



# **BENGALURU CITY UNIVERSITY**

**CHOICE BASED CREDIT SYSTEM**

**(as per SEP 2024)**

## **Syllabus for I & II Semester B.Sc. Interior Design and Decoration**

**2024-25**

**Proceedings of the Board of Studies meeting in Fashion & Apparel Design (UG) held on 3<sup>rd</sup> July 2024 at 10.30 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 & II Semesters and after incorporating the necessary changes the Board approved the scheme and syllabus of I & II Semesters to be implemented from the academic year 2024-25.

**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 & II Semesters and after incorporating the necessary changes the Board unanimously approved the scheme and syllabus of I & II Semesters to be implemented from the academic year 2024-25.

**Item No. 3. Approval of panel of Examiners for B.Sc. (Fashion & Apparel Design) for the year 2024-25**

The list of panel of examiners for B.Sc. (Fashion & Apparel Design) course for the year 2024-25 was approved.

**Item No. 4. Approval of panel of Examiners for B.Sc. (Interior Design and Decoration) for the year 2024-25**

The list of panel of examiners for B.Sc. (Interior Design & Decoration) course for the year 2024-25 was placed and the same was approved.

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

Members Present:

Smt. Bharathi PS

Member

*Bharathi P.S*

Mrs. Archana B

Member

*B. Archana*

Dr. Renjini G

Member

*Dr. Renjini G*

Mr. Devraj

Member

*Mr. Devraj*

Dr. Sandhya Ravi

Member

*Dr. Sandhya Ravi*  
3/7/24

Mrs. Sneha Manjunath

Invitee

*Mrs. Sneha Manjunath*  
3/7/2024

Dr. R. Sudhakar

Chairperson

*Dr. R. Sudhakar*  
3/8/2024

## **Program Outcomes**

**PO-1: Knowledge of Interior Design:** The capacity to use the principles of design and planning, spatial components, building services, diverse interior materials, socioeconomic factors, and cultural influences in conjunction with the design process idea to produce interior environments.

**PO-2: Problem Analysis:** This refers to the capacity to evaluate the needs of the customer, the amount of space needed, and the building methods in order to solve problems effectively and critically, which affects every step of interior space design.

**PO-3: Design/Development of Solutions:** The capacity to determine the best possible design solutions, such as those that are environmentally friendly, economical, and energy efficient, as required for carrying out interior design projects successfully.

**PO-4: Individual and Teamwork:** The capacity to make a major contribution in a variety of settings with multidisciplinary teams as a leader or member.

**PO-5: Communication Skills:** The ability to communicate effectively in various facets like - speaking, writing, sketching, making diagrams to illustrate, construct, present or otherwise communicate design proposals.

**PO-6: Modern Tool Usage:** The ability to use a range of industrial instruments, methods, IT systems, and software.

**PO-7: Ethics & Project Handling Skills:** Able to perform professional design responsibilities while upholding moral principles. The capacity to organize, create clear plans, carry out, and finish the interior-built environment design process.

**PO-8: Sustainability and the Environment:** Ability to use a range of manufacturing tools, methods, and IT hardware and software.

**PO-9: Continuous Learning:** To provide the qualities necessary for a lifetime of learning.

**PO-10: Business Acumen:** The ability to understand and apply basic principles of business management relevant to interior design practices, including budgeting, resource allocation, and client relations.

**PO-11: Research Skills:** Proficiency in conducting research related to interior design trends, materials, technologies, and user preferences to inform design decisions and proposals.

**PO-12: Cultural Sensitivity:** Awareness and understanding of diverse cultural perspectives and their impact on interior design preferences and practices, ensuring designs are inclusive and respectful of cultural diversity.



## **Program Specific Outcomes**

**PSO-1:** Develop the ability to plan and organize design that adheres to a methodical analysis of theories, alternatives, and evaluations through the synthesis and evaluation of concepts that incorporate guidelines for the social, cultural, technological, and environmental elements of interior spaces.

**PSO-2:** Combine a variety of variables to create an integrated design solution. It is accomplished by implementing suitable building systems, building materials, and construction techniques on the basis of sound research and design choices made at various system and complexity levels and sizes.

**PSO-3:** Assess and create plans based on contemporary ideas and human needs, as well as to design interior spaces in building enclosures that promote efficient circulation and connectivity.

**PSO-4:** Demonstrate an awareness of the connections and significant influences that topics such as inside furnishings, indoor landscaping, interior photography, and architectural design history have on the evolution of a place.

**PSO-5:** Develop a broad range of technical proficiency and design knowledge during the schematic design phase. Apply the principles of indoor air quality, lighting, acoustics, and thermal comfort in relation to human well-being, environmental impact, and life safety, accessibility, and sustainability issues to make wise design decisions at different levels of complexity.

**PSO-6:** Proficiency in Design Visualization: The ability to effectively utilize various visualization techniques such as 2D drawings, 3D modelling, rendering, and virtual reality to communicate design ideas and concepts to stakeholders.

**PSO-7:** Integration of Building Codes and Regulations: Understanding and application of local and international building codes, regulations, and standards relevant to interior design projects to ensure compliance and safety in design solutions.

**PSO-8:** Engage with clients, understand their needs, preferences, and constraints, and effectively communicate design proposals and decisions throughout the design process.

**PSO-9:** Manage interior design projects from inception to completion, including project planning, scheduling, budgeting, procurement, and coordination with contractors and other stakeholders.

**PSO-10:** Innovate and think creatively in problem-solving and design development, integrating novel ideas, materials, and technologies to create unique and functional interior spaces that meet client requirements and exceed expectations.

SCHEME OF EXAMINATION								
B.Sc. INTERIOR DESIGN AND DECORATION								
SEMESTER I								
CODE	Subjects	Paper Theory/ Practical	Instruction Hrs./week	Duration of Exam (Hrs.)	Marks			CREDITS
					IA	Exam	Total	
L1	Language I	Theory	3	3	20	80	100	3
L2	Language II	Theory	3	3	20	80	100	3
IDD 1.1 T	Fundamentals of Interior Design	Theory	4	3	20	80	100	3
IDD 1.1 P	Fundamentals of Interior Design	Practical	3	3	10	40	50	2
IDD 1.2 T	Construction Materials - I	Theory	4	3	20	80	100	3
IDD 1.2 P	Construction Materials - I	Practical	3	3	10	40	50	2
IDD 1.3 T	Basics of Interior Services	Theory	4	3	20	80	100	3
IDD 1.3 P	2D and 3D Graphics	Practical	3	3	25	25	50	2
	Compulsory 1 (Constitutional Values)	Theory	2	1.5	10	40	50	2
				Total	700			23

B.Sc. INTERIOR DESIGN AND DECORATION								
SEMESTER II								
CODE	Subjects	Paper Theory/ Practical	Instruction hrs./week	Duration of Exam (hrs.)	Marks			CREDITS
					IA	Exam	Total	
L1	Language I	Theory	3	3	20	80	100	3
L2	Language II	Theory	3	3	20	80	100	3
IDD 2.1 T	Ergonomics in Interiors	Theory	4	3	20	80	100	3
IDD 2.1 P	Ergonomics in Interiors	Practical	3	3	10	40	50	2
IDD 2.2 T	Construction Materials-II	Theory	4	3	20	80	100	3
IDD 2.2 P	Construction Materials-II	Practical	3	3	10	40	50	2
IDD 2.3 T	Interior Services I – Lighting	Theory	4	3	20	80	100	3
IDD 2.3 P	Interior Services I – Lighting	Practical	3	3	10	40	50	2
	Compulsory 2 (Constitutional Values)	Theory	2	1.5	10	40	50	2
				Total	700			23

**I Semester**  
**B.Sc. Interior Design and Decoration**  
**IDD 1.1 T - Fundamentals of Interior Design**

<b>IDD 1.1 T</b>	<b>Exam Hours: 03 Hrs.</b>
<b>Total Hrs.: 56</b>	<b>Exam Marks: 80</b>
<b>Number of Theory Credits: 3</b>	<b>Internal Assessment: 20</b>

<b>Course outcomes: On successful completion of the course, the students will be able to</b>
1. Understand the importance and effects of interior design and decoration
2. Understand the importance of visual communication
3. Identify elements of design and their effects
4. Comprehend various colour concepts and colour schemes
5. Identify principles of design and their effects

<b>Unit – 1</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>• Introduction to interior design and decoration, Origins of interior design, Importance, Scope &amp;, Aspects of interior design, need for design, Difference between Interior design and decoration, Role of an Interior Designer/Decorator.</li> <li>• Design - Definition and classification, Concepts and Types - Structural and Decorative design, Classification of decorative design: Naturalistic, stylized, geometric and abstract. Importance of good design, criteria and requirements, concept development- introduction, importance and representation. Visual Communication: Introduction, importance and application.</li> </ul>	
<b>Unit – 2</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>• Elements of Design: Point, Line, Shape and Form, Texture, Space and Pattern Meaning of each element and their use in designing. Importance of each element and their use in designing. Characteristics of each element and their use in designing. Light: characteristics and classification.</li> <li>• Colour Concept: Introduction, significance of color in the interiors and exteriors. Dimensions of color –Hue, value, intensity, Effects of Hue, value and intensity. Warm, cool and neutral colors- Definition. 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.</li> </ul>	
<b>Unit – 3</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>• Psychological impact of color: Advantages and disadvantages. Impact of specific hues, psychological effects of color. Use of color in various functional contexts – residential interiors, commercial and hospitality interiors. Use of color in special situations – outdoor/indoor spaces, accessories, art works.</li> <li>• Color Systems: Prang and Munsell color systems in design development practice. Simplified color system. Color terminology, mixed color effects, Effects of Texture. Colour Scheme: Importance of Colour Scheme. Types of Colour Scheme. Application, Functionality, Aesthetic Appeal and Perception of Colour Schemes.</li> </ul>	
<b>Unit – 4</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>• Principles of Design: Balance, Proportion, Rhythm, Harmony and Emphasis – Definition, importance, Advantages and Disadvantages, Application Contrast and harmony: Harmony through use of line, shape, size, texture and color. Unity in diversity or variety. Balance/ stability: understanding formal, informal and obvious balance. Importance of proportion and scale.</li> <li>• Golden ratio – Introduction, Definition, Application, terminologies, prominent examples from nature, Advantages and disadvantages.</li> </ul>	

<b>References</b>
James Stockton, "Designers Guide to Color", Chronicle Books, San Francisco, 1984.
Johann Wolfgang von Goethe, "Goethe's Theory of Colours", Routledge, 2021.
Maier, Manfred, "Basic Principles of Design", Van Nostrand Reinhold, 1980.
Natalie Badenduck, "Interior Design Concept: Critical Practices, Processes and Explorations in Interior Architecture and Design", Taylor & Francis Ltd., 2022.
Roberta Null, "Universal Design: Principles and Models", CRC Press, 2017.
Roderick Adams, "Interior Design: A Global Profession", Routledge, 2020.
Stanyer Peter, "The Complete Book of Drawing Techniques", Arcturus Publishing Ltd., 2003.

**I Semester**  
**B.Sc. Interior Design and Decoration**  
**IDD 1.1 P - Fundamentals of Interior Design**

<b>IDD 1.1 P</b>	<b>Exam Hours: 03 Hrs.</b>
<b>Total Hrs.: 42</b>	<b>Exam Marks: 40</b>
<b>Number of Practical Credits: 2</b>	<b>Internal Assessment: 10</b>

<b>Course outcomes: On successful completion of the course, the students will be able to</b>
1. Understand the basics of sketching.
2. Practice dimensional sketching and coloring.
3. Understand color patterns and combination.
4. Develop an interior design concept
5. Apply elements and principles efficiently

<b>Unit – 1</b>	<b>9 Hrs.</b>
Types of Design: Structural and decorative design Decorative designs: Naturalistic, stylized, geometric and abstract.	
<b>Unit – 2</b>	<b>9 Hrs.</b>
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.	
<b>Unit – 3</b>	<b>12 Hrs.</b>
Dimensions of color –Hue, value, intensity, Color Wheel. Color Schemes: <ul style="list-style-type: none"> <li>• Harmonious Color Schemes: Monochromatic &amp; analogous</li> <li>• Non-Harmonious Color Schemes: Triad, Complementary, Spilt Complementary, Double Complementary, Tetrad, Poly Chromatic.</li> <li>• Neutral color harmonies &amp; Accented Neutral.</li> </ul> Impact of Colors on Psychology: Advancing, Receding, Neutral colours, Warm & Cool Color.	
<b>Unit – 4</b>	<b>12 Hrs.</b>
Design a conceptual art using elements of design Design a conceptual art using principles of design	



**I Semester**  
**B.Sc. Interior Design and Decoration**  
**IDD 1.2 T – Construction Materials - I**

<b>IDD 1.2 T</b>	<b>Exam Hours: 03 Hrs.</b>
<b>Total Hrs.: 56</b>	<b>Exam Marks: 80</b>
<b>Number of Theory Credits: 3</b>	<b>Internal Assessment: 20</b>

<b>Course outcomes: On successful completion of the course, the students will be able to</b>	
1.	Identify and understand different types of construction materials.
2.	Understand the different classifications of stones and bricks.
3.	Comprehend the composition and uses of cement, mortar and concrete.
4.	Understand the different techniques of plastering and its defects
5.	Comprehend the properties of timber, metals and plastic

<b>Unit-1</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Construction Material – Introduction to building materials-Bricks, Stones, Cement, Mortar, R.C.C, Metals and Plastics, Advantages and Disadvantages. Representation techniques - Symbols and legends Building components: Introduction to Sub-Structure, Super- Structure, Foundation, Plinth, Damp Proof Course (DPC), Lintel and sill, Walls, Columns, Floors, Doors Windows and Ventilation, Stairs, Roofs, Building Finishes.</li> <li>Bricks: Introduction, Manufacturing process, Physical and chemical properties, Applications, , Types of bricks – traditional, wire cut, molded bricks and its sizes, Types of brick walls, Brick masonry (English, Flemish, rat trap bond) detailed brick layout at corners, junctions and brick piers, style of construction, Brick bonds, Exposed brick work, Madras terrace roof, jack arch roof, brick paving, brick arches and domes, reinforced brick roofs and walls, brick piers</li> </ul>	
<b>Unit-2</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Stone: Geological Classification of rocks – stones (Granite, Laterite, Quartzite, Marble, Slates), Properties and applications, Types of stones, dressing of stones, Finishes and its application in interiors, Uses of stone, deterioration &amp; preservation of stone, Availability, Properties, and application of stones for construction in India, Stone for finishing, cutting &amp; polishing. (Granite &amp; Marble), Types of stone masonry</li> <li>Cement- Introduction, Types, properties and its Application in interior design</li> </ul>	
<b>Unit-3</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Mortar its application properties, Types of mortar lime mortar and cement mortar, Concrete and admixtures, R.C.C, Concrete, Classification, Properties</li> <li>Plaster - Terms related to plastering, Types of plaster &amp; finishes, Application of plaster special materials used in plastering and defects in plastering</li> </ul>	
<b>Unit-4</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Wood and timber - Wood: Timber and its usage in construction: Introduction and Properties, Seasoning &amp; preservation of timber, Classification of timber</li> <li>Natural wood (Hardwood &amp; softwood)</li> <li>Industrial timber – Ply woods, Block boards, Fiber board, MDF, HDF, oriented strand board. Manufacture &amp; uses of wood (soft wood, hardwood, plywood, laminated wood &amp; particle boards), Market survey sizes &amp; rates, brands.</li> <li>Metals - Introduction, Properties - Ferrous and non-ferrous metals, Alloys and its application in interiors, Steel and its application, Steel alloys, Aluminum and its application in interiors, Aluminum alloys. Plastic, Introduction, Properties - Types of plastics, Use of plastics in interiors, Fiber plastic, Silicon, and its usage, miscellaneous materials</li> </ul>	

References
Arthur Lyons, “Modern Methods of Construction and Innovative Materials”, Routledge, 2024.
Anil Sawhney, Michael Riley, Javier Irizarry, “Construction 4.0: An Innovation Platform for the Built Environment”, Routledge, 2020.
Charles F. Mitchell, Stephen J. Scaysbrook, “Building Construction and Drawing 1906: A Textbook on the Principles and Details of Modern Construction First Stage”, Routledge, 2022.
Gurucharn Singh, “Building Materials.” Standard Publishers and Distributors, Delhi, 2014.
Roy Chudley, Roger Greeno, Karl Kovac, “Building Construction Handbook”, Routledge, 2020.
Sanjay Mahajan “Building Construction I and II”. Satya Prakashan, New Delhi, 2014.
Sucheta Singh, Veena Gandotra and Promila Sharma, “Organic Building Materials in Residential constructions.” Concept Publishing Company, New Delhi, 2009.
Sushil Kumar, “Building Construction.” Standard Publishers and Distributors, Delhi, 2008.
Tom Woolley, “Building Materials, Health and Indoor Air Quality”, Routledge, 2024.

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**I Semester**  
**B.Sc. Interior Design and Decoration**  
**IDD 1.2 P – Construction Materials – I**

<b>IDD 1.2 P</b>	<b>Exam Hours: 03 Hrs.</b>
<b>Total Hrs.: 42</b>	<b>Exam Marks: 40</b>
<b>Number of Practical Credits: 2</b>	<b>Internal Assessment: 10</b>

<b>Course outcomes: On successful completion of the course, the students will be able to</b>
1. Identify and understand different composition of building
2. Identify and illustrate different types of stone and conduct market survey
3. Identify and illustrate different types of brick bond
4. Understand different types of timber
5. Analyse and document types of timbers and bricks through field visit

<b>Unit - 1</b>	<b>11 Hrs.</b>
<ul style="list-style-type: none"> <li>• Drafting of Brick Wall plan and elevations using different Brick Bond, Stretcher, and Header, English, Flemish bonds and Rat-trap bond. Model making of various brick bonds.</li> <li>• Data collection, Market study, Survey, Rate analysis. Representation techniques -Sketching, Drawings and drafting.</li> </ul>	
<b>Unit – 2</b>	<b>11 Hrs.</b>
<ul style="list-style-type: none"> <li>• Types of stones - Sketching of different types of Stones-representation skills, Data collection, Market study, Survey,</li> <li>• Components of building (plan section and elevation) - Foundation and plinth, Lintel and sill, Walls Columns, Doors Windows and Ventilator, Stairs</li> <li>Representation techniques -Sketching, Drawings and drafting</li> </ul>	
<b>Unit – 3</b>	<b>10 Hrs.</b>
<ul style="list-style-type: none"> <li>• Types of Timber</li> <li>Representation of types of timber</li> <li>• Types of Stones used in Construction.</li> <li>Report on cost of stones</li> </ul>	
<b>Unit – 4</b>	<b>10 Hrs.</b>
<ul style="list-style-type: none"> <li>• Site visit to timber yard/ Wood Science Institute, stone yard and brick kiln/ Cement block manufacturing factory</li> <li>• Prepare a report on the Process of Preparation of Bricks</li> <li>• Report on Timber Preservation, Cutting Process of Timber</li> </ul>	

**I Semester**  
**B.Sc. Interior Design and Decoration**  
**IDD 1.3 T – Basics of Interior Services**

<b>IDD 1.3 T</b>	<b>Exam Hours: 03 Hrs.</b>
<b>Total Hrs.: 56</b>	<b>Exam Marks: 80</b>
<b>Number of Theory Credits: 3</b>	<b>Internal Assessment: 20</b>

<b>Course outcomes: On successful completion of the course, the students will be able to</b>
1. Understand various building services and their components
2. Understand lighting and its application
3. Understand the components of plumbing and HVAC
4. Identify the different materials used for sound insulation and acoustics
5. Understand the causes of fire and fire protection systems

<b>Unit – 1</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Interior services - Introduction, types – lighting, plumbing, acoustics and HVAC, definitions, terminologies.</li> <li>Advantages and disadvantages of interior services. Components used in various services in residence. Representation of various services in construction drawings. Colours, symbols and legends used to represent services.</li> </ul>	
<b>Unit – 2</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Introduction to natural lighting, guidelines for good natural lighting, factors affecting illumination reflection and transmission and their applications, advantages and disadvantages. Introduction to artificial lighting, different types of lighting. Introduction to fixtures and lighting accessories</li> <li>Ventilation in building – Introduction, types - Natural and Artificial. Introduction to air-conditioning and ductable system and application, types of air conditioning system</li> </ul>	
<b>Unit – 3</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Introduction to water supply, types of water supply systems, Introduction to sanitation, types of sanitation, introduction to drainage system, Introduction to sanitary fitting and classification.</li> <li>Fire protection - Introduction, causes of fire and preventive measures. Introduction to fire protection by laws and its applications as per Government's statutory law.</li> </ul>	
<b>Unit – 4</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Acoustics-Introduction, Definition, terminologies, objectives. Acoustic Materials-Types, Application, Advantages and Disadvantages</li> <li>Fundamentals of sound - Nature of sound waves, terminology, sound sources. Sound in interiors, factors involved in sound.</li> </ul>	

<b>References</b>
Anna Yudina, “Lumitecture - Illuminating Interiors for Designers and Architects”, Thames and Hudson, 2016.
Ch’ing, Francis D K, Binggeli, Cork, “Interior Design Illustrated”, Wiley Publications, New Jersey, 2004.
David Egan M, “Architectural Acoustics”, J Ross Publishing, 2007..
David Etheridge, “Natural Ventilation of Buildings: Theory, Measurement and Design”, Wiley Publication, 2011
Gary Gordon, “Interior Lighting for Designers”, 5 <sup>th</sup> edition, Wiley Publishers, 2015.
Hall, Fred, Greeno, Roger, “Building Services Handbook”, Butterworth Heinemann, UK, 2001.
Jiri Tichy, “Acoustics of Small Rooms ”, CRC Press, 2014.
Purnima B C, ‘Environmental Engineering - I - Water Supply Engineering’, Laxmi Publications (P), Ltd, New Delhi, 2005.
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**I Semester**  
**B.Sc. Interior Design and Decoration**  
**IDD 1.3 P – 2D & 3D Graphics**

<b>IDD 1.3 P</b>	<b>Exam Hours: 03 Hrs.</b>
<b>Total Hrs.: 42</b>	<b>Exam Marks: 40</b>
<b>Number of Theory Credits: 3</b>	<b>Internal Assessment: 10</b>

<b>Course outcomes: On successful completion of the course, the students will be able to</b>
1. Learn manual drafting using different tools
2. Understand scaling and dimensions in drafting
3. Draft various projections used for representation
4. Understand geometrical representation using design
5. Illustrate architectural representation of plan, elevation and sections

<b>Unit – 1</b>	<b>12 Hrs.</b>
<ul style="list-style-type: none"> <li>Drafting of Different Types of lines, different types of lettering, symbols used in architecture, dimensioning, and scales. Rendering Skills, Material Representations through Sketches, Drawings, Drafting and Models.</li> <li>Introduction to Euclidean geometry - Lines &amp; angles. Basic geometrical constructions. Construction of triangles, quadrilaterals and regular polygons. Development of simple surfaces of basic geometrical shapes and their applications, Representations through Sketches, Drawings, Drafting and Models.</li> </ul>	
<b>Unit – 2</b>	<b>10 Hrs,</b>
<ul style="list-style-type: none"> <li>Arches - typical arches and construction methods.</li> <li>Plane curves - ellipse, parabola, hyperbola, ovals and construction methods.</li> <li>Orthogonal projections, drafting of plans and elevations of various types of objects. <ul style="list-style-type: none"> <li>First angle projection, glass box technique.</li> <li>Representation techniques -Sketching, Drawings and drafting.</li> </ul> </li> </ul>	
<b>Unit – 3</b>	<b>10 Hrs.</b>
<ul style="list-style-type: none"> <li>Drafting of Isometric Views, Axonometric Views and Oblique Views, Different objects and Interior related views. <ul style="list-style-type: none"> <li>Isometric projections of various objects and interior views.</li> <li>Representation techniques -Sketching, Drawings, drafting and rendering.</li> </ul> </li> </ul>	
<b>Unit – 4</b>	<b>10 Hrs.</b>
<ul style="list-style-type: none"> <li>Drafting of Perspective drawing of simple and complex objects, one point and two-point perspective of Interiors and exteriors, sectional perspectives <ul style="list-style-type: none"> <li>Perspective drawing procedures step by step. Drawing perspectives of various objects and interior views.</li> <li>Representation techniques -Sketching, Drawings, drafting and rendering.</li> </ul> </li> </ul>	

<b>References</b>
Francis D. K. Ching, “Architectural Graphics”, John Wiley and Sons, 2012.
Jeanne Diehl-Shaffer, Diana Bennett Wirtz Kingsley, “Hand Drafting For Interior Design”, Fairchild Books, 2020.
Jim Dawkins, Jill Pable, “Sketching Interiors at the Speed of Thought”, Fairchild Books, 2018.
Jorge Paricio Garcia, “Hybrid Drawing Techniques for Interior Design”, Routledge, 2019.
Lydia Sloan Cline, “Architectural Drafting For Interior Design”, Fairchild Books, 2021.
Maureen Mitton, “Interior Design Visual Presentation: A Guide to graphics, models and Presentation Techniques”, 3rd edition, Wiley Publishers, 2007.
Stephen Klimont, “Architectural Sketching and Rendering: Techniques for Designers and Artists”
Zell, Mo., “The Architectural Drawing Course”, 1st edition, Thames and Hudson, 2008.



**II Semester**  
**B.Sc. Interior Design and Decoration**  
**IDD 2.1 T - Ergonomics in Interiors**

<b>IDD 2.1 T</b>	<b>Exam Hours: 03 Hrs.</b>
<b>Total Hrs.: 56</b>	<b>Exam Marks: 80</b>
<b>Number of Theory Credits: 3</b>	<b>Internal Assessment: 20</b>

<b>Course outcomes: On successful completion of the course, the students will be able to</b>
1. Apply ergonomic concepts in various interior design projects.
2. Use anthropometrical data of static and dynamic activities for design development.
3. Understand the importance of space planning in residence
4. Understand the importance of space planning in office spaces
5. Comprehend the space planning aspects of public restrooms

<b>Unit – 1</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Ergonomics: Meaning, Definition, Objectives. Disciplines of ergonomics (Anthropometry, Biomechanics, Mechanical engineering, Industrial engineering, Industrial design, Information design, Kinesiology, Physiology and Psychology). Domains of ergonomics (physical, cognitive and organizational). Concept of Ergonomics – Man, machine and Environment. Design of Man-Machine Systems, Design of Consumer Goods and Service Systems, Design of Working Environment. Applications of Ergonomics. Ergonomic Factors Applicable to design. Process of ergonomics.</li> <li>Anthropometry Introduction. Standards for Men, Women, Children and Differently-abled humans. Instruments used in Anthropometry, Benefits of Anthropometry. Types of Anthropometric Data: Static and Dynamic. Anthropometric considerations in design development – Structural and Functional. Ergonomics for seated and standing work: Standing, Sitting.</li> </ul>	
<b>Unit – 2</b>	<b>14 Hrs,</b>
<ul style="list-style-type: none"> <li>Furniture: introduction. Different types of furniture's used in living room, bedroom, kitchen, dining and their dimensions. Circulation and clearance space and space allocation in living, bedrooms, Dining rooms.</li> <li>Ergonomics in Kitchens. Work triangle. Types of kitchens with their advantages and disadvantages. Different work centers in Kitchens. Dimensions and specification of work centers.</li> </ul>	
<b>Unit – 3</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Ergonomics in bedroom. Circulation and space allocation. Factors to be considered for bedroom layout and design.</li> <li>Ergonomics in toilet. Types of fixtures used in washrooms and its dimensions. Space requirements in Toilets, powder rooms, bathrooms</li> </ul>	
<b>Unit – 4</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Space requirements in office spaces: reception areas, workstation, conference rooms. Space requirements in Restaurants: Space allocation in Parallel configuration, and Diagonal configuration. Design requirements and facilities provided for the differently abled in office and restaurants.</li> <li>Space requirements for public washrooms with universal design access and signages. Design requirements and facilities provided for the differently abled in public restrooms.</li> </ul>	

<b>References</b>	
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**II Semester**  
**B.Sc. Interior Design and Decoration**  
**IDD 2.1 P – Ergonomics in Interiors**

<b>IDD 2.1 P</b>	<b>Exam Hours: 03 Hrs.</b>
<b>Total Hrs.: 42</b>	<b>Exam Marks: 40</b>
<b>Number of Practical Credits: 2</b>	<b>Internal Assessment: 10</b>

<b>Course outcomes: On successful completion of the course, the students will be able to</b>
1. Apply ergonomic concepts in everyday life and in various interior design projects.
2. Analyse and apply knowledge of human postures to design comfortable and functional interior spaces
3. Understand the importance of space planning.
4. Apply space planning concepts in residential washrooms
5. Understand the space allocation for disabled washrooms

<b>Unit – 1</b>	<b>11 Hrs.</b>
Sketch anthropometric measurements - vertical and horizontal reach. Representation techniques -Sketching, Drawings, drafting and rendering.	
<b>Unit – 2</b>	<b>11 Hrs.</b>
Various human postures with dimensions: standing, sitting, squatting. Calculate the class average and design a piece of furniture based on these dimensions. Representation techniques -Sketching, Drawings, drafting and rendering.	
<b>Unit – 3</b>	<b>10 Hrs.</b>
Determination of work surface height, depth, Comfortable work chair height. Standard Furniture dimensions. Furniture used and space requirements in residential and commercial spaces with dimensions <ul style="list-style-type: none"> <li>Measuring of various furniture and spaces, its relationship with human postures.</li> <li>Representation techniques -Sketching, Drawings, drafting and rendering.</li> </ul>	
<b>Unit – 4</b>	<b>10 Hrs.</b>
Space allocations in residential washrooms, public washrooms and washrooms with disability needs. Space allocation in public spaces – Reception, office reception areas, workstation, conference rooms <ul style="list-style-type: none"> <li>Activity and behavior based measurements and its importance in Interiors.</li> <li>Representation techniques -Sketching, Drawings, drafting and rendering.</li> </ul>	

**II Semester**  
**B.Sc. Interior Design and Decoration**  
**IDD 2.2 T – Construction Materials- II**

<b>IDD 2.2 T</b>	<b>Exam Hours: 03 Hrs.</b>
<b>Total Hrs.: 56</b>	<b>Exam Marks: 80</b>
<b>Number of Theory Credits: 3</b>	<b>Internal Assessment: 20</b>

<b>Course outcomes: On successful completion of the course, the students will be able to</b>	
1.	Understand different components of a building.
2.	Understand different types of walls and materials used.
3.	Comprehend different types of flooring and materials used
4.	Understand the concept of damp proofing, termite proofing and their preventive measures
5.	Identify and understand different wall finishes and glass

<b>Unit-1</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Foundations, Footings, Beams and slabs: Introduction, Types and application, Use based on the soil. Different types of footings beam slabs</li> <li>Sill, Lintels and Chajjas: Introduction, application, Different Types of Sills, lintels Chajjas based on material and uses.</li> </ul>	
<b>Unit-2</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Types of walls, Load bearing walls and non- load bearing walls.</li> <li>Wall finishes: Wood paneling, plaster, gypsum board, paint, stone wall panels, acoustic panels, upholstered wall systems. Wall partitions: Wood, Gypsum, Glass, Metal</li> </ul>	
<b>Unit-3</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Introduction, Different types of natural flooring (stone, brick, wooden), Different types of artificial flooring (Resilient flooring. Ceramic tile flooring, Vitrified, Terrazzo flooring, and soft flooring), Flooring: Methods, types -Terrazzo, Ceramic, Stone, Cement, Bricks, Wooden, Tiles, Resilient, Epoxy, Advantages, Disadvantages and Applications. Construction techniques of different flooring, care and maintenance</li> <li>Damp Proofing &amp; Termite Proofing: Dampness – Concept, causes and effects, Techniques and methods of damp prevention, Materials used for damp proofing.</li> </ul>	
<b>Unit-4</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Paints: Introduction, Classification of paints, Characteristics of good paint its ingredients, Method of proper application of paint and polishes – painting process, Types of paints –oil and water-based paints. Polish and varnishes: Introduction, definitions, and terminologies. Types of Polishes used for wood and metal, Types of paint finishes, Types of painting textures, Types of painting techniques, Wall papers and its applications.</li> <li>Glass in Interiors: Introduction, Different types of glasses (Tinted, frosted, textured, transparent, one-way, acoustic glass, lacquered glass, toughened), Uses of glass in interiors, Glass and glass products, Composition, and fabrication of glass</li> </ul>	

<b>References</b>
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**II Semester**  
**B.Sc. Interior Design and Decoration**  
**IDD 2.2 P – Construction Materials- II**

<b>IDD 2.2 P</b>	<b>Exam Hours: 03 Hrs.</b>
<b>Total Hrs.: 42</b>	<b>Exam Marks: 40</b>
<b>Number of Practical Credits: 2</b>	<b>Internal Assessment: 10</b>

<b>Course outcomes: On successful completion of the course, the students will be able to</b>
1. To understand and illustrate various components of a building
2. Analyze and document different types of flooring and its material
3. Understand different types of glass and paints
4. Analyze and document price of glass through field visit
5. Analyze and document price of paints through field visit

<b>Unit – 1</b>	<b>11 Hrs.</b>
<ul style="list-style-type: none"> <li>• Drafting of Plans Elevations and sections different types of Walls and partition walls</li> <li>• Drafting of Different Types Footings, Columns, Slabs, Chajjas, Lintels,</li> <li>• Visit to a construction site and make a report on it.</li> </ul>	
<b>Unit – 2</b>	<b>11 Hrs.</b>
<ul style="list-style-type: none"> <li>• Types of Flooring and its application</li> <li>• Rate analysis on different materials used for flooring</li> <li>• Market Survey on different types of flooring materials</li> </ul>	
<b>Unit – 3</b>	<b>10 Hrs.</b>
<ul style="list-style-type: none"> <li>• Different Types of Painting Techniques and methods</li> <li>• Glass – Identification, thickness, types, textures and application.</li> </ul>	
<b>Unit – 4</b>	<b>10 Hrs.</b>
<ul style="list-style-type: none"> <li>• Visit to paint and glass show rooms, survey on types of paints and glasses.</li> <li>• Report on different types of glass and paints with their rates</li> </ul>	

**II Semester**  
**B.Sc. Interior Design and Decoration**  
**IDD 2.3 T – Interior Services I – Lighting**

<b>IDD 2.3 T</b>	<b>Exam Hours: 03 Hrs.</b>
<b>Total Hrs.: 48</b>	<b>Exam Marks: 80</b>
<b>Number of Theory Credits: 3</b>	<b>Internal Assessment: 20</b>

<b>Course outcomes: On successful completion of the course, the students will be able to</b>
1. Understand the concept of lighting and its application
2. Learn the different types and fixtures of lighting
3. Identify the different protection devices and wiring systems
4. Understand the concept of Eco lighting and its application
5. Identify and understand the types and importance of Exterior lighting

<b>Unit – 1</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Natural lighting and Artificial lighting: Introduction – terminologies - daylight factor. Recommended daylight factors for interiors. Advantages and Disadvantages of Natural lighting and Artificial lighting.</li> <li>Calculation for window and other opening for natural lighting. Guidelines for good natural lighting. Principles of lighting. Factors affecting illumination reflection and transmission and their applications (CRI and CCT).</li> </ul>	
<b>Unit – 2</b>	<b>20 Hrs.</b>
<ul style="list-style-type: none"> <li>Introduction to artificial lighting. Different types of lighting (ambient, accent and task). Types of fixtures. Types of arrangements (direct, indirect, semi-direct, semi-indirect and diffused). Positioning of electrical fixtures. Luminous intensity of light sources, their importance, advantages and disadvantages. Lighting Accessories – Introduction, types – Residential and Commercial.</li> <li>Eco lighting. Types and benefits. Materials and its application</li> <li>Recommended level of illumination. Guidelines for lighting design. Lumen method of design.</li> </ul>	
<b>Unit – 3</b>	<b>10 Hrs.</b>
<ul style="list-style-type: none"> <li>Protection devices: Introduction. Types – Fuse, DB, MCB, MCCB, ELCB and ACB. Guidelines for electric distribution system. Earth protection, earthing – types and their applications, advantages, disadvantages.</li> </ul>	
<b>Unit – 4</b>	<b>14 Hrs.</b>
<ul style="list-style-type: none"> <li>Introduction to wiring. Types of wiring, benefits, importance and applications. Electrical layout of a residential building and its process.</li> <li>Exterior lighting - Introduction, types, materials, system and their applications. Advantages and disadvantages</li> </ul>	



<b>References</b>	
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**II Semester**  
**B.Sc. Interior Design and Decoration**  
**IDD 2.3 P – Interior Services I – Lighting**

<b>IDD 2.3 P</b>	<b>Exam Hours: 03 Hrs.</b>
<b>Total Hrs.: 42</b>	<b>Exam Marks: 40</b>
<b>Number of Theory Credits: 3</b>	<b>Internal Assessment: 10</b>

<b>Course outcomes: On successful completion of the course, the students will be able to</b>
1. Analyze and document of electrical fixtures for various spaces
2. Identify and illustrate different types of light fixtures
3. Illustrate various types of light angles
4. Design a lighting layout for residence
5. Design a lighting layout for commercial buildings

<b>Unit – 1</b>	<b>11 Hrs.</b>
Illustrate types of electrical fixtures, market survey on electrical fixtures and rate analysis.	
<b>Unit – 2</b>	<b>10 Hrs.</b>
Illustrate types of lighting fixtures, principles of lighting, beam angle, types of lighting arrangement.	
<b>Unit – 3</b>	<b>11 Hrs.</b>
Draft an electrical layout for a 3 BHK residential building using lumen method of calculation.	
<b>Unit – 4</b>	<b>10 Hrs.</b>
Draft an electrical layout for a commercial building using lumen method of calculation.	

## Outline for Continuous Assessment

### Theory

Activity	C1	C2	Total
Session Test	10%	-	10%
Seminars/Presentations/Activity	-	05%	05%
Assignment/Field Work	-	05%	05%
<b>Total</b>	<b>10%</b>	<b>10%</b>	<b>20%</b>

### Practical's

Activity	C1	C2	Total
Test / Performance	05%	-	05%
Activity/Field Visit	-	05%	05%
<b>Total</b>	<b>05%</b>	<b>05%</b>	<b>10%</b>

**QUESTION PAPER PATTERN (Theory)**

**I/II Sem. B.Sc. Examination**

**(2024-25 Onwards)**

**INTERIOR DESIGN AND DECORATION**

Paper code and Title of the paper

**MAX MARKS-80**

**TIME: 3Hrs**

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

*ii. Illustrate wherever necessary*

**Section –A**

**I Answer any Ten of the following:**

**10X2=20**

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

**Section –B**

**II Answer any Five of the following:**

**5X4=20**

- 13
- 14
- 15
- 16
- 17
- 18
- 19

**Section –C**

**III Answer any Five of the following:**

**5X8=40**

- 20
- 21
- 22
- 23
- 24
- 25
- 26

**QUESTION PAPER PATTERN (Practical)**

**I/II Sem. B.Sc. Examination  
(2024-25 Onwards)**

**INTERIOR DESIGN AND DECORATION**

Paper code and Title of the paper

**MAX MARKS-40**

**TIME: 3 Hrs**

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

- |              |          |
|--------------|----------|
| 1.           | 10 Marks |
| 2.           | 10 Marks |
| 3.           | 05 Marks |
| 4. Record    | 10 Marks |
| 5. Viva Voce | 05 Marks |