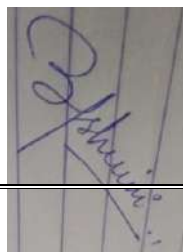
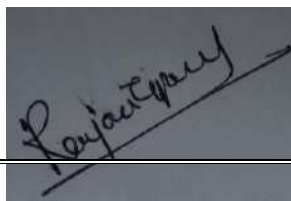


# **Interior Design Diploma Syllabus & scheme**



<b>IDD-101</b>	<b>HISTORY OF INTERIOR DESIGN</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
		<b>3</b>	<b>2</b>	<b>0</b>	<b>5</b>

**Duration** : 28 Weeks  
**Credits** : 5  
**Maximum marks** : 100

Component	ET	Mid Term	CP(A)	ABCA
Weightage	40	30	5	25

## PURPOSE

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

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 designs from Prehistoric Period to the middle ages.

To know more on the Modern Movements in Interior design from the beginnings of 20th century.

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 HISTORY OF ANCEINT PERIOD

### • EARLY CLASSICAL & MIDDLE AGES PERIOD

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

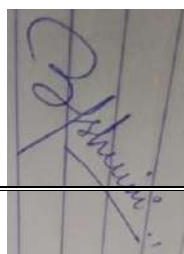
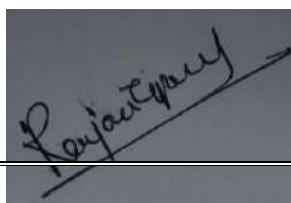
Interiors in Romanesque, Gothic, and renaissance periods

Furniture designs during Egyptian, Greek, Roman, Romanesque, Gothic, Renaissance

### • BEGINNING OF THE 20TH CENTURY AND BAUHAUS TO POST WAR MODERNISM

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

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



## **UNIT – II HISTORY OF MODERN PERIOD**

- **RECENT DIRECTIONS AND NON-EUROPEAN TRADITIONS**

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

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

- **SCAN DINAVIAN & Indian TRADITIONAL DESIGNS**

Interior Design in Sweden, Finland, Norway.

Contributions of Architects such as Alvar Alto, etc. Traditional Styles of design & decorations of homes & accessories across the states in India

including Rajasthan, Gujarat, Andhra, Tamil Nadu, Madhya Pradesh etc.

## **UNIT – III PROJECTS**

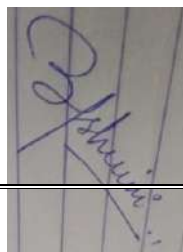
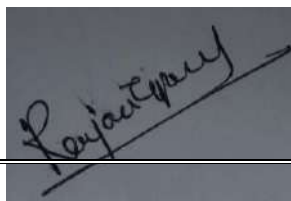
Assignments on **INDIAN TRADITIONAL ETC BASED.**

## **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.



<b>IDD-102</b>	<b>VISUAL DESIGN</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>12</b>	<b>6</b>

**Duration** : 28 Weeks  
**Credits** : 6  
**Maximum marks** : 100

Component	ET	Progressive evaluation	Internal Viva
Weightage %	40	30	30

### Progressive Evaluation

Component	A	File	Creativity	Workshop/ Activities/Visits
Weightage %	5	5	5	15

### Internal Viva

Component	IV	PBL
Weightage %	10	20

### Objectives

To explore the new ways of thinking through drawing

To enhance the visual language

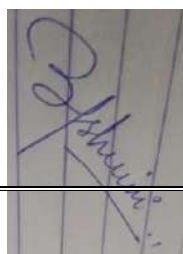
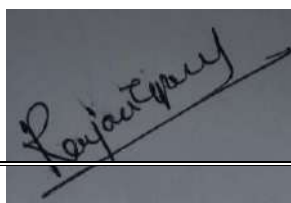
To develop cognitive skills by helping to distinguish between seeing and looking

To develop observation skills through various techniques of drawings using different material

To develop understanding of concept and ability to express ideas

### Learning Outcomes

Be able to establish cognitive skills as demonstrated by the ability to distinguish between “seeing”



and “looking”

Rayatpur

Shubh

Be able to develop observational drawing skills

Be able to demonstrate working knowledge of a variety of drawing methods and material

Be able to improvement the ability to express ideas both visually and orally

Be able to sketch different elements from outdoors to develop spontaneity in drawing

### **UNIT - I GEOMETRICAL AND 3D COMPOSITIONS**

Introduction of all 2d geometrical compositions

Introduction to 3d objects, & design 3d objects like trophy and others.

### **UNIT - II DESIGN /CALLIGRAPHY / TYPOGRAPHY**

Cards Design theme & festival based and occasion, Compositions with letter, paper, shapes, cloths etc.

Name plates for office & commercial purpose.

### **UNIT- III OUTDOOR DRAWING**

Drawing plants, trees and flowers with pencil shading and colour rendering them with different colour media

Drawing with compositions of different elements from landscape with pencil shading

Sketching of animals in the landscape

Changing composition of landscape to colour rendering with different colour media

### **UNIT – IV DETAILED MODELLING & MODEL OF INTERIOR SPACE**

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.

Making models of the various interior spaces such as

Residences

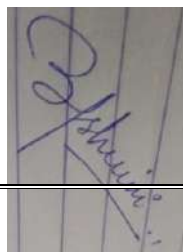
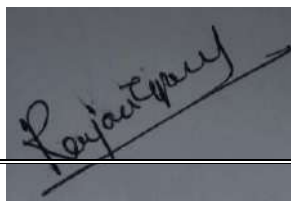
Offices

Retail Spaces etc.

#### **Textbooks**

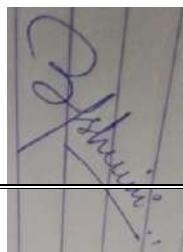
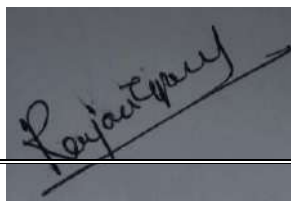
Civardi, G., Complete guide to drawing, Search Press, Limited, 2006

Civardi, G., Drawing light and shade, Search Press, Limited, 2006



Civardi, G., Drawing techniques, Search Press, Limited, 2002

Civardi, G., Drawing scenery, Search Press, Limited, 2002



Norling, E. R., Perspective made easy, Dover Publication, N. Y. 1999

Hamm, J., Still-life drawing and painting, Grosset & Dunlap, 1976

BENN, The book of the House, Ernest Benn Limited, London

Jannsen, Constructional Drawings & Architectural models, Karl Kramer Verlag Stuttgart, 1973.

Harry W.Smith, The art of making furniture in miniature, E.P.Dutton Inc., New York, 1982.

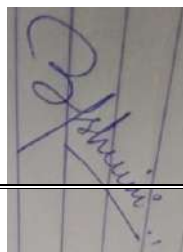
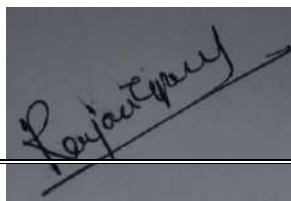
### **Web Sources**

<http://figure-drawings.com/freedrawing.html>

<http://www.drawinghowtodraw.com/drawing-lessons/improve-drawing/drawing-freehand.html>

[http://sherristakes.com/download/art/drawing%20basics\\_26%20free%20beginner%20drawing%20techniques.pdf](http://sherristakes.com/download/art/drawing%20basics_26%20free%20beginner%20drawing%20techniques.pdf)

<http://www.dummies.com/how-to/content/drawing-geometric-perspective.html>





<b>IDD-103</b>	<b>REPRESENTATION TECHNIQUE</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>12</b>	<b>6</b>

Duration : 28 Weeks  
Credits : 6  
Maximum marks : 100

Component	ET	Progressive evaluation	Internal Viva
Weightage %	40	30	30

### Progressive Evaluation

Component	A	File	Creativity	Workshop/ Activities/Visits
Weightage %	5	10	5	10

### Internal Viva

Component	IV	PBL
Weightage %	10	20

### Objectives

To explore the new ways of thinking through drawing

To enhance the visual language

To develop cognitive skills by helping to distinguish between seeing and looking

To develop observation skills through various techniques of drawings using different material.

To give detailed knowledge about understanding and usage of elements and principles for creating a good design.

To instil exploration and innovation skills to enhance creativity.

To develop visualization and communication skills.

To understand elements and principles of design in context of design suitability for different apparel designs and body shapes.

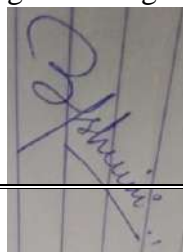
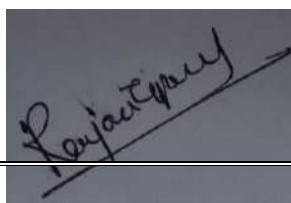
To understand application of skills and processes with different media

### Learning Outcomes

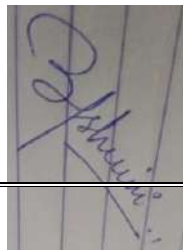
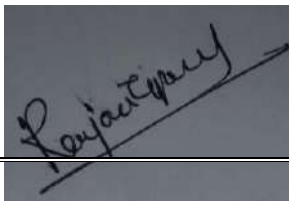
Be able to establish cognitive skills as demonstrated by the ability to distinguish between “seeing” and “looking”

Be able to develop observational drawing skills

Be able to demonstrate working knowledge of a variety of drawing methods and material



Be able to improvement the ability to express ideas both visually and orally



Be able to sketch different elements from outdoors to develop spontaneity in drawing.

Be able to handle mediums and tools

Understand the importance and application of design fundamentals for effective working as a designer.

Be encouraged to think, explore and create.

Be able to create effective visual compositions.

Be able to correlate and apply various fundamentals to create compositions.

Understand the nuances of the process of ideation

### **UNIT-I FREE HAND /STILL LIFE/ GEOMETRIC/ HUMAN FORMS DRAWING**

Shapes, lines, presentation technique, media exploration. (WHILE USING THE PRINCIPALS OF DESIGN)

Drawing by composing different objects like flower vase, flowers, teapots, cups, bottles etc. with drapery as background

Pencil shading to understand light and shade and the three-dimensional quality

Changing the object and the composition to colour rendering with different colour media (staedtler colour pencils, oil pastels, water colours and pen and ink)

### **UNIT-II PERSPECTIVE DRAWING**

Orthographic projection (plan, elevation, section-Geometrical shape), Isometric and Axonometric Projection.

Perspective View: Principles and Visual Effect of three dimensional objects, Study of Picture plane, Station Point, Vanishing Point, Eye level etc.

One-point perspective drawing from exterior of a building

Two-point perspective drawing from exterior of a building.

### **UNIT-III INTRODUCTION TO RASTER GRAPHICS**

Introduction

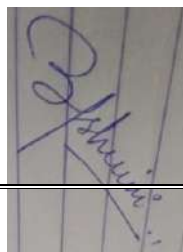
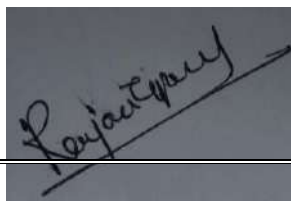
To Adobe Photoshop, Opening new files, Opening existing files, exploring the Toolbox, Exploring Panels & Menus, Creating & Viewing a New Document, About Photoshop, Navigating Photoshop, Working with Images and Basic Selections, Working with Multiple Images, Rulers, Guides & Grids, Adjusting Color with the New Adjustments Panel, Getting Started With Layers And Painting Commands, Understanding the Background Layer, Creating, Selecting, Linking & Deleting Layers, Introduction to Blending Modes Photo Draping In Adobe Photoshop, Photo Draping Basics, Using a Wrap tool to Photo,

### **UNIT-IV INTRODUCTION TO VECTOR GRAPHICS**

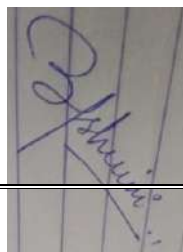
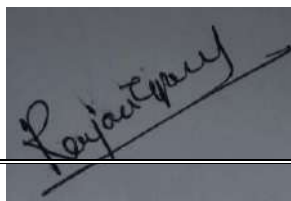
Introduction

Opening new files, opening existing files, exploring the Toolbox,

Exploring Panels & Menus, Creating & Viewing a New Document, About Photoshop, Navigating coral, Working with Images and Basic Selections, Working with Multiple Images, Rulers, Guides



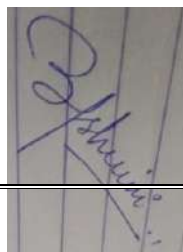
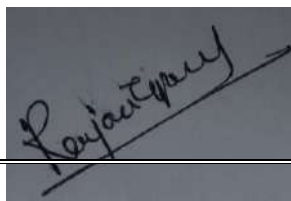
& Grids, Adjusting Color with the New Adjustments Panel, Getting Started With Layers And



Painting Commands, Understanding the Background Layer, Creating, Selecting, Linking & Deleting Layers,  
Introduction to Blending Modes Photo Draping In coral, Photo Draping Basics, Using a Wrap tool to Photo,

### **Reference Material**

1. Photoshop CS Bible – Deke McClelland
2. Adobe Photoshop 7.0 classroom in a book – Adobe creative team



<b>IDD-104</b>	<b>ELEMENT OF INTERIOR DESIGN</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
		0	0	12	6

**Duration** : 28 Weeks

**Credits** : 6

**Maximum marks** : 100

Component	ET	Progressive evaluation	Internal Viva
Weightage %	40	30	30

### Progressive Evaluation

Component	A	File	Experiment during labs	Workshop/ Activities/Visits
Weightage %	5	5	10	10

### Internal Viva

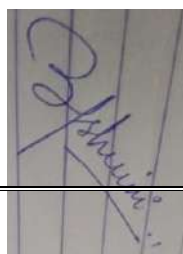
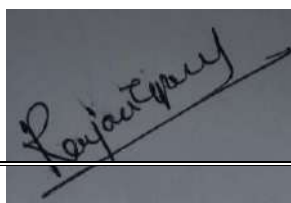
Component	IV	PBL
Weightage %	10	20

### PURPOSE

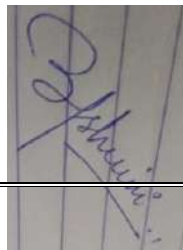
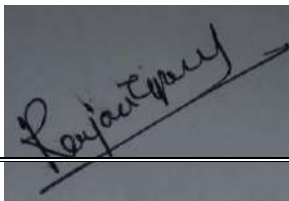
The object of this course is to make students understand the various aspects such as spatial quality, Design vocabulary, design principles, and design process related to the design of interiors. To develop an understanding of point, line & planar elements in defining an interior space.

### Objectives

Understanding and applying design vocabulary such as Point, Line, shape, color, texture, area, mass, volume etc.



Understanding various aspects such as form, scale, light, dimension, height, transitional elements



etc. affecting interior space.

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.

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 DESIGN VOCABULARY & Principles**

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

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

### **UNIT- II DESIGN CONTROL**

Design process – Analysis, synthesis, design evaluation; Design criteria – function and purpose, utility and economy, form and style; Scale and Conversation

- **WALL DESIGN**  
architectural planning with furniture layout-domestic.
- **ROOF DESIGN**  
Different types and their visual impact – articulation of skylights and roof apertures – false ceiling.
- **FLOOR DESIGN**  
Various types of flooring – mosaic, tile, stone etc. – aesthetic effects created by flooring material and pattern - graphic patterns and their visual effects.

### **UNIT-III COLOR THEORY**

Introduction to colour theory, concept of hue tints and shades , basic color scheme.

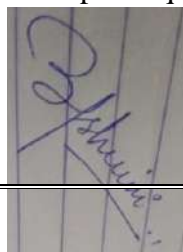
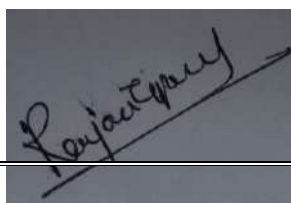
### **UNIT IV ANTHROPOMETRICS & Interior Space**

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

#### **Study of Ergonomics**

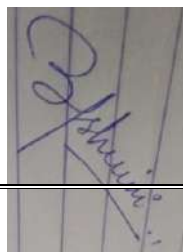
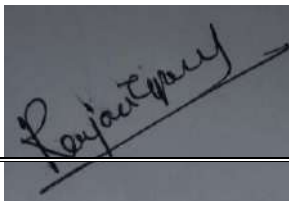
Design of Furniture for Living, Dining, Kitchen, Office etc. with model of furnitures.

Space – definition; Interior space – spatial qualities: form, scale, structuring space with dimension





– square, rectangle, curvilinear spaces; height of space; spatial transitions – openings within wall



planes, doorways, windows, stairways. space – plan arrangements According to space-Block Plan (single line plan)

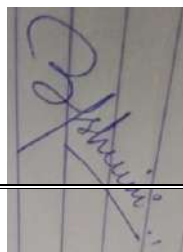
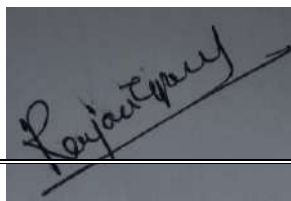
### **UNIT – V CASE STUDIES**

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 etc for interior effects.

### **WORKSHOP---Any workshop**

### **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.



<b>IDD-105</b>	<b>COMMUNICATION TECHNIQUES</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
		<b>3</b>	<b>2</b>	<b>0</b>	<b>5</b>

**Duration** : 28 Weeks  
**Credits** : 5  
**Maximum marks** : 100

Component	ET	Mid Term	CP(A)	ABCA
Weightage	40	30	5	25

## **PURPOSE**

To provide adequate mastery of communicative English language, training primarily in all the four major language skills-listening, speaking, reading and writing. The aim of this course is to provide an understanding of the Business Communication field and the knowledge and skills required for as a professional.

## **Objectives**

To improve English language skills

To learn effective communication skills

To understand the nuances of spoken and written language which is essential for any student of designing, since all creative professions need the support of communication in the contemporary world

To enable them to achieve effective language proficiency for their social, professional & inter personal communication both in speaking & writing.

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

## **Learning Outcomes**

Be able to express his /her ideas and thoughts in speech or writing

Be able to comprehend, converse, interact and participate in any day-to-day events and situation

Be able to write grammatically correct sentences for various forms of written communication to express oneself

Be able to read and understand professional articles and use the acquired information for further work

Be able to understand phrases and expressions pronounced.

## Key Concepts:

Key Concepts

Key Concepts

1. **Communication:** Definition of Communication, Essential features of good communication, process, Importance, Objectives and Barriers to communication, Difference between Formal and Informal Communication, Verbal and Non Verbal Communication.
2. **Writing & Speaking Skills:** Strategies to write effectively , Applications to authorities, Resume- writing, Notices, writing Articles, Newspaper Reports. Phonetics and Transcription ,Speech, Debate, Extempore, Group Discussion and Presentation.
3. **Reading & Listening Comprehension:** Kinds and types of reading texts, Strategies for effective reading, précis writing. Difference between Listening and Hearing, Process of Listening, Types of Listening, barriers to the process of Listening, Strategies for effective listening.

#### **UNIT – I**

Communication concept, its types, Importance, Barriers, Channels of various forms of communication, Dimension and Directions of Communication

#### **UNIT – II**

Business Communication- Concept, Advantages, Disadvantages, Importance, Need of Business Letter and Kind of Business Letter, Essentials of an Effective Business Letter.

#### **UNIT – III**

Business Correspondence - Circular, Agenda and Minutes, Enquiries, Quotations- Orders, complaints and Adjustments, job application, cover letter, Resume, E-Correspondence

#### **UNIT – IV**

Social Correspondence, Letter of Recommendations, Letter of Introduction, Letter of Congratulation, Informal/ Formal Invitations, Letter of Condolence

#### **UNIT – V**

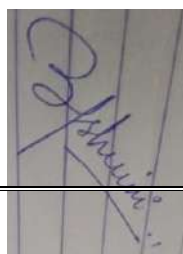
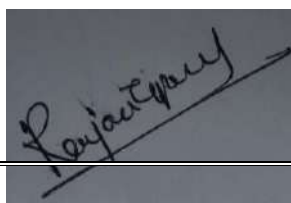
Power point Presentations (Content, Design & Delivery), Preparing & Designing effective presentations, and Essential skills for delivering effective presentations

#### **Suggested Assignments**

Students will be divided in teams and they will have to give presentations on the given topics making effective use of presentation skills, language and other essentials to effectively deliver the presentations.

Group discussion on the current topics

Extempore on current topics



## DETAILS OF LAB SESSION

Rajantony

2/2/2020

#### Lab I

Vocabulary exercises on the newly learnt words with evaluation  
Simple conversation exercises using the newly learnt words  
Practicing the pronunciation of the newly learnt words  
Practice of sounds (Vowels & Consonants)  
Transcription of words

#### Lab- II

Reading & Comprehension of simple passages with exercises for evaluation  
Listening & Comprehension of simple passages with exercises for evaluation  
Discussion & simple conversation exercises based on the passages

#### Lab- III

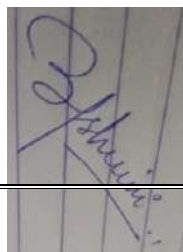
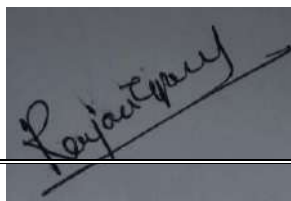
Understanding of tenses & practice exercises with evaluation  
Practice exercises on enhancing conversational skills with evaluation

#### Lab- IV

Understanding the conceptual inputs on presentation skills  
Watching examples of good/bad presentation skills & evaluating with the group  
Conducting presentations in front of the group along with peer and teacher evaluation

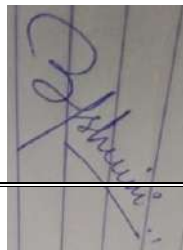
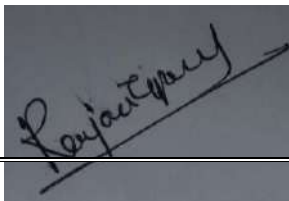
#### Textbooks

- Raman & Sangeeta Sharma, Professional Communication for UPTU, Oxford Uni. Press, 2009
- Wright Chrise, Handbook of Practical Communication Skills, JAICO Publishing
- Wren P.C., High school English Grammar & Composition, S. Chand & Company, Limited, 1995
- Raman, M; Sharma, S, Technical Communication, Oxford Uni. Press, 2009
- Urmlila Rai, S. M. Rai - Business Communication—Himalayas Publishing House, Asha Kaul-Hall Of India
- T N Chhabra, Sun India Publications, Business Communication - Concept & Skills
- Technical communication - principles and practice; Meenakshi raman and Sangeetha Sharma-Oxford University press 2007



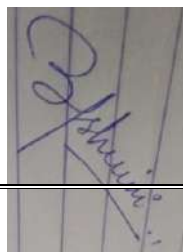
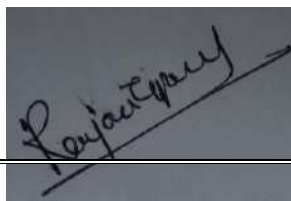
## Reference Material

- Murphy, Herta A., Effective Business Communication, TMH, 2009





- Kumar, S., Sahai, R , Oxford English-English Hindi Dictionary, Oxford, 2008
- Wren, PC; Martin, H ; Rao, NDV, Higher School English Grammar & Composition, Sultan Chand, 2010
- Mitra, BK., Effective Technical Communication, Oxford Uni. Press, 2009
- Raymond V.Lesikar,John D. Pettit and Mary E Flatley-Basic communication ,Tata McGraw Hill, 1999.
- Jain, “Effective Business Communication” Mcgraw Hill Education
- Access Series, “Communication For Business” Mcgraw Hill Education
- Kapoor (S. Chand & Co) - Business Correspondence & Communication Skills



<b>IDD-106</b>	<b>MATERIAL AND CONSTRUCTION</b>	L	T	P	C
		2	3	2	6

**Duration** : 28 Weeks  
**Credits** : 6  
**Maximum marks** : 200

### **THEORY**

Component	ET	Mid Term	CP(A)	ABCA
Weightage	40	30	5	25

### **PRACTICAL**

Component	ET	Progressive evaluation	Internal Viva
Weightage %	40	30	30

### **Progressive Evaluation**

Component	A	File	Creativity	Workshop/ Activities/Visits
Weightage %	5	10	5	10

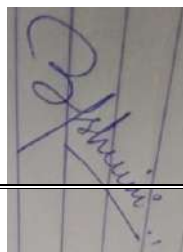
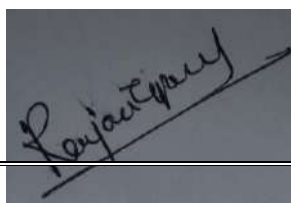
### **Internal Viva**

Component	IV	PBL
Weightage %	10	20

### **PURPOSE**

To familiarize the students of Interior Design on material and construction methodology.  
 To develop an understanding of various interior materials and their uses.

### **UNIT - I MATERIALS & SYMBOLS**



Brick, wood, stone, glass, metal, grass, sand, cement, concrete, p.c.c. &r.c.c.

Rajantpur

Shubh

## UNIT -II TYPES OF MASONRY

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

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

BRICK—quality, properties, defects, strength, color.

## DOORS, WINDOWS AND VENTILATORS, ETC.

Introduction to doors, windows and ventilators and their symbols

## UNIT – III FLOORS COVERING & WALL COVERING

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

## UNIT - IV FINISHES & FURNISHINGS

- Paints- enamels, distempers, plastic emulsions, cement-based paints- properties, uses and applications-painting on different surfaces. Special purpose paints- bituminous, luminous, fire retardant and resisting paints- properties, uses and applications
- 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 INTRODUCTION TO FABRICS

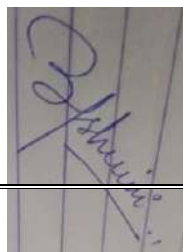
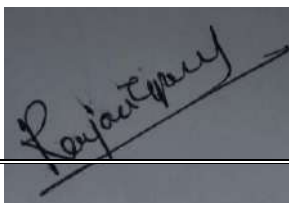
Fabric, yarn and fiber structure, Fabric structure- **woven**- warp, weft, selvedge ,knitted- course, nonwoven, Fabric types and classification- woven, including plain, twill, satin, Jacquard, crepe and pile weaves, **knitted**- including single knit, double knit, tricot knit, pile knit, lace and net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

## UNIT – VI INTRODUCTION TO TIMBER

Classification, Identification, structure, properties, Defects, Decay, Seasoning, Prevention, fire proofing, Availability, uses & Timber Based products.

## TEXTBOOKS

S.C Rangwala – engineering materials – Charotar publishing, Anand 1982



## REFERENCE BOOKS

Rajantpur

Sharma

Dr. B.C Punmia, building construction, Laxmi publications Pvt. Ltd., New Delhi, 1993  
Introduction to home furnishings, Stepat,D.D, 1991, The macmillan company, New York

IDD-107	Diploma Project (Designing)	L	T	P	C
		0	0	16	8

**Duration** : 28 Weeks  
**Credits** : 8  
**Maximum marks** : 100

## PURPOSE

To expose the students to the basic principles of interior services.

## 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.

### Part (i) Interior Services

### Part (ii) Furniture Design

### Interior Services

#### Unit-1 Services

- **Water Supply in Buildings**

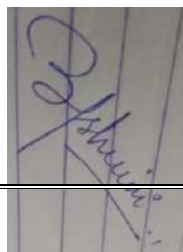
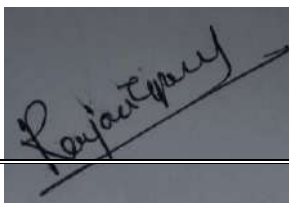
Standard of portable water and methods of removal of impurities, Consumption or demand of water for domestic purposes, Service connection from mains, House-service design, tube well, pumping of water, types of pumps, cisterns for storage. Plumbing and sanitary fittings.  
Solid waste disposal

- **Electrical Systems and Air Conditioning**

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

#### Unit-2 Fire Safety Rain and Water harvesting

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



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

## **( II) Furniture Design**

### **Unit –3 Human Factors**

Study of Anthropometry & Design criteria involved in the design of Sofa, settee, couch, etc.

Cot, bedside lockers, wardrobe, Cupboards, shelves, Bunk beds, study table, Display furniture

Furniture for the physically challenged

### **Unit – 4 Room Plans and Furniture & Detailing's**

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 (Form – Color – Symbols

Materials & finishes – Wood, Glass, Metal, Plastics and Upholstery - include various finishes.

Fabrication Techniques involved)

### **EXERSISE: - Projects (Any One)**

Residential design & details

Commercial design & details

### **TEXTBOOK**

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

### **REFERENCE BOOKS**

M.H.Lulla, Air conditioning

V.K.Jain, Fire Safety in Buildings.

Peter templeton & Saunders – Detailing for architectural acoustics – Architectural press, 1994

