

**B.DES (INTERIOR DESIGN)
(CURRICULUM & SYLLABUS 2010)
4 YEAR DEGREE PROGRAM**

**SRM UNIVERSITY
KATTANKULATHUR 603 203
KANCHEEPURAM DISTRICT**

ID 0101	HISTORY OF INTERIOR DESIGN - I	L	T	P	C
		3	0	0	3

I SEMESTER

PURPOSE

To provide the student of Interior Design knowledge on various developments in Interior design through ages.

INSTRUCTIONAL OBJECTIVES

- To help the student understand the designs from Prehistoric Period to the middle ages.
- To know more on the Modern Movements in Interior design from the beginnings of 20th century.

UNIT – I EARLY CLASSICAL PERIOD

6

Prehistoric Cave paintings – Primitive Designs- Interiors during Egyptian, Greek, Roman, Gothic, Early Christian & Renaissance Periods.

UNIT – II MIDDLE AGES

8

Interiors in Romanesque, Gothic, and renaissance periods

UNIT – III COLONIAL TO THE BEGINNING OF THE 20TH CENTURY

10

Colonial, Victorian designs, Arts & Crafts movement, Art Nouveau, Eclectism, Frank Lloyd Wright.

UNIT – IV BAUHAUS TO POST WAR MODERNISM

12

Walter Gropius/ Bauhaus, De Stijl, Mies Van Der Rohe, Le Corbusier, Art Deco, Postwar Modernism.

UNIT – V PROJECTS

9

Projects based on Historical Styles in Interiors & Assignments.

TOTAL 45

REFERENCE BOOKS

1. Interior Design Course, Mary Gilliat Coyran, Octopus Ltd., London
2. Interior Design & Decoration, Sherril Whiton, Prentice Hall
3. Interior Design, Francis D.K. Ching, John Wiley & Sons, New York
4. History of Architecture, Sir Banister Fletcher, CBS Publishers & distributors, New Delhi
5. Time Saver Standards for Interior Design, Joseph De Chiara, McGraw Hill, New York.

ID 0103	THEORY OF INTERIOR DESIGN	L	T	P	C
		3	0	0	3

PURPOSE

The object of this course is to make students understand the various aspects such as spatial quality, design vocabulary, design principles, and design process related to the design of interiors.

INSTRUCTIONAL OBJECTIVES

- Understanding various aspects such as form, scale, light, dimension, height, transitional elements etc affecting interior space.
- Understanding and applying design vocabulary such as Point, Line, shape, color, texture, area, mass, volume etc.
- Understanding and applying design principles such as ratio, proportion, scale, balance, harmony, unity, variety, rhythm, emphasis.
- Understanding the process involved in design including analysis, synthesis and evaluation.

UNIT – I INTERIOR SPACE

9

Space – definition; Interior space – spatial qualities: form, scale, outlook; structuring space with interior design elements; spatial form; spatial dimension – square, rectangle, curvilinear spaces; height of space; spatial transitions – openings within wall planes, doorways, windows, stairways.

UNIT – II DESIGN VOCABULARY

6

Form – point, line, volume, shape, texture & colour – in relation to light, pattern etc. and application of the same in designing interiors.

UNIT – III DESIGN PRINCIPLES

9

Ratio; proportions – golden section; relationships; scale; Balance – symmetrical, radial, occult; harmony; unity; variety; rhythm; emphasis.

UNIT IV ANTHROPOMETRICS

9

Definition, theory of standard dimension based on human figures for activities, functions, circulation, furniture design, spatial requirements etc.

Study of Ergonomics

Design of Furniture for Living, Dining, Kitchen, Office etc.

UNIT – V DESIGN CONTROL

12

Design process – Analysis, synthesis, design evaluation; Design criteria – function and purpose, utility and economy, form and style; human factors - human dimensions, distance zones, activity relationships; fitting the space – plan arrangements, function, aesthetics.

TOTAL 45

REFERENCE BOOKS

1. Francis. D. K. Ching, Interior design Illustrated, Van Nostrand Reinhold
2. John. F. Pile, Interior Design, Harry Abrams Inc.
3. Sam. F. Miller, Design process – a primer for Architectural and Interior Design, Van Nostrand Reinhold.
4. Gary Gordon, Interior lighting for designers, John Wiley & Sons Inc.
5. Harold Linton, Colour in Architecture, McGraw Hill

6. Jonathan Poore, Interior Colour By Design, Rock Port Publishers.
7. Sherrill Winton, Interior Design and Decoration, Prentice Hall.
8. Johanness Itten, The Art of Colour, John Wiley and Son

ID 0105	ELEMENTS OF INTERIOR SPACE	L	T	P	C
		3	0	0	3

PURPOSE

To develop an understanding of point, line & planar elements in defining an interior space.

INSTRUCTIONAL OBJECTIVES

To develop an understanding of various degrees of enclosure, various types of relationship between spaces.

Understanding of the various effects that could be created by manipulating the enclosing elements such as walls, roof etc.

UNIT – I WALL PLANES

9

Use of wall planes to create architectural effects - Natural patterns and textures obtained in masonry walls – articulation of openings in wall planes – effect of tilting the vertical axis of wall planes - niches and alcoves - cornices and moldings etc.

UNIT – II ROOF PLANES

9

Different types and their visual impact – articulation of skylights and roof apertures – false ceiling – materials, finishes & patterns - types of false ceiling – various types of lighting.

UNIT – III FLOOR PLANES

8

Various types of flooring – mosaic, tile, stone etc. – aesthetic effects created by flooring material and pattern - graphic patterns and their visual effects – construction details – skirting, molding, embossing etc. Floor finishes and floor coverings.

UNIT – IV DOORS, WINDOWS AND VENTILATORS, ETC.

10

Doors – types – flush doors, paneled doors, braced doors, carved wooden doors, metal embossed doors, glazed doors and their relevance – various materials and articulation.

Windows – various types (casement, horizontal sliding, vertical sliding, hopper, pivoted) – various shapes (arched, circular, triangular etc) various materials (wood, aluminium, steel, pvc) and their suitability to that space – ventilators – louvered, paneled etc.

UNIT – V CASE STUDIES

9

Case studies for manipulation of wall, floor and roof planes to create various architectural effects – case studies of various doors, windows and ventilators – case studies of columns, beams etc for interior effects.

TOTAL 45

REFERENCE BOOKS

1. The making of interiors – An introduction- Allen Tate- Harper & Row Publishers, New York, 1987.
2. Interior Design & Decoration, Fourth Edition, Sherrill Whiton- Prentice Hall, 1974.
3. Interior lighting for Designers, Third edition – Gary Gordon & Jamco L. Nuckolls – John Wiley & Sons, New York, 1995.
4. The Encyclopaedia of Decorative Styles – William Hardy & Steve Adams – New Burlington books, London, 1988.

ID 0107	MATERIALS & CONSTRUCTION I	L	T	P	C
		1	0	3	3

PURPOSE

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

INSTRUCTIONAL OBJECTIVES

Understanding the basic components of the buildings envelope for small buildings

- Foundations
- Walls
- Openings
- Roofs
- Understanding simple roof & floor finishes

UNIT – I INTRODUCTION TO MATERIALS

10

Wood - Soft and hardwood, plywood, laminated wood and particle boards – properties, manufacture & uses.

Synthetic Materials – Different types of Glass, their properties, manufacturing processes and uses.

Plastics – injection molding & other manufacturing methods, etc.

Fabrics – textile, Jute, leather etc. different types and their uses

UNIT – II BUILDING COMPONENTS

15

Drawings of the components of a building indicating

- Foundation – brick footing, stone footing & rcc column footing
- concrete flooring, plinth beam & floor finish
- superstructure- brickwork with sill, lintel, windows & sunshade
- Flat rcc roof with weathering course, parapet & coping.

UNIT – III TILED ROOFS

10

Drawings indicating various types of sloped & hipped roof

Types of sloping roof –lean to & couple roof with Mangalore tiles, country tiles & pan tiles.

UNIT – IV STRUCTURAL SYSTEMS

10

Structures – Components of a load bearing wall & rcc slab roof system - rcc beams, columns and framed structure

UNIT – V BASIC SERVICES

15

Components of a toilet & bathroom – sanitary ware - w.c, wash basin, bidet, bathtub, jacuzzi etc

Sanitary fittings – taps, mixers, shower units

TOTAL 60

TEXT BOOKS

1. S. C. Rangwala - Engineering materials - Charotar Publishing, Anand

- Francis D. K. Ching - Building Construction Illustrated, VNR, 1975,

REFERENCE BOOKS

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

ID 0109	GRAPHICS - I	L	T	P	C
		1	0	3	3

PURPOSE

To make students improve their sketching skills & drawing abilities.

INSTRUCTIONAL OBJECTIVES

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

UNIT – I INTRODUCTION TO FREE HAND DRAWING

12

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.

UNIT – II SKETCHING

12

Outdoor sketching including Lawns, bushes, Water Bodies, Plants & trees in different media. Indoor sketching – furnitures, lights, corridor, lobby, class room etc.

UNIT – III MEASURED DRAWING

12

Lettering - types, Scale, Measured drawing of furniture, Wall paneling, flooring pattern, ceiling pattern, doors and windows.

UNIT – III GEOMETRICAL DRAWING

12

Orthographic projections - Projection of lines, planes and solids, section of primary solids such as pyramids, cones, cylinder, prism, sphere, cuboid, etc.

UNIT – IV ISOMETRIC DRAWING

12

Isometric projection of all platonic solids such as cube, cuboid, hexagonal prism, pyramids, cone and sphere etc – isometric projection of singly and doubly curve surfaces.

TOTAL 60

REFERENCE BOOKS

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

ID 0111	INTERIOR DESIGN STUDIO – I	L	T	P	C
		0	0	12	6

PURPOSE

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

INSTRUCTIONAL OBJECTIVES

- Understanding various design principles such as emphasis, balance, contrast, Harmony, Unity etc., and applying them in two-dimensional and three-dimensional compositions.
- Understanding and applying design elements such as Point, Line, shape, color, texture, area, mass, volume etc.
- Critical analysis of design of existing man made objects, aiding self-criticism of design.
- Drawing inspiration from nature as a source for design.

UNIT – I

30

Designs involving various elements such as point, line, shape, colour and texture – applied to compositions such as mural design, fabric design, mosaics, stained glass, engraving, block printing, collage etc – involving all the principles of composition.

UNIT – II

40

3D sculptures involving platonic solids, wooden sculptures applying different types of carpentry joints, design and execution of POP made objects such as: cornices, moldings, brackets, etc., Metal and terracotta sculptures.

UNIT – III

60

Study and analysis of forms, patterns and colour schemes in nature. Abstraction of natural forms and design of three-dimensional objects and two-dimensional patterns inspired by them.

UNIT – IV

50

Study and critical analysis of man-made objects – their purpose, functional suitability, formal appeal, etc – evolving suggestions for improvement of the same.

TOTAL180

REFERENCE BOOKS

1. Paul Laseau, Graphic Thinking for Architects and Designers, John Wiley & Sons.
2. Trewin Copplestone, Arts in Society, Prentice Hall Inc.
3. H. Gardner, Art through Ages.
4. David Fair, Design Graphics, Hodder and Stoughton.
5. Architectural arts and Sculpture, Guild Source Books.
6. Virginia Cobb Watson, Discovering the Inner Eye, Gupta Publication.
7. Johannes Itten, The Art of Colour.
8. H.H. Arnason, History of Modern Art

II SEMESTER

ID 0102	HISTORY OF INTERIOR DESIGN - II	L	T	P	C
		3	0	0	3

PURPOSE

To provide the students knowledge of the Interior Design trends of the later part of the 20th century and of traditional Indian styles.

INSTRUCTIONAL OBJECTIVES

To help the student understand the Modern movement in design in the later part of the 20th century.
To make the students understand the traditional styles of decoration done in various states of India.

UNIT – I RECENT DIRECTIONS

10

Design movements such as Late Modernism, High Technology, Post Modernism, and De Constructivism and Minimalism

UNIT – II NON EUROPEAN TRADITIONS

10

Interiors in China, Japan & the Islamic World – Influences of Pre Columbian American art & culture, African influences in interiors

UNIT – III SCANDINAVIAN TRADITIONS

8

Interior Design in Sweden, Finland, Norway.
Contributions of Architects such as Aalvar Alto, etc.

UNIT – IV INDIAN TRADITIONAL DESIGNS

10

Traditional Styles of design & decorations of homes & accessories across the states in India including Rajasthan, Gujarat, Andhra, Tamil Nadu, Madhya Pradesh etc.

UNIT – IV PROJECTS

7

Assignments on recent directions & Non European traditions, Traditional designs of India.

TOTAL 45

TEXT BOOK

1. Interior Design, John F. Pile, Harry Abrams Inc.

REFERENCE BOOKS

1. Interior Design Course, Mary Gilliat Coyran, Octopus Ltd., London
2. Interior Design, Francis D.K. Ching, John Wiley & Sons, New York
3. Time Saver Standards for Interior Design, Joseph De Chiara, McGraw Hill, New York.
4. Publications on Traditional Arts & Crafts of India, Ministry of Handicrafts Development, Government of India.

LE 0106	ENGLISH COMPOSITION AND COMMUNICATION	L	T	P	C
		3	0	0	3

PURPOSE

To provide adequate mastery of communicative English language , training primarily in all the four major language skills-listening , speaking, reading and writing.

INSTRUCTIONAL OBJECTIVES

To impart quality training to the students which will enable them to acquire the skills to meet the demands of the job market.

UNIT – I

6

Forms of communication, factors facilitating communication –communication channels-four types of language skills(LSRW)-barriers to communication.

UNIT – II

10

Composition ,types and formation of sentences-paragraph writing-essay writing- note making-summarizing.

UNIT – III

13

Business communication-circular, agenda and minutes, email- enquiries, quotations- placing orders-clarification and complaints, job application , cover letter with resume.

UNIT – IV

8

Presentation skills- meetings- conducting and attending meetings.

UNIT – V

8

Preparing advertisements- brochures

TOTAL 45

TEXT BOOKS:

1.Technical communication - principles and practice; Meenakshi raman and Sangeetha Sharma-Oxford University press 2007

Reference Book:

1.Raymond V.Lesikar,John D. Pettit and Mary E Flatley-Basic communication ,Tata McGraw Hill, 1999.

ID 0106	MATERIALS & CONSTRUCTION - II	L	T	P	C
		1	0	3	3

PURPOSE

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

INSTRUCTIONAL OBJECTIVES

To understand the construction of basic elements of an interior space such as walls & partitions, floors & roofs.

UNIT- I WALLS- TYPES OF MASONRY

15

Different types - Stone walls – random rubble, coursed rubble, square rubble, polygonal rubble & Ashlar etc

Brick masonry -Types of bonds - single & double Flemish bond, header bond, stretcher bond, rat trap bond, ornamental bonding.

UNIT – II FLOORS

10

Floor coverings- - softwood, hardwood- resilient flooring - linoleum, asphalt tile, vinyl, rubber, cork tiles - terrazzo , marble & granite – properties, uses & laying.

Floor tiles- ceramic glazed, mosaic and cement tiles- properties, uses and laying, details for physically handicapped.

UNIT – III FALSE CEILING

15

Construction of various kinds of false ceiling such as thermacol, plaster of paris, gypboard, metal sheets, glass and wood

Construction of domes, vaults, & other special ceilings

UNIT- IV WALL PANELING

10

Paneling – Using wooden planks, laminated plywood, cork sheets, fibre glass wool & fabric for sound insulation and wall paneling for thermal insulation.

UNIT- IV FINISHES

10

Paints- enamels, distempers, plastic emulsions, cement based paints- properties, uses and applications- painting on different surfaces – defects in painting , clear coatings & strains- varnishes, lacquer, shellac, wax polish & strains- properties, uses and applications. Special purpose paints- bituminous, luminous, fire retardant and resisting paints- properties, uses and applications

TOTAL 60

TEXTBOOKS

1. S.C Rangwala – engineering materials – Charotar publishing, Anand 1982
2. W.B McKay, building construction, VOL 1-4 , Longmans, u.k 1981
3. Laxmi publications Pvt. Ltd., New Delhi, 1993.

REFERENCE BOOKS

1. Dr. B.C Punmia , building construction , Laxmi publications Pvt. Ltd., New Delhi, 1993.
2. M.S Shetty , concrete technology , S. Chand & co . Ltd ., New Delhi , 1986 .

ID 0108	GRAPHICS - II	L	T	P	C
		1	0	3	3

PURPOSE

Students should acquire knowledge of the various drawings, which effectively communicate their designs.

INSTRUCTIONAL OBJECTIVES

To train the students in the field of interior perspective drawing and sciography. Presentation skills, Techniques for Construction as a tool towards effective visualization and presentation.

UNIT - I MEASURED DRAWING

10

Measured Drawing of Simple objects like Cupboards etc. and building components like Columns, Cornices, Doors, Windows etc.

UNIT – II ISOMETRIC

15

Isometric View: like Tables, Chairs, Cylindrical & Spherical elements etc.
Axonometric View: like Interior views for living room, Toilet, Dining Room etc.

UNIT – III PERSPECTIVE

20

Perspective View: Principles and Visual Effect of three dimensional objects, Study of Picture plane, Station Point, Vanishing Point, Eye level etc.
One point perspective for interiors
Two point perspective for interiors.

UNIT – IV SCIOGRAPHY

15

Sciography : Principles of Shade and Shadow- Shade and Shadows of Architectural Elements in Interiors. Shadows of Circular/Cylindrical/Spherical elements.

TOTAL 60

TEXTBOOK

1. Perspective & Sciography BY Shankar Mulik, Allied Publishers

REFERENCE BOOKS

1. Perspective Principles, M.G. Shah & K.M. Kale, Asia Publications, Mumbai
2. Geometrical drawing for Art students, I.H. Morris, Orient Longman, Chennai
3. Engineering Drawing, M.S. Kumar, D.D. Publications, Chennai

ID 0110	MODEL MAKING WORKSHOP	L	T	P	C
		0	0	6	3

PURPOSE

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

INSTRUCTIONAL OBJECTIVES

Acquisition of hands on experience in model - building.

UNIT – I INTRODUCTION TO MODEL MAKING

8

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

UNIT - II BLOCK MODELLING

12

- 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

20

- Making detailed models which includes the representation of various building elements like Walls, Columns, Steps, Windows/glazing, Sunshades, Handrails using materials like Mountboard, Snow-white board, 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

25

Making models of the various interior spaces such as

- Residences
 - Offices
 - Retail Spaces
 - Recreational Spaces
- Scaled models of furniture.

UNIT – V CARPENTRY

25

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.

TOTAL 90

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.

ID 0112	INTERIOR DESIGN STUDIO - II	L	T	P	C
		0	0	12	6

PURPOSE

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

INSTRUCTIONAL OBJECTIVES

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

UNIT – I KITCHENS

30

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.

UNIT – II TOILETS

30

Anthropometry – various types of sanitary ware and their use – types of layouts – concepts in modern day toilet interiors – materials & finishes – colour, texture & pattern.

UNIT – III BEDROOMS & LIVING ROOMS

50

Concepts in bedroom & living room interiors – various layout of these spaces – the use of furniture and accessories to create a certain type of ambience – materials & finishes – lighting, colour & texture.

UNIT – IV RESIDENCE

70

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.

TOTAL 180

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.

III SEMESTER

ID 0201	FURNITURE DESIGN	L	T	P	C
		3	0	0	3

PURPOSE

To provide the students knowledge on History of Furniture Design and various aspects involved in the design of furniture for various spaces.

INSTRUCTIONAL OBJECTIVES

To help the students understand about the various anthropometric aspects, human factors & other design criteria involved in the design of furnitures.

To make the students understand about the various materials & technology involved in the making of furnitures.

UNIT – I HISTORY OF FURNITURE DESIGN

8

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 & other modern furniture designs.

UNIT – II HUMAN FACTORS

9

Study of Anthropometry & Design criteria involved in the design of

- Sofa, settee, couch, etc.
- Cot, bedside lockers, wardrobes
- Cupboards, shelves
- Bunk beds, study table
- Display furniture
- Furniture for the physically challenged

UNIT – III PRINCIPLES OF DESIGN & DETAILINGS

9

- Form – Colour - Symbols
- Materials & finishes – Wood, Glass, Metal, Plastics and Upholstery - include various finishes.
- Fabrication Techniques involved
- Multiple Utility Oriented Approaches to Furniture Design.

UNIT – IV ROOM PLANS AND FURNITURE ARRANGEMENT

9

Types of furniture – Built in furniture – Movable 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

10

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.

TOTAL 45

REFERENCE BOOKS

1. Interior Design, John F. Pile, Harry N. Abrams Inc Publishers, New York
2. Interior Design Course, Mary Gilliat Coyran, Octopus Ltd., London
3. The Encyclopaedia of Furniture, Joseph Aronson, Crown Publishers, New York
4. Interior Design & Decoration, Sherril Whiton, Prentice Hall
5. Interior Design, Francis D.K. Ching, John Wiley & Sons, New York
6. Office Furniture, Susan S. Szenasy, Facts on file Inc, New York
7. Time Saver Standards for Interior Design, Joseph De Chiara, McGraw Hill, New York.

ID 0203	INTERIOR LANDSCAPE DESIGN	L	T	P	C
		3	0	0	3

PURPOSE

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

INSTRUCTIONAL OBJECTIVES

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.

To study about the various landscaping elements and their application in interior spaces.

UNIT – I INTERIOR LANDSCAPING

8

Definition, classification of plants, indoor plants and their functions, layout & components, Floriculture – commercial, ornamental, Selection of plants & pest control.

UNIT – II PHYSICAL REQUIREMENTS OF PLANTS

9

Physical requirements of plants – light, temperature, water, planting medium, soil separator, weight of plants, acclimatization & maintenance.

Techniques to meet physical requirements.

UNIT – III INTERIOR LANDSCAPING ELEMENTS & PRINCIPLES

9

Various interior landscaping elements – water bodies - pools, fountains, cascades

Plants, rocks, artifacts, paving & lighting, Design guidelines- plant texture & colour, plant height, plant spacing.

UNIT – IV ROOF AND DECK LANDSCAPE

9

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.

UNIT – V EXERCISE ON INTERIOR LANDSCAPE

10

- Courtyard design
- An outdoor room design
- Terrace garden

TOTAL 45

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.

ID 0205	INTERIOR SERVICES – I (Plumbing)	L	T	P	C
		3	0	0	3

PURPOSE

To expose the students to the basic principles of water supply and sanitation.

INSTRUCTIONAL OBJECTIVES

To understand the need and applications of water supply and sanitation in buildings with exposure to various fixtures and fittings, water supply and sanitary installations at work sites.

UNIT I WATER SUPPLY IN BUILDINGS

12

Standard of portable water and methods of removal of impurities, Consumption or demand of water for domestic purposes, Service connection from mains, House-service design, tube well, pumping of water, types of pumps, cisterns for storage

UNIT II BUILDING DRAINAGE

12

Layout, Principles of drainage, Trap type, materials and functions, Inspection chambers, Design of Septic tanks and soak pits, Ventilation of house drains
Anti-syphonage or vent pipes, One and two pipe systems
Sinks, bath tub, water closets, flushing cisterns, urinals, wash basins, bidet, shower panel etc.

UNIT III PLUMBING

12

Common hand tools used for plumbing and their description and uses, Joints for various types of pipes, Sanitary fitting standards for public conveniences
Different types of pipes and accessories for water supply, controlling fixtures like valves, taps, etc. Fittings and Choice of materials for piping: cast iron, steel, wrought iron, galvanized lead, copper, cement concrete and asbestos pipes, PVC pipes
Sizes of pipes and taps for house drainage, Testing drainage pipes for leakage - smoke test, water test etc, CI pipes for soil disposal and rain water drainage, Wrought iron, steel and brass pipes.
Rain water disposal drainage pipes spouts, sizes of rainwater pipes

UNIT IV SOLID WASTE DISPOSAL

5

Solid wastes collection and removal from buildings. On-site processing and disposal methods. Aerobic and Anaerobic decomposition

UNIT V SERVICES STUDIO

4

Preparation of plumbing layout of a single storey building & working drawings of various fittings and fixtures of water supply and sanitary installations.

TOTAL 45

TEXTBOOK

1. S.C. Rangwala, Water supply and sanitary engineering, Charotar publishing house

REFERENCE BOOKS

1. Charangith shah, Water supply and sanitary engineering , Galgotia Publishers
2. A Kamala & DL Kanth Rao, Environmental Engineering, Tata McGraw – Hill publishing Company Limited
3. Technical teachers Training Institute (Madras), Environmental Engineering, Tata McGraw – Hill publishing Company Limited
4. Marrimuthu, Murugesan, Padmini, Balasubramanian, *Environmental Engineering*, Pratheeba publishers

ID 0207	MATERIALS & CONSTRUCTION - III	L	T	P	C
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PURPOSE

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

INSTRUCTIONAL OBJECTIVES

To understand the various components of interior space as doors, windows, staircases.

UNIT- I DOORS

10

Types including, openable, sliding, folding pivoted Lodged and braced, paneled doors, glazed doors, Joinery details for doors.

UNIT – II PARTITIONS

10

Details of fixed, sliding and sliding and folding partitions with wood, steel and aluminium frames & panels in glass, particle board, MDF, gypboard and plywood.

UNIT – III TIMBER WINDOWS

10

Types – Casement, fixed, horizontal sliding, vertical sliding, pivoted, and top hung types
Ventilators- top hung, bottom hung, pivoted, louvered, fixed types.
Joinery details for windows, ventilators

UNIT – IV WINDOWS IN STEEL AND ALUMINIUM

15

Details of sliding and openable windows in aluminium and steel frames with glazed panels

UNIT – V STAIRCASE

15

Types according to profile – straight flight, doglegged, quarter turn, half turn, bifurcated, spiral & helical.
Types based on materials (timber, wood, steel, synthetic materials).
Details of handrails & balusters.
Designing and detailing for physically handicapped

TOTAL 60

TEXTBOOKS

1. S.C Rangwala – engineering materials – Charotar publishing, Anand 1982
2. W.B McKay, building construction, VOL 1-4 , Longmans, u.k 1981
3. Laxmi publications Pvt. Ltd., New Delhi, 1993.

REFERENCE BOOKS

1. Dr. B.C Punmia , building construction , Laxmi publications Pvt. Ltd., New Delhi, 1993.
2. M.S Shetty , concrete technology , S. Chand & co . Ltd ., New Delhi , 1986 .

ID 0209	COMPUTER APPLICATIONS IN DESIGN - I	L	T	P	C
		1	0	3	3

PURPOSE

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

INSTRUCTIONAL OBJECTIVES

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

UNIT – I INTRODUCTION TO COMPUTER AIDED 2D DRAFTING
10

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
20

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
15

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
15

Introduction to 3D modeling techniques and construction planes, drawing objects, 3D surfaces, setting up elevation and thickness, and use of dynamic projections. Solid modeling with driving, primitive command and Boolean operations. Use of region modeling & solid modifiers.

TOTAL 60
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

ID 0211	INTERIOR DESIGN STUDIO - III	L	T	P	C
		0	0	14	7

PURPOSE

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

INSTRUCTIONAL OBJECTIVES

- The course concentrates on larger scale spaces with an emphasis on planning commercial spaces.
- 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.

UNIT – I SHOPS
60

Planning for retail activity – anthropometrics – types of Shop layouts Modular units.
 Materials used in counters, shelves, worktops, their comparative study.
 Lighting & colour scheme – natural & artificial light.

UNIT – II COMMERCIAL SPACES
60

The art of selling-displays/products/marketing, design of display units, design of boutiques, showrooms.
 Concepts in modern day Retail interiors – materials & finishes – colour, texture & pattern.

UNIT – III SHOPPING MALLS
90

Product display – windows/internal displays/hierarchy of product display/power of visual communication/graphics

Exhibition spaces – display for exhibition

Lighting design for commercial spaces – task/display/atmospheric/focal lighting

Coloring commercial spaces – coding/decoding/visual communication

Design of commercial Environments such as Malls, Shopping Arcades Etc.

TOTAL 210
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.

IV SEMESTER

ID 0202	LIGHTING AND COLOUR IN INTERIORS	L	T	P	C
		3	0	0	3

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

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

UNIT - I INTRODUCTION TO DAY LIGHTING
8

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
9

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.

UNIT – III EFFECT OF COLOR IN LIGHTING
8

Colors, color schemes - Monochromatic, analogous, complementary colour schemes, triadic and tetradic schemes, 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 LUMINAIRES & FIXTURES
10

Definition, different luminaires 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

10

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

TOTAL 45

REFERENCE BOOK

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

ID 0204	FURNITURE CONSTRUCTION AND DETAILING	L	T	P	C
		3	0	0	3

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

8

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

8

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

9

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

10

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

10

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

TOTAL 45

TEXT BOOKS

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

3.Fevicol Furniture series

REFERENCE BOOKS

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

ID 0206	INTERIOR SERVICES – II	L	T	P	C
		3	0	0	3

PURPOSE

To expose the students to the basic principles of air conditioning,acoustics,electrification and mechanical services.

INSTRUCTIONAL OBJECTIVES

To understand the need and applications of airconditioning, acoustics, electrification and mechanical services in buildings with exposure to various systems, methods and fixtures.

UNIT I BASIC CONCEPTS AND SYSTEM COMPONENTS IN AIR CONDITIONING 8

Vapour compression cycle – Compressors – Evaporators – Refrigerant control devices – Electric motors – Air handling units – Cooling towers.

UNIT – II AIR-CONDITIONING SYSTEM AND APPLICATIONS 10

Window type and packaged air conditioners – Chilled water plants – Fan coiled systems – Water piping – Cooling load.- Air-conditioning systems for different types of buildings – Duct lay out etc.

UNIT III FIRE SAFETY 9

Mechanism of fire spread in building and prevention – Fire safety standards – Concepts in fire protection- Fire fighting installation and requirements - Heat sensitive detectors – Smoke detectors – Automatic water sprinkler system- Foam systems.

UNIT IV ACOUSTICS AND SOUND INSULATION 9

Room acoustics- resonance, reverberation, echo, reverberation time, simple exercise using Sabine's formula.- Acoustical requirements of different types of building. -Sound absorption, absorption co-efficient and their measurements, Absorbing materials used and their choices, exercises involving reverberation time and absorption co-efficient. Sound insulation materials

UNIT V ELECTRICAL SYSTEMS 9

Single/Three phase supply – Protective devices in electrical installation — ISI Specifications - Types of wires, Wiring systems and their choice – Planning electrical wiring for building interiors – Main and distribution boards- Typical Electrical layout for interiors.

TOTAL 45

REFERENCE BOOKS

1. M.H.Lulla, Air conditioning
2. V.K.Jain, Fire Safety in Buildings.
3. Peter templeton & Saunders – Detailing for architectural acoustics – Architectural press, 1994
4. R.G.Hopkinson and J.D.Kay, the Lighting of Buildings, Faber and Faber, London,196

ID 0208	WORKSHOP	L	T	P	C
		0	1	3	3

PURPOSE

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

INSTRUCTIONAL OBJECTIVES

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

UNIT I WOOD WORKSHOP

20

The safe and efficient use of the tools of the trade, Hand tools, portable power tools, Stationary power tools, Materials, Hardware. Safe working practices in a workshop. Joineries in wood – lap, butt, dowell, tenon & mortise, dovetail, etc. Exercises in plywood joinery.

UNIT II METAL WORKSHOP

20

Cutting, planning, drilling and lathing of steel sections used in furniture. Aluminium sections and their use in doors, windows and partitions, Welding practice.

UNIT III FABRIC WORKSHOP

10

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.

UNIT IV PAINT WORKSHOP

10

Techniques of spray painting of enamel paint on metal and wood surfaces – varnishing and lacquering etc.

TOTAL 60

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.

ID 0210	COMPUTER APPLICATIONS IN DESIGN II	L	T	P	C
		1	0	3	3

PURPOSE

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

INSTRUCTIONAL OBJECTIVES

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

UNIT I INTRODUCTION TO 3DS MAX	12
An overview of GUI, types of modeling, transforming objects, Compound objects, modifiers & modifier stack.	
UNIT II MODELLING TECHNIQUES	12
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	12
Using material editor, material browser, mapping textures	
UNIT IV RENDERING	12
Lighting, cameras and render effects, environment mapping, fogs and atmospheres.	
UNIT V PHOTOSHOP	12
Photoshop interface, creating and saving images, basic image editing, Photoshop tool box and tools, using layers, special effects.	

TOTAL 60

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

ID 0212	INTERIOR DESIGN STUDIO - IV	L	T	P	C
		0	0	14	7

PURPOSE

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

INSTRUCTIONAL OBJECTIVES

- The course concentrates on three stages of work spaces with an emphasis on planning office spaces.
- 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.

UNIT – I CONSULTING OFFICE FOR PROFESSIONAL PRACTITIONER **90**

Planning for small office – office of architects, interior designers, lawyer, and auditor – individual layouts, Modular units .play with levels.
 Lighting & colour scheme – natural & artificial light.

UNIT – II CORPORATE OFFICE

120

Interior designing for multi functional, multi level planning, design and detailing of various work spaces, interactions zones.

Design of corporate Environments such as BPO, corporate office

TOTAL 210

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.

V SEMESTER

ID 0301	ESTIMATION & COSTING	L	T	P	C
		3	0	0	3

PURPOSE

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

INSTRUCTIONAL OBJECTIVES

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

10

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

7

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

9

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

9

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 equipments like piping, shower panels ,cubicles, tubs, Jacuzzis , taps, motors, fountains, false ceiling of

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

10

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, airconditioning & fire fighting equipments.

TOTAL 45

TEXTBOOKS

1. M. Chakraborti, .Estimation, Costing, Specification and Valuation in Civil engineering.
2. 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

ID 0303	CONTEMPORARY INTERIOR DESIGNERS	L	T	P	C
		3	0	0	3

PURPOSE

To provide the student of Interior Design knowledge on the works of leading interior designers and their influence on design through ages.

INSTRUCTIONAL OBJECTIVES

- To help the student understand the designs from the industrial age to the present information age.
- To know more on the Modern Movements in Interior design from the beginnings of 20th century.

UNIT – I EARLY PIONEERS

9

Art nouveau, the post Industrial era works of Charles Renée Mackintosh, Antonio Gaudi, Gerrit Rietveld and their expressionist interior design.

UNIT – II BAUHAUS AND POST WAR MODERNISTS

9

Walter Gropius/ Bauhaus, De Stijl, Mies Van Der Rohe, Art Deco, Postwar Modernism.

UNIT – III MODERNISM

9

Interiors of Le Corbusier, Frank Lloyd Wright, Louis Khan, Kenzo Tange and Oscar Niemeyer

UNIT – IV INTERNATIONAL STYLE

9

The works of Alvar Alto, Phillip Johnson, Charles and Ray Eames , Eero Saarinen, Eero Aarnio, Arne Jacobsen.

UNIT – V POST MODERNISM AND MINIMALISM

9

Interiors of Zaha Hadid, Santiago Calatrava, Frank Gehry and Peter Eisenmann.

TOTAL 45

REFERENCE BOOKS

1. Interior Design Course, Mary Gilliat Coyran, Octopus Ltd., London
2. Interior Design & Decoration, Sherril Whiton, Prentice Hall
3. Interior Design, Francis D.K. Ching, John Wiley & Sons, New York
4. History of Architecture, Sir Banister Fletcher, CBS Publishers & distributors, New Delhi
5. Time Saver Standards for Interior Design, Joseph De Chiara, McGraw Hill, New York.

ID 0309	COMPUTER GRAPHICS	L	T	P	C
		0	0	5	3

PURPOSE

This is essentially a computer laboratory based training course intended to upgrade the presentation skill of the students so as to enable them to produce high quality, photo – realistic drawings & walk through.

INSTRUCTIONAL OBJECTIVES

Presently the students would be trained in the use of software such as **Google Sketchup & 3D Home Architect** to model Interiors of buildings. However, the software may change over time & hence training would be imparted in their use.

UNIT 1 INTRODUCTION TO SKETCHUP & ITS TOOLS

15

Starting a drawing – Concepts – Principal tools for drawing, modification, construction, camera, walkthrough, sandbox etc – breaking edges, google toolbar

UNIT 2 USE & MANAGEMENT OF SKETCHUP

15

Model setting and managers – colours and materials – entities – making input & output – technical information – common tasks - applications

UNIT 3 INTRODUCTION TO 3D HOME ARCHITECT

15

Starting a drawing – Drawing walls, windows, doors, staircases, columns, roof etc. modifying the properties of doors, windows etc. – applying materials, colour

UNIT 4 APPLICATIONS OF 3D HOME ARCHITECT

15

Adding furniture, fittings etc. - camera positions & viewing angles – rendering views with trees, cars, people etc. – Choosing a suitable walkthrough path & creation of the same

UNIT 5 EXERCISES USING INTERIOR DESIGN STUDIO PROJECTS

15

Exercises in the use of Sketchup & 3D Home Architect for the designs done as a part of the Design studio classes will be done

TOTAL 75

TEXT BOOKS

1. User manual & tutorials of Google Sketch Up software.
2. User manual & tutorials of 3D Home Architect software

ID 0311	INTERIOR DESIGN STUDIO - V	L	T	P	C
		0	0	16	8

PURPOSE

To introduce the basics of designing for retail spaces including showrooms and restaurant interiors and to develop skills required for the same.

INSTRUCTIONAL OBJECTIVES

- The course concentrates on three stages of commercial spaces with an emphasis on planning show rooms , hospitality spaces
- 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.

UNIT – I HEALTH CARE INTERIORS

120

The design of Health care spaces, such as hospitals, consulting, treatment rooms, Diagnostic facilities – study of special acoustics and functional materials and furniture detailing.

UNIT – II RESTAURANT INTERIORS

120

Interior designing for multi functional Restaurants and Banquet halls, multi level planning, design and detailing of various work spaces, interactions zones.

Design of hospitality spaces such as theme based restaurants, corporate banquet venues etc

TOTAL 240

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.

VI SEMESTER

ID 0302	OFFICE TRAINING (INTERNSHIP)	L	T	P	C
		0	0	0	10

VII SEMESTER

ID 0401	PROJECT MANAGEMENT	L	T	P	C
		3	0	0	3

PURPOSE

Knowledge about the methodology of executing a Project greatly enhances the professional ability of an Interior Designer.

INSTRUCTIONAL OBJECTIVES

To expose the students to the currently prevalent techniques in the planning, programming and management of a project.

UNIT – I INTRODUCTION

8

Project planning and project scheduling and project controlling, Role of Decision in project management, Method of planning and programming, Human aspects of project management, work breakdown structure, Life cycle of a project, disadvantages of traditional management system

UNIT – II ELEMENTS OF NETWORK	8
Event, activity, dummy, network rules, graphical guidelines for network, numbering of events	
UNIT – III CRITICAL PATH METHOD AND PERT ANALYSIS	8
CPM network analysis & PERT time estimates, time computation & network analysis	
UNIT – IV PROJECT TIME REDUCTION AND OPTIMIZATION	9
Project cost, Indirect project cost, direct project cost, slope of the direct cost curve, total project cost and optimum duration, contracting the network for cost optimization, steps in cost-time optimization	
UNIT – V PROJECT UPDATING AND ALLOCATION	12
When to update? Data required for updating, steps in the process of updating Resource usage profile: Histogram, Resource smoothing and Resource leveling, Computer applications in project management.	
TOTAL	45

TEXT BOOK

1. Dr. B.C.Punmia et al. Project planning and control with PERT and CPM, Laxmi Publications,

REFERENCE BOOKS

1. Jerome D.Wiest and Ferdinand K.Levy, A Management Guide to PERT, CPM, prentice Hall of India Pub, Ltd., New Delhi, 1982
2. R.A. Burgess and G.White, Building production and project Management, The construction press, London, 1975

ID 0403	INTERIOR DESIGN CODES	L	T	P	C
		3	0	0	3

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 OBJECTIVES

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 **10**

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 **10**

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 **8**

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 **9**

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 8

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

TOTAL 45

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.

ID 0413	SCHEME DETAILING (WORKING DRAWING)	L	T	P	C
		1	0	3	3

PURPOSE

The students learn to draw working drawings used for building construction

INSTRUCTIONAL OBJECTIVES

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

UNIT I BUILDING COMPONENTS 10

Working drawing of different types of doors and windows.

UNIT II BUILDING SURFACES 15

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

UNIT III FURNITURE 10

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

UNIT IV DETAILING OF SPECIAL AREAS 15

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

UNIT V DETAILING OF STORAGE AREAS 10

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

TOTAL 60

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.

ID 0415	ADVANCED DESIGN STUDIO	L	T	P	C
		0	0	16	8

PURPOSE

Hospitality industry- exposure to design standards in five star hotels. To impart knowledge about interior design possibilities in auditorium.

INSTRUCTIONAL OBJECTIVES

To study and develop innovative schemes for hotel and auditorium interiors. Knowledge of working drawings is also intended.

UNIT I AUDITORIUM

100

Spatial and environmental standards for various auditorium – performing arts, cinema, convention centre. Detail schematics of wall paneling, false ceiling and carpeting to satisfy acoustic requirements. Lighting study to develop ideas for foyer, auditorium and stage requirements.

UNIT II FIVE STAR HOTELS

140

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.

TOTAL 240

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.

VIII SEMESTER

ID 0402	GRADUATION PROJECT WORK	L	T	P	C
		0	0	0	12

List of Electives

Elective I

ID 0305	DESIGN CONTEXTUAL STUDIES	L	T	P	C
		2	0	0	2

PURPOSE

Study of interior design with reference to the context of the building typology and its environs

INSTRUCTIONAL OBJECTIVES

Exposure is intended to study projects in their context – in relation to overall building typology, its functioning and maintenance

UNIT I ENTERTAINMENT SPACES 6

Study of interiors for entertainment buildings such as clubs, multiplex and amusement parks – schemes for video games parlour, food court areas and exclusive indoor game areas of clubs.

UNIT II EDUCATIONAL SPACES 6

Study of interiors for class rooms, seminar halls and AV halls – schemes for library, smart class rooms and discussion areas.

UNIT III SPORTING SPACES 6

Study of interior requirements for gymnasium, indoor stadium and aquatic complex – schemes for interiors of stadium with focus on lighting requirements and visibility.

UNIT IV COMMERCIAL SPACES 6

Study of interiors in saloons, pubs, discotheque and banks, etc. - schemes for the same.

UNIT V TRANSPORTATION SPACES 6

Study of interiors for airports, MRTS, railway stations and bus terminals – schemes for the same

TOTAL 30

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

ID 0307	TEXTILE DESIGN	L	T	P	C
		2	0	0	2

PURPOSE

To familiarize the students of Interior Design on textile materials used in interior

INSTRUCTIONAL OBJECTIVES

To gain knowledge and understanding of the functional and aesthetic requirements of textiles for a range of applications

UNIT I INTRODUCTION TO FABRICS 7

Fabric, yarn and fiber structure, Fabric structure- **woven**- warp, weft, selvedge, knitted- course, non-woven, Fabric types and classification- woven, including plain, twill, satin, Jacquard, crepe and pile weaves, **knitted**- including single knit, double knit, tricot knit, pile knit, lace and net, **non-woven**-including felts, webs and films, identification and properties of fabrics, yarns and fibers.

UNIT II APPLICATION OF ELEMENTS AND PRINCIPLES 8

Application of elements and principles of design across a range of textiles.

Describe and analyze elements and principles of design -furnishings, textile arts, non-apparel.

Functional and aesthetic requirements and features of textile range.

UNIT III COLOUR ON FABRICS 6

Fabric coloration and decoration- Principles of applying color to fabrics.
Textile arts and crafts in interiors, traditional and modern materials and methods.
Preparing samples on tie and die printing, batik printing, appliqué, macramé and braiding.

UNIT IV FURNISHINGS

5

Furnishings-classification, types of curtain, curtain construction, selection criteria relation to backgrounds in walls, floors and ceilings.
Slip covers, cushion covers, bed linen and table linen
Floor coverings -rugs and carpets, types selection, care and maintenance, installation of floor coverings

UNIT V OTHER NATURAL MATERIALS

4

Jute or hessian – dyed jute fabric and its applications – various kinds of processed leather, its application in interior design.

TOTAL 30

REFERENCE BOOKS

1. Inside today's home, Faulkner, R. and Faulkner 1987, Rinehart Winston, New York
2. Interior Design & Decoration, Sherril Whiton, Prentice Hall
3. Introduction to home furnishings, Stepat, D.D, 1991, The macmillan company, New York.
4. The themes and Hudson manual of textile printing, Storey joyce, 1992, London
5. Colour in interior Design Jhon, F.P, 1997, Mc Graw Hill Company

Elective II

ID 0313	PRESENTATION TECHNIQUES	L	T	P	C
		2	0	0	2

PURPOSE

To introduce the students the making of complete presentation and the essentials of presentation skills.

INSTRUCTIONAL OBJECTIVES

To equip the students with various tools of sketching and rendering like pencils, pens, charcoal, ink brushes etc.

To familiarize the students with some of the concepts of 3D modeling and the presentation techniques.

UNIT I COLORING STUDY

6

Introduction of colors, Usage of water colors, poster colors, pen & ink, rendering techniques, etc.

UNIT II DRAWING AND SKETCHING INTERIOR ENVIRONMENTS

6

Drawing and sketching interior environments, one point interior perspective, two point interior perspective, refined linear perspective methods, two point plan projection method, and perspective traced from photographs.

UNIT III RENDERING WITH PEN AND INK

6

Introduction to pen and ink rendering, materials, media and tools, rendering orthographic projection drawings, rendering perspective drawings.

UNIT IV RENDERING WITH COLOUR PENCILS AND SKETCH PENS

6

Rendering of interior perspectives with colour pencils and sketch pens – stroke effects, smudge effects – use of schoeller and kent sheets – leather cartridge etc.

UNIT V RENDERING WITH POSTER/WATER COLOURS

6

Use of kent/ cartridge sheets for poster colours and waterman/cartridge sheets for water colours – transparency effects in water colours – block effects in poster colours.

TOTAL 30

Reference books:

1. Interior Design Visual Presentation 2nd and 3rd Edition-Maureen Mittom
2. Architects Sketching and Rendering techniques for designers and architects.-Stephen.A.Klimet
3. Architectural Rendering Techniques-A Color Reference-Mike.W.Lin
4. Color Drawing-Design drawing skills & techniques for architects-Michael.E.Doyle.
5. Color Vision-Leo Marvullo
6. Water Color-Hon graham Scholes

Text Books

1. 3DS Max-Advanced 3D Modeling and animation-Cadd Centre
2. Adobe Photoshop 7.0 classroom in a book-Adobe creative team.

ID 0315	ADAPTIVE REUSE AND RECYCLING	L	T	P	C
		2	0	0	2

PURPOSE

To expose the students to the basics of adaptive reuse and recycling.

INSTRUCTIONAL OBJECTIVES

To enable the student to understand the need for adaptive reuse of old heritage buildings and applications of using recycled materials.

UNIT I NEED FOR ADAPTIVE REUSE

6

Cultural inheritance – heritage buildings and old structures – ascertaining the structural stability – estimation of the prolonged life of the building – strategies of adaptive reuse – investigation into material finishes etc.

UNIT II NEED FOR RECYCLING OF MATERIALS

6

The logic behind recycling – recycling of steel, wood, glass etc - estimation of the quality of recycled timber – criteria for recycling of steel, glass etc.

UNIT III CONCEPT OF SUSTAINABILITY

6

Earth summit declaration – definition of sustainability – economic, social and environmental issues – green rating of buildings – criteria for LEED rating.

UNIT IV RECYCLING OF WASTE WATER

6

Sullage and sewage – techniques of water purification for sullage – treatment plant for sewage – techniques of biological and chemical purification.

UNIT V NEED FOR CONSERVATION

6

Architectural conservation – conservation of heritage and important buildings – levels of intervention – structural, construction related, finishes etc. Revival of old building techniques and finishes.

TOTAL 30

REFERENCE BOOKS

1. Harimohan Pillai – Heritage conservation and cultural continuity – Saraswatham publishers, 2002.
2. Sustainable building design manual – TERI publication, 2004.
3. Waste management and recycling – Compiled by C.T. Lakshmanan, SRM University.
4. Sandra F Mendler - The HOK Guide book for sustainable design – John Wiley and Sons, Canada, 2002.
5. Conservation guidelines for Pondicherry – DTCP, Pondicherry – INTACH 2000.

Elective III

ID 0405	INTERIOR DESIGN PHOTOGRAPHY	L	T	P	C
		2	0	0	2

PURPOSE

To expose the students to the basic principles of photography in interiors

INSTRUCTIONAL OBJECTIVES

To help the student understand the principles and technology of photography.

To enable the student to understand the applications of photographs in interior

UNIT – I PRINCIPLES OF COMPOSITION

6

Rule of thirds, perspective-worm's eye view, normal eye view, bird's eye view, one-point perspective, two-point perspective, three point perspective, exercises in composition

UNIT – II PRINCIPLES OF PHOTOGRAPHY

6

Technical definitions, understanding a camera, anatomy of a SLR camera, technical setting in a SLR camera, different types of lenses

UNIT – III PRINCIPLES OF INTERIOR LIGHTING

6

Technical definitions, lighting sources, types of lighting fixtures, types of lamps, calculating lighting levels, flash photography, types of flashes, controlling lighting levels with flash photography
Exercise in interior lighting photography with artificial light and black and white photos

UNIT – IV PRINCIPLES OF COLOUR

6

Color rendering in photographic medium, color rendering in photographs under different lighting condition, lighting colors and its effect on a photograph, color filters in a camera
Exercise on color photography of interiors

UNIT – IV INTEGRATION

6

Project work/exercise in integrating all prior units

TOTAL 30

Reference Books;

1. Point view- The art of architectural photography , E.Manny A Ballan, VNR
2. Professional photography –photographing buildings, David Wilson, Rotovision

ID 0407	MARKETING TECHNIQUES	L	T	P	C
		2	0	0	2

PURPOSE

To expose the students to the basic principles of water supply and sanitation.

INSTRUCTIONAL OBJECTIVES

To understand the need and applications of water supply and sanitation in buildings with exposure to various fixtures and fittings, water supply and sanitary installations at work sites.

UNIT I WHAT IS MARKETING?

5

Introduction, definition, Organizational conditions and USP, Environmental factors, marketing concept – marketing strategy – marketing tactics, Planning, operation and Implementation.

UNIT II BUILDING A MARKETING STRATEGY

6

Competitive settings, marketing decisions in a competitive setting, formulating overall marketing strategy, factors in selecting marketing inputs, the three C's of a marketing strategy, Components of a product/market strategy, hierarchy of strategies, how to develop a product/market strategy, finding a suitable market strategy.

UNIT III UNDERSTANDING CUSTOMERS

6

How marketing influences society – economic aspects, buyers behavior, the environment, how society influences marketing – public opinion and political pressure, legislative action, pitfalls of neglecting customers, management mistakes, benefits of understanding customers, types of benefits, feature Vs benefits.

UNIT IV MANAGING VALUE

5

Components of perceived value, perceived value analysis, measuring perceived value, customer management, role of perceived value in competition, strategic themes, increasing perceived value.

UNIT V ORGANISATIONAL CAPABILITIES AND MARKETING POSITIONING

8

Analysing competitors, capabilities and market strategies, types of capabilities, evaluating capabilities, competitive advantage and benefit advantage, macro trends, market segmentation, characteristics of market segment, determining a target market, role of segments and target market in marketing strategy, segment identification analysis, segments and decision making, market selection criteria, types of market segments, what is positioning, competitive advantage analysis, determining positioning, positioning and perceived value.

TOTAL 30

REFERENCE BOOKS

1. Marketing 101, Don Senton, Wiley.
2. Fundamentals of Modern marketing, Edward w. cundiff, Richard R.Still, Norman A.P Goroni, PHI.
3. Marketing Management, Phillip Kotter, PHI.

Elective IV

ID 0409	INTERIOR SERVICES III (ACOUSTICS)	L	T	P	C
		2	0	0	2

PURPOSE

To expose the students to the basic principles of acoustics in interiors.

INSTRUCTIONAL OBJECTIVES

To understand the need and applications of acoustics in buildings with exposure to various systems, methods and fixtures.

UNIT – I INTRODUCTION TO ACOUSTICS

6

Definition, Theory of sound generation, transmission – reception of sound – Terms related to acoustics – sound waves, frequency, intensity, wavelength – measurement of sound.

UNIT – II ROOM ACOUSTICS

6

Characteristics of speech – Making of sound – Human ear characteristics – Behaviour of sound in enclosed space – Reverberation, RT, Optimum reverberation, simple exercise using Sabine's formula.

UNIT – III SOUND ABSORPTION, INSULATION, SOUND REINFORCEMENT

6

Sound absorption, absorption co-efficient and their measurements – sound absorbing materials – sound insulation – materials – sound amplification and sound reinforcement.

UNIT – IV NOISE CONTROL

6

Sources and types of noise – effect on human behavior, noise curves, transmission of noise – noise control – materials and techniques.

UNIT – V ACOUSTICS IN BUILDINGS

6

Design and detailing – Basic principles in designing of lecture halls, auditorium theatres, cinema halls, broadcasting studio, recording studio.

TOTAL 30

REFERENCE BOOKS

1. Peter Templeton & Saunders – Detailing for architectural acoustics – Architectural press, 1994.
2. Interior Design, Vol – 2, CADD Centre Training Services Pvt Ltd, 2004.

ID 0411	CREATIVE ARTS & CRAFTS	L	T	P	C
		2	0	0	2

PURPOSE

To provide the student of interior design a foundation in various aspect of arts and crafts, which can be applied in design of interiors.

INSTRUCTIONAL OBJECTIVES

Detailed study of the characteristics of Indian arts and crafts and its application in the interiors.

UNIT – I INTRODUCTION TO CREATIVE ARTS AND CRAFTS 5

Introduction to creative arts and crafts in India – its application in interior design – materials – Art movements through history – Traditional arts and crafts of India – Folk arts of India

UNIT – II TRADITIONAL ARTS AND CRAFTS OF INDIA 5

Traditional arts and crafts of various states of India including – Tamilnadu, Karnataka, Kerala, Andhra Pradesh, Goa, Rajasthan, Gujarat, Kutch, Uttarpradesh, West Bengal, Orissa, Bihar, Jammu and Kashmir, etc.

UNIT – III ART MOVEMENTS IN POST MODERN INDIA 6

Art Movements in Post Modern India and their influences in Interior design – Abstract Expressionism, Pop art, Minimal art, Conceptual art – Neo Expressionism – Computers in Arts.

UNIT – IV CREATIVE ART OBJECTS 7

Creating decorative art objects –picture framing, macramé, decoupage, wall hangers, ceramic painting, murals etc

UNIT – V PROJECTS 7

Assignment or projects on application of the Art in interior spacesuch as – Reception, Lobby spaces, Theme Boutiques, Hotel, Restaurants, etc.

TOTAL 30

TEXT BOOKS

1. Francis D.K.Ching, Interior Design Illustrated VNR Publication, New York 1987
2. Edith Thomory, A History of fine arts in India and the west, Orient Longmann publishers Pvt Ltd, New Delhi.

REFERENCE BOOKS

1. Publication on Traditional arts and crafts on india, Ministry of Handicrafts Development, Government of India.
2. Johhanes Itten, The Art of colour, John Wiley and Sons, USA, 1973.