOMICS		ERGONOMICS			
Number of Theory Credits	Number of lecture hours/semester	Number of TheoryCredits	Number of Practical hours/se mester		
3	42	2	56		
ID-T 2.2		ID-P 2.2		ID- P 2.3	
CONSTRUCTION MATERIALS -II		CONSTRUCTION MATERIALS -II		CAD IN INTERIORS -I	
Number of theory credits	Number of lecture hours/semester	Number of Practical Credits	Number of Practical hours/semester	Number of practical credits	Number of Practical hours/semester
3	42	2	56	3	84

**CONTENT OF COURSE ID-
T 2.1: ERGONOMICS**

OBJECTIVE:

- To enable the students to learn the concept of space in interior design.
- To understand the importance of space planning

UNIT 1: Introduction To Ergonomics.	12 hours
<p>Chapter 1 Meaning of Ergonomics, Concept, objectives, Applications, Ergonomic Factors Applicable to design.</p> <p>Chapter 2 Anthropometry- Introduction to Anthropometry, Types of Anthropometric Data-Static and Dynamic Anthropometric data necessary to design. Anthropometric consideration in design development.</p> <p>Chapter 3 Ergonomics for seated and standing work.</p>	
UNIT 2.: Application of Ergonomics in Residential spaces.	15 hours
<p>Chapter 4: Furniture used in residential spaces and their dimensions. Space requirements and allocation in living room, bedrooms, Dining room.</p> <p>Chapter 5; Ergonomics in wash rooms: Various fixtures used in washrooms. Dimensions of various fixtures. Space requirements in Toilets, powder rooms, bathrooms.</p> <p>Chapter 6: Ergonomics in Kitchen : Ergonomic triangle. Different work centers in Kitchens. Types of kitchen.</p>	
UNIT 3 Ergonomics in Work Space Design: Public spaces	15 hours
<p>Chapter 7: Space requirements in office spaces: reception areas, work centers, conference rooms.</p> <p>Chapter 8: Space requirements in Restaurants: Space allocation in Alcove configuration, Parallel configuration, and Diagonal configuration.</p> <p>Chapter 9: Space requirements for public washrooms with universal access.</p>	

REFERENCE BOOKS

1. Bridger. R. S. (1995), "Introduction to Ergonomics." Mc. GrawHall Inc, New York.
2. Lakhwinder Pal Singh (2016), "Work Study and Ergonomics." Cambridge University Press, Noida.
3. Mark. S. Sanders and Ernest. J. Mc. Cormick (1992), "Human Factors in Engineering and Design." Mc. GrawHall Inc, New York.
4. Pheasant S (2003) Anthropometry, ergonomics and Design of work, Taylor and Francis, London
5. Chiara J.D., Panero.J., Zelnik M.,(1992) TimeSaver standards for Interior Design
6. And Space planning, McGraw Hill, Neuferts Architect's Data

CONTENT OF COURSE ID-P2.1: ERGONOMICS		
UNIT I	Anthropometric measurements and Vertical and Horizontal reach. Various human postures with dimensions: standing, sitting, cross legged,crawling, reclining.	18 Hours
UNIT II	Determination of work surface height, depth, Comfortable workchair height. Standard Furniture dimensions. Furniture used and space requirements in residential spaces with dimensions	18 HOURS
UNIT III	Space allocations in residential washrooms, public washrooms and washrooms with disability needs. Space allocation in public spaces.	20 HOURS

CONTENT OF COURSE ID- 2.2T : CONSTRUCTION MATERIALS- II

OBJECTIVES:

- To understand the advanced materials used in construction.
- To learn the methods, techniques and application of materials in interiors.

UNIT 1: Foundations & Structure	16 Hours
<p>Chapter 1: Foundations, footings, Beams and slabs- Introduction, types and application Different Types of foundations and its use based on the soil. Different types of footings beam slabs,</p> <p>Chapter 2: Walls & Wall Finishes: types of walls, load bearing walls and non-load bearing walls. Different partitions - wood, gypsum, glass, metal and combination. Wall finishes: Wood paneling, plaster, gypsum board, paint, stone wall panels, acoustic panels, upholstered wall systems, wall coverings- wallpaper.</p> <p>Chapter 3: Sill Lintels and Chajjas - Introduction, types and application Terminology, Different Types of Sills, lintels Chajjas based on material and use. Damp Proofing & Termite Proofing - Dampness - Concept, causes and effects. Techniques and methods of damp prevention. Materials used for damp proofing.</p>	
UNIT 2: Flooring	13 hours
<p>Chapter 4: Flooring- Introduction, Different types of flooring and its usage in interiors.</p> <p>Chapter 5: Natural Flooring: Different types of Stone flooring, Advantages, Dis Advantages and application. Cement and brick flooring, wooden flooring.</p> <p>Chapter 6: Artificial Flooring and application. Resilient flooring. Ceramic tile Flooring, Vitrified, Terrazzo flooring, and Soft flooring.</p>	

UNIT 3: Paints and Glass in Interiors	13 hours
<p>Chapter 7: Paints -Introduction, types and application. Characteristics of good paint- its ingredients. Method of proper application of paint and polishes - painting process. Types of paints -oil and water-based paints.</p> <p>Chapter 8: Different Polishes, Wall papers and finishes and its applications.</p> <p>Chapter 9: Glass in Interiors-Introduction, types and application Glass -different types of glasses, and its uses in interiors, Glass and glass products - Composition and fabrication of glass, classification, types of glass-wired glass, Fiberglass, rock wool, laminated glass, Glass concrete blocks – their Properties and uses in buildings.</p>	

REFERENCE BOOKS:

1. Alan Barnard & Jonathan Spencer, Encyclopedia of Social and Cultural Anthropology, Taylor & Francis, 1996
2. Alan Colquhoun, Modern Architecture, History of Arts, First Edition, Paperback publishers, ISBN: 13978-0192842268
3. Barry Burgdol I, European Architecture (1750-1890) Oxford History of Arts, First Edition, Paperback publishers, ISBN: 13978-0192842220
4. Charles. V. Stanford, Studies in Indian society, Culture and Religion, South Asia Books, 1988.
5. Clifford Geertz, the Interpretation of Cultures, Basic Books, 1977.
6. Human Behavior in the Social Environment: A Social Systems Approach, Gary Lowe, Irl Carter, Ralph Anderson, Aldine Transaction, 1999
7. Kenneth Frampton, Modern Architecture: A Critical History, Fourth Edition, Thames and Hudson, ISBN: 13978-0500203958
8. KUMAR RAJ (Ed) Essays on Indian Art and Architecture. Discovery Pub, New Delhi, 2003
9. Niggel Rapport, Social and Cultural Anthropology: The Key Concepts, Routledge, 2000
10. Philip Carl Salzman, Understanding Culture: An Introduction to Anthropological Theory, Wave land press, 2001.

CONTENT OF COURSEID- 2.2P : CONSTRUCTION MATERIALS-II		
UNIT-1	Drafting of Plans Elevations and sections different types of Walls and partition walls. Drafting of Different Types Footings, Columns, Slabs, Chajjas, Lintels, visit to a construction site and make a report on it. Site Visit	20 Hours
UNIT2	Types of Flooring, and its Application. Visit to any flooring showroom, study report and rate analysis of different types of Flooring. Market Survey on different types of flooring materials.	18 Hours
UNIT3	Different Types of Painting Techniques and methods Glass - Identification, thickness, types, textures and application. Market survey on Types of Paints Rates, Types of Glasses, Rates Visit to paint and glass show rooms.	18 Hours

CONTENT OF COURSE ID- 2.3 P : CAD IN INTERIORS – II		
UNIT-1	Introduction to AutoCAD, importance and application of AutoCAD in interiors. Fundamentals of computers, file menu-saving closing files, importing and exporting files, saving files in different formats. Printing and publishing, undo/redo, matching properties & its application. Introduction to object drawing, different types of lines - pline, construction lines, splines, multiline, types of objects, circles and curves arc, polygon, ellipse, donut and its application and use in interiors	24 HOURS
	Introduction to drawing setting and types of setting drawing limits units, object selection, drafting, setting, polar tracking, grid and snap, its application advantages and uses. Introduction to object editing, types in editing the drawing with different command trim, extend, stretch, erase delete, introduction to viewing, types of viewing -zoom, pan, holstering utility and its advantages and important, hatch boundary, hatch, editing, introduction to layers, types of layer creation and uses in interiors	28Hours
	Introduction to hatch, dimensions, text, layer, point style creation, dimension, text, multiline, plane,	32Hours

	different options of viewcommand. Working on model space, paper space, setting the scale for drawings, different types, its application and importance	
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REFERNCE BOOKS

1. Koenisberger, Manual of Tropical Housing & Buildings (Part-II), Orient Longman, Bombay,1996
2. Arvind Kishan, Baker & Szokolay, Climate Responsive Architecture, Tata McGraw Hill, 2002.
3. Martin Evans; Housing, Climate, and Comfort; Architectural Press (1 March 1980)
4. Donald Watson and Kenneth Labs; Climatic Building Design - Energy-Efficient Building Principles and Practice; McGraw-Hill Book Company, 1983.
5. **Mili**Majumdar (Editor); Energy Efficient Buildings in India; The Energy and Resources Institute, TERI (28 February 2009).
6. Baruch Givoni; Passive and Low Energy Cooling of Buildings; John Wiley & Sons (1 July1994).
7. Energy Conservation Building Code (ECBC) 2007; Bureau of Energy Efficiency, Ministry of Power, Government of India

II SEMESTER-OPEN ELECTIVESID-OE 02: HOME DECOR Total Teaching Hours =42;Total Credits= 3

OBJECTIVES:

- Expose the concept of interior decoration
- Familiarize different types of soft furnishing and window treatment.
- Teach lighting and other accessories.
- Estimation of furnishing.

UNIT	CONTENT	HOURS
UNIT-1	Home Furnishing	15
<p>Chapter - 1 introduction - meaning of furnishings, Classification and selection of soft furnishings, Advantages of soft furnishings and application of soft furnishings. Factors to be considered for choosing the right fabric.</p> <p>Chapter-2 Fabrics used for home furnishing - Natural fabric and Manmade / Artificial/Synthetic Fabric, its role and area of application in Home Furnishing.</p> <p>Chapter-3Furnituer furnishings - Upholstery, cushions, chair back, tie on sea t cover and slip cover. Materials used, care and maintenance Bed furnishings - Bed linen, bed hangings, bed cover and quilts, bed skirt, dust ruffles, pillows - sleeping, throw and bolsters and its cover. Materials used, care and maintenance. Kitchen furnishings - dishcloths, kitchen towels, tea towels, aprons, oven mitts. Materials used, care and maintenance. Table linen - table cloth, silence c loth, table runner, place mat, top cloth, napkins, table skirting. Materials used, care and maintenance. Factors affecting selection of table linen. Bathroom furnishings - shower curtains, bath robes, bath mats, bath rugs, antiskid rugs, towels. Materials used, care and maintenance. Outdoor furnishings - Door mats, outdoor cushions and upholstery.</p>		

UNIT-2 Window Treatment	15
<p>Chapter-4 Window treatment - Purpose of Window Treatment and factors to be considered while selecting window treatment. Soft furnishes – curtains and draperies , types and styles of hanging curtains. Factors affecting the selection of fabric for curtains. Advantages and disadvantages of curtains and draperies.</p> <p>Chapter-5 Curtain headings - pelmets and cornices, valances, swags, jabots, window scarf. Curtain accessories - rods, pipes, drapery cranes, finials, curtain rings and tie backs.</p> <p>Hard furnishes - awning, canopy, exterior shutters, shades and blinds - types of blinds, advantages and disadvantages of blinds.</p> <p>Chapter-6 Estimation of furnishing Basic requirement of furnishing material cost of furnishing material, estimating the cost for each requirement - curtain, drapery, bed linen, table linen, cushion and upholstered furniture.</p>	
UNIT-3	LIGHTING AND ACCESSORIES
<p>Chapter-7</p> <p>Types of lighting - Natural and artificial. Electric lamps - incandescent, fluorescent, sodium vapor, mercury, halogen and neon.</p> <p>Chapter-8</p> <p>Different types of lights in interior and exterior - Ambient (general lighting), Task lighting, Accent lighting, Informational lighting /Guidance Lighting and Decorative lighting.</p> <p>Chapter-9 Meaning, importance of accessories, types of accessories - functional, decorative, both functional and decorative. Displays techniques of accessories and its application in interiors.</p> <p>Steps in selecting accessories. Materials used, care and maintenance</p>	

REFERENCE BOOKS

1. Judy Britain (1986), "Home Furnishings ." Little Brown and Company, Boston.
2. Caroline Clifton-Mogg (1997), "The Curtain Design Source Book." Ryland Peters and Snall, Great Britain.
3. Alison Worm Leighton (1997), "The Encyclopaedia of Home Furnishing Techniques." Headline Book Publishing Limited, Great Britain.
4. Mike Lawrence (2001), "The Complete Decorating and Home Improvement Book." Hermes House, London.
5. Janis Bullis (1996), "Quick and Easy Soft Furnishings." Reader's Digest Association Limited, London.

ID-OE 02: LANDSCAPE
Total Teaching Hours = 42; Total Credits= 3

OBJECTIVES:

- To help the students to understand the importance of landscape
- To learn the different ecological conditions needed for landscape architecture.

UNIT	CONTENT	HOURS
UNIT-1	Introduction & Principles of Landscape	15
<p>Chapter-1 Introduction to ecology - Interdependence of various systems in the biosphere. Study of ecosystems in urban & rural habitats.</p> <p>Chapter-2 Introduction to geology and soils. Introduction to hydrology, hydro cycle, surface water, Groundwater management, sources of ground water pollution and its control</p> <p>Chapter-3 Basic principles of landscape design: factors to be considered, components involved in garden design. Roof gardens, interior landscaping and services.</p>		
UNIT-2	Landscape Elements & : Preparation for Designing and details	15
<p>Chapter-4 Plant material-Characteristics and Differentiation between trees, shrubs, ground cover and creepers. Landscape products. Introduction to street furniture and lighting.</p> <p>Chapter-5 Modification of site topography, grading, methods of estimating earth volumes Layout of plumbing, drainage & other utilities Materials & construction of paving & pedestrian paths</p> <p>Chapter-6 Creation & maintenance of water bodies Landscape irrigation systems</p>		
UNIT-3	Historical Landscape Gardens	12
<p>Chapter-7 Ancient Heritage: Mesopotamia, Egypt, Greece, Rome Ancient and medieval period in India: Mughal and Rajput Landscapes</p> <p>Chapter-8 Western Civilization: Europe; Italy, France, and England</p> <p>Chapter-9 The middle east: The Persian tradition and its far reaching influence. Eastern Civilization China and Japan</p>		

REFERENCE BOOKS

1. Prathap Rao (2011), "Landscape Design - Theory and Practice." Standard Publishers and Distributors, Delhi.
2. Amarjeet Singh Batth (2014), "Indian Garden Flowers." Prakash Books India Private Limited, New Delhi.
3. Rich Binsacca (2000), "Container Gardening." Creative Publishing International, Minnesota.
4. Laura Coit (2001), "Natural Gardens." Creative Publishing International, Minnesota.
5. Ponds, Fountains and Waterfalls, Creative Home Owners, New Jersey.

