SCHEME OF EXAMINATION

CERTIFICATE IN INTERIOR DESIGN

PRACTICAL

TOPIC	TIME	MARKS
Anthropometrics & Elements of Interior Space	6 Hrs.	100
Autocad & Sketchup	6 Hrs.	100
	TOTAL	**200**

THEORY

TOPIC	TIME	MARKS
Form, Space & Design Process	3 Hrs.	100
	TOTAL	**100**
	GRAND TOTAL	**300**

2025-26 SYLLABUS OF CERTIFICATE IN INTERIOR DESIGN

THEORY PAPER

FORM, SPACE & DESIGN PROCESS

- What is Design? How to Design?
- Problem Solving Process
- Information Required to Start Design.
- How to get information?
- Design Principles – Ratio, Proportions – Golden section, relationships, scale
- Balance – Symmetrical, Radical, Occult, Harmony, Unity, Variety, Rhythm, Emphasis
- Design Process- Analysis, Synthesis, Design Evaluation
- Design Criteria – Functions & purpose, Utility & Economy, Form & Style
- Human Factors – Human Dimensions, Distance Zones, Activity Relationships,
- Fitting the space – Plane Arrangements, Function, Aesthetics
- What is Interior Design?
- Difference between Interior Designer & Decorator

Suggested Reading

1. Design for The Real World by Victor Papanek
2. Design Process: A Primer for Architectural and Interior Design by Sam F. Miller
3. Design Thinking Process and Methods 3rd Edition by Robert Curedale
4. Architecture: Form, Space, and Order by Francis D.K. Ching

PRACTICAL

PRACTICAL 1 - ANTHROPOMETRICS & ELEMENTS OF INTERIOR SPACE

- Introduction to Drafting Table
- Using Ruler, Scale, Set Square, Compass, etc.
- Drawings in a format – A4, A3, A2.
- Basic Geometry Shapes with Measurements & Angles – such as Hexagon, Pentagon, Octagon, Triangle, etc.
- Isometric Grids – Learn to make isometric grids
- Isometric projections of platonic solids (Cube, cuboid, hexagonal prism, pyramids, cone, sphere, etc.)
- Using isometric grids to make 3D Drawings like tables, chairs, cylinders, spherical elements, etc. (using light table)
- Axonometric Drawings of Interior Views
- Introduction to Orthographic projections
- Advanced orthographic projections
- Plan, elevation & end view - Solids
- Section & Dimensions.
- Rendering – Shadow & Light.
- **ANTHROPOMETRICS** - Definition, theory of standard dimension based on human figures for activities and functions. Anthropometrics data and application, elderly and physically disabled people and anthropometrics of seating, Human dimensions.
- **INTERIOR SPACE AND BASIC DESIGN REFERENCE STANDARDS** – Residential spaces, office spaces, mercantile spaces, eating & drinking spaces, health care spaces, pleasure & recreation space, public spaces & audio visual spaces. Study of Ergonomics.
- **WALL PLANES** – 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
- **ROOF PLANES** – 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.
- **FLOOR PLANES** – Various types of flooring – Mosaic, tile, stone, aesthetic effect created by flooring material and pattern, graphic patterns and their visual effects, construction details, skirting, molding, embossing Floor finishes and floor coverings.
- **DOORS, WINDOWS AND VENTILATORS** – 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, aluminum, steel, pvc) and their suitability to that space, ventilators, louvered, paneled.
- **CASE STUDIES** – 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 for interior effects.
- **BUILDING COMPONENTS** - Working drawing of different types of doors and windows.
- **BUILDING SURFACES** - Working drawing of wall murals, reflected ceiling plans and flooring patterns.
- **FURNITURE** - Working drawing of work station, living room furniture, bedroom furniture and dining tables.

- **DETAILING OF SPECIAL AREAS** - Working drawing for toilets with plumbing diagram – working drawing of kitchen with detailing of shelves and cupboards
- **DETAILING OF STORAGE AREAS** - Working drawing of wardrobes, TV cabinet and showcase, crockery shelves, cadenza, chest of drawers, dressing table, etc.
- **INTRODUCTION TO MATERIALS** –
  1. 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.
  2. Synthetic Materials – Different types of Glass, their properties, manufacturing processes & uses.
  3. Plastics – Injection molding & other manufacturing methods, etc.
  4. Fabrics – Textile, Jute, leather etc. different types and their uses.
- **BUILDING COMPONENTS** – Drawings of the components of a building indicating
  1. Foundation – brick footing, stone footing & RCC column footing
  2. Concrete flooring, plinth beam & floor finish
  3. Superstructure – brickwork with sill, lintel, windows & sunshade
  4. Flat RCC roof with weathering course, parapet & coping.
- TILED ROOFS – Drawing indicating various types of sloped & hipped roof, Types of sloping roof – lean to & couple roof with Mangalore tiles, country tiles & pan tiles.
- **STRUCTURAL SYSTEMS** – Structures - Components of a load bearing wall & RCC slab roof system
  – RCC beams, columns and framed structure.
- **BASIC SERVICES** – Components of a toilet & bathroom – sanitary ware – W.C., wash basin, bidet, bathtub, Jacuzzi, etc. Sanitary fittings – taps, mixers, shower units
- **KITCHENS** – 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.
- **BEDROOMS & LIVING ROOMS** – 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.
- **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.

Suggested Readings

1. Drawing: A Creative Process by Francis D.K. Ching
2. Drawing Geometry: A Primer of Basic Forms for Artists, Designers and Architects by Jon Allen
3. Architectural Graphics by Francis D.K. Ching
4. Orthographic Projection Simplified Paperback by Charles Quinlan
5. Engineering Drawing by V.M. Panchal, Pramod R. Ingle, N.D. Bhatt
6. Human Dimension & Interior Space : A Source Book of Design Reference Standards by Julius Panero & Martin Zelnik.
7. Interior Design and Decoration : Interior Design Décor by Augustus Sherrill Whiton
8. The Interior Design Reference & Specification Book : Everything Interior Designers Need to Know Every Day by Linda O'Shea, Chris Grimley, Mimi Love

PRACTICAL -2 AUTOCAD & SKETCHUP

- 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.
- 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.
- 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.
- INTRODUCTION TO 3D DRAFTING: 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.
- INTRODUCTION TO SKETCHUP & ITS TOOLS : Starting a drawing – Concepts – Principal tools for drawing, modification, construction, camera, walkthrough, sandbox etc – breaking edges, google toolbar.
- USE & MANAGEMENT OF SKETCHUP : Model setting and managers – colours and materials – entities – making input & output – technical information – common tasks – applications
- INTRODUCTION TO 3D HOME ARCHITECT: Starting a drawing – Drawing walls, windows, doors, staircases, columns, roof etc. modifying the properties of doors, windows etc. – applying materials, colour
- APPLICATIONS OF 3D HOME ARCHITECT: Adding furniture, fittings, etc. – camera positions & viewing angles – rendering views with trees, cars, people, etc. – Choosing a suitable walkthrough path & creation of the same

Suggested Readings

1. Engineering Drawing and Graphics Using Autocad by T. Jeyapoovan
2. Autocad 2015 For Engineers and Designers 21st Edition (3D And Advanced), (2 volumes Set) by Sham Tickoo (Author)
3. Rendering in SketchUp: From Modeling to Presentation for Architecture, Landscape Architecture, and Interior Design by Daniel Tal

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