

BHARATHIDASAN UNIVERSITY,
B.Sc. Interior Design
(For the Candidates admitted from the Academic year 2020-2021 onwards)



TIRUCHIRAPPALLI – 620 024.
Course Structure under CBCS.
(For the Candidates admitted from the Academic year 2020-2021 onwards)

Updated on 02.02.2021

Semester	Part	Course	Title	Instru. Hours/Week	Credit	Exam Hours	Marks		Total	
							Int	Extn.		
I	I	Language Course – I (LC) – Tamil*/Other Languages ** #		6	3	3	25	75	100	
	II	English Language Course - I (ELC)	Communicative English I	6	3	3	25	75	100	
	III		Core Course – I (CC)	Fundamentals of Design	6	6	3	25	75	100
			Core Practical – I (CP)	Design sketching and Visual Arts (P)	3	-	-	-	-	
			First Allied Course – I (AC)	Building components and Materials	4	4	3	25	75	100
			First Allied Course – II (AP)	Graphics (P)	3	-	-	-	-	
		Add on Course – I ##	Professional English I	6	4	3	25	75	100	
	IV	Value Education	Value Education	2	2	3	25	75	100	
Total				30	22				600	
II	I	Language Course – II (LC) – Tamil*/Other Languages ** #		6	3	3	25	75	100	
	II	English Language Course – II (ELC)	Communicative English II	6	3	3	25	75	100	
	III		Core Course – II (CC)	Planning the life space	6	6	3	25	75	100
			Core Practical - I (CP)	Design sketching and Visual Arts (P)	3	3	3	40	60	100
			First Allied Course – II (AP)	Graphics (P)	3	3	3	40	60	100
			First Allied Course – III (AC)	Model Making Concepts	4	2	3	25	75	100
		Add on Course – II ##	Professional English II	6	4	3	25	75	100	
	IV	Environmental Studies	Environmental Studies	2	2	3	25	75	100	
Total				30	26				800	
III	I	Language Course – III (LC) – Tamil*/Other Languages ** #		6	3	3	25	75	100	
	II	English Language Course - III (ELC)		6	3	3	25	75	100	
	III		Core Course – III (CC)	Interior Furniture Design	6	6	3	25	75	100
			Core Practical - II (CP)	Interior Furniture Design Studio (P)	3	--	--	--	--	--
			Second Allied Course – I (AC)	Computer Aided Drafting and Design	4	4	3	25	75	100
		Second Allied Practical – II (AP)	Computer Aided Drafting and Design (P)	3	-	-	-	-	-	
		Non Major Elective I - for those who studied Tamil under Part I a) Basic Tamil for other language students b) Special Tamil for those who studied Tamil upto +2 but opt for other languages in degree programme	Painting and Sculpture	2	2	3	25	75	100	

		Total		30	18				500	
IV	I	Language Course -IV (LC) - Tamil*/Other Languages ** #		6	3	3	25	75	100	
	II	English Language Course-IV (ELC)		6	3	3	25	75	100	
	III	Core Course - IV (CC)	Furniture Design		5	5	3	25	75	100
		Core Practical - II (CP)	Interior Furniture Design Studio (P)		3	3	3	40	60	100
		Second Allied Course-II (AP)	Computer Aided Drafting and Design (P)		3	3	3	40	60	100
		Second Allied Course-III (AC)	Lighting and Light fixture		3	2	3	25	75	100
	IV	Non Major Elective II - for those who studied Tamil under Part I a) Basic Tamil for other language students b) Special Tamil for those who studied Tamil upto +2 but opt for other languages in degree programme	Landscape Design		2	2	3	25	75	100
	Skill Based Elective - I	Skill Based Elective - I		2	2	3	25	75	100	
		Total		30	23				800	
V	III	Core Course - V [CC]	Commercial Space Design		5	5	3	25	75	100
		Core Course - VI [CC]	Advanced Computer Applications		5	5	3	25	75	100
		Core Course - VII [CC]	An Introduction to Architecture		5	5	3	25	75	100
		Core Practical - III [CP]	Material Workshop (P)		4	3	3	40	60	100
		Major Based Elective - I	Working Drawing		5	5	3	25	75	100
	IV	Skill Based Elective - II	Skill Based Elective - II		2	2	3	25	75	100
		Skill Based Elective - III	Skill Based Elective - III		2	2	3	25	75	100
		Soft Skills Development	Soft Skills Development		2	2	3	25	75	100
		Total		30	29				800	
VI	III	Core Course VIII [CC]	Building Design Planning		6	6	3	25	75	100
		Core Course IX [CC]	Design Management		6	6	3	25	75	100
		Core Practical IV [CP]	Retail furniture design (P)		5	4	3	40	60	100
		Major Based Elective - II	Costing and Estimation		6	6	3	25	75	100
		Major Based Elective - III	Codes and Practices		6	6	3	25	75	100
	V	Extension Activities	Extension Activities		-	1	-	-	-	-
		Gender Studies	Gender Studies		1	1	3	25	75	100
		Total		30	30				600	
		Grand Total		180	148	-	-	-	4100	

Language Part – I	-	4	
English Part –II	-	4	
Add-on Course	-	2	
Core Paper	-	9	
Core Practical	-	4	
Allied Paper	-	4	
Allied Practical	-	2	
Non-Major Elective	-	2	
Skill Based Elective	-	3	
Major Based Elective	-	3	
Environmental Studies	-	1	
Value Education	-	1	
Soft Skill Development	-	1	
Gender Studies	-	1	
Extension Activities	-	1	(Credit only)

* for those who studied Tamil upto 10th +2 (Regular Stream)

+ Syllabus for other Languages should be on par with Tamil at degree level

those who studied Tamil upto 10th +2 but opt for other languages in degree level under Part I should study special Tamil in Part IV

** Extension Activities shall be outside instruction hours

Non Major Elective I & II – for those who studied Tamil under Part I

- a) Basic Tamil I & II for other language students
- b) Special Tamil I & II for those who studied Tamil upto 10th or +2 but opt for other languages in degree programme

Note:

	Internal Marks	External Marks
1. Theory	25	75
2. Practical	40	60
3. Separate passing minimum is prescribed for Internal and External marks		

FOR THEORY

The passing minimum for CIA shall be 40% out of 25 marks [i.e. 10 marks]

The passing minimum for University Examinations shall be 40% out of 75 marks [i.e. 30 marks]

FOR PRACTICAL

The passing minimum for CIA shall be 40% out of 40 marks [i.e. 16 marks]

The passing minimum for University Examinations shall be 40% out of 60 marks [i.e. 24 marks]

* for those who studied Tamil upto +2 (Regular Stream)

** Syllabus for other Languages should be on par with Tamil at Degree level

those who studied Tamil upto 10th or +2, but opt for other languages in degree level under Part I should study special Tamil in Part IV

*** Examination at the end of the next semester.

An add-on course on par with Major paper and completion of the paper is a must to continue his/her studies further.

FUNDAMENTALS OF DESIGN

PURPOSE

The object of this course is to make students familiar with various factors affecting the aesthetic and functional aspects of design through training from two-dimensional to three dimensional design compositions.

INSTRUCTIONAL OBJECTIVES

1. Understanding and applying design elements such as Point, Line, shape, color, texture, area, mass, volume etc. Critical analysis of design of existing manmade objects, aiding self-criticism of design. Drawing inspiration from nature as a source for design.
2. Understanding various design principles and color. Applying them on two-dimensional and three-dimensional compositions.

UNIT – I Concept of Interior Design

Meaning of Interior Design and Interior Decoration, history of Interior design in India, significance of Interior Design in modern era, functions and qualities of Interior Designer.

UNIT – II DESIGN VOCABULARY

Aesthetics of planning- beauty, expressiveness, functionalism and economy, need for developing skill in aesthetics, design concept and types, significance of Good taste

UNIT – III DESIGN ELEMENTS AND PRINCIPLES

Elements of Design-Meaning and importance, line and direction, shape and form, size, colour, texture, space, light and ornamentation. Principles of Design- balance, rhythm, emphasis, harmony, proportion.

UNIT-IV COLOR AND ITS THEORIES

Sources of color, color systems-Prang, Munsell and Ostwaldcolor system, qualities of color, color schemes, modern trends in application of color in interiors

UNIT – V APPLICATION OF ELEMENTS AND PRINCIPLES

Designs involving various elements such as point, line, shape, colour and texture –suitable for mural, design on fabric such as curtains, draperies, wall hanging, furnishings, tiles, stained glass, block printing, collage etc.– involving all the principles of composition. Study and critical analysis of man-made objects – their purpose, functional suitability, formal appeal, etc. – evolving suggestions for improvement of the same.

REFERENCE BOOKS

1. Paul Laseau, Graphic Thinking for Architects and Designers, John Wiley & Sons, August 2000.
2. Trewin Coplestone, Arts in Society, Prentice Hall Inc,1983
3. H. Gardner, Art through Ages,14th Revised edition (15 December 2011)
4. David Fair, Design Graphics, Hodder and Stoughton. September 1, 1987
5. Architectural arts and Sculpture, Guild Source Books. September 1, 2000
6. Virginia Cobb Watson, Discovering the Inner Eye, Guptill Publication,1988
7. Johanness Itten, the Art of Colour.John Wiley & Sons; Revised edition (1 January 1974)
8. H.H. Arnason, History of Modern Art Prentice Hall; 5th edition (September 8, 2003)

DESIGN SKETCHING AND VISUAL ARTS (P)

PURPOSE

To make students improve their sketching skills & drawing abilities.

INSTRUCTIONAL OBJECTIVES

1. To help students to learn & understand the techniques of various methods of drawing.
2. To make them understand the use of colours & their effects in drawing. .

List of Exercises

1. Exercises include freehand drawing and sketching studies - Exploring Line, Shape, Tone, Texture and Depth. Quality of line, material representation, proportions are considered.
2. Construct pictorial representations of 3-D objects or landscapes and examine the effect of Light and Shade.
3. Discuss elementary principles of vision as well as theories of perspective, light and shade, contrast, atmospheric effect and colour.
4. Represent different textures and surfaces such as glass, water, stonework and fabric, sky etc.
5. Illustrate the techniques of rendering using different media - colour pencils, water colors, poster colours, and collage.
6. Explore 3D design media - paper/ clay/ wire and POP as tools to represent design ideas

(Each Exercise should have minimum of 5 Number of works with rough thumb Nile sketch followed by Fair works)

REFERENCE BOOKS

1. Drawing – A creative Process, Francis D.K. Ching, John Wiley Sons, New York, First Edition, 1990.
2. How to paint & draw, Bodo W. Jaxtheimer, Thames & Hudson, London, 1962
3. Geometrical drawing for art students, 2nd revised edition - I.H. Morris, Orient Longman, Calcutta, 1995.
4. Architectural drafting and design, 4th edition – Ernest R. Weidhaas, Allyn and Bacon, Boston, 1981.
5. Building drawing, 3rd edition – M G Shah, C M Kale, Tata Mcgraw – Hill publishing, New Delhi, July 1, 1985.

BUILDING COMPONENTS AND MATERIALS

PURPOSE

To familiarize the students of Interior Design on material and construction methods

INSTRUCTIONAL OBJECTIVES

1. Understanding the basic components of the buildings for small Buildings- Foundations, Walls, Roofs, joineries
2. Understanding simple roof & floor finishes.

UNIT - I INTRODUCTION TO BUILDING MATERIALS

Classification of building materials- Stone, sand, brick, metal, cement, wood, its types, properties, manufacturing process & uses. Synthetic Materials – Different types of Glass, their properties, manufacturing processes and uses. Plastics – injection molding & other manufacturing methods

UNIT - II BUILDING COMPONENTS

Components of a building -Foundation – (brick footing, stone footing & RCC footing concrete flooring), plinth beam, wall & flooring and its finishes, superstructure- brickwork (sill, lintel, arches, doors, windows & sunshade), Flat and sloped roof and its types

UNIT - III STRUCTURAL SYSTEMS

Structural Systems: Design Loads - Live load, Dead load, Wind load, Snow load, Earthquake loads. Framed structures- load bearing structural components- columns and beams - steel, concrete; Load bearing walls - Masonry structures, Prefabrication, cast-in situ construction- Brief design concepts for earthquake loads

UNIT - IV WATER SUPPLY AND DRAINAGE

Plumbing services, Components of a toilet & bathroom – sanitary ware – W.C, wash basin, bidet, bathtub, Jacuzzi etc., Sanitary fittings – taps, mixers, shower units.

UNIT - V FINISHING MATERIALS

Interior Wall materials, construction, finish - Wood, glass, paints, tiles, plaster, metal, stonewall paper, fabric, - texturing marble, granite, white wash, colour wash, wall paper. Exterior Wall finishes - Stone, rubble, tiles, fresco, murals, glass and metals, paints. Interior floor finishes- hard floor finishes, Resilient- asphalt tile, linoleum, cork, rubber – Soft floor coverings -carpets and rugs, Exterior floors -Concrete slabs, tiles, mosaic, terrazzo and terracotta, Selection and characteristics of Wall and Floor finishes

TEXT BOOKS

1. S. C. Rangwala - Engineering materials - Charotar Publishing, Anand, 2019.
2. Francis D. K. Ching - Building Construction Illustrated, VNR, 1975.

REFERENCE BOOKS

1. W.B.Mckay –Building construction Vol1 –Longmans, UK 1981.
2. W.B.Mckay –Building construction Vol 3 –Longmans, UK 1981.

GRAPHICS (P)

PURPOSE

To make students improve their sketching skills & drawing abilities.

INSTRUCTIONAL OBJECTIVES

1. To help students to learn & understand the techniques of various methods of drawing.
2. To make them understand the use of colours & their effects in drawing.

Practical

- Introduction to free hand drawing Basic exercises, Still life, Basic forms, effect of lines to represent textures - Understanding of different types of perspective views using vanishing points, shading exercises etc.
- Sketching - Outdoor sketching - Lawns, bushes, Water Bodies, Plants & trees in different media. Indoor sketching – furniture, lights, etc.
- Measured drawing - Lettering - types, Scale, Measured drawing of furniture, Wall panelling, flooring pattern, ceiling pattern, doors and windows.
- Geometrical drawing - Orthographic projections - Projection of lines, planes and solids, section of primary solids such as pyramids, cones, cylinder, prism, sphere, cuboid, etc.
- Isometric drawing - Isometric projection of all platonic solids such as cube, cuboids, hexagonal prism, pyramids, cone and sphere etc – isometric projection of singly and doubly curve surfaces.

(Each Exercise should have minimum of 5 Number of works with rough thumb Nile sketch followed by Fair works)

REFERENCE BOOKS

1. Drawing – A creative Process, Francis D.K. Ching, John Wiley Sons, New York
2. How to paint & draw, Bodo W.Jaxtheimer, Thames & Hudson, London
3. Geometrical drawing for art students, 2nd revised edition - I.H.Morris, Orient Longman, Calcutta, 1995.
4. Architectural drafting and design, 4th edition – Ernest R. Weidhaas, Allyn and Bacon, Boston, 1981.
5. Building drawing, 3rd edition – M G Shah, C M Kale, Tata Mcgraw – Hill publishing, New Delhi.

PLANNING THE LIFE SPACE

PURPOSE

The object of this course is to make students understand the various aspects of designing life space

INSTRUCTIONAL OBJECTIVE

Develop skill in house plan for different income groups. Acquire knowledge in recent building materials and raising fund from various agencies to construct a house.

UNIT - I

Space for living – Concept of space – factors influencing living space, Location and Orientation, Planning objectives- utility, economy, beauty and character. Requirements, need for space, space occupancy. Merits and demerits of owned and rented house.

UNIT -II

Significance of housing – functions of house, selection of site, Types of house plans-site plan, floor plan, open and closed plans, elevation, cross-sectional plan, perspective plan and landscape plan. Principles of planning a house to suit the basic requirements, developing house plans for various income groups

UNIT - III

Components attributed to livability in life space – comfort, convenience, safety, workability, maintenance, and lighting. Satisfaction in individual houses, multi- storied flats, row houses, split level houses and one room apartments.

UNIT- IV

Division of space – Private-bedroom, bathroom. Public-living, dining and lounge. Work and traffic – kitchen-types and work triangle.

UNIT - V

Standardization - Need for standardization in housing - Types of standards, Role of BIS. Legal restriction- Meaning-Plot, Easement, Zoning law, Building law. Finance for housing - Funding agencies – Private-HDFC, HUDCO. Government – SBI, LIC, Research institutions-NBO, CBRI, SERC

REFERENCE BOOKS

1. Francis. D. K. Ching, Interior design Illustrated, Van Nostrand Reinhold, February 2018
2. John. F. Pile, Interior Design, Harry Abrams Inc, 1st edition (1988)
3. Sam. F. Miller, Design process – a primer for Architectural and Interior Design, Van Nostrand Reinhold, 1 February 1995.
4. Gary Gordon, Interior lighting for designers, John Wiley & Sons Inc, March 2015
5. Harold Linton, Colour in Architecture, McGraw Hills, January 2003

MODEL MAKING CONCEPTS

PURPOSE

To introduce the students to basics of Model making with various materials.

INSTRUCTIONAL OBJECTIVES

1. Acquisition of both the conceptual and hands on experience in model - building.
2. Have an introduction to varied practices of Model making
3. Have insight into the different aspects of commercial Model making and demonstrate the techniques used in key areas
4. Do single model, enabling skill development which can enhance their career prospects

UNIT - I INTRODUCTION TO MODEL MAKING:

Introduction to concepts of model making and various materials used for model making

UNIT - II BLOCK MODELLING:

Preparation of base for models using wood or boards • Introduction to block models of buildings (or 3D Compositions) involving the usage of various materials like Thermocol, Soap/Wax, Boards, Clay etc.

UNIT - III DETAILED MODELLING:

Making detailed models which include the representation of various building elements like Walls, Columns, Steps, Windows/glazing, Sunshades, and Hand rails using materials like Mount board, Snow-white board, and acrylic sheets.

• Representing various surface finishes like brick/stone representation, stucco finish etc.
Various site elements – Contour representation, Roads / Pavements, Trees/ Shrubs, Lawn, Water bodies, Street furniture, Fencing etc.

UNIT - IV INTERIOR MODELS OF INTERIOR SPACES:

Making models of the various interior spaces such as • Residences • Offices • Retail Spaces • Recreational Spaces Scaled models of furniture.

UNIT - V CARPENTRY:

Introducing the techniques of planning, chiseling & jointing in timber to learn the use of hand tools. Exercise involving the design of simple furniture and making a model of the same.

REFERENCE BOOKS

1. BENN, The book of the House, Ernest Benn Limited, London
2. Jannsen, Constructional Drawings & Architectural models, Karl Kramer Verlag Stuttgart, 1973.
3. Harry W.Smith, The art of making furniture in miniature, E.P.Dutton Inc., New York, 1982
4. J. Garratt, Design and Technology, Cambridge University Press, UK, 20004
5. R. Thompson, Manufacturing processes for design professionals, Thames & Hudson, London 2007
6. Michael Ashby and Kara Johnson, Materials and Design: The Art and Science of Material Selection in Product Design, Butterworth Heinemann, 2002

INTERIOR FURNITURE DESIGN

PURPOSE

To familiarize the students of Interior Design on materials used in furniture and its construction and detailing

INSTRUCTIONAL OBJECTIVES

During this semester students will focus on the craft of the Furniture -Maker, utilizing state-of-the-industry procedures and equipment. Emphasis will be on wood and wooden products as a construction medium

UNIT - I INTRODUCTION TO WOOD

Wood as a building material: Identification, selection, application, types of wood, commercial Classification, nomenclature, structure Anatomy and Ultra structure, Conversion figure and natural defects, availability of wood products, wood based panels such as plywood , MDF, HDF, Particle board , pre laminated boards etc .

UNIT - II THE BASICS OF FURNITURE CONSTRUCTION & TOOLS

Measurement and measurement systems, Furniture Construction: Drawers, Cadenza, dining chairs, sofa, settee, cots detail. Preparation for finishing, Furniture Materials Specifying timber, finishes etc . Detailed construction drawings & explaining construction and material finishes.

UNIT - III PLYWOOD CONSTRUCTION TECHNIQUES

Plywood as a building material, Layout techniques and machining plans. Fabrication techniques - stapling, gluing. Furniture Joinery - screw joinery, nail joinery, Mortise & tenon joints, Dovetail joints, Dowel joints, Edge joints.

UNIT - IV MODULAR KITCHENS

Modular kitchens, components basis of Construction involving, layouts, carcass, hardware selection, fixing details finishes and special types such as tall units, grain trolleys, and carousels fold outs etc. A detailed project involving the design of a small kitchen using modular components.

UNIT - V FURNITURE MODEL MAKING

Preparation of block models of furniture using wood, boards, leather, fabric, thermacol, clay, soap/wax etc.

TEXT BOOKS

1. S. C. Rangwala - Engineering materials - Charotar Publishing,
2. Francis D. K. Ching - Building Construction Illustrated, VNR, 1975, 3. Fevicol Furniture series.

REFERENCES

1. W.B.Mckay -Building construction Vol1 -Longmans, UK 1981.
2. W.B.Mckay -Building construction Vol 3 -Longmans, UK 1981.

INTERIOR FURNITURE DESIGN STUDIO (P)

PURPOSE

To introduce the basics of designing for Residential interiors and to develop skills required for the same.

INSTRUCTIONAL OBJECTIVES

1. To develop understanding of the scale, function and options existing when designing small-scale spaces in residences such as toilets, kitchens, living, bedrooms etc.
2. Development of ideas with regard to false ceiling, wall paneling, flooring, floor coverings, curtains, windows, doors and other elements of residential interiors.

Need to do at least two experiments

- Living Room Concepts living room interiors – various layout of these spaces –
- The use of furniture and accessories – materials & finishes – lighting, colour & texture to create different moods
- Bedroom Concepts in bedroom interiors – various layout of these spaces –using different styles of furniture ,accessories ,materials , finishes, lighting, colour & texture to create different illusion of space.
- Kitchen Design Work triangle, planning for activity – anthropometrics – types of kitchen- Modular kitchens
- Materials used in counters, shelves, worktops, washing areas & their comparative study. Lighting & colour scheme – natural & artificial light.
- Bathroom Anthropometry – various types of sanitary ware and their use – types of layouts –
- Concepts in modern day toilet interiors – materials & finishes – colour, texture & pattern.
- Residence Holistic concepts in residential interiors – ability to integrate various individual spaces into one theme – treatment of patios, courtyards, verandahs.
- Other semi sheltered spaces – integration of built form and open spaces.

Note: Students need to create a 2 proto type using cardboard followed by viva voce

REFERENCE BOOKS

1. Designs for 20th century Interiors – Fiona Leolie, VH Publications, London, 2000.
2. Interior Design; The New Freedom, Barbaralec Diamonstein, Rizzoli International Publications, New York, 1982.
3. Interior Colour by Design, Jonathan Poore, Rockport Publishers, 1994.
4. Worldwide Interiors – International Federation of Interior Architects & Designers, Rikuyo-Sha, Japan, 1987.

COMPUTER AIDED DRAFTING AND DESIGN

PURPOSE

To provide the student of Interior Design a foundation in the techniques of drafting using computer as a tool.

INSTRUCTIONAL OBJECTIVES

1. To help the student understand the technology of computer and its terminology.
2. To enable the student to understand the applications of the software and graphic system.

UNIT – I INTRODUCTION TO COMPUTER AIDED 2D DRAFTING

Understanding the use of drawing tools, object editing, drawing objects, filing and setting drawing units, scales, limits that size and dimensioning, lettering. Setting up of drawing of various simple objects with complete text and dimensioning.

UNIT – II ADVANCE COMPUTER AIDED 2D DRAFTING

Advance command programming – Transparent overlays, hatching utilities, assigned colour and line type, use of multi-line, style, block, symbol library, manipulation for accurate drawings, incorporating the above mentioned utilities.

UNIT – III PRODUCTIVITY TOOLS

Introduction to tools of productivity – Blocks, slide facilities, script files and attributes. Understanding concepts of View port, concept of object linking and editing session.

UNIT – IV INTRODUCTION TO 3D DRAFTING – I

Introduction to 3D modeling techniques and construction planes, drawing objects, 3D surfaces, setting up elevation and thickness, and use of dynamic projections.

UNIT – V INTRODUCTION TO 3D DRAFTING –II

Solid modeling with driving, primitive command and Boolean operations. Use of region modeling & solid modifiers.

REFERENCE BOOKS

1. V. Rajaraman, principles of Computer Programming – Prentice Hall of India
2. Byron S.Gottfried, Theory and Problems of Programming with C.Schaum's outline series, McGraw Hill Publishing Co.
3. Auto CAD Reference Manual – Autodesk UNC, 1998
4. Sham Tickoo, Understanding Auto CAD – 14

COMPUTER AIDED DRAFTING AND DESIGN (P)

EXERCISES

1. Review of 2D drawings and creating a 2D house plan
2. Using coordinate systems and converting from 2D to 3D.
3. Drawing isometric view of furniture – table, chair, cupboard
4. Drawing of solids like box, sphere, pyramid, cylinder, cone, and others
5. Creating models (for Example- a table) from 2D profile – extrude, revolve, sweep, loft, and others.
6. Creating composite solids – addition, subtraction, intersection
7. Editing solid models – filleting, chamfering, slicing and others
8. Material, lighting and rendering; classroom exercises
9. Creating 3D view of a residential building with one bed room, kitchen, hall, and others
10. Visualizing a room interior with furniture and a few accessories

Note: Students need to draft 2 designs from the above to be presented followed by Viva Voce

PAINTING AND SCULPTURE

COURSE OBJECTIVES

1. Develop awareness and appreciation of arts and aesthetics.
2. Apply the principles in creating art objects for home decoration.
3. Understand and appreciate major work of artists.

UNIT - I ART IN THE HOME

Meaning of art, significance of art in the home Factors governing art in the home-use, geography, community, material, individuality and appearance. Painting – Basic component of paints, art painting tools and materials, Painting Media – Water colour, gouache, Tempera, Acrylics and Oil-paints.

UNIT – II NATURAL MATERIALS FOR DECORATION

Ornamentation in wood-color, texture, joints, molding, carving and turning; pieced design in wood-inlay, intarsia, marquetry, parquetry; wood finishes-opaque, transparent, penetrating, plastic impregnated, glossy, distressed, antique. Ceramics – meaning, types – earthen ware, stone ware, china, porcelain; process in making ceramics, ornamentation in ceramics – painting or printing, carving (or) modelling, use in home.

UNIT - III ARTIFICIAL MATERIALS FOR DECORATION

Metal – characteristics; shaping metals- hammering, shaping under moulds, casting into moulds; methods of enrichment – chasing, annealing, damascening, electroplating, embossing or repose, engraving, etching, forging, spinning. Plastics- families of plastics – thermo plastics and thermosetting plastics; characteristics – flammability, biodegradability, noxious fume, form and ornamentation in plastics. Glass – component, characteristics, forms in glass – hand blown, pressing or molding, drawn or falling, enrichment of glassware – cut glass, engraved glass, etched glass, enameled and gilded glass, leaded, stained, beveled glass.

UNIT – IV SCULPTURE AND GRAPHICS

Sculpture – meaning, types – relief, free standing, Process in sculpture – subtractive, additive and replacement; sustainability of methods of different materials; use of sculpture in interiors.

Graphics – Meaning, types – hand process and mechanical process- relief, intaglio, planography

UNIT – V STUDY OF MAJOR WORK OF ARTISTS

Foreign artists – Michelangelo, Leonardo Da Vinci, Raphael Sanzio, PabloPicasso, Vincent Vangogh ,Indian artists – Raja Ravivarma, R.K.Laxman, M.F.Hussain.

Textbooks:

1. Faulkner, R., and Faulkner, S., (1986) Inside Today's Home.NewYork:Rinehart publishing Co.
2. Malhotra, S. and Malhotra, R., (2001), Drawing Techniques, An artist's hand book on drawing and printing, New Delhi: Sachdwa Publications.
3. Seymour, P., (2003) The artist's hand book – A complete professional guide to materials and techniques.London: Arctarus Publishing limited.

Reference books:

1. Malhotra, S. and Malhotra, R., (2001), Fine arts drawing, New Delhi: Sachdwa Publications.
2. Sudhir, A, (2002) Food and Beverage Service, Training Manual, New Delhi: Tata McGraw Hill Publishing Company Limited.
3. Faulkner, R., (1956) Art Today – an introduction to the fine and functional arts, New Delhi: Rinchart and Winston.
4. Sumner Mck, (1959) Art- through the ages, London: G.Bell and Sons, Ltd.

FURNITURE DESIGN

PURPOSE

To provide the students' knowledge on History of Furniture Design and various factors involved in designing furniture for different spaces.

INSTRUCTIONAL OBJECTIVES

1. To help the students understand about the various anthropometric aspects, human factors & other design criteria involved in the design of furniture.
2. To make the students understand about the various materials & technology involved in the making of furniture.

UNIT – I HISTORY OF FURNITURE DESIGN

Furniture designs during Egyptian, Greek, Roman, Romanesque, Gothic, Renaissance, Industrial Revolution – Contributions in the beginning of the 20th century by the four pioneer architects in furniture design – Bauhaus, De Stijl, Le Corbusier and Paul Evans & other modern furniture designs.

UNIT – II HUMAN FACTORS

Study of Anthropometry & Design criteria involved in the designing of furniture for sitting, storing, working and relaxing. Designing furniture for the physically challenged

UNIT – III PRINCIPLES OF DESIGN & DETAILINGS

Form – Colour - Symbols ,Materials & finishes – Wood, Glass, Metal, Plastics Cane and wicker. Furniture finishes – polish, varnish. Upholstery – construction techniques and finishes. Fabrication Techniques involved – shaping, fluting, reeding, carving, turning, joining, welding, moulding and finishing. Multiple Utility Oriented Approaches to Furniture Design.

UNIT – IV ROOM PLANS AND FURNITURE ARRANGEMENT

Types of furniture – Built in furniture – Mobile furniture – Systems furniture – Specially Designed furniture – Readymade furniture – Modular, Knockdown & Economy Furniture. Traffic pattern and furniture layout for residence, commercial and office areas

UNIT – V PROJECTS

Designing & detailing of Residential Furniture – Seating, Sleeping, Storage & Children’s furniture Commercial furniture – Showcases, Counters, Display units, Restaurant furniture, Bar furniture Office furniture – Adjustable desks & storage, Mobile & Resilient chairs, Portable chairs, Movable Tables, Lounge seating.

REFERENCE BOOKS

1. Interior Design, John F. Pile, Harry N.AbramsInc Publishers, New York, Wiley; 4 edition ,September 16, 2013.
2. Interior Design Course, Mary GilliatCoyran, Octopus Ltd., London, August 2005
3. The Encyclopedia of Furniture, Joseph Aronson, Crwon Publishers, New York ,Bats ford Ltd; New edition ,1 March 1989
4. Interior Design & Decoration, Sherril Whiton, Prentice Hall, 5 editions, August 2001.
5. Interior Design, Francis D.K. Ching, John Wiley & Sons, New York, Wiley; 3 editions, February, 2012.
6. Office Furniture, Susan S.Szenasy, Facts on file Inc, New York,Olympic Marketing Corp, 1984
7. Time Saver Standards for Interior Design, Joseph De Chiara, McGraw Hill, New York,1st edition ,1991.

LIGHTING AND LIGHT FIXTURE

PURPOSE

Students should acquire knowledge of the various types of lightings to effectively communicate their designs and understand the effect of various lights on colours and textures.

INSTRUCTIONAL OBJECTIVES

1. To help the student understand day lighting and technology of artificial lighting.
2. To equip the student to understand and successfully apply lighting techniques with colour effects.

UNIT - I INTRODUCTION TO DAY LIGHTING

Nature of light – Wavelength, Photometric quantities – intensity, Flux, illumination and luminance, visual efficiency, sources of light, day light factor concept, design sky concept, day lighting requirements.

UNIT – II ARTIFICIAL LIGHTING

Electric lamps– incandescent, fluorescent, sodium vapour, mercury, halogen and neon. Different types of lights in interior and exterior - task lighting, special purpose lighting. Calculation of artificial lighting, guidelines for lighting design, Glare in artificial lighting- causes, effects and prevention.

UNIT – III EFFECT OF COLOR IN LIGHTING

Effects of color in different areas, color temperature, psychological effects of colour in interiors, factors affecting colour, Prang theory – Colour wheel, Munsell system and Oswald system.

UNIT - IV LUMINARES & FIXTURES

Definition, different luminaries for lighting, lighting control system- benefits & application, Impact of lighting, fixture types - free standing or portable, fixed, light fixture control. Lighting accessories- switches, sockets, fused connection units, lamp holders, ceiling roses etc.

UNIT - V CASESTUDY

Study of projects based on different lighting concepts used in interiors and exteriors.

REFERENCE BOOK

1. The Art of living- Randall whitehead,
2. Lighting design, source book- Randall whitehead,
3. Light right- M.K.Halpeth, T.Senthilkumar, G.Harikumar
4. Concepts of lighting, Lighting design in Architecture- Torquil Barker

LANDSCAPE DESIGN

PURPOSE

To study the concepts of interior landscaping and their application in the design of interior spaces.

INSTRUCTIONAL OBJECTIVES

1. To develop an understanding about the design of interior landscape with special emphasis on the choice and care of plant materials used in the interior spaces.
2. To study about the various landscaping elements and their application in interior spaces.

UNIT – I FUNDAMENTALS OF LANDSCAPING

Importance and scope of landscape garden, principles of landscape gardening, styles and types of garden, famous gardens of India

UNIT – II DESIGNING LANDSCAPE FOR RESIDENTIAL AREAS

Definition and classification of plants. Indoor plants and their functions, components of landscapes, Floriculture – commercial, ornamental, Selection of plants & pest control, Designing a home landscape garden

UNIT – III PHYSICAL REQUIREMENT OF PLANTS

Physical requirement of plants – light, temperature, water, planting medium, soil separator, acclimatization & maintenance. Techniques to meet physical requirements. Garden tools and implements

UNIT – IV INTERIOR LANDSCAPING ELEMENTS & PRINCIPLES

Various interior landscaping elements – water bodies - pools, fountains, cascades, Plants, rocks, artifacts, paving & lighting, Design guidelines- plant texture & colour, plant height, plant spacing.

UNIT – V ROOF AND DECK LANDSCAPE

Protection of the integrity of the roof and structure, provisions for drainage, light weight planting medium, irrigation, selection of materials, water proofing, provision for utilities and maintenance. Develop a Courtyard design, an outdoor room design, terrace garden

REFERENCE BOOKS

1. Time saver standards for landscape architecture.
2. Planting design by Theodore D.Walker, VNR Publications New York.
3. Landscaping Principles and Practices by Jack E.Ingels, Delmar Publishers.

COMMERCIAL SPACE DESIGN

PURPOSE

To introduce the basics of designing for Retail interiors and to develop skills required for the same.

INSTRUCTIONAL OBJECTIVES

1. Learn about the importance and application of principles of art for commercial purposes
2. Apply the techniques of art in interior and window display
3. Know the current trends in commercial architecture

UNIT- I CONCEPT OF ENTERPRISES, RETAILING AND COMMERCIALART

Meaning and definition; development of commercial art; evolution of a retail store; role and principles of advertising, exhibition and trade fairs- types of trade fairs; sales, sales promotion and publicity.

UNIT - II ART IN COMMERCIAL SPACE

Designing and planning space for various commercial purposes - restaurants, and hotels, public utility services, airport, educational institutions, hospitals, railway stations etc. and shopping complex; architectural designs in commercial buildings - basic concepts, features of retail stores architecture.

UNIT - III VISUAL MERCHANDISING

Meaning and definition, significance of display; store interiors - windows, highpoints, focal points, nesting tables, staircase landings, step raisers, lift area, pennants/danglers, cash counters, space on hire like pillars and entrances; store exteriors - store signs, facade; banners planters and awnings, elements of display.

UNIT - IV DISPLAY TECHNIQUES

Types of merchandise and merchandise display - Interior display - store layout, general arrangement, principles and factors; merchandise display equipment; role of lighting

UNIT - V WINDOW DISPLAY

Meaning and concept, basic principles and techniques, factors considered; types of window display and window arrangement.

Text books:

1. Morgan, T (2010). Window Display: New Visual Merchandising. Laurence King Publishing, New York
2. Nair, R. (2002). Marketing. Sultan Chand and Sons Publishers, New Delhi.

Reference books:

1. Kazmi, S. H. H and Batra, S. K (2008). Advertising and Sales Promotion. Excel Books, New Delhi.
2. Wells, W. D, Moriarty, S and Burnett, J (2005). Advertising: Principles and Practice, (7th Edition). Prentice Hall Publishers, New Delhi
3. Ebster, C. and Garus, M (2011). Store Design and Visual Merchandising: Creating Store Space That Encourages Buying. Business Expert Press, New Delhi
4. Jodidio, P (2010). Shopping Architecture Now! Taschen,
5. Uffelen, V. C (2008). Malls & Department Stores, (2 edition), Braun Publishers, New York
6. Gormann, G. M (1996). Visual Merchandising and Store Design Workbook, St Books; Workbook edition, New York
7. Fernie, J, Fernie, S, Moore, C and Fernie, A (2003). Principles of Retailing, Routledge, (Taylor and Francis Group), London.
8. Kubba, S (2003). Space Planning for Commercial and Residential Interiors, (1 edition) McGraw-Hill Professional, New Delhi.

ADVANCED COMPUTER APPLICATIONS

PURPOSE

To enhance the visualizing skills of the students by exposing them to the latest modeling software's.

INSTRUCTIONAL OBJECTIVE

To familiarize the students with the concepts of 3D modeling. To enable them to experiment with forms, mapping, rendering and presentation techniques 23

UNIT - I INTRODUCTION TO 3DS MAX

An overview of GUI, types of modeling, transforming objects, Compound objects, modifiers & modifier stack.

UNIT- II MODELLING TECHNIQUES

Lathing, displacement, lofting, Boolean operations using standard and compound primitives, modeling with lofts, low polygon modeling and Nurbs modeling.

UNIT- III TEXTURES AND TEXTURE MAPPING

Using material editor, material browser, mapping textures

UNIT- IV RENDERING

Lighting, cameras and render effects, environment mapping, fogs and atmospheres.

UNIT- V PHOTOSHOP

Photoshop interface, creating and saving images, basic image editing, Photoshop tool box and tools, using layers, special effects.

TEXT BOOKS

1. 3DS MAX- Advanced 3D modeling and animation – C & M, CADD Centre

REFERENCE BOOKS

1. 3DS MAX 8 Bible – Kelly C.Murdock
2. Photoshop CS Bible – Deke McClelland
3. Adobe Photoshop 7.0 classroom in a book – Adobe creative team

AN INTRODUCTION TO ARCHITECTURE

PURPOSE

To expose the students to understand the basics of architecture

INSTRUCTIONAL OBJECTIVES

1. Learn the form of construction in architecture.
2. Gain knowledge on western architecture and Indian architecture.
3. Learn the features of modern architectures and the influence of vaasthusastra in building construction.

UNIT - I

Introduction to architecture- Definition and meaning, importance, principles of architecture. Development of Historic architecture.

UNIT - II

Elementary forms of construction - arch, post, lintel, cantilever roofing techniques - truss, vaults and domes. Egyptian and Mesopotamian architecture - Formation and development, characteristic features, typical examples.

UNIT - III

Architectural masterpieces of other countries Greek - Acropolis and Parthenon; their contribution to the development of post and lintel system- Doric, ionic and Corinthian orders. Roman- Forum, Pantheon and colosseum; their contribution to the development of arches and domes. Gothic- Chartres cathedral; their contribution to the development of vaults.

UNIT - IV

Indian Architecture-Buddhist-characteristic features-Stambha, Stupa-Sanchistupa, Viharas and chaityas. North - Sun temple, Lingaraja temple, Ajantha and Ellora Caves, Tajmahal, Lotus Temple-its architectural features. South - Brihadeshwar temple, Meenakshi Amman Temple, Rock cut Temples --Mahabalipuram - its architectural features. Islamic architecture - characteristic features.

UNIT - V

Modern architecture- modern materials and new techniques, Great Architects of modern age- Le Corbusier, Mies Vander Rohe, Frank Lloyd Wright-and their outstanding buildings. Influence of vasthusastra in modern construction, Organic architecture.

References:

1. Satyamurthy (1991), Handbook of Indian Architecture, Ashish publishing house, New Delhi.
2. Rai,M. and Jaisingh, M.P (1986), Advances in building materials and construction, Roorkee Central Building Research Institute.
3. Prabhakar,L.U (1998), Vastu- The User's Manual, The Avenue Press, Chennai.
4. Indian Temples (1995), Oxford University Press, London.
5. Foster.M (1989), The Principles of Architecture: styles, structure and design, New Burlington, London.

MATERIAL WORKSHOP (P)

PURPOSE

To expose the students to the basic principles of fabrication of furniture, doors, windows etc.

INSTRUCTIONAL OBJECTIVE

To understand the basic methods of furniture making with focus on hands on methods regarding workshop practices in wood, metal, plastic, textiles etc.

Students will be trained at least 3 experiments from the given below

- Wood workshop - Properties of Wood, The safe and efficient use of the tools of the trade, Hand tools, portable power tools, Stationary power tools, Materials, Hardware, Wood carving exercises.
- Wood carpentry workshop- Safe working practices in a workshop. Joineries in wood – lap, butt, dowell, tenon and mortise, dovetail, etc., Exercises in plywood joinery. Simple fitting work – General safety in fitting shop.
- Metal workshop -Cutting, planning, drilling and lathing of steel sections used in furniture. Aluminium sections and their use in doors, windows and partitions, welding practice.
- Fabric workshop -Familiarity with different types of fabrics and their properties – methods of cutting and sewing of upholstery fabrics - various types of foam and cushions and their applicability in furniture making.
- Paint workshop -Techniques of spray painting of enamel paint on metal and wood surfaces – varnishing and lacquering etc.

Note:

Students has to make any 1 model using cardboard or other material followed by viva voce exam

REFERENCE BOOKS

1. Joints used in wood furniture – ISI – IS 3845 – 1966.
2. Pete Silver et al – Fabrication, the designers guide – Architectural press, London 2006.
3. Albert C Smith - Architectural model as machine – Architectural press, oxford 2004.

WORKING DRAWING

PURPOSE

The students learn to draw working drawings used for building construction

INSTRUCTIONAL OBJECTIVE

Reading of working drawing, their co-relation and cross-referencing in various technical projections like plans, elevations, sections, detailing etc.

UNIT - I BUILDING COMPONENTS

Working drawing of different types of doors and windows.

UNIT - II BUILDING SURFACES

Working drawing of wall murals reflected ceiling plans and flooring patterns.

UNIT - III FURNITURE

Working drawing of work station, living room furniture, bedroom furniture and dining room furniture

UNIT - IV DETAILING OF SPECIAL AREAS

Working drawing for toilets with plumbing diagram, working drawing of kitchen with detailing of shelves and cupboards

UNIT - V DETAILING OF STORAGE AREAS

Working drawing of wardrobes, TV cabinet and showcase, crockery shelves, cadenza chest of drawers, dressing table, etc.

REFERENCE BOOKS

1. De Chiara and Callender – Time Saver Standards for interior design, 1982.
2. De Chiara et al – Time Saver standards for interior design and space planning, Mcgraw Hill, 1982.

BUILDING DESIGN PLANNING

PURPOSE

Hospitality industry- exposure to design standards in five star hotels. To impart knowledge about interior design possibilities in auditorium. Study of interior design with reference to the context of the building typology and its environs

INSTRUCTIONAL OBJECTIVE

To study and develop innovative schemes for hotel and auditorium interiors. Knowledge of working drawings is also intended. Exposure is intended to study projects in their context – in relation to overall building typology, its functioning and maintenance

UNIT- I AUDITORIUM AND ENTERTAINMENT SPACES – I

Spatial and environmental standards for various auditoriums – performing arts, cinema, and convention centre. Detail schematics of wall paneling, false ceiling and carpeting to satisfy acoustic requirements.

UNIT- II AUDITORIUM AND ENTERTAINMENT SPACES - II

Lighting study to develop ideas for foyer, auditorium and stage requirements. Study of interiors for entertainment buildings such as clubs, multiplex and amusement parks – schemes for video games parlours, food court areas and exclusive indoor game areas of clubs.

UNIT -III FIVE STAR HOTELS

Spatial and service standards for five star hotels – integration of interior design schemes for rooms, restaurants, bars, health clubs, shopping arcade and other guest areas with the general theme of the hotel. Special ideas for suites and banquet halls – contemporary interior schemes to integrate new concepts in lighting and materials.

UNIT- IV EDUCATIONAL SPACES AND SPORTING SPACES

Study of interiors for class rooms, seminar halls and AV halls – schemes for library, smart class rooms and discussion areas. Study of interior requirements for gymnasium, indoor stadium and aquatic complex – schemes for interiors of stadium with focus on lighting requirements and visibility.

UNIT- V COMMERCIAL SPACES

Study of interiors in Marriage hall/ Party hall, Beauty parlour, Department stores, saloons, pubs, discotheque and banks. - Schemes for the same.

REFERENCE BOOKS

1. Carlson Broto- architecture on sports facilities – pg 1 publishing, Spain, 2005
2. Transport spaces – Vol I- images publishing, Hong Kong, 1999
3. Edward D Mills- planning Buildings for administration, entertainment and recreation – Krieger publishers, New York, 1976
4. Designs for 20th century Interiors – Fiona Leolie, VH Publications, London.
5. Interior Design; The New Freedom, Barbaralec Diamonstein, Rizzoli International Publications, New York, 1982.

DESIGN MANAGEMENT

COURSE OBJECTIVES

1. To expose the students to the various perspectives on innovation and design management
2. To create of an innovative environment in a company/Industry

UNIT- I DESIGN PROPOSAL

Fundamental ideas in Interaction Design. Structural design as a key device in the corporate part. Design strategy formulation. Contextual analyses like case studies in the event, brand and advertisement management. Strategies and methods for presenting design ideas and portrayals through mock-up models and material techniques.

UNIT - II PRODUCT MANAGEMENT

Writing product documents, Product Specification and Concept Generation, Product Proposals, product design, development and management process over whole product lifecycle, Methodology for product design and Management.

UNIT – III MARKETING AND CONSUMER BEHAVIOUR

Creativity, innovation and its management in a team work. Team building, interpersonal relationship and conflict resolution. Market gaps, Professional practice, contracts, fees, negotiations, ethics and public relations, project planning. Public speaking effectively with presentation.

UNIT – IV DESIGN DOCUMENTATION

Concept of documentation, Product details, Specific guidelines, Interactive role of Design including administration Policies, procedures, brochures, flyers, reviews.

UNIT –V INTELLECTUAL PROPERTY

Product differentiation and identity; Patent laws, History, Budapest Treaty, Current State of Enforcement; Structure of a Patent Application; Design Rights, Trademarks, and intellectual property, India Design Act; Global and local frameworks of securing Intellectual Property Rights; indigenous intellectual property; Indian laws and their enforcement mechanisms. International laws and their enforcement mechanism.

REFERENCES

1. Kathryn Best, The Fundamentals of Design Management, AVA Publishing, 2010
2. Brigitte Borja De Mozota, Design Management: Using Design to Build Brand Value and Corporate Innovation, Allworth, Press, 2004
3. Kenneth B Khan, Product Planning Essentials, M E Sharpe Inc, 2011
4. John Stark, Product Lifecycle Management: 21st Century Paradigm for Product Realisation, Springer, 2011
5. Craig M. Vogel and Jonathan Cagan, Creating Breakthrough Products: Innovation from Product Planning Program Approval, FT Press, 2001
6. David L. Rainey, Product Innovation: Leading Change through Integrated Product Development, Cambridge University Press, 2011

RETAIL FURNITURE DESIGN (P)

PURPOSE

To introduce the basics of designing for Retail interiors and to develop skills required for the same.

INSTRUCTIONAL OBJECTIVES

1. The course concentrates on larger scale spaces with an emphasis on planning commercial spaces.
2. The main aim is to develop visually literate students who are proficient at analytical thinking, conceptualization and the problem-inquiry, solution cycle. The course also examines the connection between abstract design principles and the physical and visual environments.

Students need to have a practical exposure and do the 2 prototypes using any suitable material

- Shops –Draft a planning for retail activity – anthropometrics – types of Shop layouts Modular units. Materials used in counters, shelves, worktops, their comparative study.
- Create a Lighting & colour scheme – natural & artificial light. Lighting design for commercial spaces – task/display/atmospheric/focal lighting.
- Retail interiors - the art of selling-displays/products/ marketing, design of display units,
- Create a design of boutiques, showrooms using concepts in modern day Retail interiors – materials & finishes – colour, texture & pattern.
- Shopping malls Product display – windows/internal displays/hierarchy of product display/power of visual communication/graphics, Exhibition spaces – display for exhibition,
- Lighting for commercial space draft a Lighting design for commercial spaces – task/display/atmospheric/focal lighting,
- Coloring commercial spaces – coding/decoding/visual communication,
- Commercial spaces - Design of commercial Environments such as Malls, Shopping Arcades Marriage hall/ Party hall, Beauty parlour, Department stores, etc.,

Note:

Students need to demonstrate the 1 prototype using any material followed by the viva voce. Individual experiment.

REFERENCE BOOKS

1. Designs for 20th century Interiors – Fiona Leolie, VH Publications, London.
2. Interior Design; The New Freedom, Barbaralec Diamonstein, Rizzoli International Publications, New York, 1982.
3. Interior Colour by Design, Jonathan Poore, Rockport Publishers, 1994.
4. Worldwide Interiors – International Federation of Interior Architects & Designers, Rikuyo-Sha, Japan, 1987.

COSTING AND ESTIMATION

PURPOSE

To provide the student adequate knowledge to prepare the Estimate & find the cost of overall project of works.

INSTRUCTIONAL OBJECTIVE

To equip the students to prepare the Estimate in order to foresee the cost of the work or to implement an interior design project & also to monitor / control project cost.

UNIT – I INTRODUCTION TO ESTIMATION

Estimation – definition, purpose, types of estimate, and procedure for Estimating the cost of work in order to implement an interior design project or to make products related to interior design like furniture, artifacts etc.

UNIT – II RATE ANALYSIS & ESTIMATION FORMAT

Rate Analysis – definition, method of preparation, quantity & labour estimate for woodwork, steelwork, Aluminum work, glass & its rate for different, thickness & sections, finishing (enamel paint, duco paints, melamine, DU coats, Hand polishing, veneering and laminating) for walls & ceilings. Electrical & plumbing products, wiring, ducting etc., and laying of tiles & wall paneling in the estimate format of the project.

UNIT – III DETAILED ESTIMATE

Detailed Estimate – data required, factors to be considered, methodology of preparation, abstract of Estimate, contingencies, labour charges, bill of quantities, different methods of estimate for interior design works, methods of measurement of works.

UNIT – IV COSTING OF FIXTURES & FITTINGS

Cost of the following items: electrical fitting like, luminaries, fan, cables, switches etc., tiles in skirting & dado, cement plaster, joinery in wood, steel & aluminum, painting to walls – cement paint, oil paints, distemper acrylic emulsion, enamel paint painting to joinery, varnishing, French polishing plumbing equipment like piping, shower panels, cubicles, tubs, Jacuzzis, taps, motors, fountains, false ceiling of 25 aluminum panels, steel & wooden frame work, thermocol etc. wall paneling of ceramic tiles & other tiles of materials suitable for the same, partitions made of materials like aluminum wood, steel etc

UNIT – V INTRODUCTION TO SPECIFICATION

Specification– Definition, purpose, procedure for writing specification for the purpose of calling tenders, types of specification. Specification for different item related to interior design project – woodwork for furniture window frames & pelmets, partitions etc also of materials like steel aluminum glass of various kind. Wall paneling & false ceiling of materials like aluminum, steel, wood, electrical, plumbing, air conditioning & firefighting equipment's.

TEXTBOOKS

1. M. Chakraborti, .Estimation, Costing, Specification and Valuation in Civil engineering. Dutta, Estimating and Costing, S. Dutta and Co., Lucknow 1983

REFERENCE BOOKS

1. S. C. Rangwala, Elements of Estimating and costing, Charoter publishing House, Anand, India, 1984.
2. The interior designers guide: to pricing, estimating budgeting. By Theo Susan

CODES AND PRACTICES

PURPOSE

To expose the students to the various problems and issues encountered in the practice of Interior design as a profession & to teach them the methods of legal redressal.

INSTRUCTIONAL OBJECTIVE

To develop understanding of the duties and liabilities of an Interior designer along with knowledge of bye-laws that relate to the building & the environment in the Indian context.

UNIT I FIRE SAFETY CODES

Fire – combustibility – NBC – fire resistant rating of materials – fire fighting, requirements – wet riser, dry riser, fire zones, fire escape stair case, fire alarms, smoke detectors and fire lifts.

UNIT II CODES FOR LIGHTING

Measurement of illumination and luminous intensity – day light factor – sky luminance – ERC, IRC – light output ratio – recommended illumination levels for various spaces such as library, class room, garment factory, etc. Energy conservation in lighting.

UNIT III CODES FOR VENTILATION

Ventilation rates – air changes per hour – relative humidity – cross ventilation, stack effect, recommended ventilation rates for kitchen, toilet, etc.

UNIT IV CODES FOR ELECTRICAL LAYOUT

Typical electrical layout for a building – location requirement for switch rooms and distribution panels – codes for fan points, power points and light points – PVC sheathed wiring system – protective earthing– earth electrode.

UNIT V CODES FOR BARRIER FREE ENVIRONMENT

Requirement of toilets, corridors, for handicapped persons – wheel chair clearances – ramps for physically challenged according to ISO 9001 Standards

TEXT BOOK

1. National Building code of India 2005 – Bureau of Indian Standards

REFERENCE BOOKS

1. V.K. Jain– Fire Safety in Buildings, New age International (Pvt Ltd) publishers, Chennai, 2007.
2. IS 9668 : 1990 – Fire fighting code of practice - Bureau of Indian Standards.
