



**B.Sc. INTERIOR DESIGN AND DECORATION (CBCS)  
SYLLABUS**

**(I TO VI SEMESTERS)**

**2016-17 ONWARDS**

**APPAREL TECHNOLOGY & MANAGEMENT  
CENTRAL COLLEGE CAMPUS  
BENGALURU 560001**

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
IDD103 A	Fundamentals of Interior Design	Theory	3	3	30	70	100	2
IDD103 B		Practical	3	3	15	35	50	1
IDD104 A	Construction Materials-I	Theory	3	3	30	70	100	2
IDD104 B		Practical	3	3	15	35	50	1
IDD105 A	Colour concepts in Interiors	Theory	3	3	30	70	100	2
IDD105 B		Practical	3	3	15	35	50	1
	FC/SDC	Theory	3	3	30	70	100	2
	CC&EC	-	-	-	50	-	50	1
				<b>Total</b>	<b>800</b>			<b>16</b>

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
IDD203 A	Fundamentals of 2D&3D Graphics	Theory	3	3	30	70	100	2
IDD203 B		Practical	3	3	15	35	50	1
IDD204 A	Construction Materials-II	Theory	3	3	30	70	100	2
IDD204 B		Practical	3	3	15	35	50	1
IDD205 A	History of Interiors	Theory	3	3	30	70	100	2
IDD205 B		Practical	3	3	15	35	50	1
	FC/SDC	Theory	3	3	30	70	100	2
	CC&EC	-	-	-	50	-	50	1
				<b>Total</b>	<b>800</b>			<b>16</b>

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
IDD303 A	CAD in Interiors -I	Theory	3	3	30	70	100	2
IDD303 B		Practical	3	3	15	35	50	1
IDD304 A	Interior Services-I Lighting	Theory	3	3	30	70	100	2
IDD304 B		Practical	3	3	15	35	50	1
IDD305 A	Space Planning in Interior Design	Theory	3	3	30	70	100	2
IDD305 B		Practical	3	3	15	35	50	1
	FC/SDC	Theory	3	3	30	70	100	2
	CC&EC	-	-	-	50	-	50	1
				<b>Total</b>	<b>800</b>			<b>16</b>

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
IDD403 A	Construction and Detailing	Theory	3	3	30	70	100	2
IDD403 B		Practical	3	3	15	35	50	1
IDD404 A	Interior Design	Theory	3	3	30	70	100	2
IDD404 B		Practical	3	3	15	35	50	1
IDD405 A	CAD in Interiors-II	Theory	3	3	30	70	100	2
IDD405 B		Practical	3	3	15	35	50	1
	FC/SDC	Theory	3	3	30	70	100	2
	CC&EC	-	-	-	50	-	50	1
				<b>Total</b>	<b>800</b>			<b>16</b>

SEMESTER V								
CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
IDD501	Construction Management	Theory	4	3	50	100	150	3
IDD502 A	Estimation, Costing & Specification for Interiors	Theory	3	3	30	70	100	2
IDD502 B		Practical	3	3	15	35	50	1
IDD503 A	Interior services-II, Plumbing and Sanitation	Theory	3	3	30	70	100	2
IDD503 B		Practical	3	3	15	35	50	1
IDD504 A	Advanced CAD in Interiors	Theory	3	3	30	70	100	2
IDD504 B		Practical	3	3	15	35	50	1
IDD505 A	Model making & Furniture Design	Theory	3	3	30	70	100	2
IDD505 B		Practical	3	3	15	35	50	1
IDD506 A	Internship	-	6	Report Evaluation & Viva Voce	50	100	150	3
	SDC	Theory	3	3	30	70	100	2
				<b>Total</b>	<b>1000</b>			<b>20</b>

SEMESTER VI								
CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
IDD601	Professional Practice in Interior Design	Theory	4	3	50	100	150	3
IDD602 A	Acoustics	Theory	3	3	30	70	100	2
IDD602 B		Practical	3	3	15	35	50	1
IDD603 A	Textiles For Interiors	Theory	3	3	30	70	100	2
IDD603 B		Practical	3	3	15	35	50	1
IDD604 A	Accessories in Interior Design	Theory	3	3	30	70	100	2
IDD604 B		Practical	3	3	15	35	50	1
IDD605 A	Interior Landscaping	Theory	3	3	30	70	100	2
IDD605 B		Practical	3	3	15	35	50	1
IDD606 B	Project	Model, Report & Portfolio	9	Report Evaluation & Viva voce	50	100	150	3
	SDC	Theory	3	3	30	70	100	2
				<b>Total</b>	<b>1000</b>			<b>20</b>

**SEMESTER I  
FUNDAMENTALS OF INTERIOR DESIGN**

**Theory: IDD103A**  
**No of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exam: 70**

**Objectives:**

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

**Unit- 1**

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.

**10hrs**

**Unit- 2**

Design –Definition, meaning, purpose, Types - Structural and decorative characteristics, classification of decorative design - Naturalistic, conventional, geometric, abstract, historic, biomorphic.

**8 hrs**

**Unit- 3**

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

**8hrs**

**Unit- 4**

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 application.

**8hrs**

**Unit- 5**

Application of Design Elements in Interior design

**6 hrs**

**Unit- 6**

Application of Design Principles in Traditional Indian Temples.

**8 hrs**

**Reference Books:**

1. Ahmed A Kasu ,An Introduction to Art, Craft, Technique, Science & Profession of Interior Design, Ashish Book Centre, New Delhi, Pg : 701
2. Caroline Clifton et. al., The complete Home Decorator, Portland House New York.
3. Faulkner, S.-and Faulkner,(1987), Inside Today's Home, Rinehart publishing company, New York.
4. Goldstein, Art in Everyday life, Oxford and IBH publishing house.
5. Pratap R.M (1988), Interior Design principles and practice, standard publishers distribution, Delhi.
6. Seetharaman, P and Pannu, P. Interior Design and Decoration, CBS publishers and Distributors, New Delhi

**SEMESTER I  
FUNDAMENTALS OF INTERIOR DESIGN**

**Practical: IDD103B**  
**16 practicals of 3 hours each**

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

**Unit- 1**

Introduction to line, types of lines and its applications- using different Medias. **3**

**Unit 2**

Basic Application of elements and principles of design in Balance, Harmony, Rhythm, proportion. **3**

**Unit 3**

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

**Unit 4**

Basic Anthropometrics – average measurements of human body in different postures – its proportion and graphic representation, application in the design of simple furniture. **6**

**SEMESTER I  
CONSTRUCTION MATERIALS- I**

**Theory: IDD104A**  
**No of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exam: 70**

**Objectives:**

- To know the Basic materials used in construction.
- To understand the methods of interior construction techniques.

**Unit-1**

Brick masonry – Introduction, Properties and applications.  
Types of bricks – traditional, wire cut, moulded bricks and its sizes, Different types of bonds, Bricks in interiors **10 hrs**

**Unit-2**

Stone masonry- – Introduction, Properties and applications.  
Types of stones, dressing of stones, finishes, its application in interiors **6 hrs**

**Unit-3**

Cement & mortar and its application – Introduction and Properties  
Types of cement – Portland, Pozzolona etc. Mortar – its properties Types of mortar – lime mortar and cement mortar, Concrete and admixtures, R.C.C, R.B. concrete. **8 hrs**

**Unit-4**

Timber and its usage in construction – Introduction and Properties.  
Timber – as a building material, Seasoning & preservation of timber, Hardwood & softwood.

Industrial timber – Ply woods, Block boards, Fibre board Market survey – sizes & rates, brands.

**10 hrs**

**Unit-5**

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, Aluminium alloys

**8 hrs**

**Unit-6**

Plastics and miscellaneous Materials-- Introduction and Properties  
Types of plastics, use of plastics in interiors, fibre plastic, silicons and its usage.

**6 hrs**

**REFERENCES:**

1. Gurcharan Singh, Building materials ,Standard Publishers Distributors , Delhi , Pg : 1378
2. Pratap R.M (1988) Interior Design Principles and practice, Standard publishers distribution, Delhi.
3. Rangawala, S.C Engineering Materials, Charter publishing house, Anand 1963.
4. Rangawala, S.C, Building construction, Charter publishing house, Anand 1963
5. Rangawala .S.C., Water supply and sanitary Engineering, publishing house, Roorkee.
6. Rangwala , Building Construction ,Charotar Publishing House Pvt. Ltd. ,Gujurat , Pg : 752

**SEMESTER I  
CONSTRUCTION MATERIALS- I**

**Practical: IDD104B**  
**16 practicals of 3 hours each**

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

**Unit- 1**

Sketching and Rendering with Textures: Different types of Stones

**3**

**Unit- 2**

Construction of Brick Wall and stone masonry using different bonding agents. Brick Bond, Stretcher, and Header, English and Flemish bonds and market survey

**3**

**Unit – 3**

Timber- Identification, Properties and application Interiors

**4**

**Unit- 4**

Site visits to Timber yard, stone showrooms and Brick kiln

**6**

**SEMESTER I**  
**COLOUR CONCEPTS IN INTERIORS**

**Theory: IDD105A**  
**No of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exam: 70**

**Objectives:**

- To enable the students to learn the concepts of colour and colour schemes.
- To understand the importance, history and effect of colour on Interiors

**Unit-1**

Introduction to Concept of colour - significance of colour in the interiors and exteriors-Dimensions of colour –Hue, value, intensity, Effects of Hue, value and Intensity **8 hrs**

**Unit-2**

Colours- colour mixing, colour dynamics, colour planning in design. **10 hrs**

**Unit-3**

Introduction to Colour Schemes and types, Colour harmonies-related and contrast, Advanced and receding factors considered in selecting colour harmonies, Application of colour harmonies in the interiors and exteriors –Effects of light, form, surface qualities, distances and scales on colour, Illusion of colour, effect of colour on each other **10 hrs**

**Unit –4**

Psychological impact of colour – warm, cool and neutral colours, impact of specific hues, Problems with colour, Use of colour in various functional contexts – Residential interiors, Non Residential interiors, Use of colour in special situations – out door/indoor spaces, accessories, art works **10 hrs**

**Unit –5**

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. **10 hrs**

**References:**

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



**SEMESTER I**  
**COLOUR CONCEPTS IN INTERIORS**

**Practical: IDD105B**  
**16 practicals of 3 hours each**

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

**Unit- 1**

Colour wheel – primary, secondary, tertiary colours, Colour harmony- related and contrast harmonies- primary, secondary, tertiary, monochromatic, achromatic, complementary, split, analogous using bedroom/kitchen/living room/dining room/kid's room template **6**

**Unit – 2**

Colour Systems: Munsell, Pantone Ostwald, DIN, CIE, OAS, Kupper, Gerritsen, NCS, Colour aid system, and colour systems in practice. **4**

**Unit- 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 **3**

**Unit – 4**

Use of colour in special situations – out door/indoor spaces, accessories, art works etc **3**

**SEMESTER II**  
**FUNDAMENTALS OF 2D & 3D GRAPHICS**

**Theory: IDD203A**  
**No of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exam: 70**

**Objectives:**

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

**Unit – 1**

Introduction to graphic standards for architectural practice, 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. **6 hrs**

**Unit – 2**

General understanding of graphic Design and integration with architecture, Role of graphic Design in a building project **10 hrs**

**Unit – 3**

Drawing scaled graphics, Use of pencil colours for rendering, Theory of colour aesthetics, Representing building material and colour **8 hrs**

**Unit – 4**

Orthographic projections in Interior Types and Importance and application in Design and Development of surfaces. **8 hrs**

**Unit – 5**

Isometric, Oblique, Axonometric projection and its importance in Interiors. **10 hrs**

**Unit – 6**

Perspectives and its uses in Interiors. **6 hrs**

**References:**

1. Charles George Ramsey, Harold Reeve sleeper, Architectural Graphic Standards: Students Edition 11<sup>th</sup> Edition, Paperback Publishers, ISBN: 13978-0470085462
2. Ivo.D. Drpic, Sketching and Rendering of Interior Space, Watson- Guptill, 1988.
3. Maureen Mitton, Interior Design Visual Presentation: A Guide to graphics, models and presentation techniques, 3rd edition, wiley publishers, 2007
4. MogaliDelgadeYanes and Ernest Redondo Dominquez, Freehand drawing for Architects and Interior Designers, ww.Norton& co., 2005
5. Stephen Kliment, Architectural Sketching and Rendering: Techniques for Designers and Artists, Watson Guptill, 1984.

**SEMESTER II**  
**FUNDAMENTALS OF 2D & 3D GRAPHICS**

**Practical: IDD203B**  
**16 practicals of 3 hours each**

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

**Unit- 1**

Basics of Drawing, Use of drawing instruments, types of lines, lettering symbols, dimensioning, use of scales. **4**

**Unit- 2**

Orthographic projection – Method of Drawing and Development of surface. **4**

**Unit – 3**

Technical drawing – Isometric, axonometric and oblique Projection **4**

**Unit – 4**

Perspective drawings: 1-point Perspective, 2-point perspective and 3- point perspective drawing. **4**

**SEMESTER II**  
**CONSTRUCTION MATERIALS- II**

**Theory: IDD204A**  
**No of Hours: 3 hours/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**

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. Plastic surfaces, Gypsum boards partitions, Metal stud partitions. **12 hrs**

**Unit -2**

Paints – Introduction, types and application.

Characteristics of good paint – its ingredients. Method of proper application of paint and polishes – painting process. Types of paints –oil and water based paints. Polishes, Wall papers and finishes. Different types of plasters **12 hrs**

**Unit -3**

Glass in Interiors– Introduction, types and application

Glass – different types of glasses, and its uses in interiors, Glass and glass products – Composition and fabrication of glass, classification, types of glass- wired glass, fibre glass, rock wool, laminated glass, glass concrete blocks - their properties and uses in buildings. **6 hrs**

**Unit -4**

Flooring– Introduction, types and application.

Different types of flooring and its usage in interiors, Cement and brick flooring, Wood flooring. Resilient flooring. Stone flooring. Ceramic tile flooring, Terrazzo flooring, and Soft flooring

**6 hrs**

#### **Unit -5**

Foundations footings. Beams and slabs– Introduction, types and application

Different Types of foundations and its use based on the soil. Different types of footings beams slabs, Different Terminology etc.

**6 hrs**

#### **Unit -6**

Sill Lintels and Chajjas– Introduction, types and application

Terminology, Different Types of Sill, lintels chajjas based on material and use.

**6 hrs**

#### **REFERENCES:**

1. Edward Allen, Joseph Lano, Fundamentals Building Construction: Materials and Methods, 6<sup>th</sup> Editions, Wiley Publishers, ISBN:978-1-118-13891-5
2. Francis D.K.Ching, a Visual Dictionary of Architectural.
3. Materials for Construction and Civil Engineering Science, Processing and design. Editors: Goncalves, M.Clara, Margarido, Fernanda, ISBN:978-3-319-08236-3
4. Rangawala, S.C Building construction, charter publishing house, Anand 1963.
5. Pratap R.M (1988), Interior design principles and practice, Standard publisher's distribution, Delhi.
6. S.K.Duggal, Building Material, 3<sup>rd</sup> Revised Edition, New Age International publishers.

### **SEMESTER II CONSTRUCTION MATERIALS- II**

**Practical: IDD204B**

**16 practicals of 3 hours 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- Techniques and methods (minimum 5 techniques)

**3**

#### **Unit-3**

Glass – Identification, thickness, types, textures and application. (minimum 5)

**3**

#### **Unit-4**

Flooring - Identification, Types and applications (minimum 6 )

**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: IDD205A**  
**No of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exam: 70**

**Objectives:**

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

**Unit – 1**

Introduction to art and design .Purpose and relevance of Art to Interiors **4hrs**

**Unit – 2**

History of Furniture's in the ancient world: Greek Furniture, influence of the other countries and its importance and types, Roman furniture forms, Romanesque Furniture, Gothic Style of early medieval period, Ancient Egyptian Furniture and characteristics. **6hrs**

**Unit - 3**

Renaissance period- Baroque characteristics and types of Furniture, Neo Classical characteristics, Renaissance Characteristics and types of furniture Regency and Rococo Characteristics and types Art Nouveau characteristics and types French Provincial Characteristics and style and designers. **12hrs**

**Unit – 4**

Furniture development in England classification of English furniture indoor, early street, early Georgian, Age of Greek designers, Victorian style, the arts and craft movement, designers. **6hrs**

**Unit – 5**

History of Indian Interiors: Hindu style – Rajasthani, Saharanpur, Dravidian style, Islamic style, Jain style, Buddhist style and designers. **6hrs**

**Unit – 6**

History of 20th Century Interior and furniture: Furniture Development in Germany, Furniture Development in France, Art deco style, Furniture development in USA. **6hrs**

**Unit- 7**

Drawing scaled graphics, Use of pencil colours for rendering, Colour wheel, Theory of colour aesthetics, Representing building material and colour. **8hrs**

**References:**

1. Alan Barnard & Jonathan Spencer, Encyclopedia of Social and Cultural Anthropology, Taylor & Francis, 1996
2. Alan Colquhoun, Modern Architecture, History of Arts, First Edition, Paperback publishers, ISBN: 13978-0192842268
3. Barry Burgdoll, European Architecture (1750-1890 ) Oxford History of Arts, First Edition, Paperback publishers, ISBN: 13978-0192842220
4. Charles. V. Stanford, Studies in Indian society, Culture and Religion, South Asia Books, 1988.
5. Clifford Geertz, the Interpretation of Cultures, Basic Books, 1977. .
6. Human Behavior in the Social Environment: A Social Systems Approach, Gary Lowe, Irl Carter, Ralph Anderson, Aldine Transaction, 1999
7. Kenneth Frampton, Modern Architecture: A Critical History, Fourth Edition, Thames and Hudson, ISBN: 13978-0500203958
8. Kumar Raj (Ed) Essays on Indian Art and Architecture. Discovery pub., New Delhi, 2003

9. Niggel Rapport, Social and Cultural Anthropology: The Key Concepts, Routledge, 2000
10. Philip Carl Salzman, Understanding Culture: An Introduction to Anthropological Theory, Waveland press, 2001.

**SEMESTER II  
HISTORY OF INTERIORS**

**Practical: IDD205B**

**16 practicals of 3 hours each**

**Total Marks: 50**

**Internal Assessment: 15**

**Exam: 35**

**Unit- 1**

Sketching of Furniture of Ancient Style – Greek, Roman, Gothic style, Egyptian 4

**Unit-2**

Sketching and rendering of Renaissance period – Furniture Baroque, Neo classical, Regency and Rococo. 3

**Unit-3**

Sketching and Rendering of English Furniture 3

**Unit-4**

Sketching and rendering of 20<sup>th</sup> Century Furniture 3

**Unit-5**

Sketching of Indian Furniture- Hindu Islamic. 3

**SEMESTER III  
CAD IN INTERIORS - I**

**Theory: IDD303 A**  
**No. of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exams: 70**

**Objective:**

- To enable students to understand the importance of AutoCAD in Interiors and learn the application of AutoCAD in Interior design.

**Unit-1**

**6hrs**

Introduction to AutoCAD, importance and application of AutoCAD in interiors. Fundamentals of computers, file menu-saving closing files, importing and exporting files, saving files in different formats. Printing and publishing, undo/redo, matching properties & its application.

**Unit-2**

**6hrs**

Introduction to object drawing, different types of lines - pline, construction lines, splines, multiline, types of objects, circles and curves arc, polygon, ellipse, donut and its application and use in interiors

**Unit-3**

**6hrs**

Introduction to drawing setting and types of setting drawing limits units, object selection, drafting, setting, polar tracking, grid and snap, its application advantages and uses

**Unit-4**

**10hrs**

Introduction to object editing, types in editing the drawing with different command trim, extend, stretch, erase delete, introduction to viewing, types of viewing – zoom, pan, holstering utility and its advantages and important, hatch boundary, hatch, editing , introduction to layers, types of layer creation and uses in interiors

**Unit-5**

**10hrs**

Introduction to hatch, dimensions, text, layer, point style creation, dimension, text, multiline, pline, editing, creating and inserting blocks, attributions, along with different types, application and importance

**Unit-6**

**10hrs**

Introduction to creation of solid, wireframe, objects, basic rendering skills, use of viewport command, different options of view command. Working on model space, paper space, setting the scale for drawings, different types, its application and importance

**References:**

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

**SEMESTER III  
CAD IN INTERIORS - I**

**Practical: IDD303 B**  
**16 Practicals of 3 hours each**

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

**Note:** Practicals to be conducted using AutoCAD software

**Unit-1**

Exercises on creating new files & save as with different names, creating objects with types of lines **3**

**Unit-2**

Editing the created objects, hatching the objects, creating a text styles, dimension styles **3**

**Unit-3**

Drafting the plan and elevations of a door, staircase, curved objects (3 each) **4**

**Unit-4**

Drafting the plan and elevation of the projects, working drawings with paper space, model space, printing with different plot styles (any three) **6**

**SEMESTER III  
INTERIOR SERVICES – I: LIGHTING**

**Theory: IDD304 A**  
**No. of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exams: 70**

**Objective:**

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

**Unit-1**

**10hrs**

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**

**10hrs**

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**

**10hrs**

Introduction to fixtures, types of fixtures and luminaries, lighting accessories, protection devices, guidelines for electric distribution system, earth protection, and their applications, advantages and disadvantages and its uses

**Unit-4**

**10hrs**

Recommended level of illumination, guidelines for lighting design, lumen method of design, wiring process, introduction to wiring, types of wiring, benefits, importance and applications. Layout of a house, wiring layout of a commercial building



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

**Unit-6** **4hrs**  
Exterior lighting: Introduction, types, materials, system and their applications, advantages and disadvantages and its application

**References:**

1. Anna Yudina, “ Lumitecture-Illuminating Interiors for Designers And Architects”, Thames and Hudson, 2016, ISBN:9780 500 518342
2. Jason Livingston, “Designing With Light”, Wiley Publisher, 2014, ISBN: 9781 118 70477
3. Gary Gordon, “Interior Lighting for Designers”, 5<sup>th</sup> edition, Wiley Publishers, 2015, ISBN:978 0 47011 422 3
4. Malcolm Innes, “Portfolio Skills, Lighting for Interior Design”, Laurence King Publishing Ltd, London, 2012, ISBN: 9781856698368
5. Mark Karlen, “Lighting Design Basic” Wiley publishers, 2003, ISBN: 0471 38162 4

**SEMESTER III**  
**INTERIOR SERVICES – I LIGHTING**

**Practical: IDD304 B**  
**16 Practicals of 3 hours each**

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

**Unit-1**  
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) **3**

**Unit-2**  
Types of light fixtures, sketching of light 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 **3**

**Unit-3**  
Draw a plan of 2 bedroom residential building/commercial building **4**

**Unit-4**  
Lighting plan for a corporate office/commercial building with legends – showroom/cafe **6**

**SEMESTER III**  
**SPACE PLANNING IN INTERIOR DESIGN**

**Theory: IDD305 A**  
**No. of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exams: 70**

**Objective:**

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

**Unit-1**

**8hrs**

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**

**8hrs**

Introduction to defining design, evaluating design - function, structure and materials, aesthetics, analysing existing space and its advantages

**Unit-3**

**8hrs**

Space design, data collection, analysis, synthesis - zonal and block diagram, adjacency matrix, stacking plans, circulation, evaluation, execution, feedback- evaluation- literature study, case study, Proto typical plan sketches, relationship diagram

**Unit-4**

**8hrs**

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**

**8hrs**

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

**Unit-6**

**8hrs**

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. Develop time in schedule based on inputs by consultant

**References:**

1. Ernst and Peter Neufert, "Neufert Architect's Data", Wiley Blackwell Publication, United Kingdom, 2012 ISBN:9781 4051 9253 8
2. Joseph De Chiara, Julius Perero and Martin Zelnik, "Time Saver Standards for Interior design and Space Planning", McGraw Hill, London, 2011, ISBN:978 0 07170 465 6
3. Joseph De Chiara, Michael J Crosbie, "Time Savers Standards for Building Types", 4 edition, McGraw Hill Education, 2014, ISBN: 9780070163874
4. Joseph De Chiara, Julius Panero, "Standards for Interior Design and Space Planning", McGraw Hill Professional, 2011, ISBN: 9780 07170 465 6

**SEMESTER III**  
**SPACE PLANNING IN INTERIOR DESIGN**

**Practical: IDD305 B**  
**16 Practicals of 3 hours each**

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

**Unit-1**

Mind mapping, data collection, case study, literature study (any two projects) **4**

**Unit-2**

Area calculation, bubble & circulation diagram, block diagram adjacency matrix, development of a concept /cafe/showroom anyone **4**

**Unit-3**

Complete design process of play school/residential/showroom/with working model (any one) **4**

**Unit-4**

Designing of a Play School/Residential/Showroom (anyone whichever is done in Unit-3) **4**

**SEMESTER IV**  
**CONSTRUCTION AND DETAILING**

**Theory: IDD 403 A**  
**No. of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exams: 70**

Objectives:

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

**Unit-1** **8hrs**  
Introduction to arches, and lintels terminology, classification of arch - according to shape, classification of arch - according to material, introduction to lintels - classification according to material, classification of arch according to number of centres, advantages and its disadvantages, elements of arch

**Unit-2** **8hrs**  
Introduction to doors: Terminology, evolution of doors, types of doors based on materials - wooden metal & PVC doors, classification of doors based on method - rolling shutters, collapsible doors, sliding doors, special doors and its applications

**Unit-3** **8hrs**  
Introduction to windows, terminology, evolution of windows, types of windows based on materials, types of windows based on method, types of windows based on design, special types of windows and its applications and benefits

**Unit-4** **8hrs**  
Introduction to staircases, 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** **8hrs**  
Introduction to false ceiling, types of false ceiling & materials used for false ceiling, wooden & gypsum board false ceiling, plaster of Paris false ceiling, PVC and decorative sheets false ceiling, application and its advantages

**Unit-6** **8hrs**  
Introduction to carpentry joints principles, classification and terminology in joints, lengthening & widening joints, and angle & oblique joints, bearing & framing joints, introduction to hardware fixtures

**References:**

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

**SEMESTER IV  
CONSTRUCTION AND DETAILING**

**Practical: IDD403 B**  
**16 Practicals of 3 hours each**

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

<b>Unit-1</b> Drafting different types of arches and lintels with all the necessary details (any 8)	<b>3</b>
<b>Unit-2</b> Drafting different types of doors with all the necessary details (any 4)	<b>3</b>
<b>Unit-3</b> Drafting different types of windows with all the necessary details (any 4)	<b>3</b>
<b>Unit-4</b> Drafting different types of staircases with all the necessary details (any 4 with lift interiors)	<b>3</b>
<b>Unit-5</b> Drafting different types of joints false ceiling with all the necessary details	<b>4</b>

**SEMESTER IV  
INTERIOR DESIGN**

**Theory: IDD404 A**  
**No. of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exams: 70**

**Objectives:**

To develop the ability to translate the principles of design into interior solutions for single problem

**Unit -1** **6hrs**  
Interior Designing – Introduction, terminology, types and concepts of designing: topic, types, history of evolution of topic, collection of data, requirements and area statement.

**Unit -2** **8hrs**  
Introduction to case study –case study of commercial building- foundation, structure, design, interiors, commercial viability. Case study of residential building - foundation, front view, structure, utility, vastu and ventilation.

**Unit -3** **10hrs**  
Commercial and Residential Building – introduction, types, mind mapping: Introduction to mind mapping, positives and negatives of mind mapping, process of mind mapping, benefits of mind mapping, development of inspiration board, concept and mood board. Detailed study of HIG, MIG and LIG houses with facilities.

**Unit – 4** **8 hrs**  
Site Projects-Introduction, detailing of site project – concept to design, develop furniture layout and development of conceptual plan – lighting, wall floor planning, and ceiling plan of a given project.

**Unit-5** **10hrs**  
Presentation drawing: circulation diagram, block diagram, stack diagram – development of elevations, sections, detailed drawings, 2 dimensional and 3 dimensional views according to design proposal.

**Unit-6** **6hrs**  
Renovation of old houses: Introduction, history of buildings, structural formation, assessment of the building, exterior and interior restoration, methods, planning, estimation, design, work process.

**Reference books:**

1. Ch'ing, Francis D.K.; Binggeli, Cork; Interior Design Illustrated; Willey Publications; New York; 2004
2. Joseph De Chiara ,Michael J Crosbie ,Time Savers Standards for Building Types, McGraw Hill, Boston Burr Ridge, Dubuque, I A Madison, W I New York, San Francisco
3. Joseph De Chiara, Julius Perero and Martin Zelnik , Time Saver Standards for Interior design and Space Planning , McGraw Hill, New York ,San Francisco ,Lisbon ,London
4. McGraw, Time saver Standards for Architectural Design Data, Publications, Delhi, 2011
5. Rao M, Partap; Interior Design (Principles and Practice); Standard Publishers Distributors; Delhi; 2006

**SEMESTER IV  
INTERIOR DESIGN**

**Practical: IDD404 B**  
**16 Practicals of 3 hours each**

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

<b>Unit-1</b> Mind mapping, data collection, case study, literature study of given residential project	<b>3</b>
<b>Unit-2</b> Area calculation, bubble & circulation diagram, block diagram adjacency matrix, development of a concept	<b>3</b>
<b>Unit-3</b> Design of a given project, working drawing for furniture and lighting	<b>4</b>
<b>Unit-4</b> Elevations, sections, detailed drawings of a given project	<b>6</b>

**SEMESTER IV  
CAD IN INTERIORS - II**

**Theory: IDD405 A**  
**No. of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exams: 70**

**Objectives:**

- To enable the students to understand the skill of computer aided drafting.
- To learn about creating designs, plans and elevations

**Unit-1**

**12hrs**

Introduction to various software systems and configuration for interiors, system configuration, interface. Setting project, customize viewports, standard primitives, creating objects using keyboard entry creating extended primitives, defining object, name and colour, transforms (move, rotate and scale with short-cut keys) and all the tools.

**Unit-2**

**10hrs**

2D Modifiers - edit spline modifier, lathe, extrude, bevel, bevel profile, sweep, and fillet/chamfer, normalize spline, compound objects- Boolean, AEC extended objects – foliage, railing, wall, staircase, doors and windows. Copying objects- clone, instance, reference, array, space tool, normal align, align view and align camera, working with shape Boolean, edit - spline, compound object - loft, deforming loft objects - scale, twist, teeter, bevel, fit - modifying objects. Sub object selections, extrude, bevel, inset and connect\_modelling using loftmulti/sub object materials.

**Unit-3**

**8hrs**

Introduction to material editor, tools in M.E., assigning materials to selection, assigning 2D maps, shader basic and blinn basic parameter. Collecting materials, saving material library, maps rollout, material/map navigation, rendering map, extended parameters.

**Unit-4**

**6hrs**

Cameras - Target, free-multi pass effect, depth of field, motion blur, animating camera in a path, animation camera in free movement, navigating the camera using keyboard.

**Unit-5**

**6hrs**

Introduction to lights: Standard lights - Omni target spot and free spot target direct, free direct, sky light, place highlight photometric light - target point, free point, target linear, free linear, target area, free area.

**Unit- 6**

**6hrs**

Rendering basics: Output image sizes, exports as jpeg, file handling- save, save as, save copy as, save selected, archive, summary info, view image file, hold, fetch, and undo/redo.

**References:**

1. Ascent, “Autodesk 3ds Max 2017”, Fundamentals Publisher, ISBN:13:9781943184477
2. Kelly L. Murdock’s, “Autodesk 3ds max 2017 Complete Reference Guide”, Publisher CRC Press, ISBN -13: 978 1 63057 033 0
3. Lydia Cline, “SketchUp for Interior Design: 3D Visualizing, Designing, and Space Planning”, John Wiley & Sons, 2014
4. Sham Tickoo, “Autodesk 3DS Max 2015, A Comprehensive Guide”, Cadcim Technologies, 2014, ISBN:13-978 1 936646 75 3

**SEMESTER IV  
CAD IN INTERIORS - II**

**Practical: IDD405 B  
16 Practicals of 3 hours each**

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

<b>Unit-1</b> Design and development of small models	<b>3</b>
<b>Unit-2</b> Design and development of furniture for different rooms (drawing and bed room)	<b>3</b>
<b>Unit-3</b> Design and development of complete rooms interiors (office, drawing room and kitchen)	<b>4</b>
<b>Unit-4</b> Complete model of a residence with rendering (top view)	<b>6</b>



**SEMESTER V**  
**CONSTRUCTION MANAGEMENT**

**Theory: IDD501**  
**No. of Hours: 4 hours/week**

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

**Objectives:**

- To enable students to understand about construction management
- To learn about concepts and application of management in interior design

**Unit-1** **14hrs**  
Introduction to construction management, study of management organization including duties and responsibility, objectives of project management, classification of management, principles of management, functions, types of business organization with their merits and demerits

**Unit-2** **12hrs**  
Pre-tender planning, planning during tendering. Post tender advantage, bar chart - advantages and limitations, mile stone chart, networks analysis - CPM & PERT with problems

**Unit-3** **10hrs**  
Construction schedule (related to interior design field) labour schedule, material schedule, financial schedule, equipment schedule, organization schedule

**Unit-4** **10hrs**  
Purpose of valuation and different forms of values income, gross income, net income, outgoings, depreciation - different methods of calculation

**Unit-5** **10 hrs**  
Ergonomics in Interiors: Introduction, types and techniques - time study, work and method study

**Unit 6** **8 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, ISBN:9781 4051 8380 2
2. Frank Harris, Ronald McCaffer and Francis Edum-Fotwe, “Modern Construction Management”, Wiley Sons and Blackwell Publication, 7<sup>th</sup> Edition, 2013, ISBN: 978-0-470-67217-4
3. Fred Sherratt, “Introduction to Construction Management” [Routledge](#), 2015, ISBN: 9781 315 75622 9
4. R.H B Ranns and E J M Ranns, “Practical Construction Management”, Routledge, 1990, ISBN: 978 0 415 36257 3

**SEMESTER V**  
**ESTIMATION, COSTING AND SPECIFICATION FOR INTERIORS**

**Theory: IDD502 A**

**No. of Hours: 3 hours/week**

**Total Marks: 100**

**Internal Assessment: 30**

**Exams: 70**

**Object:**

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

**Unit-1**

**6hrs**

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**

**5hrs**

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

**Unit-3**

**5hrs**

Introduction to specifications, types of specifications, prosperity specifications, based – bid specifications, descriptive specifications, performance specifications, master specifications its advantages and benefits

**Unit-4**

**12hrs**

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**

**10hrs**

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

**Unit-6**

**10hrs**

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

**References:**

1. B.S. Patil, "Civil Engineering Contracts and Estimates", Orient Longman Publishers, 2015, ISBN:978 8 1737 155 94
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, "Estimating Costing and Valuation", Charotar Publishing House, 2011, ISBN: 978 93 85039 05 8

**SEMESTER V**  
**ESTIMATION COSTING AND SPECIFICATION FOR INTERIORS**

**Practical: IDD502 B**  
**16 Practicals of 3 hours each**

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

**Unit-1**

Preparation of estimation of a given room with different methods - civil works (all rooms) **3**

**Unit-2**

Preparation of estimation of a given Bed Room/Kitchen/Living/Bath with interior works (any 3) **3**

**Unit-3**

Preparation of estimation of a given Living/Bed/Kitchen/Dining with woodwork, plumbing, lighting (any 3) **5**

**Unit-4**

Lighting specification of wood works, painting, flooring, and all other works for a 2 BHK flat/commercial building **5**

**SEMESTER V**

**INTERIOR SERVICES - II: PLUMBING AND SANITATION**

**Theory: IDD503 A**  
**No. of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exams: 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**

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, advantages and its benefits **6hrs**

**Unit-2**

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 **6hrs**

**Unit-3**

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 **10hrs**

**Unit-4** **10hrs**  
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** **6hrs**  
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** **10hrs**  
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", Willey 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, Gujarat, 1988
5. Singh, Gurcharan, "Water Supply and Sanitation Engineering (Environmental Engineering)", Standard Publishers Distributors, 2007

**SEMESTER V**  
**INTERIOR SERVICES - PLUMBING AND SANITATION**

**Practical: IDD503B**  
**16 Practicals of 3 hours each**

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

**Unit-1**  
Preparing a water supply drawing for a residence **3**

**Unit-2**  
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 **6**

**Unit-3**  
Preparation of layout plan of a multi-storeyed residential building with water supply and plumbing drawings **5**

**Unit-4**  
Market rate analysis of different types of AC units and study of AC services for a hotel building with plan **2**

**SEMESTER V**  
**ADVANCED CAD IN INTERIORS**

**Theory: IDD504 A**  
**No. of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exam: 70**

**Object:**

- To enable the students to understand the skill of computer aided drafting
- To learn the advanced CAD interior designing methods

**Unit-1**

**10hrs**

Introduction, understanding the interface, basic plan tools, zooming and panning, modeling simple walls, inserting doors and windows, temporary dimensions, selecting with tab, EQ constraints, filter selection, interference check, 2D view types, project browser, sections, elevations, floor plans (relationship to levels) callouts, 3D view types, axonometric, perspective (camera) controlling visibility, view properties, visibility/graphics object styles, view templates, isolate category, importing and manipulating AutoCAD (vector) files, import/link, query/delete layers

**Unit-2**

**8hrs**

Introducing datum elements, creating levels, creating grids, 2D/3D extents, array, edit and tools toolbars, moving and copying objects, splitting walls, trimming and extending, offsetting objects, creating model groups, mirroring objects, pasted aligned in current view

**Unit-3**

**8hrs**

Vertical surfaces, generic walls, compound walls (finish/core) introduction to materials, edit profile, curtain walls, basic switchback stairs, stair parameters, railing, and annotation text, leaders, dimensioning, locking vs pinning, rooms and room tags, editing type parameters and creating new types, inserting windows, loading a window family, editing type parameters, creating a new window type, horizontal surfaces, floors

**Unit-4**

**8hrs**

Introduction to Photoshop user interface, Photoshop file types, image types - vector and raster image, file formats and its applications, uses of Photoshop, colour types and applications, colour modes, ideas on colour, selection menu-selection tools, marquee tools, lasso tools, magic wand tools vector and raster tools uses and its applications, image menu-image size and resolution, basic adjustments working with selections, re-touching photos

**Unit-5**

**8hrs**

Layers and composing images, working with multiple files, layers - understanding layers, layer styles, flattening and saving, blending grouping and ungrouping of layers, image editing, image manipulation, gradient tool, eraser tool, red eye tool, edit menu, paper sizing, composing images, filters, effects and composition, adding to existing images, working with selections, blur, smudge, dodge, burn, sponge tools, uses and its applications, adding & editing text

**Unit-6**

**6hrs**

Pen tool, add anchor point, delete anchor point, convert point, path selection, direct selection tool, shape tools and its application, photo merge and its applications. Filter menu-blur distort, noise, pixelate, automate, export, uses and its application, save as different formats

**References:**

1. David Martin, “ Instant Revit: A Quick and Easy Guide to Learning Autodesk Revit 2018”, 2017, ISBN:9781 5455 5 384 8

2. Dean Muccio, "AutoCAD 2016 for the Interior Designer", SDC Publications, 2015, ISBN-13: 978 1 58503 863 3
3. James M Kirkpatrick, "AUTO CAD for Interior Design and Space", Pearson Education, 2015, ISBN: 9780133144857.
4. Joseph A fiorello, "CAD for Interiors: Beyond the Basics", Wiley publisher, 2010, ISBN:9780 470 4388 55

**SEMESTER V  
ADVANCED CAD IN INTERIORS**

**Practical: IDD504 B**  
**16 Practicals of 3 hours each**

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

**Unit-1**

Creation of small models, walls, doors, windows: Using Rivet/ Photoshop/Homestyle **3**

**Unit-2**

Creation of furniture - Ancient, medieval and renaissance for different rooms with elevations: Using Rivet/ Photoshop/Homestyle **3**

**Unit-3**

Creation of complete rooms with furniture 3D model: Using Rivet/ Photoshop/Homestyle **4**

**Unit-4**

Complete model of a residence with plan, elevations sections: Using Rivet/ Photoshop/Homestyle **6**

**SEMESTER V  
MODEL MAKING AND FURNITURE DESIGN**

**Theory: IDD505 A**  
**No. of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exam: 70**

**Object:**

- 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**

Introduction to model making, development of prisms, development of pyramids, development of cylinders, development of cones, development of spheres **6hrs**

**Unit-2**

Principles of isometric projection, isometric of pyramid, isometric of cones, isometric of spheres, isometric views, principles of oblique projection its applications in interiors **6hrs**

**Unit-3**

**8hrs**

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

**Unit-4**

**6hrs**

Furniture: Types of furniture, new materials used in furniture, creation of furniture using different materials

**Unit-5**

**4hrs**

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

**Unit-6**

**8hrs**

Types of materials used for furniture making: Characteristics of materials, paper, handmade paper, mount boards, balsa wood, perplex sheet, cork sheets, pop, thermacol, and other material that creates an effect of reality in model forms

**Unit-7**

**10hrs**

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, ISBN-13:978 0 47164 8376
2. David Neat, "Model Making Materials and Methods", The Crowood Press Ltd., 2008, ISBN:978 1 84717 729 8
3. Stanford Hohauser, "Architectural and Interior Model", 2<sup>nd</sup> edition, Van Nostrand Reinhold Inc.,U.S., 1971, ISBN: 978 0 44223 668 7
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, ISBN: 9781 56898 870 2

**SEMESTER-V  
MODEL MAKING AND FURNITURE DESIGN**

**Practical: IDD505 B**

**16 Practicals of 3 hours each**

**Total Marks: 50**

**Internal Assessment: 15**

**Exam: 35**

**Unit-1**

Design and development of small models, cubes and prisms

**2**

**Unit-2**

Designing of furniture models

**3**

**Unit-3**

Design and development of complete rooms with furniture 3D model

**5**

**Unit-4**

Making of mini model of a residence with furniture

**6**

**SEMESTER-V  
INTERNSHIP**

**Practical: IDD506**

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

**Objectives**

- To impart knowledge on working of interior design firm
- To gain practical knowledge of managing an 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 chapters:**

- Introduction of the company
- Aim and objective of the internship
- Organization structure of the company
- Role of interior designers
- Layout of the organization
- Types of software used for designing
- Methods used for costing and estimation
- Summary & conclusion



## SEMESTER-VI

### PROFESSIONAL PRACTICE IN INTERIOR DESIGN

**Theory: IDD601**

**No. of Hours: 4 hours/week**

**Total Marks: 150**

**Internal Assessment: 50**

**Exam: 100**

**Object:**

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

**Unit-1**

**10hrs**

Introduction to professional practice, types of firms, advantages and disadvantages of working in established firm, advantages and disadvantages of working in a small firm

**Unit-2**

**10hrs**

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

**Unit-3**

**12hrs**

Owning an office, problems in starting up an office, rules and regulations to follow in owning an office, registration to local authorities

**Unit-4**

**12hrs**

Types of clients, ideal client, bad client, searching for a client, role of an interior designer and necessity, project execution, methods of checking on site

**Unit-5**

**10hrs**

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

**Unit-6**

**10hrs**

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

**References:**

1. Christine. M. Piotrowski, "Professional Practice for Interior Designers" 3<sup>rd</sup> edition, John Willey & Sons, 2001, ISBN: 978 0 47121 028 3
2. Christine. M. Piotrowski, "Interior Design Management ", John Wiley & Sons, 1992, ISBN: 0 471 28431 9
3. Christine. M. Piotrowski, " Designing commercial Interiors ", 3<sup>nd</sup> edition, John Willey publishers, 2016, ISBN: 978 0 47172 349 3
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 ACOUSTICS

**Theory: IDD602A**  
**No. of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exam: 70**

**Object:**

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

**Unit-1**

**8hrs**

Introduction to acoustics, objectives of acoustics, terminology, sound in interiors, factors involving in sound. Classification of sound, sound transmission defects due to reflected sound

**Unit-2**

**8hrs**

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**

**8hrs**

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**

**10hrs**

Ways to control room noise, control of sound transmission, speech privacy, room geometry and planning concepts, design of rooms for speech and music, control of impact noise, acoustic ratings of ceilings

**Unit-5**

**8hrs**

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

**Unit-6**

**6hrs**

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

**References:**

1. David Egan, M, "Architectural Acoustics", J Ross Publishing, 2007, ISBN: 978-1932159783
2. H Kuttruff, "Room acoustics ", 5<sup>th</sup> edition, CRC Press, 2009, ISBN: 978 1 4822 6043 4
3. Jiri Tichy, "Acoustics of Small Rooms ", CRC Press, 2014, ISBN: 9780 203 86924 6
4. Lawrence E Kinsler, "Fundamentals of acoustics", Wiley Publishers, 2000, ISBN : 9780471847892
5. Lothar Cremer, " Principles and application of room acoustics", Peninsula Publishing, 2016, ISBN: 978 0 93214 673 1

**SEMESTER-VI  
ACOUSTICS**

**Practical: IDD602B**  
**16 Practicals of 3 hours each**

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

<b>Unit-1</b> Collection of different types of acoustic material	<b>3</b>
<b>Unit-2</b> Rate analysis of acoustic material for home, office, theatre and auditorium	<b>3</b>
<b>Unit-3</b> Visit to any college, public auditorium to study about acoustic material	<b>4</b>
<b>Unit-4</b> Visit to any theatre to study about acoustical material	<b>6</b>

**SEMESTER VI  
TEXTILES FOR INTERIORS**

**Theory: IDD603A**  
**No. of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exam: 70**

**Objectives:**

- To understand the types of fabrics used in interiors
- To learn its applications in interiors

<b>Unit-1</b> Fabrics for Interiors: Introduction, interior fabric element, design, colour, types, and application. Importance of fabrics for interior textiles, properties and application	<b>6hrs</b>
<b>Unit-2</b> Classification of fabrics for interiors - Introduction, types, materials and applications	<b>5hrs</b>
<b>Unit-3</b> Upholstery: Introduction, types, materials, skills and techniques. Seating - sofas, chairs, chair pads, cushions - fills. Windows - sheer curtains, curtains, curtain drapes, reflecting textiles and blinds	<b>8hrs</b>
<b>Unit-4</b> Interior textiles for rooms: Bed Room - 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	<b>8hrs</b>
<b>Unit-5</b> Carpets and rugs: Introduction, types, materials and applications of carpets, floor mats, floor coverings	<b>6hrs</b>

**Unit-6** **8hrs**  
Interior textile and accessories: Introduction, types, materials and applications in floor cushion, lamp shade, paintings. Table textiles - table coverings, table matts, table cloth, napkins, coasters

**Unit-7** **7hrs**  
Interior and textiles care and maintenance: Introduction, types, 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, ISBN:0-87596-677-2
2. Diane Patrice, Tap Scott, "Curtains, Draperies and Shades", Lane, Menlo Park, California, 2000, ISBN-0-376-01732-5
3. Katrin Cargill, "Cushions", Ryland Peters and Small, 1996, ISBN: 1-90051805-8
4. Mary Neal, "Custom Draperies in Interior Design", Elsevier Science Ltd., 1982.
5. Sydney A Sykes, "Decorating English Country Styles", Webb and Bower, 1990, ISBN: 0-8635-266-0

**SEMESTER VI**

**TEXTILES FOR INTERIORS**

**Practical: IDD603 B**  
**16 Practicals of 3 hours each**

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

**Unit-1**  
Development of design for a formal sofa with upholstery (any 2: one with leather and one with fabric) **3**

**Unit-2**  
Sketch and develop a design for a living room with sofa, draperies, cushion and accessories for wall and side table **3**

**Unit-3**  
Sketch and develop a design for a bed room with bed, bed covering, pillows, cushions, draperies and other accessories **3**

**Unit-4**  
Sketch and develop a design for kid's rooms with all amenities and accessories **3**

**Unit-5**  
Development of fabric catalogue with details of type of fabric, cost per meter, textures for draperies, cushions, upholstery material, table linen and kitchen linen **2**

**Unit-6**  
Design and develop a table linen for a four seater dining table and kitchen line (Oven glove, pot holder and apron) **2**

**SEMESTER VI**  
**ACCESSORIES IN INTERIOR DESIGNING**

**Theory: IDD604A**

**No. of Hours: 3 hours/week**

**Total Marks: 100**

**Internal Assessment: 30**

**Exam: 70**

**Objectives:**

- To understand the various accessories used in interiors and to learn the methods of designing the accessories

**Unit-1**

**8hrs**

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

**Unit -2**

**8hrs**

Traditional crafts of India: Karnataka, Tamilnadu, Kerala, Andhra Pradesh, Goa, Rajasthan, Gujarat, Kutch, Uttar Pradesh and Orissa. Indian Art Appreciation -A study

**Unit-3**

**8hrs**

Sculpture Art: Introduction, techniques and material used from pre historic times till date

**Unit-4**

**8hrs**

Degradable/non-degradable materials in interior design: Introduction, types, importance and their application

**Unit-5**

**8hrs**

Creative Art Objects: Introduction, materials, types and method, application of wall hangers, ceramics, wall textures, and murals

**Unit-6**

**8hrs**

Vaastu elements in interior design - Introduction, origin, importance, principles, science of vaastu

**References:**

1. Ahmed A Kasu, “An Introduction to Art, Craft, Technique, Science & Profession of Interior Design”, Ashish Book Centre, New Delhi, 2012, ISBN: 978 8 17813 186 3
2. Caroline Clifton, “ Color – Design Sources Book Using Fabrics, Paints and Accessories for Successful Decorating” Ryland Peters & Small, 2007, ISBN: 978 1 84597 460 2
3. Hellen Ruthberg, “ The Book of Miniature Furniture & Accessories”, Chilton Book Co., 1977, ISBN: 978 0 80196 366 7
4. Richard Mishaan, “ Artfully Modern Interiors ”, The Monacelli Press, 2014, ISBN : 978 1 58093 400 8
5. Windsor Smith, “Home Front Design for Modern Living ”, Rizzoli, 2015, ISBN 978 0 84784 362 6

**SEMESTER VI**  
**ACCESSORIES IN INTERIOR DESIGNING**

**Practical: IDD604 B**  
**16 Practical's of 3 hours each**

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

<b>Unit-1</b> Lamp shades – designing and development of thematic lampshade (any material)	<b>3</b>
<b>Unit-2</b> Designing of wall frames for living room (Glass/Terracotta/Wood/Bamboo/Embossing)	<b>3</b>
<b>Unit-3</b> Design & develop any one traditional Indian art as well decoration	<b>4</b>
<b>Unit-4</b> Design and development of theme based showpiece	<b>3</b>
<b>Unit-5</b> Visit to any handicraft cluster and preparation of a report with photographs	<b>3</b>

**SEMESTER VI**  
**INTERIOR LANDSCAPING**

**Theory: IDD605 A**  
**No. of Hours: 3 hours/week**

**Total Marks: 100**  
**Internal Assessment: 30**  
**Exams: 70**

**Objective:**

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

<b>Unit-1</b> Introduction to landscaping, advantages, factor to be considered for interior landscaping, evolution of interior landscaping	<b>8hrs</b>
<b>Unit-2</b> Types of indoor plants, function of indoor plants, classification of plants, light intensity, soil separator planting medium	<b>8hrs</b>
<b>Unit-3</b> Plant texture, plant height plant spacing, plant containers built-in planters & balcony rail planters construction details for planters	<b>8hrs</b>
<b>Unit-4</b> Watering by hand, automated low-volume irrigation systems, sub-irrigation systems, drainage, pest control, suspended plants	<b>8hrs</b>

**Unit-5** **8hrs**  
Description of plants, pruning of plants, physiological disorders and maintenance

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

**References:**

1. Alex, R and Sudhadevi, "Interior Plantscaping and Foliage Ornamental Plants", 2013, LAP Lambert Academic Publishing, 2013, ISBN: 978-3659381836
2. Bree Claffey, "Indoor Green: Living with Plants", 1<sup>st</sup> edition, Thames and Hudson, 2017
3. James M Delprince, " Interior Plant Scaping", Delmar Cengage Learning, 2012, ISBN:9781 43543 963 4
4. Michelle Satilla "Gardenista: The Definitive Guide to Stylish Outdoor Spaces", Thomas Allen and sons, ISBN: 978 1 57965 652 2
5. Nelson hammer, "Interior landscaping design", Rockport publishers, ISBN:978156496 4878
6. Stefano Corbo, "Interior Landscapes –A visual Atlas", Images Publishing Dist Ac, 2016, ISBN: 978 1 86470 614 7

**SEMESTER-VI  
INTERIOR LANDSCAPING**

**Practical: IDD605 B**  
**16 Practicals of 3 hours each**

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

**Unit-1**  
Sketching of indoor plants - theme based/location specific (any 2) **3**

**Unit-2**  
Sketching of landscape design (office/residence) **3**

**Unit-3**  
Study about indoor and medicinal plants. Visit to nursery **4**

**Unit-4**  
Design a of indoor landscaping of a given project **3**

**Unit-5**  
Design and develop a landscape with artificial water fall **3**

## **SEMESTER VI PROJECT**

**Theory: IDD606**  
**No. of Hours: 9 hours/week**

**Total Marks: 150**  
**Internal Assessment: 50**  
**Exams: 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 interiors.

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

- 2 BHK Flat
- 3 room residential independent house
- Pre-School
- School
- Cafe
- Restaurant
- Coffee Bar
- Hospital
- Library
- Auditorium
- Corporate Office
- Showrooms