



**B.Sc. INTERIOR DESIGN AND DECORATION
(CBCS) SYLLABUS
(I TO VI SEMESTERS)**

2019-20 ONWARDS

DEPARTMENT OF APPAREL TECHNOLOGY AND MANAGEMENT
BENGALURU - 560001

B.Sc. INTERIOR DESIGN AND DECORATION (CBCS)								
SEMESTER I								
CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
	Language I	Theory	4	3	30	70	100	2
	Language II	Theory	4	3	30	70	100	2
ID103 A ID103 B	Interior Design I - Fundamentals	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID104 A ID104 B	Construction Materials - I	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID105 A ID105 B	2D and 3D Graphics	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
	FC/SDC	Theory	3	3	30	70	100	2
	CC&EC	-	-	-	50	-	50	1
				Total	800			16

B.Sc. INTERIOR DESIGN AND DECORATION (CBCS)								
SEMESTER II								
CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
	Language I	Theory	4	3	30	70	100	2
	Language II	Theory	4	3	30	70	100	2
ID203 A ID203 B	Interior Design II - Colours	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID204 A ID204 B	Construction Materials-II	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID205 A ID205 B	History of Interiors	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
	FC/SDC	Theory	3	3	30	70	100	2
	CC&EC	-	-	-	50	-	50	1
				Total	800			16

B.Sc. INTERIOR DESIGN AND DECORATION (CBCS)								
SEMESTER III								
CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
	Language I	Theory	4	3	30	70	100	2
	Language II	Theory	4	3	30	70	100	2
ID303 A ID303 B	Interior Design III – Space Planning	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID304 A ID304 B	Construction and Detailing	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID305 A ID305 B	Interior Services I - Lighting	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
	FC/SDC	Theory	3	3	30	70	100	2
	CC&EC	-	-	-	50	-	50	1
				Total	800			16

B.Sc. INTERIOR DESIGN AND DECORATION (CBCS)								
SEMESTER IV								
CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
	Language I	Theory	4	3	30	70	100	2
	Language II	Theory	4	3	30	70	100	2
ID403 A ID403 B	Interior Design IV - Working Drawing	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID404 A ID404 B	Interior Services II - Plumbing, Sanitation, HVAC, and Fire Safety	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID405	CAD in Interiors - I	Practical	6	3	50	100	150	3
	FC/SDC	Theory	3	3	30	70	100	2
	CC&EC	-	-	-	50	-	50	1
				Total	800			16

B.Sc. INTERIOR DESIGN AND DECORATION (CBCS)

SEMESTER V

CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
ID501	Construction Management	Theory	4	3	50	100	150	3
ID502 A ID502 B	Estimation, Costing and Specification for Interiors	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID503 A ID503 B	Interior Design V - Textiles and Accessories for Interiors	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID504	CAD in Interiors - II	Practical	6	3	50	100	150	3
ID505 A ID505 B	Model Making and Furniture Design	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID506	Internship	-	-	Report Evaluation & Viva Voce	50	100	150	3
	SDC	Theory	3	3	30	70	100	2
				Total	1000			20

B.Sc. INTERIOR DESIGN AND DECORATION (CBCS)

SEMESTER VI

CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
ID601	Professional Practice in Interior Design	Theory	4	3	50	100	150	3
ID602 A ID602 B	Interior Services III - Acoustics	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID603 A ID603 B	Interior Design VI – Sustainable Design	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID604 A ID604 B	Portfolio Design for Interiors	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID605 A ID605 B	Interior Landscaping	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
ID606 A ID606 B	Project	-	-	Report Evaluation & Viva Voce	50	100	150	3
	SDC	Theory	3	3	30	70	100	2
				Total	1000			20

SEMESTER I
INTERIOR DESIGN I - FUNDAMENTALS

Theory: ID103 A

No. of Hours: 3hours/week

Total Marks: 100

Internal Assessment: 30

Exam: 70

Objectives

- To understand the concept of elements and principles of design
- To learn the basics of art element, principles and their applications in the creation of new design

Unit 1

10 Hrs

Introduction to interior design and decoration - Importance and scope of interior design, aspects of interior design, interior design as a profession, difference between interior design and decoration, role of the designer and decorator.

Unit 2

8 Hrs

Design - Definition, meaning, purpose, concept and types - structural and decorative design characteristics, classification of decorative design - naturalistic, conventional, geometric, abstract, historic, biomorphic.

Unit 3

8 Hrs

Elements of design - Line, direction, form, shape, size, colour, light, pattern, texture and space - application of elements to form designs.

Unit 4

8 Hrs

Principles of design - Balance, rhythm, emphasis, harmony, proportion - meaning and application of design concepts in the interior and exterior houses and other commercial buildings. Development of design from motifs and their application.

Unit 5

6 Hrs

Application of design elements and principles in residential and commercial interior design.

Unit 6

8 Hrs

Human dimension and interior space - Introduction to anthropometry, basic anthropometric data - its importance and application. Ergonomics - Introduction, methods and its application in interior design.

References

1. Ahmed A Kasu, "An Introduction to Art, Craft, Technique, Science & Profession of Interior Design", Ashish Book Centre, Mumbai, India, 2005.
2. Caroline Clifton-Mogg, et. al., "The complete Home Decorator", Conran Octopus, 1995.
3. Faulkner S, Faulkner R N, "Inside Today's Home", Holt, Rinehart & Winston, 1968.
4. Harriet Irene Goldstein, Vetta Goldstein, "Art in Everyday life", MacMillan Publication, 1932.
5. Pratap R M, "Interior Design Principles and Practice", Standard Publications, Delhi, 2012.
6. Seetharaman P and Pannu P. "Interior Design and Decoration", CBS, 1st edition, New Delhi, 2009.

SEMESTER I
INTERIOR DESIGN I - FUNDAMENTALS

ID103 B
16 practicals of 3 hrs each

Total Marks: 50
Internal Assessment: 15
Exam: 35

Unit 1 **3**
Application of elements of art - line, form, colour, shape and texture in interiors design.

Unit 2 **3**
Application of principles of design in balance, proportion, rhythm, harmony and emphasis in interior design.

Unit 3 **4**
Application of design principles in two-dimensional and three-dimensional compositions, visual analysis of built forms - analysis of solids and voids, conversion of 2D drawing to 3D, sketching and drawing of design composition using grids, symmetrical/asymmetrical, rule of thirds, center of interest etc.

Unit 4 **6**
Basic anthropometrics - Measurements of human body in different postures - its proportion and graphic representation, application in the design of simple furniture.

SEMESTER I
CONSTRUCTION MATERIALS - I

Theory: ID104 A
No. of Hours: 3hours/week

Total Marks: 100
Internal Assessment: 30
Exam: 70

Objectives

- To know the basic materials used in construction
- To understand the methods of its usage in interiors

Unit 1

10 Hrs

Stone masonry - Introduction, common building stones and their uses. Classification of rocks and types. Dressing of stones. Deterioration and preservation. Properties and applications. Types of stones, its application in interiors. Coursed, rubble masonry and ashlar masonry.

Unit 2

6 Hrs

Brick masonry - Introduction, composition of good brick earth. Classification of bricks as per I S. Properties and applications. Types of bricks - Traditional, wire cut, moulded bricks and its sizes, test on bricks - field test and shape and size. List bonds used in brick masonry, study of english bond, flemish bond, header bond and stretcher bond and their uses. Bricks in interiors. Cement concrete blocks (solid).

Unit 3

10 Hrs

Cement and mortar and its application - Introduction, composition of ordinary Portland cement. Types of cement - Ordinary Portland Cement, Pozzolona Portland cement, rapid hardening cement. Field tests on cement.

Mortar - It's properties. Types of mortar - Lime mortar and cement mortar, concrete and admixtures, Reinforced Cement Concrete, Ready Mix Concrete. **Plastering** - Purposes, materials, lime mortar, cement mortar.

Unit 4

8 Hrs

Timber and its usage in construction - Introduction and properties of good timber, defects in timber.

Timber - As a building material, seasoning and preservation of timber, hardwood and softwood. Industrial timber - Ply woods, block boards, fiber board.

Unit 5

8 Hrs

Ferrous and non-ferrous metals - Introduction and properties. Alloys and its application in interiors. Steel and its application, steel alloys. Aluminum and its application in interiors, aluminum alloys.

Unit 6

6 Hrs

Plastics and miscellaneous materials - Introduction and properties. Types of plastics, use of plastics in interiors, fiber plastic, silicon and its usage.

References

1. Gurcharan Singh, "Building materials", Standard Publishers Distributors, Delhi, 2017.
2. Pratap R M, "Interior Design Principles and Practice", Standard Publications, Delhi, 2012.
3. Rangawala S C, "Engineering Materials", Charotar Publishing House Pvt. Ltd, 43rd edition, 2014.
4. Rangawala S C, "Building Construction", Charotar Publishing House Pvt. Ltd., 33rd edition, 2016.
5. Varghese P C, "Building Materials", Prentice Hall India Learning Private Limited, 2nd revised edition, 2015.

**SEMESTER I
CONSTRUCTION MATERIALS - I**

ID104 B
16 practicals of 3 hrs each

Total Marks: 50
Internal Assessment: 15
Exam: 35

Unit 1 Sketch and render different types of stones with textures.	4
Unit 2 Sketch and render construction of brick wall - brick bond, stretcher and header, English and Flemish bonds.	4
Unit 3 Timber - Identification of various timbers and application of the same in interiors.	4
Unit 4 Site visits to timber yard, stone showrooms and brick kiln.	4

**SEMESTER I
2D AND 3D GRAPHICS**

Theory: ID105 A
No. of Hours: 3hours/week

Total Marks: 100
Internal Assessment: 30
Exam: 70

Objectives

- To enable students to learn the different views of an object
- To develop skills to make various projections

Unit 1 **8 Hrs**
Introduction to graphic standards for architectural practice, architectural symbols, structural symbols, their relevance in building design and detailing, graphic techniques for drawing views, plans, elevations and sections of building material and components, as per standard architectural practice. General understanding of graphic design and integration with architecture, role of graphic design in a building project.

Unit 2 **8 Hrs**
Introduction to scales, types of scales, application in drawing and its advantages. Dimensioning - General principles, pre-cautions in dimensioning, method of placing dimensions, unit of dimensions, methods of executing dimensions, arrow heads.

Unit 3 **12 Hrs**
Orthographic projections - Introduction, types, theory of orthographic projection, multiview orthographic projection, method of drawing sections, first angle and third angle of projection and importance and its application in design and development of surfaces. Plan, elevation and sectional drawings.

Unit 4 **8 Hrs**
Axonometric projections and oblique projection - Introduction, theory, methods and its importance in interiors. Isometric - View and projections and its applications.

Unit 5 **6 Hrs**
Lines - Types of lines, thickness of lines, hatching of sections. Lettering - Introduction, requirement of good lettering, size of letters and numerals, space between letters, recommended height of letters, lettering techniques - single stroke vertical letters, architectural letters and block letters.

Unit 6 **6 Hrs**
Perspectives - Introduction, theory of perspective projections, technical terms in relation to perspective, classification and types - 1 point, 2 point, 3 point, application and its uses in interiors.

References

1. Charles George Ramsey, Harold Reeve Sleeper, "Architectural Graphic Standards", John Wiley & Sons, Student edition, 2008.
2. Ivo D Drpic, "Sketching and Rendering of Interior Space", Watson - Guptill, 1988.
3. Maureen Mitton, "Interior Design Visual Presentation: A Guide to graphics", John Wiley & Sons, 5th edition, 2018.
4. Mogali Delgade Yanes, Ernest Redondo Domínguez, "Freehand drawing for Architects and Interior Designers", W. W. Norton & Company, 2005.

5. Stephen Kliment, "Architectural Sketching and Rendering: Techniques for Designers and Artists", Watson Guptill, 1984.

**SEMESTER I
2D AND 3D GRAPHICS**

ID105 B
16 practicals of 3 hrs each

Total Marks: 50
Internal Assessment: 15
Exam: 35

Unit 1	4
Basics of drawing, use of drawing instruments, types of lines, lettering symbols, dimensioning, use of scales.	
Unit 2	4
Orthographic projection - Method of drawing and development of surface. Plan, elevation and section.	
Unit 3	4
Technical drawing - Axonometric and oblique projection, isometric view and projections.	
Unit 4	4
Perspective drawings - 1 point perspective, 2 point perspective and 3 point perspective drawing.	

SEMESTER II
INTERIOR DESIGN II – COLOURS

Theory: ID203 A

No. of Hours: 3hours/week

Total Marks: 100

Internal Assessment: 30

Exam: 70

Objectives

- To enable the students to gain in-depth knowledge of colour and colour schemes
- To understand the importance of colour in interiors

Unit 1 **8 Hrs**

Introduction to colour concept - Significance of colour in the interiors and exteriors. Dimensions of colour - Hue, value, intensity, its effects, advantages/disadvantages.

Unit 2 **6 Hrs**

Colours - Colour wheel, primary, secondary, tertiary colours. Warm colours, cool colours, earthy colours, neutral colours. Colour mixing, colour dynamics, colour planning in design.

Unit 3 **6 Hrs**

Colour schemes - Introduction and its types - achromatic, monochromatic, analogous, accented analogous, complementary, double complimentary, split complementary, triad, tetrad. Colour scheme planning for bedroom/living room/kitchen/dining room/kids room/bathroom.

Unit 4 **10 Hrs**

Colour harmonies - Introduction, application, related and contrast colours, advanced and receding colours, factors considered in selecting colour harmonies. Application of colour harmonies in the interiors, exteriors and its effects on light, form, surface qualities, distances and value scales on colour, illusion of colour, effect of colour on each other.

Unit 5 **10 Hrs**

Psychological impact of colour - Introduction, types and its application. Impact of specific hues, problems with colour, use of colour in various functional contexts - residential interiors, non-residential interiors, use of colour in special situations - outdoor/indoor spaces, accessories and colour artworks.

Unit 6 **8 Hrs**

Colour systems - Prang Munsell, Pantone, Ostwald, DIN, CIE, OAS, Kupper, Gerritsen, NCS, Colour aid system, and colour systems in practice, simplified colour system, colour terminology, special colour issues, mixed colour effects, effects of texture, using colour systems.

References

1. Faulkner R N, Faulkner S, "Inside Today's Home", Holt, Rinehart & Winston of Canada Ltd., 3rd revised edition, 1968.
2. Judy Martin, "How to see, how to paint it", Collins, London, 1994.
3. Pratap R M, "Interior Design Principles and Practice", Standard Publications, Delhi, 2012.
4. Seetharam P and Pannu P, "Interior Design and Decoration", CBS, 1st edition, New Delhi, 2009.
5. Stephen Kliment, "Architectural Sketching and Rendering: Techniques for Designers and Artists", Watson Gupthill, 1984.
6. Stewart and Sally W, "The Complete Home Decorator", Collins & Brown, New York, 1997.

SEMESTER II
INTERIOR DESIGN II – COLOURS

ID203 B
16 practicals of 3 hrs each

Total Marks: 50
Internal Assessment: 15
Exam: 35

- Unit 1** **6**
Colour wheel - Primary, secondary, tertiary colours, colour harmony - related and contrast harmonies - primary, secondary, tertiary, achromatic, monochromatic, analogous, accented analogous, complementary, double complimentary, split complementary, triad, tetrad for bedroom/kitchen/living room/dining room/kid's room template (minimum one for each colour scheme).
- Unit 2** **4**
Colour Systems - Munsell, Pantone Ostwald, DIN, CIE, OAS, Kupper, Gerritsen, NCS, Colour aid system, and colour systems in practice (Minimum 3 colour systems).
- Unit 3** **3**
Colour value, intensity, and modification of colour hues - tints, shades, neutralization. Colour - warm, cool and neutral colours, grey scale, colour value scale (10 values), effects of texture on colour.
- Unit 4** **3**
Use of colour in special situations - Out door/indoor spaces, accessories, colour artworks.

SEMESTER II
CONSTRUCTION MATERIALS - II

Theory: ID204 A
No. of Hours: 3hours/week

Total Marks: 100
Internal Assessment: 30
Exam: 70

Objectives

- To understand the various materials used in construction
- To learn the methods and techniques of interior construction

Unit 1 **10 Hrs**

Walls and partition walls - Introduction, types and application. Load bearing and non-load bearing walls. Wooden partition - Its construction details. Different types of plaster like lath and its installation, purposes, materials - plastic surfaces, gypsum boards partitions, metal stud partitions.

Unit 2 **9 Hrs**

Paints and polish - Introduction, purpose, types, application of paints to new and old surfaces. Characteristics of good paint. Method of proper application of paint and polishes. Types of paints - oil and water based paints. Polishes, wall papers and its finishes.

Unit 3 **7 Hrs**

Glass in interiors - Introduction, types and application. Classification, types of glass - wired glass, fiber glass, rock wool, laminated glass, glass concrete blocks - their properties and uses in buildings.

Unit 4 **8 Hrs**

Flooring - Introduction, types and application. Selection of flooring material. Different types of flooring and its usage in interiors, cement and brick flooring, wood flooring, resilient flooring, stone flooring, ceramic tile flooring, marble, granite vitrified flooring, terrazzo flooring.

Unit 5 **6 Hrs**

Foundations - Definition and purpose of foundation. Shallow foundations - Spread footing, combined footing, strap footings and raft foundation.

Unit 6 **8 Hrs**

Beams and slabs - Introduction, types and application, cantilever beam and simply supported beam. Flat roof (R.C.C.), sloped roof (R.C.C. and tile roof), lean to roof. Wooden truss (king post and queen post trusses), weather proof course for RCC roof.

References

1. Duggal S K, "Building Material", New Age, 4th revised edition, 2012.
2. Edward Allen, Joseph Lano, "Fundamentals Building Construction: Materials and Methods", Wiley Publishers, 6th edition, 2013.
3. Francis D K Ching, "A Visual Dictionary of Architecture", Van Nostrand Reinhold, 1996.
4. Goncalves M Clara, Margarido, Fernanda, "Materials for Construction and Civil Engineering Science, Processing and design", Springer, 2015.
5. Pratap R M, "Interior Design Principles and Practice", Standard Publications, Delhi, 2012.
6. Rangawala S C, "Building Construction", Charotar Publishing House Pvt. Ltd., 33rd edition, 2016.

SEMESTER II
CONSTRUCTION MATERIALS - II

ID204 B
16 practicals of 3 hrs each

Total Marks: 50
Internal Assessment: 15
Exam: 35

Unit 1 Sketch and draw different types of walls and partition walls.	3
Unit 2 Wall painting - Application of techniques of textures and methods (minimum 5 techniques).	3
Unit 3 Glass - Identify and sketch its types, textures and application of glass (minimum 5).	3
Unit 4 Flooring - Identify and sketch its types, textures and application of flooring (minimum 5).	3
Unit 5 Market survey - Visit to sites to know about different types of foundations, footings sill lintels, beams and slabs and draw the same.	4

SEMESTER II
HISTORY OF INTERIORS

Theory: ID205 A
No. of Hours: 3hours/week

Total Marks: 100
Internal Assessment: 30
Exam: 70

Objectives

- To analyze various art forms and understand their application in interiors
- To study the History and its influences on social and cultural aspects on interior design

Unit 1 **4 Hrs**
Introduction to ancient and classical architectural design, types, purpose, relevance to interiors. Architectural masterpieces of Asia and Europe.

Unit 2 **8 Hrs**
History of furniture in the ancient world - Greek furniture, influence, its importance and types, Roman furniture forms, Romanesque furniture, Gothic style of early medieval period, Ancient Egyptian furniture and its characteristics and materials.

Unit 3 **12 Hrs**
Renaissance period - Baroque characteristics and types of furniture, Neoclassical characteristics, Renaissance characteristics and types of furniture, Regency and Rococo characteristics and types, art nouveau characteristics and types French provincial characteristics, style and designers.

Unit 4 **8 Hrs**
Furniture development in England - Classification of English furniture indoor, early street, early Georgian, age of Greek designers, Victorian style, the arts and craft movement and designs.

Unit 5 **10 Hrs**
History of Indian interiors - Hindu style - Rajasthani, Saharanpur, Dravidian style, Islamic style, Jain style, Buddhist style and its designs.

Unit 6 **6 Hrs**
History of 20th century interior and furniture - Furniture development in Germany, furniture development in France, Art deco style, furniture development in USA. Modular furniture.

References

1. Alan Barnard & Jonathan Spencer, "Encyclopedia of Social and Cultural Anthropology", Taylor & Francis, 1996.
2. Alan Colquhoun, "Modern Architecture, History of Arts", Oxford University Press, 1st edition, 2002.
3. Barry Burgdoll, "European Architecture, 1750-1890", Oxford University Press, 2000.
4. Charles V Stanford, "Studies in Indian Society, Culture and Religion", South Asia Books, 1988.
5. Clifford Geertz, "The Interpretation of Cultures", Basic Books, 3rd edition, 2017.
6. Irl Carter, "Human Behavior in the Social Environment: A Social Systems Approach", Routledge, 6th edition, 2011.
7. Kenneth Frampton, "Modern Architecture: A Critical History", Thames and Hudson, 4th edition, 1992.
8. Kumar Raj, "Essays on Indian Art and Architecture", Discovery Publishing Pvt. Ltd., 2003.
9. Niggel Rapport, "Social and Cultural Anthropology: The Key Concepts", Routledge, 2000.
10. Philip Carl Salzman, "Understanding Culture: An Introduction to Anthropological Theory", Waveland press, 2001.

**SEMESTER II
HISTORY OF INTERIORS**

**ID205 B
16 practicals of 3 hrs each**

**Total Marks: 50
Internal Assessment: 15
Exam: 35**

Unit 1 **4**
Sketching of furniture of ancient style - Greek, Roman, Gothic style, Egyptian (4 each).

Unit 2 **4**
Sketching and rendering of Renaissance period - Furniture baroque, Neoclassical, Regency and Rococo (4 each).

Unit 3 **4**
Sketching and rendering of English furniture, 20th century furniture (4 each).

Unit 4 **4**
Sketching and rendering of Indian furniture - Dravidian, Rajasthani and Saharanpur.

Note: Colouring can be done using Graphite Pencil/ Colour Pencil/ Pen and Ink.

SEMESTER III
INTERIOR DESIGN III - SPACE PLANNING

Theory: ID303 A

No. of Hours: 3hours/week

Total Marks: 100

Internal Assessment: 30

Exam: 70

Objectives

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

Unit 1

8 Hrs

Introduction to space planning, terms and intent, necessity of space planning, synthesis of space planning, introduction to space design with use of computer, the design program - observation.

Unit 2

8 Hrs

Space design - Application and evaluating design - function, structure and materials, aesthetics, analyzing existing space and its advantages.

Unit 3

8 Hrs

Space design - Data collection, analysis, synthesis - Zonal and block diagram, bubble diagram, adjacency matrix, stacking plans, circulation, execution, feedback, evaluation, literature study, case study, proto typical plan sketches, relationship diagram.

Unit 4

8 Hrs

Introduction to space development, building conceptual concepts, present preliminaries, develop final plan, present final plan using 3D drawing, models along with its benefits.

Unit 5

8 Hrs

Introduction to construction documents, layout plan, construction plans, telephone and electrical plans, finishes plans, furniture plans and section details.

Unit 6

8 Hrs

Introduction to types of consultants - Acoustical consultant, lighting consultant, plumbing consultant, AC consultant, special consultant based on project needs, rain water harvesting, solar, green building, landscaping, terrace gardening. Time schedule planning.

References

1. Ernst and Peter Neufert, "Neufert Architect's Data", Wiley Blackwell Publication, UK, 2012.
2. Joseph Dechiara, Julius Panero and Martin Zelnik, "Time Saver Standards for Interior design and Space Planning", McGraw Hill, London, 2011.
3. Joseph Dechiara, Julius Panero, "Standards for Interior Design and Space Planning", McGraw Hill Professional, 2011.
4. Joseph Dechiara, Michael J Crosbie, "Time Savers Standards for Building Types", McGraw Hill Education, 4th edition, 2014.

SEMESTER III
INTERIOR DESIGN III - SPACE PLANNING

ID303 B

16 practicals of 3 hrs each

Total Marks: 50

Internal Assessment: 15

Exam: 35

Unit 1

4

Mind mapping, data collection, case study, literature study (any two projects).

Unit 2

4

Area calculation, bubble and circulation diagram, block diagram adjacency matrix, development of a concept/cafe/showroom (anyone).

Unit 3

4

Complete design process of play school/residential/showroom/with block model (any Two).

Unit 4

4

Designing of a play school/residential/showroom (anyone whichever is done in Unit 3).

**SEMESTER III
CONSTRUCTION AND DETAILING**

Theory: ID304 A

No. of Hours: 3hours/week

Total Marks: 100

Internal Assessment: 30

Exam: 70

Objectives

- To enable the students understand the construction in detail
- To learn about the specific materials in construction

Unit 1

8 Hrs

Arches and lintels - Introduction to arches and lintels terminology, classification of arch - according to shape, according to material, lintels - classification according to material, number of centers, advantages and its disadvantages.

Unit 2

8 Hrs

Doors - Introduction, terminology, evolution of doors, types of doors based on materials - wooden metal and PVC doors, classification of doors based on method - rolling shutters, collapsible doors, sliding doors, special doors and its applications.

Unit 3

8 Hrs

Windows - Introduction, terminology, evolution of windows, types of windows based on materials, based on method, based on design, special types of windows and its applications and benefits.

Unit 4

8 Hrs

Staircases - Introduction, terminology, types of stairs - straight, dog-legged, circular, spiral, stairs of different material - timber, steel, RCC, balustrades and hand rails. Introduction to escalators, its applications and benefits.

Unit 5

8 Hrs

False ceiling - Introduction, types of false ceiling and materials used for false ceiling, wooden and gypsum board false ceiling, plaster of Paris false ceiling, PVC and decorative sheets false ceiling, application and its advantages.

Unit 6

8 Hrs

Carpentry - Introduction to carpentry joints principles, classification and terminology in joints, lengthening and widening joints, angle and oblique joints, bearing and framing joints. Introduction to hardware fixtures.

References

1. Arora, Bindra S P, "Text book of Building Construction", Dhanpat Rai Publications, New Delhi, 2010.
2. Gurcharan Singh, "Building materials", Standard Publishers Distributors, Delhi, 2016.
3. Punmia B C, "A Textbook of Building Construction", Laxmi Publications (P) Ltd, New Delhi, 2005.
4. Rangwala S C, "Building Construction", Charotar Publishing House Pvt. Ltd., Gujarat, 2008.
5. Sushil Kumar, "Building Construction", Standard Publishers Distributors, New Delhi, 2006.

**SEMESTER III
CONSTRUCTION AND DETAILING**

ID304 B
16 practicals of 3 hrs each

Total Marks: 50
Internal Assessment: 15
Exam: 35

Unit 1	4
Drafting different types of arches and lintels with all the necessary details (any 8).	
Unit 2	4
Drafting different types of doors and windows with all the necessary details (any 4).	
Unit 3	4
Drafting different types of staircases with all the necessary details (any 3 with lift interiors).	
Unit 4	4
Drafting different types of joints false ceiling with all the necessary details.	

SEMESTER III
INTERIOR SERVICES I - LIGHTING

Theory: ID305 A
No. of Hours: 3hours/week

Total Marks: 100
Internal Assessment: 30
Exam: 70

Objectives

- To enable the students to understand basic principles of illumination and application of natural lighting in interiors
- To understand different types of lighting and fixtures used in interiors

Unit 1 **10 Hrs**
Introduction to natural lighting, daylight factor, recommended daylight factors for interiors, calculation of the opening for natural lighting, guidelines for good natural lighting, factors affecting illumination reflection and transmission and their applications, advantages and disadvantages.

Unit 2 **10 Hrs**
Introduction to artificial lighting, different types of lighting, types of arrangements, principles of lighting, luminous intensity of light sources, variety of lamps, position of lighting points, their importance, advantages and disadvantages.

Unit 3 **10 Hrs**
Introduction to fixtures, types of fixtures and luminaries, lighting accessories, protection devices, guidelines for electric distribution system, earth protection, and their applications, advantages, disadvantages.

Unit 4 **10 Hrs**
Recommended level of illumination, guidelines for lighting design, lumen method of design. Introduction to wiring, types of wiring, benefits, importance and applications. Layout of a house, wiring layout of a commercial building and its process.

Unit 5 **4 Hrs**
Eco lighting - Introduction, types, materials and application of LED and solar.

Unit 6 **4 Hrs**
Exterior lighting - Introduction, types, materials, system and their applications, advantages and disadvantages.

References

1. Anna Yudina, "Lumitecture - Illuminating Interiors for Designers and Architects", Thames and Hudson, 2016.
2. Gary Gordon, "Interior Lighting for Designers", 5th edition, Wiley Publishers, 2015.
3. Jason Livingston, "Designing with Light", Wiley Publisher, 2014.
4. Malcolm Innes, "Portfolio Skills, Lighting for Interior Design", Laurence King Publishing Ltd., London, 2012.
5. Mark Karlen, "Lighting Design Basic", Wiley Publishers, 2003.

SEMESTER III
INTERIOR SERVICES I - LIGHTING

ID305 B
16 practicals of 3 hrs each

Total Marks: 50
Internal Assessment: 15
Exam: 35

Unit 1

3

Introduction to electrical fixtures, types of electrical fixtures, conduct market survey and its application in various types of residential building and commercial establishment (any 2 each).

Unit 2

3

Types of lighting fixtures, sketching of lighting fixtures for record, conduct a market survey and study of types of light fixture, costing and its availability for residential and commercial establishments.

Sketch any

- 4 fixtures for residence
- 4 fixtures for commercial establishments

Unit 3

4

Design and draw a plan of 2 bedroom residential building and commercial building.

Unit 4

6

Design a lighting plan for a corporate office/commercial building with legends - showroom/cafe.

SEMESTER IV
INTERIOR DESIGN IV - WORKING DRAWING

Theory: ID403 A

No. of Hours: 3hours/week

Total Marks: 100

Internal Assessment: 30

Exam: 70

Objectives

- To learn the techniques of detailed drawing for interior design
- To apply and provide various services in the building and learn the working drawing

Unit 1

12 Hrs

Working drawing - Introduction, concept of working drawings its needs and importance. Drawing and drafting of plan, development of elevation, details of all drawings, lettering, dimensioning symbols, plan approval of MIG house, working drawing of ground/first floor and terrace.

Unit 2

8 Hrs

Schedule of opening - Doors, types of doors, battened and ledged door, framed and panelled door, flush doors, steel doors, sliding doors, PVC doors, fiber reinforced plastics doors, revolving doors, swing door and collapsible steel door - applications, advantages and disadvantages, section and elevation.

Windows - Double hung window, louvered window, casement window, transom window, slider window, stationary window, pivoted windows, ventilators and skylights - applications, advantages and disadvantages, section and elevation.

Unit 3

8 Hrs

Introduction to plumbing drawings - Bathroom fittings. Preparation of drawing for 1BHK house. Centre line marking of single room building, double room building and foundation marking of 1 BHK residential building and office building.

Unit 4

10 Hrs

Introduction to electrical drawings - Symbols of fan, switch, sockets, bulb, two way switch, geyser, main board, meter, MCB. Preparation of electrical drawings for 1BHK house.

Unit 5

6 Hrs

Working drawing and details of bedroom/kitchen/living room/kids room and toilet with all details and facilities.

Unit 6

4 Hrs

Development of portfolio of a 2 BHK and commercial establishment - working drawings section, elevation and facilities.

References

1. Andrew Brody, "Electronic Workflow for interior Designers and Architects", Bloomsbury, 2009.
2. Drew Plunkett, "Drawing for Interior Design", Laurence King, 2nd edition, 2014.
3. Francis D K Ching & Steven P Jurozek, "Design Drawing", Wiley India Pvt. Ltd., 2012.
4. Maureen Mitton & Courtney Nystuen, "Residential Interior Design - A Guide to Planning Spaces", Wiley Publication, 3rd edition 2016.
5. Otie W & Rosemary Kilmer, "Construction Drawings and Details for Interiors", Willey & Sons, 2nd edition, 2016.

SEMESTER IV
INTERIOR DESIGN IV - WORKING DRAWING

ID403 B
16 practicals of 3 hrs each

Total Marks: 50
Internal Assessment: 15
Exam: 35

- | | |
|--|----------|
| Unit 1 | 3 |
| Sketch symbols and notation of stone, bricks, types of tiles, vitrified tiles, mosaic tiles and sanitary ware. Area measuring by tape or chain survey. | |
| Unit 2 | 5 |
| Floor plan - Drafting, dimension, details, sectional elevation of kitchen/living room/bath room. | |
| Unit 3 | 4 |
| Plan of electrical, lighting and plumbing of kitchen/living room/bath room/office building. | |
| Unit 4 | 4 |
| Detail drawing of café, preschool, office, retail showroom and 1BHK flat. | |

**SEMESTER IV
INTERIOR SERVICES II -
PLUMBING, SANITATION, HVAC AND FIRE SAFETY**

Theory: ID404 A

No. of Hours: 3hours/week

Total Marks: 100

Internal Assessment: 30

Exam: 70

Objectives

- To enable the students to understand the basic principles of drainage and water supply in buildings
- To learn calculations and connections for water supply and sanitation

Unit 1

6 Hrs

Introduction to water supply, types of water supply systems, calculation of water supply requirements and storage of water. Water supply in multi store building - application and its benefits.

Unit 2

6 Hrs

Introduction to sanitation, types of sanitation, introduction to drainage system, types of drainage system, traps - different types used. Septic tank, two types of plumbing systems - ventilation systems, inspection chambers/manholes.

Unit 3

10 Hrs

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

Unit 4

10 Hrs

Natural ventilation for the building - Introduction to ventilation. Guidelines for natural ventilation, its types and its application. Mechanical ventilation - Ventilation with fans, ventilation with ducts, recommended fresh air supply. Calculation of openings for natural ventilation and its benefits.

Unit 5

6 Hrs

Introduction to air-conditioning and duct table system along with its types and application, need and atmospheric conditions for human comfort, process of air conditioning, types of air conditioning system and window units, packaged air conditioner, vertical air cooled packaged unit, horizontal package unit, central plant systems, ducts grills and diffusers.

Unit 6

10 Hrs

Introduction to fire protection, causes of fire and preventive measures. Fire resistant construction, responsibility of designer towards fire resistance specification and requirements, application and usage, introduction to fire protection by laws and its applications as per Government's statutory law.

References

1. Ch'ing, Francis D K, Binggeli, Cork, "Interior Design Illustrated", Wiley Publications, New Jersey, 2004.
2. Hall, Fred, Greeno, Roger, "Building Services Handbook", Butterworth Heinemann, UK, 2001.
3. Purnima B C, 'Environmental Engineering - I - Water Supply Engineering', Laxmi Publications (P) Ltd, New Delhi, 2005.

4. Rangwala S C, “Water Supply and Sanitary Engineering”, Charotar Publishing House Pvt. Ltd., 29th edition, 2016.
5. Singh, Gurcharan, “Water Supply and Sanitation Engineering (Environmental Engineering)”, Standard Publishers Distributors, 2007.

**SEMESTER IV
INTERIOR SERVICES II -
PLUMBING, SANITATION, HVAC AND FIRE SAFETY**

ID404 B

16 practicals of 3 hrs each

Total Marks: 50

Internal Assessment: 15

Exam: 35

Unit 1

3

Preparing a water supply drawing for a residence.

Unit 2

6

Sketching of different types of sanitary fittings, collecting picture of different types of fixtures, market analysis of all the types of fixtures with brochure and costing.

Unit 3

5

Design and preparation of layout plan of a multistoried residential building with water supply and plumbing drawings.

Unit 4

2

Market rate analysis of different types of AC units and study of AC services for a hotel building with plan.

**SEMESTER IV
CAD IN INTERIORS - I**

Practicals: ID405
32 practicals of 3 hrs each

Total Marks: 150
Internal Assessment: 50
Exam: 100

Unit 1

3

Introduction to CAD Software, Software installation, importance and application of CAD in interiors. Fundamentals of computers, importing and exporting files, saving files in different formats, printing, publishing, matching properties, drawing setting and its application.

Unit 2

6

Exercises on creating objects and object editing with types of lines and hatching the objects, creating text styles, dimension styles using PLine, construction lines, splines, multiline, types of objects, circles and curves arc, polygon, ellipse, donut.
Introduction to viewing, types of viewing - zoom, pan, holstering utility and its advantages and importance, introduction to layers, types of layer.

Unit 3

8

Drafting the plan and elevations of a door, staircase, curved objects (3 each) and designing of complete room's interiors with furniture (office, drawing room and kitchen) using lines, materials and library.

Unit 4

8

Drafting the plan and elevation of the projects, working drawings with paper space, model space, printing with different plot styles (any three). Complete model of residence with rendering (top view and isometric view).

Unit 5

7

Application of cameras and lights on the created models.
Introduction to lights - Standard lights - Omni target spot and free spot target direct, sky light, place highlight photometric light - target point, free point, target linear, free linear, target area, free area.
Cameras - Target, free-multi pass effect, depth of field, navigating the camera using keyboard.

SEMESTER V
CONSTRUCTION MANAGEMENT

Theory: ID501

No. of Hours: 4 hours/week

Total Marks: 150

Internal Assessment: 50

Exam: 100

Objectives

- To provide an insight into management of building involving finance and human resource
- To learn about concepts and application of management in interior design

Unit 1

12 Hrs

Introduction to construction management and planning - Basic concepts in the development of construction plan, choice of technology and construction methods, defining work task, defining precedence relationships among activities, estimating activities duration, estimating resource requirement for work activities.

Unit 2

12 Hrs

Pre-tender planning, planning during tendering. Post tender advantage, bar chart - advantages and limitations, mile stone chart, networks analysis - CPM and PERT activity float and schedules in improving the scheduling process and problems.

Unit 3

10 Hrs

Construction schedule (related to interior design field) labour schedule, material schedule, financial schedule, equipment schedule, organization schedule.

Unit 4

10 Hrs

Purpose of valuation and different forms of values, income, gross income, net income, outgoings, depreciation - different methods of calculation.

Unit 5

10 Hrs

Cost effectiveness - Introduction, role of client, interior designer, consultant, architect and engineers, system improvement to achieve cost effectiveness.

Unit 6

10 Hrs

Introduction to M.S. Project, safety management, causes of accidents and safety measures. Prevention of fire at construction sites.

References

1. Brain Cooke, Peter Williams, "Construction Planning and Programming and Control", Wiley Sons and Blackwell Publication, 2009,
2. Frank Harris, Ronald McCaffer and Francis Edum-Fotwe, "Modern Construction Management", Wiley Sons and Blackwell Publication, 7th edition, 2013.
3. Fred Sherratt, "Introduction to Construction Management" Routledge, 2015.
4. Krishnamurthi K G, Ravindra S V, "Construction management", CBS, 2008.
5. R H B Ranns and E J M Ranns, "Practical Construction Management", Routledge, 2005.

SEMESTER V
ESTIMATION, COSTING AND SPECIFICATION FOR INTERIORS

Theory: ID502 A

No. of Hours: 3hours/week

Total Marks: 100

Internal Assessment: 30

Exam: 70

Objectives

- To enable the students to understand the concept of estimation and costing for interiors
- To analyze various components based on specification

Unit 1

6 Hrs

Introduction to costing, terminology, its application and benefits, cost influences and construction costs, furniture, fixtures and equipment, contractor's overhead and profit, professional fees, taxes and contingencies other installation.

Unit 2

5 Hrs

Introduction to estimation, benefits, types of square footage, parameter, items-wise estimation, take- offs. Factors to be considered for special design with estimation.

Unit 3

5 Hrs

Introduction to specifications, types of specifications, prosperity specifications, based - bid specifications, descriptive specifications, performance specifications, master specifications its advantages and disadvantages.

Unit 4

12 Hrs

Introduction to writing of specification, purpose and definition of specification, guidelines for writing specifications, coordination with the construction drawings, furniture specification, checklist for construction drawing and specification, specification for walls, floors, wardrobes, ceiling, painting. Procedure for writing specification for the purpose of calling tenders.

Unit 5

10 Hrs

Introduction to V Rate analysis, Rate analysis - Definition, method of preparation, quantity and labour estimation for woodwork, steelwork, aluminum work, glass and its rate for different, thickness & sections, finishing (enamel paint, deco paints, melamine, du coats, and hand polishing, veneering and laminating) for walls and ceilings. Electrical and plumbing products, wiring, ducting, and laying of tiles and wall paneling in the estimate format of the project.

Unit 6

10 Hrs

Introduction to costing of fixtures and fitting, cost of the following items - Electrical fitting - luminaries, fan, cables, switches, joinery in wood, enamel paint painting to joinery, varnishing, French polishing plumbing equipment - piping, shower panels, cubicles, tubs, Jacuzzis, taps, motors, fountains, false ceiling of aluminium panels, steel and wooden frame work, thermacol.

References

1. Patil B S, "Civil Engineering Contracts and Estimates", Orient Longman Publishers, 2015.
2. Dutta B N, "Estimating and Costing in Civil Engineering", UBS Publishers Distributors Pvt. Ltd., New Delhi, 2014.

3. Mantri, Sandeep, "The A to Z of Practical Building Construction and its Management", Satya Prakashan, New Delhi, 2013.
4. Rangawala S C, "Estimating Costing and Valuation", Charotar Publishing House, 2011.

SEMESTER V

ESTIMATION, COSTING AND SPECIFICATION FOR INTERIORS

ID502 B

16 practicals of 3 hrs each

Total Marks: 50

Internal Assessment: 15

Exam: 35

Unit 1

3

Preparation of estimation of a given room with different methods - civil works - living room/bedroom/kitchen/bathroom.

Unit 2

3

Preparation of estimation of a given bed room/kitchen/living room/bathroom with interior works (any 3)

Unit 3

5

Preparation of estimation of a given living room/bedroom/kitchen/dining room with woodwork, plumbing, lighting (any 3).

Unit 4

5

Lighting specification of wood works, painting, flooring, and all other works for a 2 BHK flat/commercial building.

SEMESTER V
INTERIOR DESIGN V -
TEXTILES AND ACCESSORIES FOR INTERIORS

Theory: ID503 A

No. of Hours: 3hours/week

Total Marks: 100

Internal Assessment: 30

Exam: 70

Objectives

- To know the types of fabrics and accessories used in interiors
- To incorporate its applications in interiors

Unit 1

8 Hrs

Fabrics for interiors - Introduction, interior fabric, element, design, colour and application. Classification of fabrics for interiors - Introduction, types of fabric and its applications.

Unit 2

8 Hrs

Upholstery - Introduction, types, materials, and different techniques. Seating - sofas, chairs, chair pads, cushions - fills. Windows - sheer curtains, curtains, curtain drapes, reflecting textiles and blinds. Carpets and rugs - Introduction, types, materials, applications and its care and maintenance.

Unit 3

10 Hrs

Interior textiles for rooms - Bedroom - Introduction, types, materials and applications in sheets, pillow cases, blankets, mattress covers, dust ruffles. Bathroom - shower curtains, terry towels, robes. Wall coverings, screens and room dividers.

Unit 4

8 Hrs

Introduction to creative art and craft - Introduction to the art and its applications in interior design - materials used from historic times till date.

Creative art objects - Introduction, materials, types and method, application of wall hangers, ceramics, wall textures and murals.

Unit 5

6 Hrs

Interior textile and accessories - Introduction, types, materials and applications in cushion, lamp shade, paintings, curios. Table textiles - table coverings, table matts, table cloth, napkins, coasters.

Unit 6

8 Hrs

Care and maintenance - Introduction, types of materials - stain removal of upholstery, sofas, cushions, carpets, table linen, bed room and bathroom linen.

References

1. Anne Marie Soto, "Quick and Easy Sewing for the Home Table Toppers", Rodale Press Inc., 1995.
2. Diane Patrice, Tap Scott, "Curtains, Draperies and Shades", Lane, Menlo Park, California, 2000.
3. Katrin Cargill, "Cushions", Ryland Peters and Small, 1996.
4. Mary Neal, "Custom Draperies in Interior Design", Elsevier Science Ltd., 1982.
5. Sydney A Sykes, "Decorating English Country Styles", Webb and Bower, 1990.

SEMESTER V
INTERIOR DESIGN V -
TEXTILES AND ACCESSORIES FOR INTERIORS

ID503 B

16 practicals of 3 hrs each

Total Marks: 50

Internal Assessment: 15

Exam: 35

Unit 1

3

Sketch and develop a design for a living room with sofa, draperies, cushion and accessories for wall and side table.

Unit 2

3

Sketch and develop a design for a bedroom with bed, bed covering, pillows, cushions, draperies and other accessories.

Unit 3

3

Sketch and develop a design for kid's rooms with all amenities and accessories.

Unit 4

4

Design and develop a table linen for a four seater dining table and kitchen line (Oven gloves, pot holder and apron). Lamp shades - Designing and development of thematic lampshade (any material). Designing of wall frames for living room (glass/terracotta/wood/bamboo/embossing).

Unit 5

3

Visit to any handicraft cluster and report with photograph and development of fabric catalogue with details of type of fabric, cost, textures for draperies, cushions, upholstery material, table linen and kitchen linen.

**SEMESTER V
CAD IN INTERIORS - II**

**ID504
32 practicals of 3 hrs each**

**Total Marks: 150
Internal Assessment: 50
Exam: 100**

Unit 1	9
Introduction to Rivet/Sketch up and installation of software. Creation of small models of walls, doors, windows, staircase and railing using drawing tools.	
Unit 2	8
Creation of furniture - Ancient, medieval and renaissance for different rooms with elevations of living room, bed room and office.	
Unit 3	8
Complete 3D model of residence, commercial space, hospitals, hotels/resorts with plan, elevations sections.	
Unit 4	7
Creation of complete residence/commercial building with furniture 3D model by rendering, and lighting.	

SEMESTER V
MODEL MAKING AND FURNITURE DESIGN

Theory: ID505 A

No. of Hours: 3hours/week

Total Marks: 100

Internal Assessment: 30

Exam: 70

Objectives

- To enable the students to learn about the types and importance of furniture, know about the selection, care and arrangement of furniture.
- To learn product development.

Unit 1 **6 Hrs**

Introduction to model making, development of prisms, development of pyramids, development of cylinders, development of cones, development of spheres.

Unit 2 **6 Hrs**

Principles of isometric projection, isometric of pyramid, isometric of cones, isometric of spheres, isometric views, principles of oblique projection its applications in interiors.

Unit 3 **8 Hrs**

Introduction to simple geometrical objects, principles of perspective projection, development of plans and elevations of furniture, preparation of furniture details, technical drawing of furniture.

Unit 4 **6 Hrs**

Furniture - Types of furniture, creation of furniture using different materials.

Unit 5 **4 Hrs**

Lighting - Introduction, types and concepts, study of shades and shadows of model with the help of artificial light.

Unit 6 **8 Hrs**

Types of materials used in furniture making - Characteristics of materials, paper, handmade paper, mount boards, balsa wood, perplex sheet, cork sheets, plaster of Paris, thermocol, and other material that creates an effect of reality in model forms.

Unit 7 **10 Hrs**

Introduction to product development in interior design, types of products, its design, development and process.

References

1. Criss B Mills, "Designing With Models", Wiley Publications, 2011.
2. David Neat, "Model Making Materials and Methods", The Crowood Press Ltd., 2008.
3. Stanford Hohausser, "Architectural and Interior Model", Van Nostrand Reinhold Inc., 2nd edition, U.S., 1971.
4. Stuart Lawson, "Furniture Design: An Introduction to Development, Materials and Manufacturing", Laurence King Publishing, 2013.
5. Werner Megan, "Architecture Drawing and Model Making", Princeton Architectural Press, 2011.

SEMESTER V
MODEL MAKING AND FURNITURE DESIGN

ID505 B
16 practicals of 3 hrs each

Total Marks: 50
Internal Assessment: 15
Exam: 35

Unit 1	2
Design and development of basic furniture for living room/kid's room/bed room/dining room/garden.	
Unit 2	3
Designing of detailed furniture models (prototype).	
Unit 3	5
Design and development of complete rooms with furniture 3D model.	
Unit 4	6
Making of mini mode of a residence with furniture.	

**SEMESTER V
INTERNSHIP**

Practical: ID506

**Total Marks: 150
Internal Assessment: 50
Exam: 100**

Objectives

- To enable the students to pursue an in-depth study in any area of special interest.
- To impart knowledge on working and managing of interior design firm

In house training with any interior design firm or company for a minimum period of 30 days. A report to be submitted for evaluation.

The internship report must contain the following:

- Introduction
- Objectives
- Literature review
- Methodology
- Process/Procedure
- Summary and conclusion
- Bibliography

SEMESTER VI
PROFESSIONAL PRACTICE IN INTERIOR DESIGN

Theory: ID601

No. of Hours: 3hours/week

Total Marks: 150

Internal Assessment: 50

Exam: 100

Objectives

- To enable the students to understand the professional practice
- To learn the rules and regulations of professional practice in interior design

Unit 1

10 Hrs

Introduction to professional practice, types of firms, advantages and disadvantages of working in established firm, advantages and disadvantages of working in a small firm. Duties of an interior designer - towards contractors, profession of interior design, scale of profession charges, mode of payment to professionals.

Unit 2

10 Hrs

Introduction to freelancing, advantages and disadvantages of freelancing, advantages and disadvantages of joining a showroom.

Unit 3

12 Hrs

Owning an office, problems in starting up an office, rules and regulations to be followed in owning of an office, registration to local authorities.

Unit 4

12 Hrs

Types of clients, ideal client, bad client, new client, role of an interior designer and necessity, project execution, methods of checking on site.

Unit 5

10 Hrs

Introduction to tender, types of tenders, procedures, tendering for a project, awarding of tender, the work order arbitration, professional bodies and arbitration.

Unit 6

10 Hrs

Code of professional conduct of interior designer, membership, payment of subscription, members and their responsibility, trade members, associate and fellow members.

References

1. Christine M Piotrowski, "Designing Commercial Interiors", John Willey Publishers, 3rd edition, 2016.
2. Christine M Piotrowski, "Interior Design Management", John Wiley & Sons, 1992.
3. Christine M Piotrowski, "Professional Practice for Interior Designers", John Wiley & Sons, 3rd edition, 2001.
4. Robert K Hale, "Starting Your Career as an Interior Designer", Allworth Press, 2009.
5. Robert L Alderman, "How to Prosper as an Interior Designer: A Business and Legal Guide", John Wiley & Sons, 1997.
6. Sandeep Mantri, "Practical Building Construction and Its Management", Satyaprakashan Publications, New Delhi, 2011.

SEMESTER VI
INTERIOR SERVICES III - ACOUSTICS

Theory: ID602 A

No. of Hours: 3hours/week

Total Marks: 100

Internal Assessment: 30

Exam: 70

Objectives

- To enable the students to understand the basic principles of acoustical insulation to interior spaces
- To learn various methods to manage sound

Unit 1

8 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.

Unit 2

8 Hrs

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.

Unit 3

8 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.

Unit 4

10 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.

Unit 5

8 Hrs

Sound engineering - Introduction, types, and output in watts classification based on usage at home, office, theatre and auditorium.

Unit 6

6 Hrs

Advanced technology in acoustics. Acoustics and environment - Introduction, material and its types, methods, applications and its benefits.

References

1. David Egan M, "Architectural Acoustics", J Ross Publishing, 2007.
2. Jiri Tichy, "Acoustics of Small Rooms ", CRC Press, 2014.
3. Kuttruff H, " Room acoustics ", CRC Press, 5th edition, 2009.
4. Lawrence E Kinsler, "Fundamentals of Acoustics", Wiley Publishers, 2000.
5. Lothar Cremer, "Principles and Application of Room Acoustics", Peninsula Publishing, 2016.

SEMESTER VI
INTERIOR SERVICES III - ACOUSTICS

ID602 B

16 practicals of 3 hrs each

Total Marks: 50

Internal Assessment: 15

Exam: 35

Unit 1

Collection of different types of acoustic material.

3

Unit 2

Rate analysis of acoustic material for home, office, theatre and auditorium.

3

Unit 3

Visit to any college, public auditorium to study about materials used for acoustics.

4

Unit 4

Visit to any theatre to study about materials used for acoustics.

6

SEMESTER VI
INTERIOR DESIGN VI - SUSTAINABLE DESIGN

Theory: ID603 A

No. of Hours: 3hours/week

Total Marks: 100

Internal Assessment: 30

Exam: 70

Objectives

- To sensitize students about need for environmental design
- To study the various factors involved in environmental and sustainable buildings

Unit 1 **8 Hrs**
Introduction to sustainable design, green buildings and methods adopted in current scenario.

Unit 2 **8 Hrs**
Analysis of ecology to understand the working principles of nature and different climatic conditions according to seasons, positive and negative causes of transformation in its pattern, its implications and effects on built environment.

Unit 3 **8 Hrs**
Detail study of tools, materials and techniques adopted in green buildings. Studying the principles of sustainability to incorporate in interior design projects.

Unit 4 **10 Hrs**
Role of solar energy within built environment in addition to understanding of design principles such as day-lighting and ventilation requirements for a particular activity in a given space and according to the size of the space.

Unit 5 **8 Hrs**
Study of sustainable materials available and its application in the building construction. Certification systems and certification authority-IGBC, GRIHA, BEE. For E.g. Mud bricks, AAC, fly ash blocks, UPVC, WPC boards, paints, glass etc.

Unit 6 **6 Hrs**
Detail study of techniques, methods and limitations involved in designing green spaces, using renewable energy such as tapping the wind to blow inside the building which can cut down on usage of fans and air-conditioner. Using rainwater harvesting methods for watering and maintaining indoor plants and water bodies.

References

1. Abbaszadeh, S, L. Zagreus, D. Lehrer, and C. Huizenga, "Occupant Satisfaction with Indoor Environmental Quality in Green Buildings", University of California, Berkeley, Center for the Built Environment, 2006.
2. Mardiana Idayu, Ismail, Mazran, Saffa (Eds.), "Renewable Energy and Sustainable Technologies for Building and Environmental Applications", Springer International Publishing AG, 1st edition, 2016.
3. Michael J, "Biodiversity and Conservation", Routledge Taylor & Francis Group, 2nd edition, 1997.
4. Miles Keeping, David Shiers, "Sustainable Building Design: Principles and Practice", Wiley-Blackwell, 1st edition, 2017.
5. Susan M Winchip, "Sustainable Design for Interior Environment", Fairchild Publication, 2nd revised edition, 2011.

SEMESTER VI
INTERIOR DESIGN VI - SUSTAINABLE DESIGN

ID603 B
16 practicals of 3 hrs each

Total Marks: 50
Internal Assessment: 15
Exam: 35

Unit 1	3
Study of existing case studies of green buildings, adapting the principles of sustainable designs to interior design projects, this should involve market survey, user reviews and experts opinion.	
Unit 2	3
Draw prototype with sustainable concepts - Living room/office/café.	
Unit 3	4
Engaging students in critical debates, giving exposure to design workshop on creating sustainable environment.	
Unit 4	6
Visiting establishments with green building concepts.	

SEMESTER VI
PORTFOLIO DESIGN FOR INTERIORS

Theory: ID604 A
No. of Hours: 3hours/week

Total Marks: 100
Internal Assessment: 30
Exam: 70

Objectives

- To impart skills for portfolio preparation
- To enable students to understand the importance of portfolio and presentation

Unit 1 **8 Hrs**
The spirit of conception to creative process - Introduction, objectives, storyboards, continuity, pattern of success, collecting images, inspiration- the big idea - concept, robust research.

Unit 2 **8 Hrs**
Organizing from concept to process - Inventory, concept sketches, green design, 3D interior space, designing with typography, visualization and layout, road map, concept lead juggling.

Unit 3 **8 Hrs**
Digital presentations - Design thinking, capture with purpose, materials, media, lighting, interior setup, strategies, creating digital images, editing, designing the layout, final thoughts.

Unit 4 **10 Hrs**
Research and written communication - Resume and cover letter, development of portfolio, design statement, concept boards, transitions and experiences.

Unit 5 **8 Hrs**
Portfolio as a tool - Research, initial discussion, process and presentation, development of detailed final portfolio with URL.

Unit 6 **6 Hrs**
Development of model, materials, techniques and finishing of the model.

References

1. Amy Will banks, Nancy Oxford, Dana Miller, "Textile for Residential and Commercial Interiors", Fairchild Books, 4th revised edition, 2014.
2. Harold Linton & William Engel, "Portfolio Design for Interiors" Bloomsbury Academic USA, 2017.
3. Maureen Mitton, "Portfolio for Interior Designers", John Wiley & Sons, 1st edition, 2010.
4. Maureen Mitton, "Residential Interior Design: A guide to planning spaces", Wiley Publishers, 3rd edition, 2016.
5. Maureen Mitton, "Interior Design Visual Presentation", Wiley Publisher, 5th edition, 2018.

SEMESTER VI
PORTFOLIO DESIGN FOR INTERIORS

ID604 B
16 practicals of 3 hrs each

Total Marks: 50
Internal Assessment: 15
Exam: 35

Unit 1 Inspiration board, colour board, story board, texture or pattern board, client board.	3
Unit 2 Layout planning (manual and digital), elevation, top view, front view, process involved.	4
Unit 3 Creating structures with furniture, lighting, wall effects, props, flooring.	5
Unit 4 Final model with digital and manual portfolio presentation.	4

SEMESTER VI
INTERIOR LANDSCAPING

Theory: ID605 A
No. of Hours: 3hours/week

Total Marks: 100
Internal Assessment: 30
Exam: 70

Objectives

- To understand the importance of plants in interiors
- To enable the students to learn the principles of landscape gardening

Unit 1 **8 Hrs**
Introduction to landscaping, advantages, factors to be considered for interior landscaping, evolution of interior landscaping.

Unit 2 **8 Hrs**
Types of indoor plants, function of indoor plants, classification of plants, light intensity, soil separator planting medium.

Unit 3 **8 Hrs**
Plant texture, plant height, plant spacing, plant containers, built-in planters and balcony rail planters, construction details for planters.

Unit 4 **8 Hrs**
Watering by hand, automated low-volume irrigation systems, sub-irrigation systems, drainage, pest control, suspended plants.

Unit 5 **8 Hrs**
Description of plants, pruning of plants, physiological disorders and maintenance.

Unit 6 **8 Hrs**
Artificial and preserved plants, flower arrangement - Introduction, classification, types of flowers, different types of flower arrangement for home, office, hotels and flower container.

References

1. Alex R and Sudha devi, "Interior Plant Scaping and Foliage Ornamental Plants", 2 LAP Lambert Academic Publishing, 2013.
2. Bree Claffey, "Indoor Green: Living with Plants", Thames and Hudson, 1st edition, 2017.
3. James M Delprince, "Interior Plant Scaping", Delmar Cengage Learning, 2012.
4. Michelle Satilla, "Gardenista: The Definitive Guide to Stylish Outdoor Spaces", Artisan Division of Workman Publishing, 2016.
5. Nelson Hammer, "Interior Landscaping Design", McGraw-Hill Ryerson Limited, 1991.
6. Stefano Corbo, "Interior Landscapes – A Visual Atlas", Images Publishing Group Pvt. Ltd., 2016.

**SEMESTER VI
INTERIOR LANDSCAPING**

ID605 B
16 practicals of 3 hrs each

Total Marks: 50
Internal Assessment: 15
Exam: 35

Unit 1 Sketching of indoor plants - theme based/location specific (any2).	4
Unit 2 Design and development of landscape design (office/residence).	4
Unit 3 Design an indoor landscaping for a given project - office/fashion store/residence.	4
Unit 4 Design and develop a landscape with artificial waterfall for a resort.	4

**SEMESTER VI
PROJECT**

Theory: ID606
No. of Hours: 4 hours/week

Total Marks: 150
Internal Assessment: 50
Exam: 100

A theme based project must be developed with portfolio containing the details of the project, costing, material used, design plan and other necessary details of interior services like lighting, HVAC, sanitation, plumbing and landscaping.

A working model must be prepared for any one of the following with all necessary detailing of interiors

- 2 BHK Flat -1200 sqft.
- 3 room residential independent house
- Pre-School
- School
- Cafe
- Restaurant
- Coffee Bar
- Hospital
- Library
- Auditorium
- Corporate Office
- Retail Showrooms
- College Canteen

MODEL QUESTION PAPER

**I/II/III/IV/V/VI Sem. B.Sc. Examination Nov / April
(2019-20 Onwards)**

INTERIOR DESIGN AND DECORATION

Subject code and Title of the paper

MAX MARKS-70

TIME: 3Hrs

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

SECTION – A

1. Answer any 10 of the following

(10x2=20)

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

SECTION – B

II. Answer any 5 of the following

(5x4=20)

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

SECTION – C

III. Answer any 5 of the following

(5x6=30)

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

MODEL QUESTION PAPER

**V/VI Sem. B.Sc. Examination Nov / April
(2019-20 Onwards)**

INTERIOR DESIGN AND DECORATION

Subject code and Title of the paper

MAX MARKS-100

TIME: 3Hrs

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

SECTION – A

1. Answer the following:

(15x2=30)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.

SECTION – B

II. Answer any 5 of the following

(5x6=30)

- 16.
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.

SECTION – C

III. Answer any 5 of the following

(5x8=40)

- 23.
- 24.
- 25.
- 26.
- 27.
- 28.
- 29.

Internal Assessment (IA)

Theory

For Papers with 70 Marks

Outline for Continuous Assessment activities – C1 and C2

Activity	C1	C2	Total
Test	5	5	10
Assignment	-	5	05
Seminar	-	5	05
Attendance	5	5	10
Total			30

For Papers with 100 Marks

Outline for Continuous Assessment activities – C1 and C2

Activity	C1	C2	Total
Test	15	15	30
Assignment	-	5	05
Seminar	-	5	05
Attendance	5	5	10
Total			50

Assignment/Seminar may be considered for C1 or C2 as required

Practicals

For Papers with 35 Marks

Activity	C1	C2	Total
Test / performance	5	5	10
Attendance		5	05
Total			15

For Papers with 100 Marks

Activity	C1	C2	Total
Test / performance	20	20	40
Attendance	5	5	10
Total			50