

## **B.Sc.** (Interior Design & Decoration)

III & IV Semester Syllabus

2025-2026 onwards

	B.Sc. (INTERIOR DESIGN AND DECORATION)							
	SEMESTER III							
	Subjects Th	Paper Theory/ Practical Instruction Hrs./week	Instruction	<b>Duration of</b>	Marks			
CODE			Exam (Hrs.)	IA	Exam	Total	CREDITS	
L1	Language I	Theory	3	3	20	80	100	3
L2	Language II	Theory	3	3	20	80	100	3
IDD 3.1 T	Space Planning in Interiors	Theory	4	3	20	80	100	3
IDD 3.1 P	Space Planning in Interiors	Practical	3	3	10	40	50	2
IDD 3.2 T	History of Interiors	Theory	4	3	20	80	100	3
IDD 3.2 P	CAD in Interiors-I	Practical	3	3	10	40	50	2
IDD 3.3 T	Interior Services II - Plumbing, Sanitation & HVAC	Theory	4	3	20	80	100	3
IDD 3.3 P	Interior Services II - Plumbing, Sanitation, & HVAC	Practical	3	3	10	40	50	2
IDD 3.4 T E-1	<ul><li>A. Art and Crafts for Interiors (or)</li><li>B. Color Concepts in</li></ul>							
E-1	Interiors	Theory	2	1.5	10	40	50	2
				Total		700		23

B.Sc. INTERIOR DESIGN AND DECORATION								
SEMESTER IV								
CODE	a 11	Paper	Instruction	Duration of		Marks		CREDITS
CODE	Subjects	Theory/ Practical hrs./week	Exam (hrs.)	IA	Exam	Total		
L1	Language I	Theory	3	3	20	80	100	3
L2	Language II	Theory	3	3	20	80	100	3
IDD 4.1 T	Interior Services III – Acoustics and Fire Safety	Theory	4	3	20	80	100	3
IDD 4.1 P	Interior Services III – Acoustics and Fire Safety	Practical	3	3	10	40	50	2
IDD 4.2 T	Construction and Detailing	Theory	4	3	20	80	100	3
IDD 4.2 P	Construction and Detailing	Practical	3	3	10	40	50	2
IDD 4.3 T	Sustainable Interiors	Theory	4	3	20	80	100	3
IDD 4.3 P	CAD in Interiors II	Practical	3	3	10	40	50	2
IDD 4.4 T E-2	<ul><li>A. Home Décor (or)</li><li>B. Basics of Lighting</li></ul>	Theory	2	1.5	10	40	50	2
IDD 4.5 P	Materials Survey for Interior Design	Practical	3	3	10	40	50	2
				Total		750		25

# B.Sc. Interior Design and Decoration IDD 3.1 T - Space Planning in Interiors

IDD 3.1 T	Exam Hours: 03 Hrs.
Total Hrs.: 56	Exam Marks: 80
Number of Theory Credits: 3	Internal Assessment: 20

#### Course outcomes: On successful completion of the course, the students will be able to

- 1. Assess and incorporate cultural, regional, and historical influences into interior design solutions.
- 2. Develop floor plans and color boards that address specific client needs, including special populations, while ensuring functional and aesthetic design solutions
- 3. Analyze and solve space planning challenges by considering physical, psychological, and sociological factors that influence client preferences.
- 4. Apply and integrate design principles to create well-balanced and harmonious spatial compositions.
- 5. Communicate interior design concepts professionally through accurate graphic, oral, and written formats.

UNIT – 1 14 Hrs.

Space planning: Introduction, meaning, terms and intent, necessity of space planning, synthesis of space planning, design program. Planning methodology - Introduction to defining design, evaluating design - function, structure and materials, aesthetics, analyzing existing space and its advantages.

UNIT – 2 14 Hrs.

Space design, data collection, analysis, synthesis - zonal and block diagram, adjacency matrix, stacking plans, circulation, execution, feedback- evaluation- literature study, case study, prototypical plan sketches, relationship diagram. Planning steps, mind mapping, data collection, case study, literature study, area calculation, bubble & circulation diagram, block diagram with examples

Introduction to space development, generating concepts, present preliminaries, developing a rough floor plan, circulation spaces, construction reality, spatial quality, basic room allocations, storage, furniture and equipment's.

UNIT – 3 14 Hrs.

Factors influencing spatial planning, building codes, building shell, plumbing, HVAC, electrical systems, human factors, furniture placement and planning. Introduction to types of consultants - Acoustical consultant, lighting consultant, plumbing consultant, AC consultant & special consultant based on project needs.

UNIT – 4 14 Hrs.

Introduction to construction documents, layout plans, construction plans, data line, and electrical plans, finishes plans, furniture plans, and section details. Presentation drawing: circulation diagram, block diagram, stack diagram – development of elevations, sections, detailed drawings, 2-dimensional and 3-dimensional views according to design proposal.

- 1. Ching, Francis D. K., and Cork Binggeli. *Interior Design Illustrated*. Wiley Publications, 2004.
- 2. Claxton, Darryl P. The Essential Interior Design Handbook: An Introductory Guide to the World of Interior Design / Interior Architect / Spatial Design and How to Succeed at It. DPC Publishing, ISBN: 978-1916335104.
- 3. De Chiara, Joseph, Julius Panero, and Martin Zelnik. *Time-Saver Standards for Interior Design and Space Planning*. McGraw-Hill, 2001. ISBN: 978-0071346160.
- 4. De Chiara, Joseph, Julius Panero, and Martin Zelnik. Time-Saver Standards for Interior Design and

- Space Planning. McGraw-Hill, New York, San Francisco, Lisbon, London. (Duplicate title with alternate publication info; keep one depending on your usage)
- 5. Karlen, Mark, and Rob Fleming. *Space Planning Basics*. 4th ed., Wiley, 2016. ISBN: 978-1118882009.
- 6. Karlen, Mark. Space Planning Basics. Wiley, ISBN: 978-1118882085. (Duplicate title; use only one to avoid redundancy)
- 7. Rao, M. Pratap. Interior Design: Principles and Practice. Standard Publishers Distributors, 2006.
- 8. Rengel, R. J. Shaping Interior Space. 3rd ed., Bloomsbury Publishing Inc., 2014.
- 9. Time-Saver Standards for Architectural Design Data. McGraw Publications, Delhi, 2011.

# **B.Sc. Interior Design and Decoration IDD 3.1 P - Space Planning in Interiors**

IDD 3.1 P	Exam Hours: 03 Hrs.
Total Hrs.: 42	Exam Marks: 40
Number of Practical Credits: 2	Internal Assessment: 10

Course	e outcomes: On successful completion of the course, the students will be able to
1.	Analyze and plan efficient spaces with proper area calculation, zoning, and circulation.
2.	Conduct research, case studies, and site analysis to create informed design programs.
3.	Develop conceptual design solutions using diagrams and mind mapping techniques.
4.	Prepare professional design documentation, including plans, elevations, and sections.
5.	Present and communicate design ideas effectively through drawings and presentations.

UNIT-1	15 Hrs.		
Introduction to Space Planning, Area Calculation & Zoning, Bubble & Circulation Diagram			
Diagrams & Concept Development (Residential Space/Commercial Space).			
UNIT-2	15 Hrs.		
Literature Study, Data Collection & Case Study, Mind Mapping & Relationship Diagrams, Prototypical			
Plans & Adjacency Matrix, Criteria Matrix (Residential Space/Commercial Space).			
UNIT-3	12 Hrs.		
Finalizing the Design Program, Design Drawings (plan, furniture layout, sectional elevation and 3D renders)			
& Documentation, Project Completion & Review (Residential Space/Commercial Space).			

# B.Sc. Interior Design and Decoration IDD 3.2 T – History of Interior Design

IDD 3.2 T	Exam Hours: 03 Hrs.
Total Hrs.: 56	Exam Marks: 80
Number of Theory Credits: 3	Internal Assessment: 20

#### Course outcomes: On successful completion of the course, the students will be able to

- 1. Analyze the evolution of global interior and furniture styles from ancient civilizations to early modern periods, understanding their cultural and architectural influences.
- 2. Evaluate the impact of modern and postmodern art movements on interior design and furniture styles, including Industrial, Bauhaus, and Mid-century Modern influences.
- 3. Examine traditional Indian furniture styles across different regions, identifying their construction techniques, materials, and cultural significance.
- 4. Compare and contrast Islamic, Indo-Saracenic, and colonial influences on Indian interiors, recognizing their fusion of European and indigenous design elements.
- 5. Develop a critical understanding of design evolution by identifying key elements, materials, and motifs that define different historical interior styles and furniture.

UNIT-1 14 Hrs.

Elements of style and determinants of architectural and interior environments, including furniture styles of ancient civilizations – Greek, Roman, and Egyptian.

Elements of style and determinants of architectural and interior environments, including furniture styles of the Early Medieval period – Early Christian, Byzantine, and Gothic styles.

Elements of style and determinants of architectural and interior environments, including Romanesque, Renaissance, Baroque, Rococo, and colonial furniture styles.

UNIT-2 14 Hrs.

Elements of style and determinants of architectural and interior environments, including furniture styles of English interiors from the 16th to 18th century – Tudor, Stuart, Jacobean, Restoration period, Queen Anne period, Georgian period, Chippendale, and Sheraton.

Elements of style and determinants of architectural and interior environments, including furniture styles of the Modern era, focusing on Art movements – Cubism, Surrealism, Romanticism, and Mid-century Modern.

Elements of style and determinants of architectural and interior environments, including furniture styles of the Postmodern era – Industrial style, Bauhaus movement, and works of Charles and Ray Eames.

UNIT-3 14 Hrs.

Elements of style and determinants of architectural and interior environments, including Oriental styles – Chinese and Japanese furniture.

Elements of style and determinants of architectural and interior environments, including furniture styles of Indian interiors – Rajasthani, Saharanpur, Dravidian, Jain, Buddhist, and Bamboo furniture of Northeast India.

UNIT-4 14 Hrs.

Elements of style and determinants of architectural and interior environments, including furniture styles of Indian interiors – Islamic style and Indo-Saracenic style.

Elements of style and determinants of architectural and interior environments, including furniture styles of Indian interiors – Colonial Revival, European Influence, and Anglo-Indian Style.

- 1. Barnard, Alan, and Jonathan Spencer, editors. *Encyclopedia of Social and Cultural Anthropology*. Taylor & Francis, 1996.
- 2. Burgdoll, Barry. *European Architecture* (1750–1890). Oxford History of Arts, 1st ed., Paperback Publishers, ISBN: 978-0192842220.
- 3. Colquhoun, Alan. *Modern Architecture*. History of Arts, 1st ed., Paperback Publishers, ISBN: 978-0192842268.
- 4. Droste, Magdalena. Bauhaus: 1919–1933. Taschen, 2006.
- 5. Frampton, Kenneth. *Modern Architecture: A Critical History*. 4th ed., Thames and Hudson, ISBN: 978-0500203958.
- 6. Gura, Judith. Postmodern Design Complete. Abrams, 2017.
- 7. Hope, Thomas. Colonial Interiors: India. Lustre Press, 2000.
- 8. Kumar, Raj. Indian Art and Architecture. Discovery Publishing, 2003.
- 9. Morris, Jan. The British Country House in India. Knopf, 1985.
  - 10. Raj, Kumar, editor. Essays on Indian Art and Architecture. Discovery Publishing, 2003.
  - 11. Srinivasan, K. R. Temples of South India. Thames & Hudson, 1972.
  - 12. Stanford, Charles V. Studies in Indian Society, Culture, and Religion. South Asia Books, 1988.
  - 13. Summerson, John. The Classical Language of Architecture. MIT Press, 1980.

# B.Sc. Interior Design and Decoration IDD 3.2 P – CAD in Interiors-I

IDD 3.2 P	Exam Hours: 03 Hrs.
Total Hrs.: 42	Exam Marks: 40
Number of Practical Credits: 2	Internal Assessment: 10

## Course outcomes: On successful completion of the course, the students will be able to

- 1. Understand and apply architectural and interior design standards, including dimensioning, annotations, and scaling.
- 2. Create Architecture & interior design symbols to represent furniture, fixtures, lighting, and other elements accurately.
- 3. Create accurate 2D floor plans, elevations, sections, and detailed layouts.
- 4. Create and Modify 2D Design and Drafting
- 5. Create and modify 3D models of interior spaces using industry-standard

UNIT-1 10 Hrs.

Navigating CAD's workspace (toolbars, command line, viewports). Introduction to drawing tools and setting up the workspace for interior design projects. Drawing units, scales, and templates for interior design. Layer management, naming conventions, and basic drafting settings. Using tools like Line, Circle, Rectangle, and Polyline to create floor plans. Modifying tools (Trim, Extend, Fillet, Offset).

UNIT-2 10 Hrs.

Drawing walls, windows, and doors using proper scale and dimensions. Placement of furniture, fixtures, and room accessories (couches, tables, lighting). Understanding space planning for different types of rooms (living, bedroom, kitchen). Adding dimensions to drawings and using the correct text styles and annotation settings. Including room names and labels for clarity. Creating Blocks and External References (Xrefs):

UNIT-3 10 Hrs.

Drawing elevation views of interior spaces (walls, doors, windows). Techniques for drawing and detailing elevations for different rooms and elements. Drawing sections through walls, floors, and ceilings to show construction details Using section views for further detailing of interior features (doors, windows, stairs). Using layers to differentiate between various elements (furniture, finishes, lighting). Creating 2D representations of common interior furniture and fixtures.

UNIT-4 12 Hrs.

Switching from 2D to 3D in CAD: views, navigation, and tools. Drawing 3D objects such as walls, furniture, and fixtures in three dimensions. Designing rooms and spaces in 3D with walls, floors, and ceilings. Adding interior features like windows, doors, furniture, and lighting in 3D. Applying materials, textures, and lighting for realistic renderings. Using CAD's rendering tools to create high-quality images and perspectives.

- 1. Kubba, Sam. *AutoCAD for Interior Design and Space Planning*. McGraw-Hill Education, 2008. ISBN: 978-0071549868.
- 2. Jefferis, Alan, David A. Madsen, and David P. Madsen. *Architectural Drafting and Design*. 7th ed., Cengage Learning, 2016. ISBN: 978-1305659728.
- 3. Muccio, Dean. *AutoCAD 2024 for the Interior Designer: Floor Plans, Elevations, Printing, and Layout.* SDC Publications, 2023. ISBN: 978-1630576071.
- 4. Stine, Daniel John. Interior Design Using AutoCAD. SDC Publications, 2023. ISBN: 978-1630576309.
- 5. Shih, Randy H. *AutoCAD 2024 Tutorial First Level: 2D Fundamentals*. SDC Publications, 2023. ISBN: 978-1630576071.
- 6. Ching, Francis D. K. Architectural Graphics. 7th ed., Wiley, 2019. ISBN: 978-1119312512.
- 7. Omura, George, and Brian C. Benton. Mastering AutoCAD 2024 and AutoCAD LT 2024. Sybex, 2023. ISBN:

#### 978-1394163131.

- 8. Harbinger, Phyllis. *The Interior Design Productivity Toolbox: Checklists and Best Practices*. Wiley, 2014. ISBN: 978-1118680438.
- 9. CADArtifex. *AutoCAD 2023: A Power Guide for Beginners and Intermediate Users*. Independently Published, 2022. ISBN: 978-1955786223.
- 10. Kyles, Shannon R. *AutoCAD Workbook for Architects and Engineers*. CRC Press, 2022. ISBN: 978-1032016244.

#### **B.Sc. Interior Design and Decoration**

#### IDD 3.3 T- Interior Services II Plumbing, Sanitation & HVAC

IDD 3.4 T	Exam Hours: 03 Hrs.
Total Hrs.: 56	Exam Marks: 80
Number of Theory Credits: 3	Internal Assessment: 20

#### Course outcomes: On successful completion of the course, the students will be able to

- 1. Understand the basic principles of drainage and water supply in buildings.
- 2. Understand calculations and connections for water supply and sanitation.
- 3. Understand the recycle and reuse of wastewater with proper treatment.
- 4. Apply safety measure and standards
- 5. Design an underground storage tank.

UNIT – 1 14 Hrs.

Introduction to water supply, Sources of water, types of water supply systems, calculation of water supply requirements and storage of water. Types of patterns in water distribution, materials of water supply, treatment of freshwater, drinking water standards.

Hot water supply - Introduction to hot water - Methods of Heating water, Geysers, solar water heaters, working principles of solar and geyser.

UNIT – 2 14 Hrs.

Introduction to sanitation, types of sanitation, Introduction to drainage system, types of drainage system, wastewater and its classifications, traps with different types and uses. Septic tank construction and working principal, treatment of wastewater, recycle & reuse of wastewater.

Introduction to sanitary fitting, types and uses with its dimensions- Different types of hand wash basins, water closets and urinals, showers, mixers/cisterns and bath tubs/Jacuzzi, towel rails/rods, mirrors, storages, materials application, and its benefits, toilet plans tiling plan, drainage sanitary piping plan with the dimensions.

UNIT – 3 14 Hrs.

Mechanical ventilation - ventilation with fans, ventilation with ducts, High pressure & low pressure, Air circulation pattern. Calculation of openings for natural ventilation and its benefits.

Natural ventilation for the building: Introduction to ventilation. Guidelines for natural ventilation, types and its application.

UNIT – 4 14 Hrs.

Introduction to air-conditioning and its types, working principal of AC & its components. HVAC with the working and components, signs and symbols in HVAC.

Introduction to fire protection, causes of fire and preventive measures in building, standard laws and standards in building for fire protection, safety fixtures, merits & demerits.

- 1. Ching, Francis D. K., and Corky Binggeli. *Interior Design Illustrated*. Wiley, 2004.
- 2. American Society of Plumbing Engineers (ASPE). *Plumbing Engineering Design Handbook: Volume 1*. ASPE, 2017. ISBN: 978-1938936847.
- 3. Birdie, G. S., and J. S. Birdie. *Water Supply and Sanitary Engineering*. Dhanpat Rai Publications, 2017. ISBN: 978-9352837230.
- 4. Grondzik, Walter T., and Alison G. Kwok. *Mechanical and Electrical Equipment for Buildings*. 13th ed., Wiley, 2019. ISBN: 978-1119463085.
- 5. Hall, Fred, and Roger Greeno. Building Services Handbook. Butterworth-Heinemann, 2001.
- 6. Lechner, Norbert. *Plumbing, Electricity, Acoustics: Sustainable Design Methods for Architecture.* Wiley, 2011. ISBN: 978-1118014752.

- 7. National Fire Protection Association (NFPA). *Handbook of Fire Protection Engineering*. 5th ed., Springer, 2016. ISBN: 978-1447174700.
- 8. Purnima, B. C. Environmental Engineering-I: Water Supply Engineering. Laxmi Publications, 2005
- 9. Singh, Gurcharan. *Water Supply and Sanitation Engineering (Environmental Engineering)*. Standard Publishers Distributors, 2007.
- 10. Steel, Ernest W., and Terence J. McGhee. *Water Supply and Sewerage*. 6th ed., McGraw-Hill Education, 1991. ISBN: 978-0070609389.

## **B.Sc.** Interior Design and Decoration

## IDD 3.3 P- Interior Services II Plumbing, Sanitation & HVAC

IDD 3.3 P	Exam Hours: 03 Hrs.
Total Hrs.: 42	Exam Marks: 40
<b>Number of Practical Credits: 2</b>	Internal Assessment: 10

Co	ourse outcomes: On successful completion of the course, the students will be able to
1.	Understand the basic principles of drainage and water supply in buildings.
2.	Understand calculations and connections for water supply and sanitation.
3.	Understand the recycle and reuse of wastewater with proper treatment.
4.	Design an underground storage tank.
5.	Evaluate and select appropriate plumbing materials and systems based on building requirements.

UNIT – 1	16 Hrs.	
Draw a detailed Plan, elevation, section with all sanitation traps, fixtures and accessories.		
UNIT - 2	16 Hrs.	
Drafting a detailed Plumbing layout for 2BHK & 3BHK with 2 floor plan and elevation, section with cold		
& Hot water supply.		
UNIT - 3	10 Hrs.	
93,95	10 1115.	
Drafting a detailed HVAC for 2BHK & 3BHK with 2 floor plan, elevation and section		

## B.Sc. Interior Design and Decoration

IDD 3.4 T E-1A-	Art and	Crafts for	Interiors

IDD 3.4 T E-1A		Exam Hours: 1.5 Hrs.
Total Hrs.: 28		Exam Marks: 40
Number of Theory	Credits: 2	Internal Assessment: 10

## Course outcomes: On successful completion of the course, the students will be able to

- 1. Identify different art forms for interiors.
- 2. Appreciate traditional arts and crafts of India.
- 3. Recognize natural fibres used in crafts
- 4. Distinguish localized crafts of various regions of India.
- 5. Integrate traditional art and craft elements into contemporary interior design solutions

UNIT-1 14 Hrs.

Introduction to Art Forms in Interiors: Overview of traditional art forms used in interior spaces. Introduction to different types of paintings: Madhubani, Pattachitra, Pithora, Kalamkari, Mysore, Tanjore, Kalighat, Wall paintings of Chhattisgarh. Tribal and Folk-Art Forms: Warli Art, Gond Art, Murals — Characteristics, techniques, and types: Painted murals, Abstract murals, Ceramic murals. Floor Decoration and Rangoli Art: Types of Rangoli: Chowk rangoli, Dotted rangoli, Freehand rangoli, Flower petal rangoli, Alpana, Floating rangoli, Glass rangoli Introduction to Flower Arrangements: Types of artificial flower arrangements in interiors

UNIT-2 14 Hrs.

Terracotta Crafts in India: Introduction to terracotta art, Types and forms across states: Karnataka, Bengal, Gujarat, Rajasthan, Orissa, Bihar. Different forms of terracotta crafts: Jewellery, Pottery, Crockery, Tiles, Decorative items Bamboo, Cane, and Wood Crafts- Bamboo and cane crafts from: Arunachal Pradesh, Mizoram, Tripura Wood crafts of India: Jharkhand wood craft, Lavo Mandri of Goa. Textile Crafts and Surface Decoration Techniques: Traditional and modern materials and methods: Tie and dye printing, Batik printing, Appliqué, Macramé, Braiding. Traditional Weaving and Embroidery: Weaving and embroidery of Assam, Weaving of Meghalaya, Wool weaving of Himachal Pradesh, Pashmina shawls of Jammu and Kashmir. Metal and Decorative Crafts: Bidriware of Karnataka, Dhokra metal casting of West Bengal, Pembarti sheet metal work of Telangana, Blue pottery of Rajasthan, Kondapalli dolls of Andhra Pradesh, Coconut shell handicrafts of Kerala, Wood carving of Manipur.

- 1. Agarwal, O. P. Murals of India. INTACH, 1982.
- 2. Bhatnagar, Parul. *Decorative Design History in Indian Textiles and Costumes*. Abhishek Publications, 2011.
- 3. Bhushan, Jamila Brij. The Costumes and Textiles of India. Taraporevala, 1958.
- 4. Bose, Nandalal. *Indian Art Traditions: Essays on Painting, Architecture, and Handicrafts*. National Book Trust, 2002.
- 5. Chattopadhyay, Kamaladevi. Indian Handicrafts. Wiley Eastern, 1985.
- 6. Chishti, Rita Kapur, and Rahul Jain. *Handcrafted Indian Textiles (Tradition and Beyond)*. Edited by Marthand Singh, Lustre / Roli Books, 2005.
- 7. Dhamija, Jasleen. *Indian Folk Arts and Crafts*. National Book Trust, 2006.
  - 8. Jain, Jyotindra. Kalighat Painting: Images from a Changing World. Mapin Publishing, 1999.
  - 9. Krishnan, Usha. Bidriware and Damascene Work in India. Mapin Publishing, 1999.
  - 10. Mills, John W. *The Technique of Sculpture*. B.T. Batsford Limited / Reinhold Publishing Corporation, 1966.
  - 11. Nagar, Shobita. *Handmade in India: A Geographic Encyclopedia of Indian Handicrafts*. Council of Handicrafts Development Corporations, 2008.

- 12. Pipes, Alan. Foundations of Art and Design. Laurence King Publishing, 2003.
- 13. Rajan, M. P., and Aditi Rajan. *Handmade in India*. Council of Handicrafts Development Corporations, 2007.
  14. Ranjan, M. P., and Aditi Ranjan. *Crafts of India: Handmade in India*. Council of Handicrafts
- Development Corporations, 2007.
- 15. Rawson, Philip. The Art of Southeast Asia: Burma, Thailand, Cambodia, Indonesia, The Philippines, and Vietnam. Thames & Hudson, 1990.
- 16. Varadarajan, M. Traditional Indian Textiles. Mapin Publishing, 1989.

# B.Sc. Interior Design and Decoration IDD 3.4 T E-1B- Colour Concepts in Interiors

IDD 3.4 T E-1B	Exam Hours: 1.5 Hrs.
Total Hrs.: 28	Exam Marks: 40
Number of Theory Credits: 2	Internal Assessment: 10

#### Course outcomes: On successful completion of the course, the students will be able to

- 1. Understand the fundamental concepts of colour, including its dimensions, properties, and significance in interior and exterior design.
- 2. Apply knowledge of colour theory, colour mixing, and different types of colour schemes to effectively plan and design interior spaces.
- 3. Analyse the psychological and visual impact of colours, including their influence on spatial perception, mood, and aesthetics in various functional contexts.
- 4. Evaluate and apply appropriate colour systems and harmonies to achieve aesthetic balance and functional effectiveness in interior and exterior design projects.

UNIT-1 14 Hrs.

Introduction to Colour Concepts: Significance of Colour in Interiors and Exteriors, Dimensions of Colour: Hue, Value, Intensity. Effects, Advantages, and Disadvantages of Colours. Colour Wheel: Primary, Secondary, and Tertiary Colours. Types of Colours: Warm Colours, Cool Colours, Earthy Colours, Neutral Colours. Colour Mixing and Colour Dynamics, Colour Planning in Design, Colour Schemes: Introduction and Types: Achromatic, Monochromatic, Analogous, Accented Analogous, Complementary, Double Complementary, Split Complementary, Triad, Tetrad. Colour Scheme Planning for Specific Spaces: Bedroom, Living Room, Kitchen, Dining Room, Kids' Room, Bathroom.

UNIT-2 14 Hrs.

Introduction to Colour Harmonies, Types: Related and Contrast Colours, Advanced and Receding Colours, Factors in Selecting Colour Harmonies. Application of Colour Harmonies: Interiors and Exteriors. Effects on: Light, Form, Surface Qualities, Distances, Value Scales Colour Illusions and Interactions

Psychological Impact of Colour: Introduction and Types, Psychological Effects of Specific Hues, Problems with Colour. Use of Colour in Various Contexts: Residential Interiors, Non-Residential Interiors, Special Situations (Outdoor/Indoor Spaces, Accessories, Colour Artworks)

- 1. Birren, Faber. Color Theory: An Essential Guide to Color—from Basic Principles to Practical Applications. Schiffer Publishing, 2016.
- 2. Faulkner, R. N., and S. Faulkner. *Inside Today's Home*. 3rd rev. ed., Holt, Rinehart & Winston of Canada Ltd., 1968.
- 3. Itten, Johannes. The Elements of Color: A Treatise on the Color System of Johannes Itten Based on His Book The Art of Color. Wiley, 1970.
- 4. Kliment, Stephen. *Architectural Sketching and Rendering: Techniques for Designers and Artists*. Watson-Guptill, 1984.
- 5. Martin, Judy. How to See, How to Paint It. Collins, 1994.
  - 6. Munsell, Albert H. A Color Notation: A Measured Color System, Based on the Three Qualities Hue, Chroma, and Value. Forgotten Books, 2017.
- 7. Nemcsics, Antal. Color Dynamics: An Essay on Color Perception. Springer, 2007.
- 8. Pratap, R. M. Interior Design: Principles and Practice. Standard Publications, 2012.
- 9. Seetharam, P., and P. Pannu. *Interior Design and Decoration*. 1st ed., CBS, 2009.
- 10. Stewart, Sally W., and Stewart. The Complete Home Decorator. Collins & Brown, 1997.
- 11. Westland, Stephen, et al. Color Design: Theories and Applications. Woodhead Publishing, 2012.

## **B.Sc. Interior Design and Decoration**

IDD 4.1 T Interior Services III – Acoustics and Fire Safety

IDD 4.1 T	Exam Hours: 03 Hrs.
Total Hrs.: 56	Exam Marks: 80
Number of Theory Credits: 03	Internal Assessment: 20

#### Course outcomes: On successful completion of the course, the students will be able to

- 1. Explain fundamental acoustic principles, sound behavior in interiors, and factors affecting sound transmission and reflection.
- 2. Identify and evaluate different types of sound absorptive materials, their properties, and applications in interior spaces.
- 3. Analyze sound insulation techniques for walls, floors, ceilings, and windows, including integration with HVAC systems.
- 4. Apply acoustic design strategies for noise control, speech privacy, and room planning based on specific functional requirements.
- 5. Explore advancements in acoustic technology and their environmental impact, including innovative materials and sustainable applications.

UNIT – 1 14 Hrs.

Introduction to acoustics, objectives of acoustics, terminology, sound in interiors, factors involved in sound. Classification of sound, sound transmission defects due to reflected sound, Psychoacoustics and Human Perception of Sound. Introduction to absorbents, classification of absorbent, types of sound absorptive materials, porous absorbents, commercial porous materials, resonant panels or membrane systems, space or functional absorbers, Integration of Acoustics with Interior Aesthetics.

UNIT – 2 14 Hrs.

Fundamentals of sound - Nature of sound waves, terminology, sound sources - theoretical and practical. Sound insulation materials, wall insulation, flooring insulation, ceiling insulation, timber floor floating construction, window insulation, ventilation and air conditioning systems for auditoriums, Fire Safety in Acoustically Treated Interiors

UNIT – 3 14 Hrs.

Ways to control room noise, control of sound transmission, speech privacy, room geometry and planning concepts, design of rooms based on end use - speech/music, control of impact noise, acoustic ratings of ceilings, Acoustic Design for Specialized Spaces. Sound engineering - Introduction, types, and output in watts classification based on usage at home, office, theatre and auditorium.

UNIT – 4 14 Hrs.

Advanced technology in acoustics. Acoustics and environment - Introduction, material and its types, methods, applications and its benefits, Computational Tools for Acoustic Simulation, Sustainable and Eco-Friendly Acoustic Materials. Fire Safety and building acoustics - Fire resistant construction, fire resistant materials and their acoustic properties, smoke and heat control in acoustic spaces, design considerations for fire-resistant acoustics spaces, responsibility of designer towards fire resistance specification and requirements, application and usage.

- 1. Beranek, Leo L., and Tim J. Mellow. *Acoustics: Sound Fields and Transducers*. Academic Press, 2012
- 2. Cremer, Leopold, Helmut A. Müller, and Jens H. Rindel. *Principles and Applications of Room Acoustics*. Peninsula Publishing, 2016.
- 3. Egan, David M. Architectural Acoustics. J. Ross Publishing, 2007.
- 4. Everest, F. Alton, and Ken C. Pohlmann. Master Handbook of Acoustics. 6th ed., McGraw-Hill

Education, 2015.	
5. Gallagher, Mike. Acoustic Design for the Home Studio. Cengage Learning, 2014.	
6. Kinsler, Lawrence E., et al. Fundamentals of Acoustics. 4th ed., Wiley, 2000.	

- 7. Kuttruff, Heinrich. Environmental Acoustics. CRC Press, 2009. Kuttruff, Heinrich. Room Acoustics. 5th ed., CRC Press, 2009.
- 9. Tichy, John. Acoustics of Small Rooms. CRC Press, 2014.

## **B.Sc. Interior Design and Decoration**

**IDD 4.1 P Interior Services III – Acoustics and Fire Safety** 

IDD 4.1 P	Exam Hours: 03 Hrs.
Total Hrs.: 42	Exam Marks: 40
Number of Practical Credits: 2	Internal Assessment: 10

# Course outcomes: On successful completion of the course, the students will be able to 1. Conduct research, case studies, and site analysis to create informed design programs 2. Analyze and plan efficient spaces with proper area calculation, zoning, and circulation. 3. Develop conceptual design solutions using diagrams and mind mapping techniques. 4. Present and communicate design ideas effectively through drawings and presentations 5. Translate user needs and functional requirements into innovative and context-responsive interior

5. Translate user needs and functional requirements into innovative and context-responsive interior design solutions.

UNIT 1 10 Hrs.

Identification and classification of acoustic materials (absorbent, reflective, diffusive). Study of material properties: NRC (Noise Reduction Coefficient), STC (Sound Transmission Class), and absorption coefficients. Identify on acoustic panels, foams, gypsum boards, wood, fabric-based solutions, and ecofriendly alternatives. Fire-Resistant Materials in Acoustic Design.

UNIT 2 10 Hrs.

Rate analysis of acoustic materials for various interior spaces (home, office, theatre, auditorium). Performance evaluation: selecting materials based on function, budget, aesthetics, and sustainability. Comparison of traditional vs. modern acoustic solutions, including smart acoustic panels and AI-driven soundscaping.

UNIT 3 11 Hrs.

Case Study: Analysis of a Fire-Resistant Acoustic Building of a college auditorium, lecture hall, or conference room. Data Collection: Measuring reverberation time, sound insulation techniques, and placement strategies.

UNIT 4 11 Hrs.

Theatre Visit: Study of immersive sound environments in cinemas or performing arts theatres. Advanced acoustic treatments: diffusers, bass traps, ceiling baffles, and wall treatments. Practical Workshop: Designing and prototyping an acoustic panel or soundproofing system for modern interior spaces.

## B.Sc. Interior Design and Decoration IDD 4.2 T Construction and Detailing

IDD 4.2 T	Exam Hours: 03 Hrs.
Total Hrs.: 56	Exam Marks: 80
Number of Theory Credits: 03	Internal Assessment: 20

Course outcomes: On successful completion of the course, the students will be able to		
1.	Study of building components, their design, and detailing methods.	
2.	Use various components of buildings.	
3.	Supervise the construction of buildings and their components.	
4.	Identify snags in defective construction.	
5.	Evaluate the performance and durability of building components	

UNIT-1 14 Hrs.

Arches: Introduction to arches, Terminology and classification of arches: According to shape, material and number of centres; Benefits and applications of arches.

Lintels: Introduction to lintels, Classification of lintels according to material, Advantages and disadvantages of lintels.

Carpentry Joints: Introduction to carpentry joints, Principles and terminology of joints, Classification of joints: Lengthening & widening joints, Angle & oblique joints, bearing & framing joints.

UNIT-2 14 Hrs.

Doors: Introduction to doors and terminology, Evolution of doors, Types of doors based on materials: Wooden, metal, and PVC doors, Classification based on method: Rolling shutters, collapsible doors, sliding doors, special doors, Applications and hardware used in doors.

Windows: Introduction to Windows and terminology, Evolution of Windows, Classification of Windows Based on materials and design, Special types of windows, applications, and benefits, Hardware used in Windows.

Ventilators: Introduction to ventilators, Types, uses, advantages, and disadvantages, Hardware fixtures used in ventilators, Types, materials, and uses of fixtures.

UNIT-3 14 Hrs.

Staircases: Introduction to staircases and terminology, Types of staircases: Straight, dog-legged, circular, spiral, Materials used in staircases: Timber, steel, RCC; Components of staircases: Balustrades and handrails.

False Ceilings, Introduction to false ceilings, Types and materials used for false ceilings: Wooden, gypsum board, plaster of Paris, PVC, and decorative sheets, Applications and advantages of false ceilings.

Roofs: Introduction to roofs, Types of roofs: Flat, pitched, and arched roofs

Pitched roofs: Batten, eaves, fascia board, gable, hip, lap, purlin, rafter, rag bolt, valley, ridge, rainwater gutter, anchoring bolts, Roof drainage and treatment: Brick bat Koba treatment.

UNIT-4 14 Hrs.

Flooring Materials and Finishes: Introduction to flooring types, Materials used for flooring (Natural stone [marble, granite], tiles, timber, laminate, and vinyl, Installation methods and detailing, Finishing techniques and their applications.

Wall Finishes and Claddings: Introduction to wall finishes, Types of wall finishes (Paint, wallpaper, wood panelling, stone cladding, and ceramic tiles, Surface preparation and treatment techniques, and Applications, advantages, and disadvantages of various finishes.

Protective Treatments and Thermal Insulation, Waterproofing techniques for interiors and exteriors, Thermal and acoustic insulation materials and methods, Anti-termite treatments and corrosion protection, Fire-resistant treatments and safety detailing in interiors.

- 1. Allen, Edward, and Joseph Iano. *Fundamentals of Building Construction: Materials and Methods*. 7th ed., Wiley, 2019. ISBN: 978-1119450245.
- 2. Arora, S. P and Bindra. Textbook of Building Construction. Dhanpat Rai Publications, 2010.
- 3. Barry, Richard. *The Construction of Buildings*. 7th ed., Wiley-Blackwell, 2012. ISBN: 978-1405192535.
- 4. Ching, Francis D.K. *Building Construction Illustrated*. 6th ed., Wiley, 2019. ISBN: 978-1119583080.
- 5. Kumar, Sushil. Building Construction. Standard Publishers Distributors, 2006.
- 6. Punmia, B.C. A Textbook of Building Construction. Laxmi Publications, 2005.
- 7. Punmia, B.C., et al. Building Construction. Laxmi Publications, 2005. ISBN: 978-8131804281.
- 8. Rangwala, S.C. Building Construction. Charotar Publishing House, 2018. ISBN: 978-9385039273.
- 9. Rangwala. Building Construction. Charotar Publishing House Pvt. Ltd., 2008.
- 10. Singh, Gurcharan. Building Materials. Standard Publishers Distributors, 2016.

### **IV Semester B.Sc. Interior Design and Decoration IDD 4.2 P Construction and Detailing**

IDD 4.2 P	Exam Hours: 03 Hrs.
Total Hrs.: 42	Exam Marks: 40
<b>Number of Practical Credits: 2</b>	Internal Assessment: 10

## Course outcomes: On successful completion of the course, the students will be able to

- 1. Apply knowledge of construction materials and hardware in creating precise technical drawings for doors, windows, ventilators, and false ceilings.
- 2. Demonstrate proficiency in drafting detailed drawings of building components such as arches, lintels, doors, windows, staircases, and roofs with accurate annotations and specifications.
- 3. Interpret and produce detailed sectional and elevation drawings of structural and interior elements like staircases, lift interiors, and roofing systems.
- 4. Analyze functional requirements and select suitable construction detailing techniques for various building elements to ensure structural integrity and aesthetic appeal.
- 5. Develop problem-solving skills by identifying potential construction issues through drafting and proposing appropriate detailing solutions for building components.

UNIT-1 11 Hrs.

Drafting different types of arches based on Shape (semicircular, segmental, horseshoe, trefoil, flat) and based on the Number of centers (one-centered, two-centered, three-centered). Drafting different types of lintels based on materials: Timber lintel, Stone lintel, Reinforced concrete lintel, Steel lintel. Drafting of carpentry joints: Lengthening joints (scarf, finger joint), Widening joints (butt, dowel joint), Angle and oblique joints (mitre joint, dovetail), Bearing and framing joints (lap joint, mortise, and tenon).

> UNIT-2 11 Hrs.

Drafting different types of doors: Panel door, flush door, sliding door, revolving door, collapsible door (plan, section, and elevation). Drafting different types of windows: Casement window, sliding window, louvered window, bay window, skylight window (plan, section and elevation). Drafting different types of ventilators: Top-hung ventilator, louvered ventilator, pivoted ventilator (plan, section and elevation).

UNIT-3

Drafting different types of staircases; Based on design: Straight staircase, Dog-legged staircase, Spiral staircase. Based on materials: Timber staircase, Steel staircase, Reinforced concrete (RCC) staircase.

Drafting different types of False ceiling details: Gypsum board false ceiling, Plaster of Paris false ceiling, Wooden false ceiling. Drafting different types of Roof details: Pitched roof with glossary terms (e.g., rafters, purlins, ridges), Flat roof with drainage details (e.g., rainwater gutter, anchoring bolts).

> UNIT-4 10 Hrs.

Flooring layout and detailing: Wooden flooring pattern, Tile flooring pattern. Wall cladding and finishing details: Stone cladding (e.g., marble, granite), Timber paneling.

Drafting of lift interiors: Lift cabin design using timber, steel, or glass with material details. Protective treatment details: Waterproofing in bathrooms and terraces. Thermal insulation section details for walls and roofs.

# IV Semester B.Sc. Interior Design and Decoration IDD 4.3 T Sustainable Interiors

IDD 4.3 T	Exam Hours: 03 Hrs.
Total Hrs.: 56	Exam Marks: 80
Number of Theory Credits: 03	Internal Assessment: 20

#### Course outcomes: On successful completion of the course, the students will be able to

- 1. Understand the use of natural resources keeping sustainability in mind while designing any type of project
- 2. Understand the concept of green building technology and various materials and finishes used in green buildings.
- 3. Understand market survey and rate analysis of ecofriendly certified materials.
- 4. Design and execute without disturbing the existing topography.
- 5. Differentiate between local and natural available materials.

UNIT-1 14 Hrs.

Concept of sustainability - Introduction, definition, Principles and importance, sustainable development goals. Sustainable concept in interior designing - The Concept of sustainable interiors, sustainable interiors designing by adopting various policies, principles of sustainable interior design, benefits of green interiors, indoor environment quality (IEQ), Indoor air quality parameters and standards.

UNIT-2 14 Hrs.

Green building technology – Meaning, concept, impact of green building on human health and natural environment, need, importance and benefits of green buildings. Materials and finishes used in green buildings - Bamboo, straw, wood, Stone, recycled stone, non-toxic metals, Earth blocks - compressed, rammed. Green building practices and technologies. Roof, walls, floors, Interior finishes, landscaping to improve indoor air quality.

UNIT-3 14 Hrs.

Renewable energy resources solar energy – meaning and importance, advantages, principles and functions of solar devices – solar room heater, solar lights, solar water heater, solar air conditioner.

Water conservation technologies - Rain water harvesting – importance & its need, requirements of rain water, types of rain water harvesting systems, advantages & Merits, fixtures for water conservation.

UNIT-4 14 Hrs.

Green building design by drafting, design consideration, Selection of site, low cost measures through building design - building shape, daylighting, space utilization strategies.

Case study (Self-study / Assignment): Conduct a study on concept of green building. Visit any green building; observe the place, design, interior elements, materials and construction techniques.

- 1. Binggeli, Corky. *Materials for Interior Environments*. John Wiley & Sons, 2008.
- 2. Diesendorf, Mark. Greenhouse Solutions with Sustainable Energy. UNSW Press, 2007.
- 3. Faulkner, R., and S. Faulkner. *Inside Today's Home*. Rinehart Publishing House, 1987.
- 4. Gauzin-Müller, Dominique, and Nicolas Favet. *Sustainable Architecture and Urbanism: Concepts, Technologies*. Springer Science & Business Media, 2002.
- 5. Halliday, Sandy. Sustainable Construction. 2nd ed., Routledge, 2018. ISBN: 978-1138900085.
  - 6. Kibert, Charles J. *Sustainable Construction: Green Building Design and Delivery*. 5th ed., Wiley, 2022. ISBN: 978-1119706458.
  - 7. Steele, James. *Sustainable Architecture: Principles, Paradigms, and Case Studies*. McGraw-Hill, 2005. ISBN: 978-0070609600.
  - 8. Stitt, Fred A. Ecological Design Handbook: Sustainable Strategies for Architecture, Landscape

- Architecture, Interior Design, and Planning. McGraw-Hill, 2003. ISBN: 978-0071377843.

  9. Yudelson, Jerry. Sustainable Building: Principles and Practices. Island Press, 2018. ISBN: 978-1610917658.

# IV Semester B.Sc. Interior Design and Decoration

#### IDD 4.3 P CAD in Interiors-II

IDD 4.3 P	Exam Hours: 03 Hrs.
Total Hrs.: 42	Exam Marks: 40
<b>Number of Practical Credits: 2</b>	Internal Assessment: 10

#### Course outcomes: On successful completion of the course, the students will be able to

- 1. Master essential 3D design tools, manipulate objects, modify structures, and create custom components for interior design projects.
- 2. Create accurate and detailed 3D models of interior spaces, including walls, floors, ceilings, furniture, fixtures, and architectural elements
- 3. Plan and design interior spaces by placing furniture, fixtures, and accessories in 3D models, while maintaining an understanding of spatial relationships, functionality, and aesthetic considerations.
- 4. Create photorealistic renderings of interior spaces, utilizing the rendering capabilities to add textures, materials, lighting, and shadows for realistic visualizations.
- 5. Present and communicate design ideas effectively through drawings and presentations

UNIT-1 **10 Hrs.** 

Navigating the interface, toolbars, and menus. Understanding 3D workspace and settings Using drawing tools to create walls, floors, and ceilings in 3D.

Introduction to 3D commands Creating new interior design projects with proper units, grids, and reference planes.

UNIT-2 12 Hrs.

Designing the layout of different interior spaces (living room, bedroom, kitchen, etc.) using 3D modeling techniques.

Modeling and placing furniture, fixtures, and decorative elements within interior spaces.

Working with custom components or using pre-existing libraries.

Applying materials and finishes to walls, floors, and furniture. Customizing textures and adjusting material properties for realistic rendering. Creating detailed drawings of room features using 3D tools (e.g., stairs, lighting fixtures,).

UNIT-3 **10 Hrs.** 

Creating complex interior elements like custom furniture, organic shapes, and specialized fixtures.

Using parametric design tools

Using software tools for interior design, including generating detailed schedules, materials, and cost estimations. Working with parametric families to create adaptable components like doors, windows, and furniture.

UNIT-4 10 Hrs.

Understanding rendering tools and settings. Learning how to generate realistic 3D renderings from the model. Placing and adjusting lighting sources (ambient, spot, natural light) in the 3D model.

Setting up camera angles for interior visualizations.

Using perspectives and walkthrough tools to present 3D models interactively. Preparing final rendered images and walkthrough animations for presentation.

- 1. Ching, Francis D. K., and Corky Binggeli. *Interior Design Illustrated*. 3rd ed., Wiley, 2012.
- 2. Eastman, Charles M., et al. *BIM Handbook: A Guide to Building Information Modeling for Owners, Managers, Designers, Engineers and Contractors*. 2nd ed., Wiley, 2011.
- 3. Emmitt, Stephen, and Christopher A. Gorse. *Barry's Advanced Construction of Buildings*. 4th ed., Wiley-Blackwell, 2018.
- 4. Kilkelly, Stephen. Interior Design Using Autodesk Revit 2020. SDC Publications, 2019.

- 5. Krygiel, Eddy, and Brad Nies. *Green BIM: Successful Sustainable Design with Building Information Modeling.* Wiley, 2008.
- 6. Madsen, David A. Engineering Drawing and Design. 6th ed., Cengage Learning, 2016.
- 7. Piotrowski, Christine M. Professional Practice for Interior Designers. 5th ed., Wiley, 2010.
- 8. Pluralsight Creative. *Learning 3ds Max 2020: A Hands-On Guide to Modeling, Animation, and Rendering.* Pluralsight Press, 2020.
- 9. Rendell, Jane. *The Pursuit of Pleasure: Gender, Space and Architecture in Regency London*. Bloomsbury Publishing, 2002.

# B.Sc. Interior Design and Decoration IDD 4.4 T E-2 A – Home Décor

IDD 4.4 T E-2 A	Exam Hours: 1.5 Hrs.
Total Hrs.: 28	Exam Marks: 40
Number of Theory Credits: 2	Internal Assessment: 10

#### Course outcomes: On successful completion of the course, the students will be able to

- 1. Understand the basic design concepts, elements, principles, anthropometrics, and space planning techniques essential for interior design.
- 2. Differentiate between interior design and interior decoration, and interpret basic working drawings including elevations, sections, and design details.
- 3. Apply colour concepts, colour theory, and knowledge of paints and materials to enhance aesthetic appeal and functionality in interior spaces.
- 4. Identify and select suitable interior accessories, art forms, and creative crafts to complement interior design projects.
- 5. Develop creative design solutions by integrating lighting techniques, furniture styles, and material finishes

UNIT-1 14 Hrs.

Introduction to Basic Design, Concept of Design – History, Types, Elements of Concept. Introduction to Bubble Diagram, Proximity Chart, and Graphical Representation. Introduction to Anthropometrics. Application of Elements and Principles of Design. Introduction to Interior Design and Interior Decoration. Difference between Interior Design and Interior Decoration. Basic Principles and Elements of Interior Design. Introduction to: Elevation Drawings, Section Drawings, Design Details, Working Drawings

UNIT-2 14 Hrs.

Introduction to Colour Concepts in Interiors. Colour Wheel, Complementary Colours, Contrast Colours, Split Complementary Colours, Analogous Colours. Tints, Tones, and Colour Mixing Concepts. Introduction to Paints – Types, Composition, and Applications. Introduction to Interior Accessories: Types and Materials, Wall Murals, Traditional Art Forms, Wall Hangings, Light Fixtures, Lamp Shades, Sculptures, Creative Art and Craft Applications. Introduction to Vastu Concepts, Importance, Advantages, and Disadvantages of Vastu. Origin and Principles of Vastu Shastra. Scientific Basis of Vastu. Application of Vastu in Interior Spaces

- 1. Ballast, David Kent. *Interior Design Reference Manual: Everything You Need to Know to Pass the NCIDQ Exam.* 6th ed., Professional Publications, Inc., 2013.
- 2. Ching, Francis D.K., and Corky Binggeli. *Interior Design Illustrated*. 4th ed., Wiley, 2018.
- 3. Gupta, S. P., and M. P. Gupta. Business Statistics. Sultan Chand & Sons, 2010.
- 4. Jain, B. B. Vastu Shastra: Science of Harmony & Prosperity. Diamond Books, 2016.
- 5. Karlen, Mark, and Rob Fleming. *Space Planning Basics*. 4th ed., Wiley, 2016.
- 6. Laurel, Brenda. Design Research: Methods and Perspectives. MIT Press, 2003.
- 7. McMillan, James H. *Research in Education: A Conceptual Introduction*. Harpers Collins College Publishers, 1997.
- 8. Mehta, Madan. Building Construction: Principles, Materials, and Systems. Pearson Prentice Hall, 2008.
- 9. Pile, John F. *Interior Design*. 4th ed., Pearson, 2007.
- 10. Pratap, R. M. Interior Design Principles and Practice. Standard Publications, 2012.
- 11. Sanoff, Henry. Visual Research Methods in Design. John Wiley & Sons, 1991.

# B.Sc. Interior Design and Decoration IDD 4.4 T E-2 B- Basics of Lighting

IDD 4.4 T E-2 B	Exam Hours: 1.5 Hrs.
Total Hrs.: 28	Exam Marks: 40
Number of Theory Credits: 2	Internal Assessment: 10

#### Course outcomes: On successful completion of the course, the students will be able to

- 1. Identify lighting requirements for a range of interior situations in terms of the needs of occupants and to meet statutory regulations.
- 2. Apply advanced illumination techniques to ensure lighting installations meet specified design objectives
- 3. Implement lighting designs for selected projects
- 4. Apply energy saving design techniques by integrating daylight in interior lighting design.
- 5. Evaluate the performance and effectiveness of interior lighting solutions

UNIT-1 14 Hrs.

Natural Lighting: Introduction to natural lighting, Daylight factor and recommended daylight factors for interiors, Calculation of openings for natural lighting, Guidelines for good natural lighting, Factors affecting illumination - reflection and transmission, Applications, advantages, and disadvantages

Artificial Lighting: Introduction to artificial lighting, Types of artificial lighting and arrangements Principles of lighting, Luminous intensity of light sources, Position of lighting points – importance, advantages, and disadvantages. Eco Lighting: Introduction to eco-friendly lighting systems, Types and materials used in eco lighting, Application of LED and solar lighting systems, Benefits of energy-efficient lighting.

UNIT-2 14 Hrs.

Basics of Electrical Services: Commonly used terminology: voltage, current, power, connected load, maximum demand, load factor, diversity factor. Importance of electrical services in building design. Source, Supply and distribution of electricity to buildings. Protection Systems & Wiring: Switchgear & protection devices. Introduction to wiring processes, Types of wiring, benefits, importance, and applications. Earthing & Lightning Protection: Types of earthing systems. Basic rules as per NBC and relevant codes. Lighting Design & Standards. Application Techniques & Special Lighting: Principles and techniques of lighting application. Lighting methods: ambient, task, and accent lighting. Luminaire systems: up-lighting, downlighting, spot lighting. Special applications: street lighting, façade lighting, landscape lighting

- 1. Benya, James R., and Mark Karlen. *Lighting Design Basics*. 3rd ed., Wiley, 2016. ISBN: 978-1119404323.
- 2. Cuttle, Christopher. *Lighting Design: A Perception-Based Approach*. Routledge, 2015. ISBN: 978-1138840512.
- 3. Gordon, Gary. Interior Lighting for Designers. 5th ed., Wiley, 2015. ISBN: 978-0470114223.
- 4. Innes, Malcolm. *Portfolio Skills: Lighting for Interior Design*. Laurence King Publishing, 2012. ISBN: 978-1856698368.
- 5. Karlen, Mark. Lighting Design Basics. Wiley, 2003. ISBN: 0471381624.
- 6. Livingston, Jason. Designing with Light. Wiley, 2014. ISBN: 978-1118704770.
- 7. Muneer, Tariq, and Richard G. Hunter. *Lighting Design and Technology*. Springer, 2020. ISBN: 978-3030238637.
- 8. Phillips, Derek. *Daylighting: Natural Light in Architecture*. Routledge, 2004. ISBN: 978-0750658319.
- 9. Schiler, Marc. Simplified Design of Building Lighting. John Wiley & Sons, 1997. ISBN: 978-0471192103.

10. Yudina, Anna. *Lumitecture: Illuminating Interiors for Designers and Architects*. Thames and Hudson, 2016. ISBN: 978-0500518342.

#### **IV Semester**

## B.Sc. Interior Design and Decoration

IDD 4.5 P- Materials Survey for Interior Design

IDD 4.5 P	Exam Hours: 3 Hrs.
Total Hrs.: 42	Exam Marks: 40
Number of Theory Credits: 2	Internal Assessment: 10

# Course outcomes: On successful completion of the course, the students will be able to Understand and evaluate interior design materials for different applications. Understand and identify the functional and aesthetic properties of materials. Identify and evaluate various materials based on durability, cost, maintenance, and sustainability. Develop the visual and tactile qualities of materials and determine their appropriateness for different styles and functional needs.

UNIT-1	10 Hrs.
Detailed Report on Interior Design Materials- types, manufacturers, cost, availability, nativit	y – Bricks,
Stones, Cement, Concrete, Steel.	

Utilize material selections for various interior spaces.

UNIT-2 11 Hrs.

Detailed report and rate analysis of Wood – Types – Hardwood and Softwood, MDF, Laminates, Veneers, Flooring Materials- Tiles and Stones. Wall finishes – Paint, wallpaper and textures.

Detailed report and rate analysis of Lighting fixtures – Types of Lightings - Exterior and interior lighting, fixtures, Lighting accessories, protective devices.

UNIT-3 10 Hrs.

Detailed report and rate analysis of Insulation Materials – Types of Acoustics panels, gypsum, POP, exposed finishes, acoustics and thermal insulation materials.

Detailed report and rate analysis of Fire Safety equipment—Sprinklers, water pipes, smoke detectors, fire extinguishers

UNIT- 4 11 Hrs.

Detailed report and rate analysis of plumbing fittings – Types of plumbing pipes and plumbing accessories Detailed report and rate analysis of Sanitary fittings – Types of Sanitary fittings and accessories

## ${\bf QUESTION\ PAPER\ PATTERN\ (Theory)}$

# III/IV Sem. B.Sc. Examination (2024-25 Onwards)

## INTERIOR DESIGN AND DECORATION

Paper code and Title of the paper

MAX MARKS-80	TIME: 3 Hrs		
Instructions to the Candidates:			
1. All sections are compulsory			
2. Illustrate wherever necessary			
2. 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			
Section D			
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	JA0-40		
21			
22			
23			
24			
25			

26

# QUESTION PAPER PATTERN (Practical) III/IV 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:

1. All the questions are compulsory

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

## **QUESTION PAPER PATTERN (Theory- Elective)**

# III/IV Sem. B.Sc. Examination (2024-25 Onwards)

#### INTERIOR DESIGN AND DECORATION

Paper code and Title of the paper

MAX MARKS-40 Duration: -1.5 HRS

#### Instructions to the Candidates:

- 1. All sections are compulsory
- 2. Illustrate wherever necessary

	J	
	SECTION-A	
I. Answer all the questions.		2X5=10
1.		
2.		
3.		
4.		
5		
	SECTION-B	
II. Answer any Four of the following.		4x5=20
6.		
7.		
8.		
9.		
10.		
11.		
111	SECTION-C	
	SECTION C	
III. Answer any One of the following.		1x10=10
12.		
13.		