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BE BOUNDLESS

BENGALURU CITY UNIVERSITY

CHOICE BASED CREDIT SYSTEM

**(Semester Scheme with Multiple Entry and Exit Options for
Under Graduate Course)**

**Syllabus for B.Sc.
(Interior Design & Decoration)
(I & II Semester)**

2021-22 onwards

Proceedings of the Board of Studies meeting in Fashion & Apparel Design (UG) held on 30th September 2021 at 11 AM in the Department of Apparel Technology & Management, Bengaluru City University, Bengaluru.

The Chairman welcomed all the members and the agenda was taken up for discussion.

Item No. 1. Approval of the scheme and syllabus of I & II Semesters B.Sc. (Fashion & Apparel Design) course.

The members deliberated on the scheme and syllabus of I and II Semesters proposed by the subject expert committee as per NEP-2020. After thorough discussion and after incorporating the necessary changes the Board unanimously approved the scheme and syllabus of I & II Semesters as per IC model proposed by Karnataka Higher Education Council, Govt. of Karnataka to be implemented from the academic year 2021-22.

Apart from the common regulations the board approved the following items to be included in the regulations for B.Sc. (Fashion & Apparel Design) course.

Eligibility for admission:

- a. A candidate who has passed the Pre-University examination conducted by the Pre-University Education Board in the State of Karnataka or two years Job Oriented Courses conducted by the Board of Vocational Education of any State Government or any other examination considered as equivalent thereto.

Candidate with Diploma in any discipline and any other examination considered as equivalent thereto conducted by the Dept. of Technical Education, Govt. of Karnataka/other State / University/Government/ Ministry of Textiles, Government of India/ National Skill development programs of NSQF level 6 are eligible for admission to the I Semester of the B.Sc. Fashion and Apparel Design Course.

- b. **Lateral entry:** Candidate with 3 years Diploma in Apparel Design & Fabrication Technology / Fashion Technology / Fashion Design/ Costume Design & Dress Making / Garment Technology/Costume & Fashion Design or any other 3 years Diploma considered as equivalent and recognized by the state or Central Government are eligible for admission directly to the III Semester of the B.Sc. (Fashion & Apparel Design) course.

Item No. 2. Approval of the scheme and syllabus of I & II Semesters B.Sc. (Interior Design & Decoration) course.

The members deliberated on the scheme and syllabus of I and II Semesters proposed by the subject expert committee as per NEP-2020. After thorough discussion and after incorporating the necessary changes the Board unanimously approved the scheme and syllabus of I & II Semesters as per IC model proposed by Karnataka Higher Education Council, Govt. of Karnataka to be implemented from the academic year 2021-22.

Apart from the common regulations the board approved the following items to be included in the regulations for B.Sc. (Interior Design & Decoration) course.

Eligibility for admission:

- a. A candidate who has passed the Pre-University examination conducted by the Pre-University Education Board in the State of Karnataka or two years Job Oriented Courses conducted by the Board of Vocational Education of any State Government or any other examination considered as equivalent thereto.

Candidate with Diploma in any discipline and any other examination considered as equivalent thereto conducted by the Dept. of Technical Education, Govt. of Karnataka/other State Govt./ University/ National Skill development programs of NSQF level 6 are eligible for admission to the I Semester of the B.Sc. (Interior Design and Decoration) course.

- b. **Lateral Entry:**

Candidate with Diploma in Interior Design/Architecture/Civil Engineering conducted by the Dept. of Technical Education, Govt. of Karnataka/other State Govt./ National Skill development programs of NSQF Level 6 are eligible for admission directly to the III Semester of the B.Sc. Interior Design and Decoration course.

Item No. 3. Approval of panel of Examiners for B.Sc. (Fashion & Apparel Design) for the year 2021-22

The list of panel of examiners for B.Sc. (Fashion & Apparel Design) course for the year 2021-22 was placed before the members and their suggestions were incorporated and approved.

Item No. 4. Approval of panel of Examiners for B.Sc. (Interior Design and Decoration) for the year 2021-22

The list of panel of examiners for B.Sc. (Interior Design & Decoration) course for the year 2021-22 was placed before the members and their suggestions were incorporated and approved.

The Chairman thanked all the members for their active participation in the meeting.

Members Present:

Dr. R. Sudhakar

Chairperson

Dr. Sandhya Ravi

Member

Sri Devaraj S

Member

Smt. Archana B

Member

Smt. Bharathi PS

Member

R. Sudhakar 30/9/2021

Sandhya Ravi 30/9/2021

Sri Devaraj S 30/9/2021

B. Archana 30/9/21

Bharathi P.S. 30/09/2021

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. 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 and experience 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. 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 and relies on research from many fields to provide a well-trained designer influenced by their environments.

The main objective of the B.Sc. / B.Sc. (Hons.) in Interior Design and Decoration Programme is to impart students a holistic understanding of the subject giving substantial weightage to the core contents, skill, value-based and ability enhancement courses.

The curriculum caters to the developmental trends in higher education, incorporating multi-disciplinary skills, professional and soft 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 aims to equip the students with competencies like problem solving, analytical reasoning and moral and ethical awareness.

Programme Objectives

1. To impart the characteristics of design and its application in interiors to acquire the practical skill of creating designs.
2. To apply anthropometric and ergonomic concepts in interiors and furniture designs.
3. To provide knowledge of building elements, construction and finishing materials and its applications.
4. To develop communication and presentation skills.
5. To provide hands on experience on building services such as electrical, plumbing, rain water harvesting, sanitation, heating, ventilation, air conditioning, acoustics, damp proofing, fire and termite proofing.
6. To provide expertise of designing interior spaces of residence, offices, educational institutions, hotels and hospitals.
7. To equip students to apply the concept of restoration, preservation and rehabilitation of heritage and old buildings.

Programme Outcomes

By the end of the Programme the students will

1. Develop knowledge and understanding of creativity to appreciate the essence of art and design.
2. Analyze the graphical language in design, exposure to type of building materials in interiors.
3. Develop sound knowledge of basic anthropometrics related to interior furniture, building materials usage and its application procedures in Construction industry.
4. Draw and compose furniture's sketch to an appropriate paper scale, relating to actual scale within the given drawing sheet.
5. Identify matrix for understanding the process involved in interior design.
6. Visualize the drawings from 2D level to 3D level in modelling design soft wares.
7. Develop an understanding of the history and ancient development in Interiors around the world.
8. Develop knowledge and understanding of calculation of quantities and cost estimates in interior works.
9. Undertake an Interior design layout for a residence scale with detailing of furniture required for the project
10. Design retail shops and showrooms which involves many aspects from small furniture to space planning and Lighting etc.
11. Have developed knowledge and understanding of Textiles used in Interior works and Accessories involved in many areas along with Landscaping within the Interiors.
12. Design Interiors for corporate offices, hotels and hospitals of varying sizes and standards.
13. Develop knowledge and understanding of renovation and restoration of the buildings with respect to interiors.
14. Develop knowledge and understanding in Journalism, sustainability and human resource management methods.

Scheme of Examination

B.Sc. (INTERIOR DESIGN AND DECORATION)								
SEMESTER – I								
CODE	Course	Theory/ Practical	Instructi on Hrs/wk	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
	Language I	Theory	4	3	30	70	100	3
	Language II	Theory	4	3	30	70	100	3
ID1.1 T ID1.1 P	Fundamentals of Interior Design	Theory	3	3	30	70	100	3
		Practical	4	4	15	35	50	2
ID1.2 T ID1.2 P	Construction Materials - I	Theory	3	3	30	70	100	3
		Practical	4	4	15	35	50	2
ID1.3 P	2D &3D Graphics	Practical	6	4	30	70	100	3
ID-OE-1	Open Elective	Theory	3	3	30	70	100	3
	SEC	Theory+ Practical	1+2	2	15	35	50	2
	PE-Yoga	Practical	2	-	25	-	25	1
	H&W	Practical	2	-	25	-	25	1
					275	525	800	26

SEMESTER – II								
CODE	Course	Theory/ Practical	Instructi on Hrs/wk	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
	Language I	Theory	4	3	30	70	100	2
	Language II	Theory	4	3	30	70	100	2
ID2.1 T ID2.1 P	Ergonomics	Theory	3	3	30	70	100	3
		Practical	4	4	15	35	50	2
ID2.2 T ID2.2 P	Construction Materials - II	Theory	3	3	30	70	100	3
		Practical	4	4	15	35	50	2
ID2.3 P	CAD in Interiors - I	Practical	6	4	30	70	100	3
ID-OE-2	Open Elective	Theory	3	3	30	70	100	3
	SEC	Theory +Practical	1+2	2	15	35	50	2
	PE-Sports	Practical	2	-	25	-	25	1
	NCC/NSS/R&R/CA	Practical	2	-	25	-	25	1
					275	525	800	26

Exit option with Certificate in Interior Design & Decoration with minimum 52 credits

I Semester
ID 1.1 T – Fundamentals of Interior Design (Theory)

Number of Theory Credits	Number of lecture hours /semester	Number of practical credits	Number of practical hours /semester
3	42	2	56
Course outcomes: On successful completion of the course, the students will be able to <ul style="list-style-type: none"> Identify different structural and decorative designs. Justify design concepts and apply appropriate materials. Propose design solutions based on Form, function, space planning, user perception and behavior. 			
UNIT 1: Foundation of Design			10 Hours
Chapter-1: Introduction to interior design and decoration- importance scope&, Aspects of interior design, difference between Interior design and decoration, role of the designer and decorator Chapter-2: Definition and classification of design - Structural and decorative, Classification of decorative design: Naturalistic, stylized, geometric and abstract. Chapter3: Importance and requirements of good design, Evaluation of good design-criteria for evaluation.			
UNIT 2: Elements and Principles of Design			20 Hours
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. Chapter 5: Principles of Design – Balance, Proportion, Rhythm, Emphasis and Harmony - Meaning, types and significance in designing. Chapter 6: Application of principles of design in: Room arrangement, Interior display and Furniture, Carpets.			
UNIT 3: Colour and Colour Application:			12 Hours.
Chapter-7: Introduction to Concept of color - significance of colour in the interiors and exteriors-Dimensions of colour –Hue, value, intensity, Effects of Hue, value			

<p>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 colour harmonies, Application of colour harmonies in the–Effects of light, form, surface qualities, distances and scales on colour, Illusion of colour, effect of colour on each other</p> <p>Chapter-8: Psychological impact of colour – warm, cool and neutral colours, impact of specific hues, Problems with colour, use of colour in various functional contexts – Residential interiors, Non-Residential interiors, Use of colour in special situations – out door/indoor spaces, accessories, art works</p> <p>Chapter- 9: Colour Systems: Prang and Munsell colour systems in practice, simplified colour system, colour terminology, special colour issues, mixed colour effects, effects of texture, using colour systems.</p>	
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I Semester

ID 1.1 P – FUNDAMENTALS OF INTERIOR DESIGN (Practical)

No. of practical Credits – 2	Number of practical hours - 56
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UNIT-1	<p>Basic Application of Design</p> <p>Types of Design: Structural and decorative design</p> <p>Decorative designs: Naturalistic, stylized, geometric and abstract.</p>	12 Hours
UNIT-2	<p>Basic Application of elements of Design in interior Design- Line, Point, form and shape, size, colour, light, pattern, texture and space.</p> <p>Basic Application of principles of design in interior Design. - Balance, rhythm, emphasis, harmony, proportion, Unity,</p>	18 Hours
UNIT-3	<p>Dimensions of colour –Hue, value, intensity, Colour Wheel.</p> <p>Colour Schemes: Harmonious Color Schemes: Monochromatic & analogous</p> <p>Non Harmonious Colour Schemes: Triad, Complementary, Spilt Complementary, Double Complementary, Tetrad, Poly Chromatic.</p>	26 Hours

	Neutral colour harmonies & Accented Neutral. Impact of Colors on Psychology: Advancing, Receding, Warm & Cool Color.	
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References

1. Charles George Ramsey, Harold Reeve sleeper, “Architectural Graphic Standards”, Paperback Publishers, 11th Edition.
2. Ivo.D. Drpic, “Sketching and Rendering of Interior Space”, Watson Guptill, 1988.
3. Maureen Mitton, “Interior Design Visual Presentation: A Guide to graphics, models and presentation techniques”, 3rd edition, Wiley Publishers, 2007.
4. MogaliDelgadeYanes and Ernest Redondo Dominquez, “Freehand drawing for Architects and Interior Designers”, Norton & co., 2005.
5. Stephen Kliment, “Architectural Sketching and Rendering: Techniques for Designers and Artists”, Watson Guptill, 1984.

I Semester
ID 1.2 T – CONSTRUCTION MATERIALS I (Theory)

Number of Theory Credits	Number of lecture hours /semester	Number of practical credits	Number of practical hours /semester
3	42	2	56

Course outcomes: On successful completion of the course, the students will be able to <ul style="list-style-type: none"> Identify and understand the application of bricks, stone, cement, timber, metal, and plastics based on properties and types. Understand the industrial trends of the building materials. Understand the methods of interior construction techniques. 	
UNIT 1: Brick & Stone Masonry	15 Hours
<p>Chapter-1: Brick masonry- Bricks in interiors, Manufacturing process, physical and chemical properties Applications: Foundation, wall 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 roofs and walls, brick piers, Types of bricks – traditional, wire cut, moulded bricks and its sizes, etc.</p> <p>Chapter-2: Stone masonry Introduction, Properties and applications. Types of stones, dressing of stones, finishes, its application in interiors. Geological Classification of rocks – stones (granite, laterite, quartzite, marble, slates),</p> <p>Chapter-3: Uses of stone, deterioration & preservation of stone, availability, properties and application of stones for construction in India. Stone for finishing, cutting & polishing. Granite & Marble. Types of stone masonry.</p>	
UNIT: 2 Cement, Mortar & Asphalt & Bitumen	15 Hours
<p>Chapter-4: Cement and its application Properties of cement, Types of cement – Portland, Pozzolana etc.</p> <p>Chapter-5: Mortar its application properties Types of mortar lime mortar and cement mortar, Concrete and admixtures, R.C.C, R.B. concrete.</p>	

Chapter-6: Definition, classification, properties, uses. Of Bitumen and Asphalt in Interiors	
UNIT: 3 Timber, Metal, Plastics	12 Hours
<p>Chapter-7: 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-8: 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-9: Plastics and miscellaneous Materials— Introduction and Properties, Types of plastics, use of plastics in interiors, fiber plastic, silicon and its usage.</p>	

I Semester

ID 1.2 P – CONSTRUCTION MATERIALS I (Practical)

No. of practical Credits - 2		Number of practical hours - 56
UNIT-1	<p>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.</p> <ol style="list-style-type: none"> 1. Data collection, Market study, Survey, Rate analysis. 2. Representation techniques -Sketching, Drawings and drafting. 	16 Hours
UNIT-2	<p>Drafting of Brick Wall plan and elevations using different bonding agents. Brick Bond, Stretcher, and Header, English and Flemish bonds and Market Survey on Types of Bricks & Rates.</p> <ol style="list-style-type: none"> 1. Data collection, Market study, Survey, Rate analysis. 2. Representation techniques -Sketching, Drawings and drafting. 	16 Hours
UNIT-3	<p>Types of Timber- Identification, Properties and application in Interiors, Market Survey on Types of Timber available in market, Plywood's, MDF, Veneer</p>	24 Hours

	<p>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.</p> <ol style="list-style-type: none"> 1. Data collection, Market study, Survey, Rate analysis. 2. Representation techniques -Sketching, Drawings and drafting. 	
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References

1. Chakraborti “Civil Engineering Drawing.” Bhaktivedanta Book Trust, Kolkata. 2015.
2. Gurucharn Singh, “Building Materials.” Standard Publishers and Distributors, Delhi, 2014.
3. Sanjay Mahajan “Building Construction I and II”. Satya Prakashan, New Delhi, 2014.
4. Sucheta Singh, Veena Gandotra and Promila Sharma, “Organic Building Materials in Residential constructions.” Concept Publishing Company, New Delhi., 2009.
5. Sushil Kumar, “Building Construction.” Standard Publishers and Distributors, Delhi, 2018.

I Semester
ID 1.3 P: 2 D & 3 D GRAPHICS (Practical)

No. of practical Credits - 3		Number of practical hours - 84
Course outcomes: On successful completion of the course, the students will be able to <ul style="list-style-type: none"> • Apply the fundamental techniques of architectural representation with a thorough knowledge of interior presentation techniques. • Enhance the skills in developing a graphical language of interior design. 		
UNIT-1	Drafting of Different Types of lines, different types of lettering, symbols used in architecture, dimensioning, and scales. Rendering Skills, Material Representations <ol style="list-style-type: none"> 1. Exercises in lettering, scale. 2. Representation techniques -Sketching, Drawings and drafting. 	16 Hours
UNIT-2	Introduction to Euclidean geometry - Lines & angles. Basic geometrical constructions. Construction of triangles, quadrilaterals and regular polygons. Development of simple surfaces of basic geometrical shapes and their applications. <ol style="list-style-type: none"> 1. Rendering using various media, hatching techniques. 2. Representation techniques -Sketching, Drawings and drafting. 	12 Hours
UNIT-3	Arches - typical arches and construction methods. Plane curves - ellipse, parabola, hyperbola, ovals and construction methods.	16 Hours
UNIT-4	Orthogonal projections, drafting of plans and elevations of various types of objects, Development of Surfaces of Objects. Constructions of Geometrical Shapes, <ol style="list-style-type: none"> 1. First angle projection, glass box technique. 2. Representation techniques -Sketching, Drawings and drafting. 	16 Hours

UNIT-5	<p>Drafting of Isometric Views, Axonometric Views and Oblique Views, Different objects and Interior related views & Objects.</p> <ol style="list-style-type: none"> 1. Isometric projections of various objects and interior views. 2. Representation techniques -Sketching, Drawings, drafting and rendering. 	12 Hours
UNIT-6	<p>Drafting of Perspective drawing of simple and complex objects, one point and two-point perspective of Interiors and exteriors, sectional perspectives</p> <ol style="list-style-type: none"> 1. Perspective drawing procedures step by step. Drawing perspectives of various objects and interior views. 2. Representation techniques -Sketching, Drawings, drafting and rendering. 	12 Hours

References

1. Charles George Ramsey, Harold Reeve Sleeper, "Architectural Graphic Standards", 11th edition, Paperback Publishers.
2. Francis D. K. Ching, "Architectural Graphics", John Wiley and Sons, 2012.
3. Ivo. D. Drpic, "Sketching and Rendering of Interior Space", Watson Gupitill, 1988.
4. Martin, L. C, "Architectural Graphics", 2nd edition. Macmillan Pub. Co., 1970.
5. Maureen Mitton, "Interior Design Visual Presentation: A Guide to graphics, models and Presentation Techniques", 3rd edition, Wiley Publishers, 2007.
6. Stephen Kliment, "Architectural Sketching and Rendering: Techniques for Designers and Artists"
7. Zell, Mo., "The Architectural Drawing Course", 1st edition, Thames and Hudson, 2008.

II Semester
ID 2.1 T – ERGONOMICS (Theory)

Number of Theory Credits	Number of lecture hours /semester	Number of practical credits	Number of practical hours /semester
3	42	2	56
Course outcomes: On successful completion of the course, the students will be able to <ul style="list-style-type: none"> • Apply Ergonomic concepts in everyday life and in various interior design projects. • Use anthropometrical data of static and dynamic activities for design development. • Understand the importance of space planning. 			
UNIT 1: Introduction to Ergonomics.			12 hours
Chapter-1: Meaning of Ergonomics, Concept, objectives, Applications, Ergonomic Factors Applicable to design. Chapter-2: Anthropometry- Introduction to Anthropometry, Types of Anthropometric Data-Static and Dynamic Anthropometric data necessary to design. Anthropometric considerations in design development. Chapter-3: Ergonomics for seated and standing work.			
UNIT 2: Application of Ergonomics in Residential spaces.			15 hours
Chapter-4: Furniture used in residential spaces and their dimensions. Space requirements and allocation in living rooms, bedrooms, Dining rooms. Chapter-5: Ergonomics in wash rooms: Various fixtures used in washrooms. Dimensions of various fixtures. Space requirements in Toilets, powder rooms, bathrooms. Chapter-6: Ergonomics in Kitchens: Ergonomic triangle. Different work centers in Kitchens. Types of kitchen.			
UNIT 3 Ergonomics in Work Space Design: Public spaces			15 hours
Chapter-7: Space requirements in office spaces: reception areas, work centers, conference rooms. Chapter-8: Space requirements in Restaurants: Space allocation in Alcove configuration, Parallel configuration, and Diagonal configuration. Chapter-9: Space requirements for public washrooms with universal access.			

II Semester
ID 2.1 P – ERGONOMICS (Practical)

No. of practical Credits - 2	Number of practical hours - 56
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UNIT 1	<p>Anthropometric measurements and vertical and horizontal reach.</p> <p>Various human postures with dimensions: standing, sitting, cross legged, crawling, reclining.</p> <ol style="list-style-type: none"> 1. Drawings and sketching of postures. 2. Representation techniques -Sketching, Drawings, drafting and rendering. 	16 Hours
UNIT 2	<p>Determination of work surface height, depth, Comfortable work chair height.</p> <p>Standard Furniture dimensions.</p> <p>Furniture used and space requirements in residential spaces with dimensions</p> <ol style="list-style-type: none"> 1. Measuring of various furniture and spaces, its relationship with human postures. 2. Representation techniques -Sketching, Drawings, drafting and rendering. 	20 Hours
UNIT 3	<p>Space allocations in residential washrooms, public washrooms and washrooms with disability needs.</p> <p>Space allocation in public spaces.</p> <ol style="list-style-type: none"> 1. Activity and behaviour based measurements and its importance in Interiors. 2. Representation techniques -Sketching, Drawings, drafting and rendering. 	20 Hours

References

1. Bridger. R. S., "Introduction to Ergonomics." Mc. GrawHall Inc, New York, 1995.

2. Chiara J.D., Panero.J., Zelnik M., “Time Saver standards for Interior Design and Space Planning”, McGraw Hill, Neuferts Architect’s Data, 1992.
3. Lakhwinder Pal Singh, “Work Study and Ergonomics.” Cambridge University Press, Noida, 2016.
4. Mark. S. Sanders and Ernest. J. Mc. Cormick, “Human Factors in Engineering and Design.” Mc. GrawHall Inc, New York, 1992.
5. Pheasant S, “Anthropometry, ergonomics and Design of work”, Taylor and Francis, London, 2003.

II Semester
ID- 2.2 T: CONSTRUCTION MATERIALS- II (Theory)

Number of Theory Credits	Number of lecture hours /semester	Number of practical credits	Number of practical hours /semester
3	42	2	56
Course outcomes: On successful completion of the course, the students will be able to <ul style="list-style-type: none"> • Explain the components and materials within the building. • Analyze the properties of various building materials. • Develop interior spaces with suitable construction materials. 			
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 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, Fibre glass, rock wool, laminated glass, Glass concrete blocks - their properties and uses in buildings.</p>	
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II Semester

ID- 2.2 P: CONSTRUCTION MATERIALS- II (Practical)

No. of practical Credits - 2		Number of practical hours - 56
UNIT-1	<p>Drafting of Plans Elevations and sections different types of Walls and partition walls.</p> <p>Drafting of Different Types Footings, Columns, Slabs, Chajjas, Lintels, visit to a construction site and make a report on it.</p> <p>Site Visit</p>	20 Hours
UNIT 2	<p>Types of Flooring, and its Application Visit to any flooring showroom, study report and rate analysis of different types of Flooring.</p> <p>Market Survey on different types of flooring materials.</p>	18 Hours
UNIT 3	<p>Different Types of Painting Techniques and methods Glass – Identification, thickness, types, textures and application. Market survey on Types of Paints, Types of Glasses.</p> <p>Visit to paint and glass show rooms.</p>	18 Hours

References

1. Chakraborti “Civil Engineering Drawing.” Bhaktivedanta Book Trust, Kolkata, 2015.
2. Gurucharn Singh, “Building Materials.” Standard Publishers and Distributors, Delhi, 2014.
3. Sanjay Mahajan “Building Construction I and II”. Satya Prakashan, New Delhi, 2014.
4. Sucheta Singh, Veena Gandotra and Promila Sharma “Organic Building Materials in Residential constructions.” Concept Publishing Company, New Delhi, 2009.
5. Sushil Kumar, “Building Construction.” Standard Publishers and Distributors, Delhi, 2008.

II Semester
ID 2.3 P: CAD IN INTERIORS (Practical)

No. of practical Credits - 3		Number of practical hours - 84
Course outcomes: On successful completion of the course, the students will be able to <ul style="list-style-type: none"> • Able to use CAD 2D software in digital drafting. • Digitally draft various interior details and spaces using CAD softwares. 		
UNIT- 1	Introduction to CAD, importance and application of CAD 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.	6 Hours
UNIT- 2	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	12 Hours
UNIT- 3	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.	12 Hours
UNIT- 4	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	18 Hours
UNIT- 5	Introduction to hatch, dimensions, text, layer, point style creation, dimension, text, multiline, pline, editing, creating and inserting blocks, attributions, along with different types, application and Importance.	18 Hours
UNIT- 6	Introduction to creation of solid, wireframe, objects, basic rendering skills, use of viewport command, different options of view command. Working on model space, paper space, setting the scale for drawings, different types, its application and importance	18 Hours

References

1. Gopalakrishna, K. R., Sudhir, “A Text Book of Computer Aided Engineering Drawing”, Subhas Stores, Bangalore, 2013.
2. Jin Feng, “Basic AutoCAD for Interior Designers”, Peachpit Press, 1999.
3. Joseph A. Fiorello, “CAD for Interiors: Beyond the Basics”, John Wiley & Sons, 2010.
4. Sham Tickoo, “Autocad2013 for Engineers and Designers”, Dreamtech Press, 2012.
5. Strock, Cheryl R., “Advance AutoCAD”, BPB Publications, 2010.

I Semester
ID OE 1 – BASICS OF INTERIOR DESIGN

Number of Theory Credits	Number of lecture hours /semester	Number of practical credits	Number of practical hours /semester
3	42	NA	NA
Course Outcomes: On successful completion of the course, the students will be able to			
<ul style="list-style-type: none">• Gain knowledge of structural and decorative designs.• Acquire deeper understanding of elements of design.• Identify and implement Accessories in Interior designing.			
UNIT-1 Foundation of design			12 Hours
Chapter-1: Design Fundamentals. Definition and classification of design. - Structural and decorative.			
Chapter-2: Structural design – importance and requirements of good structural design Decorative design – importance and requirements of good decorative design Classification of decorative design: Naturalistic, stylized, geometric and abstract.			
Chapter-3: Folk and Tribal designs. Development of designs using motives for various purposes.			
UNIT-2 Elements and Principles of Design			15 Hours
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.			
Chapter-5: Color theories, color wheel, color schemes, color psychology; Effects of colors, Color mixing, intensity, Color dynamics; Color planning in design application.			
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.			
UNIT-3	Accessories in Interiors		
Chapter-7: Accessories: Definition and importance Classification – functional, decorative and both.			

Chapter-8: Selection and placement of accessories Pictures, Art and Craft objects, Sculpture, Antiques, indoor plants and flowers as accessories.

Chapter-9: Developing designs suitable for accessories and preparation of an accessory

References

1. “The New Smart Approach to Home Decorating.”, Creative Home Owner, New Jersey.
2. Prathap Rao, “Interior Design Principles and Practice.” Standard Publishers and Distributors, Delhi, 2016.
3. Premavathy Seetharaman and Parveen Pannu, “Interior Design and Decoration.” CBS Publishers and Distributors Private Limited, New Delhi, 2005.
4. Richard Box, “Basic Drawing Techniques.” Search Press Limited, Kent, 2004.
5. Sally Walton , “Colour Your Home.” Parragon Book, UK.2002.

I Semester
ID OE 1 – COLOUR CONCEPTS IN INTERIORS

Number of Theory Credits	Number of lecture hours /semester	Number of practical credits	Number of practical hours /semester
3	42	NA	NA
Course Outcomes: On successful completion of the course, the students will be able to <ul style="list-style-type: none"> • Apply colour in relation to light in interiors. • Understand psychological usage of colours. 			
UNIT-1 Introduction			15 Hours
Chapter-1: Introduction to Colour, Relationship of colour and light, Decision in colour selection. Chapter-2: History of colours – Aristotle, Leonardo Da Vinci, Adolf Hazel, Albert Munsell, Ewald Herring. Chapter-3: Primary, secondary, tertiary colours, dimensions of colour, colour schemes – harmonious and non-harmonious.			
UNIT-2 Colour Psychology			15 Hours
Chapter-4: Warm and cool colours, Advancing and receding colours, Heaviness and lightness of colour, effect of colours. Chapter-5: Colour mixing and appearance – dye and pigmentation, pigment Primaries, RYB, CMY, CMYK, Additive colours, colour mixing. Chapter-6: Colour perception in nature-effect of light on colour perception, Biological colour and technical interpretation of light, colour temperature.			
UNIT-3 Colour Application			12 Hours
Chapter-7: Colour application to design principles and elements. Chapter-8: Interior and exterior application of colour. Adjusting scale and volume of space using colour. Chapter-9: Colour aid system, and colour systems in practice, simplified colour system, colour terminology, special colour issues, mixed colour effects, effects of texture, using colour systems			

References:

1. Faulkner, R. and Faulkner'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., New York

I Semester
ID OE 2 – HOME DECOR

Number of Theory Credits	Number of lecture hours /semester	Number of practical credits	Number of practical hours /semester
3	42	NA	NA
Course Outcomes: On successful completion of the course, the students will be able to <ul style="list-style-type: none">• Use decoration in relation to furnishings, fabrics, lighting, and accessories.• Understand the estimation of curtains, drapery, bed linen, table linen, cushion and upholstered furniture.			
UNIT-1	Home Furnishing		15 Hours
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. Chapter-2: Fabrics used for home furnishing -Natural fabric and Manmade / Artificial / Synthetic fabric, its role and area of application in Home Furnishing. Chapter-3: Furniture furnishings – Upholstery, cushions, chair back, tie on seat cover and slipcover. 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 cloth, table runner, placemat, 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.			
UNIT-2	Window Treatment		15 Hours
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. Chapter-5: Curtain headings - pelmets and cornices, valances, swags, jabots, window scarf.			

<p>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:	12 Hours
<p>Chapter-7: Introduction to lighting, Types of lighting – Natural and artificial. Electric lamps – incandescent, fluorescent, sodium vapor, mercury, halogen and neon. Guidelines for good lighting.</p> <p>Chapter-8: 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. Steps in selecting accessories. Materials used, care and maintenance</p>		

References:

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

II Semester
ID OE 2 – LANDSCAPE

Number of Theory Credits	Number of lecture hours /semester	Number of practical credits	Number of practical hours /semester
3	42	NA	NA
Course Outcomes: On successful completion of the course, the students will be able to <ul style="list-style-type: none">Understand history and different styles in interior landscaping.Prepare a design outcome using the knowledge of landscape services, products, and irrigation system.			
UNIT-1 Introduction & Principles of Landscape			15 Hours
Chapter-1: Introduction to ecology - Interdependence of various systems in the biosphere. Study of ecosystems in urban & rural habitats.			
Chapter-2: Introduction to geology and soils. Introduction to hydrology, hydro cycle, surface water, Groundwater management, sources of ground water pollution and its control			
Chapter-3: Basic principles of landscape design: factors to be considered, components involved in garden design. Roof gardens, interior landscaping and services.			
UNIT-2 Historical Landscape Gardens			15 Hours
Chapter-4: Ancient Heritage: Mesopotamia, Egypt, Greece, Rome Ancient and medieval period in India: Mughal and Rajput Landscapes			
Chapter-5: Western Civilization: Europe; Italy, France, and England			
Chapter-6: The Middle-East: The Persian tradition and its far reaching influence Eastern Civilization - China and Japan			
UNIT-3	Landscape Elements &: Preparation for Designing and Details		12 Hours
Chapter-7: Plant Material-Characteristics and Differentiation between trees, shrubs, ground cover and creepers. Landscape products. Introduction to street furniture and lighting.			
Chapter-8: Modification of site topography, grading, methods of estimating earth volumes Layout of plumbing, drainage & other utilities Materials & construction of paving & pedestrian paths			
Chapter-9: Creation & maintenance of water bodies Landscape irrigation systems			

References

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

QUESTION PAPER PATTERN (Theory)

**I/II Sem. B.Sc. Examination
(2021-22 Onwards)
INTERIOR DESIGN AND DECORATION
Paper code and Title of the paper**

MAX MARKS-70

TIME: 3Hrs

**Instructions to the Candidates: i. *All sections are compulsory*
ii. *Illustrate wherever necessary***

SECTION – A

1. Answer any 10 of the following (10x2=20)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.

SECTION – B

II. Answer any 5 of the following (5x4=20)

- 13.
- 14.
- 15.
- 16.
- 17.
- 18.

SECTION – C

III. Answer any 5 of the following (5x6=30)

- 19.
- 20.
- 21.
- 22.
- 23.
- 24.

QUESTION PAPER PATTERN (Practical)

**I/II Sem. B.Sc. Examination
(2021-22 Onwards)
INTERIOR DESIGN AND DECORATION
Paper code and Title of the paper**

MAX MARKS-35

TIME: 4Hrs

Instructions to the Candidates: i. *All sections are compulsory*

- | | |
|---------------------|----------|
| 1. | 10 Marks |
| 2. | 10 Marks |
| 3. Viva Voce | 05 Marks |
| 4. Practical Record | 10 Marks |

QUESTION PAPER PATTERN (Practical)

**I/II Sem. B.Sc. Examination
(2021-22 Onwards)
INTERIOR DESIGN AND DECORATION**

Paper code and Title of the paper

MAX MARKS-70

TIME: 4Hrs

Instructions to the Candidates: i. *All sections are compulsory*

- | | |
|---------------------|----------|
| 1. | 20 Marks |
| 2. | 20 Marks |
| 3. Viva Voce | 10 Marks |
| 4. Practical Record | 20 Marks |

Outline for Continuous Assessment

Theory with 3 credits

Activity	C1	C2	Total
Session Test	10%	10%	20%
Seminars/Presentations/Activity	5%	-	05%
Assignment/Field Work	-	5%	05%
Total	15%	15%	30%

Practicals with 2 Credits

Activity	C1	C2	Total
Test / Performance	5%	5%	10%
Record Maintenance		5%	05%
Total			15%

Practicals with 3 Credits

Activity	C1	C2	Total
Test / Performance	10%	10%	20%
Record Maintenance		10%	10%
Total			30%