# DIT UNIVERSITY Dehradun



# Detailed Course Structure & Syllabus of B. Design – Interior Design

DIT University, Dehradun

Basket/ Area	Minimum Credits to be taken	Credit per course	Courses
Language & Literature (LL)			
Core: Professional Communication	6	3	2
Elective: Choose any 2 LL course			
Discipline Core (DC)	106	-	29
Discipline Elective (DE)			
Core: None	18	3	6
Elective: Choose any 6 DE courses			
Skill Enhancement Courses (SEC)			
Core: None	4	2	2
Elective: Choose any 4 SEC courses			
Ability Enhancement Courses (AEC)			
Core: Entrepreneurship & start-ups,	2	2	2
Elective: Environmental Science, Indian	2	2	2
Constitution, Aptitude & Soft Skills			
Humanities & Liberal Arts (HL)			
Core: None	3	3	1
Elective: Choose any 3 HL Courses			
Free Electives (FE)			
Core: None	9	3	3
Elective: Choose any 3 FE Courses			
Total Credits	150	16	45

# DIT University B.Des (Interior Design) FFCBCS Program Structure

Basket/ Area	Credits	Weightage (%)
Language & Literature (LL)	6	4
Discipline Core (DC)	106	71
Discipline Elective (DE)	18	12
Skill Enhancement Courses (SEC)	4	2.5
Ability Enhancement Courses (AEC)	4	2.5
Humanities & Liberal Arts (HL)	3	2
Free Electives (FE)	9	6
Total	150	100

# Course Baskets (other than DC/DE) for B.Des (Interior Design) Program

Course Code	FFCBCS Baskets (Other than DC/DE)							
	Language & Literature (Min 6 credits to be taken)	Contact Hours Credit						
	Name of Courses	L	Т	Р	S	С		
LAF181	Professional Communication	2	0	2	-	3		
LAF182	Indian English Literature	3	0	0	-	3		
LAF183	English Language Teaching	3	0	0	-	3		
LAF184	Corporate Communication & Soft Skills	2	0	2	-	3		

Course Code	Skill Enhancement (Minimum 4 Credits to be taken)							
	Name of Courses	Name of Courses Contact Hours Credits						
		L	Т	Ρ	S	C		
IDF443	Technical Training 1	0	0	4	-	2		
IDF445	Technical Training 2	0	0	4	-	2		
IDF246	Value Added Training 1	0	0	4	-	2		
IDF345	Value Added Training 2	0	0	4	-	2		
DC	MOOCS Courses (as advised by the departments)	2	0	0	-	2		

Course Code	Ability Enhancement (Minimum 4 Credits to be taken)							
	Name of Courses	Contact Hours Credits						
		L	Т	Ρ	S	С		
CHF201	Environmental Science	2	0	0	-	2		
LAF285	Indian Constitution	2	0	0	-	2		
MEF483	Entrepreneurship & Start-ups*	0	0	4	-	2		
UCF201	Aptitude & Soft Skills	2	0	0	-	2		
*Core cou	Irse for B.Des(ID)							

Course Code	Humanities & Liberal Arts (Minimum 3 Credits to be taken)							
	Name of Courses	Cor	ntact I	Hour	S	Credits		
		L	Т	Ρ	S	C		
LAF281	Introduction to Psychology	3	0	0	-	3		
LAF381	Positive Psychology & Living	3	0	0	-	3		
LAF481	Application of Psychology	3	0	0	-	3		
LAF282	Human Values	3	0	0	-	3		
LAF283	Literature, Language & Society	3	0	0	-	3		
LAF284	Principles of Management	3	0	0	-	3		
LAF482	Intellectual Property Rights	3	0	0	-	3		
LAF382	Engineering Economics	3	0	0	-	3		

Course Code	Free Electives (Minimum 9 Credits to be taken)								
	Name of Courses	Cor	ntact	Hour	S	Credits			
		L	Т	Ρ	S	С			
ECF481	Analogue Electronics (ECE)	2	0	2	-	3			
ECF482	Cellular Communication Networks (ECE)	2	0	2	-	3			
ECF381	Microcontroller (ECE)	2	0	2	-	3			
ECF382	Bio Medical Instrumentation (ECE)	2	0	2	-	3			
ECF483	Digital Image Processing (ECE)	2	0	2	-	3			
CSF381	Software Project Management	3	0	0	-	3			
CSF345	Introduction to Data Science	3	0	0	-	3			
CSF482	Introduction to Cyber Security	3	0	0	-	3			
MEF381	Composite Materials	3	0	0	-	3			
MEF481	Total Quality Management	3	0	0	-	3			
MEF482	Renewable Energy Sources	3	0	0	-	3			
PEF381	Carbon Capture & Sequestration	3	0	0	-	3			
PEF491	Polymer Technology	3	0	0	-	3			
PEF492	Health, Safety & Environment in Industry	3	0	0	-	3			
CEF281	Properties of Materials	3	0	0	-	3			
CEF382	Disaster Preparedness, Planning & Management	3	0	0	-	3			
CEF481	Environmental Management & Sustainability	3	0	0	-	3			
CEF482	Natural Dynamics	3	0	0	-	3			
CEF483	GIS	3	0	0	-	3			
CEF484	Resource Dynamics & Economic Implications	3	0	0	-	3			

# Course Baskets: B.Des (Interior Design) FFCBCS DC & DE Baskets

	Discipline Core (106 Credits)							
	Name of Courses	Pre- requisite Courses	L	т	Ρ	S	С	
IDF101	History, Culture and Society	None	2	0	0	0	2	
IDF102	Model Making Workshop	None	0	0	4	0	2	
IDF103	Design Methods-I (Basic Design Research and Design Principles)	None	0	0	2	0	1	
IDF104	Architectural /Interiors Drawing & Representation Skills-I	None	2	0	2	0	3	
IDF105	Design Studio-I	None	0	0	4	2	4	
IDF106	Architectural /Interiors Drawing & Representation Skills-II	None	2	0	2	0	3	
IDF107	Design Studio-II	None	0	0	4	2	4	
IDF108	Computer Application-I	None	0	0	4	0	2	
IDF109	Design Methods-II (Anthropometrics & Ergonomics)	None	0	0	2	0	1	
IDF201	Interior Design Elements-I	None	0	0	2	2	3	

FFCBCS Structure & Syllabus of B. Design – Interior Design
Applicable for Batch: 2022-2026

			20				
IDF202	Materials & Construction for Interiors-I	None	0	0	2	2	3
IDF203	Interior Design Services-I	None	2	0	0	0	2
IDF204	Design Studio-III	None	0	0	6	1	4
IDF205	Computer Application-II	None	0	0	4	0	2
IDF206	Signage & Systems	None	0	0	2	2	3
IDF207	Materials & Construction for Interiors-II	None	0	0	2	2	3
IDF208	Interior Design Services-II	None	2	0	0	0	2
IDF209	Design Studio-IV	None	0	0	6	2	5
IDF301	Materials & Construction for Interiors-III	None	0	0	2	2	3
IDF302	Working Drawing	None	0	0	6	1	4
IDF303	Estimation & Costing	None	3	0	0	0	3
IDF304	Design Studio-V	None	0	0	6	1	4
IDF305	Practical Training	None	-	-	-	-	16
IDF401	Codes & Standards in Interior Design	None	2	0	0	0	2
IDF402	Materials & Construction for Interiors-IV	None	0	0	2	2	3
IDF403	Research Skills & Seminars	None	2	0	0	0	2
IDF404	Project Management	None	2	0	0	0	2
IDF405	Design Studio-VI	None	0	0	6	1	4
IDF406	Thesis	Practical Training	-	-	-	-	14

	Discipline Electives (Minimum 18 Credits to be taken)									
		Pre-								
	Name of Courses	requisite	L	Т	Р	S	С			
		Courses								
IDF141	Interior Photography	None	0	0	2	2	3			
IDF142	Introduction to Graphics	None	0	0	2	2	3			
IDF146	Typography	None	0	0	2	2	3			
IDF143	Marketing Research & Spotting Trends	None	3	0	0	0	3			
IDF144	Popular Culture & Design	None	2	0	2	0	3			
IDF145	Traditional Interiors	None	0	0	0	3	3			
IDF	Contemporary Interior Design Styles	None	0	0	2	2	3			
147	Contemporary Interior Design Styles	None	0	0	2	2	3			
IDF241	Art, Design & Society	None	0	0	2	2	3			
IDF242	Textile in Interiors	None	2	0	2	0	3			
IDF243	Interior Landscape	None	0	0	2	2	3			
IDF244	Lighting & Colour in Interior	None	0	0	2	2	3			
IDF245	Murals & Sculptures	None	0	0	2	2	3			
IDF341	Design Management	None	2	0	2	0	3			
IDF342	Interior for Retail Sector	None	0	0	2	2	3			
IDF343	Set Design	None	0	0	2	2	3			
IDF344	Environmental Graphics	None	0	0	2	2	3			
IDF441	Acoustics	None	3	0	0	0	3			
IDF442	Journalism in Interiors	None	3	0	0	0	3			

# FFCBCS Structure & Syllabus of B. Design – Interior Design Applicable for Batch: 2022-2026 **Detailed Syllabus**

# Program/Branch: B.Des – Interior Design

Subject Code	IDF1 01	Subject Title		HISTORY, CULTURE & SOCIETY - I						
LTPS	2,0,0, 0	Credit	2	Subject Category	DC	Year	1 <sup>st</sup>	Semester	Ι	

# Course Objective:

The course should enable the student to

- Introduce the strong relation of evolution of human civilization and Design over time
- Understand and develop an appreciation for the evolution of human civilization across time and geography

Connect the various events of human civilization as larger, intangible manifestations of history

# Unit 1: Importance of Learning History

Introduction to understanding the need to learn history. Relation of timelines to process what human beings are today, their evolution and speculation for the near future.

# Unit 2: Engrossing the meaning behind Culture and History

An attempt for the students to understand the labyrinth of their immediate societies and culture. Association with the own cultural history and its impact and impressions in the present day lives.

# **Unit 3: Pre History**

Understanding the dynamics of the first human settlements and their survival. Palaeolithic, Mesolithic and Neolithic timelines with emphasis on their shelters and built spaces.

# **Unit 4: Early Civilizations**

Inform the students about the four early civilization in world history – Indus Valley, Egyptian, Mesopotamian and Greeco Roman. Details to be provided in terms of ideologies, expertise, social norms, built spaces and identities.

# **Unit 5: India and Western Countries**

Study of happenings in India during various movements in western countries

#### Unit:6: Art Movement:

Depth study of world art movements such as cubism, futurism, Dadaism, impressionism, expressionism, pop and op art, romanticism, fauvism; Art & craft movement, Art Nouveau, the machine aesthetics, Bauhaus, art deco.

# Learning outcome:

Analyze various texts and other media critically.

Understand the relationship between culture and development of built spaces

Apply the above learning in a coherent and cogent format to explain their causes and effects on the human world.

# Text Books:

1. G. B. Thomas Jr. & R. L. Finney, Calculus and Analytic Geometry, 9th Edition, Pearson Education

- 1. Pier Liugi Nervi, General Editor *History of World Architecture* Series, HARRY N.Abrams, Inc. Pub, New York, 1972
- **2.** S. Lloyd and H.W.Muller, *History of World Architecture Series*, Faber and Faber Ltd., London, 1986.
- **3.** Spiro Kostof *History of Architecture* Setting and Rituals, Oxford University Press, London, 1985.
- 4. Gosta, E.Sandsform, Man the Builder, McGraw Hill Book Company, New York, 1980

Subject Code	IDF 102	Subject Title		M	ODEL MA	KING V	VORKS	НОР	
LTPS	0,0,4, 0	Credit	2	Subject Category	DC	Year	1 <sup>st</sup>	Semester	Ι

#### **Objective:**

The course is intending to provide the skills of model making

#### Unit 1. Materials for model making

Exploration of various materials suitable for model making

Understanding the qualities of different materials, Different types of joints on model making Use of different types of materials – paper, thermacol, clay, wood, P.O.P. etc, with different combinations

Use of Colors in model making

#### **Unit 2. Model Making Exercises**

Exercise for creating 3 D models of simple objects, products, furniture etc. Making simple carpentry joints etc.

Course Outcome: The students should be able to:

**CO1:** Learn the skills of creating simple carpentry joints

CO2: Be able to make models and other 3D explorations that can translate into objects

Subject Code	IDF 103	Subject Title	DE	ESIGN METH	IODS – I ( DESIGN			N RESEARCH	1&
LTPS	0,0,4	Credit	2	Subject Category	DC	Year	1 <sup>st</sup>	Semester	I

# Objective: The course should enable the student to

Understand what is meant by Basic Design and its underlying principles and some of the methods that can be employed to Design.

Answer what is meant by Design Research and its importance in the process of Design

# Unit 1. Elements of Design

Line, shape, space, value, form, texture and colour.

# Unit 2. Principles of Design

Basic Design Principles: Balance, Rhythm, Emphasis, Unity etc.

Fibonacci sequence and Golden ratio covering examples of unified coherence in nature. Principles of Grouping (Gestalt Laws).

# **Unit 3. Colour Theory**

Colour theory, colour across the ages (traditional and modern connotations), role of colour in branding

# Unit 4. Introduction to Spatial Design

Shapes and Forms: Nature and Form, Psychological perception of Shapes and Forms. Design of Experience: Formal Coherence and Visual Language in Retail Outlets and brands. (Examples of Starbucks, Zara, Muji to be covered)

Semantic studies with respect to interior spaces: Typicality.

# Unit 5. Introduction to Design Process & Design Research

Framing a design brief, Literature Research + Market research (Materials, Trends) Contextual Research methods: Research intent, Know Users; methods employed (Day in a life, User Interviews, introducing provo`types (flash cards etc to elicit fruitful response), Data sorting and Insight framing, Problem criteria and Design Principles, Ideations and Prototyping, Realising Offerings and Go to Market.

# Learning Outcome: The students should be able to:

Understand what is meant by Basic Design and its underlying principles and some of the methods that can be employed to Design.

Develop an understanding to differentiate between two dimensional and three dimensional design.

Answer what is meant by Design Research and its importance in the process of Design

- 1. Ching Francis D.K, "Form Space and Order" Wiley
- 2. Lidwell William, "Universal Principles of Design", Rockport Publishers
- 3. Norman Don, "The Design of Everyday Things"

			, .bbii			-2 202	0				
Subject	IDF	Subject		ARCHITECTURAL/INTERIOR DRAWINGS &							
Code	104	Title		REPRESENTATION SKILLS - I							
LTPS	2,0,2 ,0	Credit	3	Subject Category	DC	Year	1 <sup>st</sup>	Semester	I		

# **Objective:**

The course should enable the student to

To make students aware of different mediums and tools used in representation techniques.

It is to be learnt as to how several textures and levels are represented in a planar two-dimensional drawing.

# Unit 1. Introduction to Tools of Representation

Introducing students with the tools of representation and technical features of the same. This would make the students know about the usage and possible outcomes of different drawing and rendering tools.

# **Unit 2. Representing Natural objects**

This would include exercises where students will learn to identify shapes and forms from natural objects. Representation and drawing techniques of different textures to be taught in this unit.

# Unit 3. 2D and 3D representation

This exercise will aim at realization of line weights and its use to represent drawings in 3D visualisation. This exercise also includes representation of density and texture using poly-lines and hatches with varying density and thickness.

# Unit 4. Representation of complex geometry using basic shapes (Low-Poly)

This will be an exercise making students aware of different surface finish and their representation using low-poly drawings.

# **Unit 5. Representation of Structure Components**

Representation of beams, columns, lintels, cantilever and other building components in plan, section and elevation

Learning Outcome: The students should be able to:

Learn the techniques and outcomes of using several tools of representation.

Relation between 3D objects and their 2D representation is realised and it opens up an aware mind towards similar details.

Understand the technique to represent the surface texture, finish and building components

Subject Code	IDF 105	Subject Title			DESIG	N STU	DIO - I		
LTPS	0,0,4 ,2	Credit	5	Subject Category	DC	Year	1 <sup>st</sup>	Semester	Ι

**OBJECTIVE:** The course should enable the student to

- Evolve appreciation of design concepts and to develop a sense for exploring design ideas
- Consolidate together the learning of all other courses in a cohesive, cogent and comprehensive Design Solution
- Be able to present to a Jury

# Unit 1. Introduction to Interior Design

Introduction to the field of Interior Design with basic knowledge of spaces. Knowledge about difference between typologies of space and their ambience.

# Unit 2. Tools and Techniques Exploration

Introduction to the tools and techniques used in design process. The exercise includes usage of different shades, thickness, and texture of paper and the methods of cutting it. The additional exercise includes usage of different colouring mediums.

# Unit 3. 2D and 3D

Using the tools, stationery and techniques, the students explore basic paper model making and explore the difference between 2D shapes and 3D forms. Exercise includes transforming basic 2D drawings into 3D forms using minimal materials.

# Unit 4. Light and Luminaire design

Sensitizes the students about the light quality and control in the interior spaces. Task in this unit includes a full scale luminaire design for a particular scenario of interior space.

# Unit 5. Designing an object used in Interiors

This is the major project of the semester which uses all the knowledge gained in the previous units to work and create a full scale usable object / furniture.

# **Learning Outcome:** The students should be able to:

Conceptualize and Design a basic unit and its prototype utilizing explorations from current designing techniques.

Be able to understand and use different designing tools and techniques.

Create a full scale functional design utilizing the knowledge from all chapters and parallel subjects being taught.

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

Subject Code	IDF1 41	Subject Title		INTERIOR PHOTOGRAPHY						
LTPS	0,0,2 ,2	Credit	3	Subject Category	DE	Year	1 <sup>st</sup>	Semester	I	

# **Course Objective:**

The course should enable the student to

- Understand the principles of and technology of photography
- Understand the application of photographs in interiors

# **Unit 1: Principles of Composition**

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 2: Principles of Photography**

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

# **Unit 3: Principles of Interior Lighting**

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 4: Principles of Colour**

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 5: Integration**

Project work/exercise in integrating all prior units

# Learning outcome:

The students will be able to apply the principles of lighting. The students will be able to integrate principles of lighting and colours

# Text Books:

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

Subject Code	IDF1 42	Subject Title		INTRODUCTION TO GRAPHICS						
LTPS	0,0,2 ,2	Credit	3	Subject Category	DE	Year	1 <sup>st</sup>	Semester	Ι	

# Course Objective:

The course should enable the student to

- To help students to learn &understand the techniques of various methods of drawing.
- To make them understand the use of colors & their effects in drawing.
- To make students improve their sketching skills & drawing abilities.

# **Unit 1: Introduction to Freehand Drawing**

Elements & Principles of Design Basic exercises, Still life, Basic forms, effect of lines to represent textures.

Typography (Anatomy of Fonts, Font Families). Usage and Selection Understanding of different types of perspective views using vanishing points, shading exercises etc.

# **Unit 2: Sketching**

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

# **Unit 3: Computer Applications**

Command programming –modifying commands, selection sets, Zoom, accurate inputs. Introduction to Layers, Texts and Scale. Suggested Software –AutoCAD

# Unit 4: Computer and hand drawn layouts

Image Creation and Manipulation (Vector & Raster) Composition and Layout (Grid Systems, Visual Hierarchy) Creative

Self-Expression

# Unit 5: End term projects

Print Design Projects (Brochure, Advertisement, Poster And / Or Other) Digital Design Projects (Social Media Advertisements, Web Banners And/Or Other)

# LEARNING OUTCOME:

Analyze various texts and other media critically. Representation on different media- paper, digital Ability to work on mixed media and work individually on projects

# **Reference Books:**

1. Drawing – A creative Process, Francis D.K. Ching, John Wiley Sons, New York

- 2. How to paint & draw, Bodo W.Jaxtheimer, Thames & Hudson, London
- 3. How to be a Graphic Designer, Without Losing Your Soul, Adrian Shaughnessy 2010
- 4. Manual of Rendering with Pen and Ink, Robert W Gill

Subject Code	IDF 146	Subject Title			ТҮР	OGRAP	РΗΥ		
LTPS	0,0,2 ,2	Credit	3	Subject Category	DE	Year	1 <sup>st</sup>	Semester	I

# **Course Objectives:**

The main objectives of the course are to:

- Make students aware of the role of typography in everyday life.
- Provide them with an understanding of the evolution of writing, from early scripts to the
- alphabet, the invention of printing and the history of printing types until the 19th century.
- Introduce them to the basic principles of micro- and macro-typography.
- Enable them to assess the requirements of a project brief, research, plan and implement it.

# Unit:1: Introduction to typography & Early forms of writing

What is typography? The importance of typography in everyday life. How typography is used in graphic communication. What is the role of the typographic designer? The invention of the alphabet/ Writing tools and their influence on letterforms / Book reproduction before the invention of printing.

# Unit:2: The invention of printing & The anatomy of a typeface / Measurement of Type

Gutenberg and the invention of printing / Hand punch cutting and movable metal type. Type classification / Typefaces / Variations / Fonts / Families

# Unit:3: Serif Typefaces & Principles of micro- and macro-typography (I) & (II)

Text size / leading / line length, Methods of Paragraphing and Text hierarchy

# Unit:4: The grid in typographic design & Legibility Research

Anatomy of a page / paper sizes / the use of symmetrical and asymmetrical grid, Readability and legibility of text. Basic legibility and readability rules

# Learning Outcome:

- Define and evaluate the basic components of the invention of printing.
- Classify typefaces according to their visual similarities and describe them.
- Apply the basic principles of micro-typography for setting text.
- Identify and use typographic conventions to articulate the structure of text.
- Plan a page layout and define how to organize verbal and visual elements

- 1. Typography Referenced: A Comprehensive Visual Guide to the Language, History, and Practice of Typography, Jason Tselentis , Allan Haley, Richard Poulin , Tony Seddon, Gerry Leonidas, Ina Saltz
- 2. Thinking with Type, Ellen Lupton
- **3.** From Gutenberg to Open Type, Dodd Robin
- 4. The elements of typographic style, Bringhurst R.

Subject Code	IDF146	Subject Title	CONTEMPORARY INTERIOR DESIGN STYLES						.ES
LTPS	0,0,2,2	Credit	3	Subject Category	DE	Year	1st	Semester	I

#### **Course Objective:**

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

**Unit:1 Early Pioneers:** Art nouveau, the post Industrial era works of Charles Renée Mackintosh, Antonio Gaudi, Gerrit Rietveld and their expressionist interior design.

**Unit:2 Bauhaus & Post War Modernists:** Walter Gropius/ Bauhaus, De Stijl, Mies Van Der Rohe, Art Deco, Postwar Modernism.

**Unit:3 Modernism:** Interiors of Le Corbusier, Frank Llyod Wright, Louis Khan, Kenzo Tange and Oscar Niemeyer

**Unit:4 International Styles:** The works of Alvar Alto, Phillip Johnson, Charles and Ray Eames, Eero Saarinen, Eero Arnio, Arne Jacobsen.

**Unit:5 Post Modernism & Minimalism:** Interior works of Zaha Hadid, Santiago Calatrava, Frank Gehry and Peter Eisenmann

#### **Course Outcome:**

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.

#### **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.

Subject	IDF	Subject		DESIGN METHODS – II (ANTHROPOMETRICS &							
Code	109	Title		ERGONOMICS)							
LTPS	0,0,2 ,0	Credit	1	Subject Category	DC	Year	1 <sup>st</sup>	Semester	II		

#### **Objective:**

The course should enable the student to

- Understand the complexities of Human Body and Mind vis-à-vis physical comfort, cognition and behavior.
- Empathize with vulnerable populations (physical ability, age, gender etc.) and keep their needs and wellbeing in mind during the design process.
- Grasp a basic understanding of Human Centred Design and its application in the process of Design.

#### **Unit 1. Anthropometry**

Anthropometry as a necessity for Spatial Design. Introduction to Modulor by Le Corbusier. Anthropometric considerations in space planning.

#### Unit 2. Ergonomics, Human Factors, Behavioural Psychology in Design

Introduction to Physical Ergonomics, Cognitive Ergonomics and Organizational Ergonomics and need in designing for humans.

Injuries: Musculoskeletal, RPI, Visual and other sensory discomfort as a result of improper ergonomics.

Design as a result of habits or Habits as a result of Design: Semiotics, Semantic studies (Typicality, emotional connectedness to spaces).

# **Unit 3. Universal Design: Introduction & Application**

Universal Principles of Design: Cathedral Effect, Contour bias, Affordance, Horror Vacui, Modularity, Prospect Refuge, Redundancy, Rule of thirds, Scaling Fallacy, Self similarity (Fractals), Symmetry, Top down lighting effect, wabi sabi, Way Finding, Biophilia effect, Colour Consistency, Desire Line, Entry Point.

Role of Universal Design in Space planning. Inclusive Design in spaces; Accessibility, sensory and spatial needs

# Learning Outcome: The students should be able to:

- Apply the principles of anthropometrics and ergonomic comforts to Design interventions
- Demonstrate through design solutions, the concept of Inclusive and Universal design
- Be able to conduct basic human centric design exercise to generate design solutions

- 1. Chakrabarti Debkumar, "Indian Anthropometric Dimension" NID
- 2. Lidwell William, "Universal Principles of Design", Rockport Publishers
- 3. Norman Don, "The Design of Everyday Things"
- 4. Sussman, Hollander, "Cognitive Architecture"

			, .bb				•				
Subject	IDF	Subject		ARCHITECTURAL/ INTERIOR DRAWINGS &							
Code	106	Title		REPRESENTATION SKILLS - II							
LTPS	2,0,2 ,0	Credit	3	Subject Category	DC	Year	1 <sup>st</sup>	Semester	1/11		

# **Objective:**

The course should enable the student to

- Understand architectural scales
- Learn how to make interior drawings manually.
- Understand the relationship between plan, elevation and sectional drawings of objects and simple composition.
- Learn rendering techniques
- Enable the students to understand the basic principles of perspective and sciography.

# **Unit 1. Scale and Basic Drawings**

- Types and uses of scales, Scales used by an architect/ interior designer, Reducing and enlarging scales
- Symbolic representation of building elements and material, other features as per I.S.I and standard practice.
  - Drawing polygons, Inscribing and circumscribing circles in polygons. Internal & External tangents, Metric Drawing.

# **Unit 2. Orthographic Projections**

- Definition, Planes of Projections.
- Projection of regular rectilinear and circular solids (prisms, pyramids, cones, cylinders, spheres etc.) in different positions,

# Unit 3. Views

• Isometric, axonometric and pictorial view

# **Unit 4. Perspective Drawings**

- Purpose and use. Differences with metric projections.
- One point, two point, three point perspectives. Drafting of simplex or complex building.
- Introduction to shortcut methods in perspective drawing. Free hand perspective.

# Unit 5. Shade, Shadow & Rendering

- Values in shades and shadows,
- Constructing plan shadows (point, line and plane),
- Constructing shadows in elevations (Point, line and Plane).
- Different types of rendering techniques and materials.

# Learning Outcome: The students should be able to:

- Draw plan section and elevations to a suitable scale.
- Understand the concept of drafting different types of perspective views and sciography
- Render the interior views in different mediums

# **Text Books:**

- Perspective for the Architect, Themes and Hudson
- Perspective and Sciography, Shankar Mulik
- Interior Design, Ahmed Kasu
- Architectural Graphics, Ching Frank
- Engineering Drawing, N.D. Bhatt.

# **Reference Books:**

- 1. Architectural Graphic standards editor, Boaz Joseph
- 2. Rendering with pen and ink

Practical Plane and Solid Geometry, H. Joseph and Morris.

Subject Code	IDF 107	Subject Title			DESIG	N STUC	DIO - II		
LTPS	0,0,4 ,2	Credit	4	Subject Category	DC	Year	1 <sup>st</sup>	Semester	Ш

# **Objective:**

The course should enable the student to

- To make students know the importance of aesthetics and functions separately and how both can be represented and made to work together.
- The students get aware of their work surroundings.
- The implication of interior design knowledge in real world to be experienced and further functionalities to be understood for each and every design element.

# Unit 1. Sculpture Design

Creating a sculpture using a particular or multiple materials of their choice. This sculpture needs to be aesthetically representing some aspect of Interior Design and it may not be functional.

# Unit 2. Workstation design

Designing a workstation for a particular person of their choice. The current workstation should be accessible so that case study could be done. Then the designing of the new workstation should be carried on with. The student gets introduced to proper case study techniques in this exercise.

# Unit 3. Shop interiors - Case study

This task makes the student visit different shop interiors of their choice and study details at both macro and micro level. Then the details are to be discussed amongst everyone together. This task makes the students start getting aware and sensitive about several details and their functionalities.

# **Unit 4. Shop Interiors - Designing**

This is the major project of this semester where the students design a shop interior for a given common site area and plan. Students need to use all the knowledge gathered in the previous units and apply and reflect that in their designs.

# Learning Outcome: The students should be able to:

- Students start with hands-on work on a sculpture which focusses mainly on aesthetics.

- Then they start learning about how it can be represented in drawings.

- Students learn to represent and study actual present scenarios of workstation and shop interior design and also learn to design the same and represent it to a jury.

- 1. Pop-Up Design and Paper Mechanics: How to Make Folding Paper Sculpture March 1, 2011 Duncan Birmingham
- 2. Sculpture and Design with Recycled Glass October 28, 2011 Cindy Ann Coldiron
- 3. Atlas of Office Interiors -1 August 2008 Alex Sanchez Vidiella
- Studios & Workshops: Spaces for Creatives (Architecture in Focus) 24 November 2014
  <u>Sibylle Kramer</u>

Subject Code	IDF10 8	Subject Title		С	OMPUTE	R APP		TION-I	
LTPS	0,0,4, 0	Credit	3	Subject Category	DC	Year	I	Semester	II

#### **Course Objective:**

• This course aims to introduce various software to the students helping them in compilation of then text reports etc, further, to enable them to understand the role of various data storing devices such as scanners Digitizers etc. and their applications.

#### UNIT 1: Learning M.S.Office

• Basic command to operate the component say M.S. Office such as M. S. Word, Knowledge about D.T.P Techniques in M.S. Word, Use of various Command to make charts, graphs, tables, to help students compile their reports in M.S. Word, exporting & Importing such work done is other software and using of clip Art and making elementary shapes in M.S. Word.

#### UNIT 2: Learning M.S.Office

• Learning the other components of M.S. office like M.S. Excel, M.S. Power Points, etc, Making work sheets in M.S. Excel.

#### UNIT 3: Introduction to AutoCAD, Basic Drawing Tools and Drawing Precision

Interface, Navigating a Drawing, Lines, Circles, Rectangles, Polar Tracking, Erasing Objects, Creating a Simple Drawing, Object Snaps, Polar Tracking Options, Object Snap Tracking, Snap and Grid Settings etc

# UNIT 4: Introduction to Use of Printing Equipment and Hardware

• Familiarizing the use of scanners, printers, plotters their hardware and other related systems

# Learning Outcome

At the end of the course, the student will be able to:

- Have a comprehensive knowledge about the basic software.
- Will be able to make the presentation, graphs, charts etc.
- Will be able to edit the drawings and data using software like Photoshop, Photo editor etc.
- Know how to scan and take prints using printers, plotters etc.

# Text Book [TB]:

- 1. Computer Organization, 5th edition, Zvonko Vranesic, Safwat Zaky
- 2. Computer Organization, ISRD Group, Tata Mc-Graw-Hills companies.

#### Reference Books [RB]:

- 1. Manuals of AUTOCAD AUTODESK Inc.
- 2. Computer and common sense, Hunt and Shelly

Subject Code	IDF1 44	Subject Title		POPULAR CULTURE & DESIGN						
LTPS	2,0,2 ,0	Credit	3	Subject Category	DE	Year	1 <sup>st</sup>	Semester	II	

# **Course Objective:**

The course offers a critical overview of interior design with respect to the culture prevailing during different period of time and at different places. The course will also provide an understanding of culture and design relationship.

#### Unit 1: Society

Meaning and definition, characteristics of society, types of society, factors bringing changes in society, impact of modernization on society and its importance in interior design

#### Unit 2: Culture

Meaning and definition, characteristics of culture, types of culture in India, factors bringing changes in culture- Modernization, Urbanization & Technology

#### Unit 3: Design, Period and Culture

Key factors which influence design during a particular period. Design as a product of period and culture.

#### Unit 4: Case Study

Areas in India and neighboring countries to be chosen to study and identify the key factors of society and culture which were responsible for a specific style in interior design in these areas.

#### Learning Outcome:

- 1. The student will be able to identify the impact of culture on design
- The students will be able to associate key examples of architecture, interiors, furnishing, fine & decorative arts and their character defining features with influential developments including changes in social, culture and aesthetics preferences.
- 3. The students will be able to compare and contrast past and present values of different cultures through time and how these changing values have informed the design of today's interior spaces

# Text Books:

#### **Reference Books:**

1. Harwood, Buie, Bridget May, and Curt Sherman. Architecture and Interior Design: An Integrated History to the Present. Saddle River, New Jersey: Prentice Hall, Pearson Education, Inc. 2012.

Subject Code	IDF- 241	Subject Title			ART, DES	IGN & S	SOCIET	ΓY	
LTPS	0,0,2 ,2	Credit	3	Subject Category	DE	Year	1st	Semester	П

# Course Objective:

The course should enable the student to

- Introduce the strong relation of evolution of art and design over time
- Understand and develop an appreciation for the evolution of society across time and geography

# **Unit 1: Introduction to Design History**

Introduction to appreciation of Art & Design, Evolution of the category of design as district from the art, craft technology

Ancient Egyptian, Greek, roman, byzantine, oriental culture and development of input about major landmarks that have contributed to the contemporary design using references and examples.

# **Unit 2: Evolution and Development of Art Forms**

Various styles of painting and sculpture in historic outline

# Unit 3: Development of modernity in 19<sup>th</sup> and 20<sup>th</sup> Century

Indian art with special reference to various art movements, medium, styles, individual artist's contributions in different regions of the country; Developments in Industrial Design, Graphic Design, Technology, Human factors / Ergonomics

# LEARNING OUTCOME:

On completion of this module the students will be able to:

Understand design movements; history from 1850's till date.

Understand the relevance of design in relation to environment within social, cultural and physical context recognize and appreciate value of tradition in society.

# **Text Books:**

- 1. J. Nehru, the Discovery of India, Penguin Books India, 2008.
- 2. D. Basu, Shorter Constitution of Indian Societies, Prentice Hall of India, 1996.

- 1. J. R. Gandhi, Socio-economy of India, Deep and Deep Publications, 1998
- 2. J. T. F. Jordens, Gandhi's Religion, A Homespun Shawl, MacMilan Press Ltd, 1998

Subject Code	IDF- 245	Subject Title		Ν	URALS	& SCUL	.PTURE	ES	
LTPS	0,0,2 ,2	Credit	3	Subject Category	DE	Year	1 <sup>st</sup>	Semester	П

# Course Objective:

The course should enable the student to

- Understand the Material Properties and its behavior under different conditions
- Understand the Form Formation using different materials
- Creating compositions to make Design Installations

# Unit 1 : Importance of MURALS in Design

Understanding how Murals have contributed in the Human History by studying examples from Countries across the world .

How Murals of one place differed from the other and was inspired from the local indigenous culture, practices and materials .

Eg : Ajanta and Ellora Caves in India , The Murals in Ancient Egypt, Thangka Paintings in Tibet etc.

# Unit 2: The beginnings of SCULPTURE making

Understanding the need of sculpture making and the inspirations in the past.

# Unit 3: Understanding by Doing i.e Making Sculptures and Murals

Making use of different materials to make Sculptures and Murals and understanding the process from Raw material preparation to the Final outcome.

# Learning outcome:

The emphasis here is on learning by doing as well as imbibing an in depth disciplinary understanding of making sculptures and mural. It aims at developing design skills and help them oversee the entire design process from designing on paper to the execution.

# **Text Books:**

The Sculpture and Mural Decorations of the Exposition; A Pictorial Survey of the Art of the Panama-Pacific International Exposition

- 1. Mural Masters: A New Generation by Kiriakos losifidis
- 2. Walled City: The Art of the Mural by Sandu Publishing
- 3. The Elements of Sculpture by Herbert George
- 4. The Sculpting Techniques Bible: An Essential Illustrated Reference for Both Beginner and Experienced Sculptors by Claire Waite Brown

Subject Code	IDF- 201	Subject Title		INTE	RIOR DE	SIGN E	LEMEN	NTS - I	
LTPS	0,0,2 ,2	Credit	3	Subject Category	DC	Year	2 <sup>nd</sup>	Semester	Ξ

# **Objective:**

The purpose of this course of to help students develop an understanding of point, line and planar elements in defining an interior space.

# **Unit 1. Vertical Planes**

Wall Planes- Use of wall planes in space making, masonry walls effects, patterns and textures, articulation of openings in wall planes- visual continuity, tilting the vertical axis of wall planesniches and alcoves, Wall accents- cornices and moldings.

# **Unit 2. Horizontal Planes**

Roof Planes: Different types and their visual impact, skylights and roof apertures, false ceilingmaterials, finishes and patterns, Various types of lighting.

Floor Planes: Various types of flooring- mosaic, tile, stone etc., aesthetic effects created by flooring material and pattern, inlays and graphic patterns for flooring, construction techniques for floorings, Floor accents- skirting, holding, Floor finishes and coverings.

#### **Unit 3. Fenestrations**

(i) Doors: Various Types (Flush Doors, Paneled Doors, Battened and Ledge Doors, Wooden decorated Doors, Metal Doors, Glazed Doors); context of use, aesthetic and relevance- various materials and articulation.

(ii) Windows: Various types (Casement, Horizontal sliding, Vertical Sliding, Hopper, Pivoted, Louvered), Arched and circular openings, Various materials (Wood, Aluminum, Steel, UPVC) and their suitability in a particular space, Ventilators.

# **Unit 4. Case Studies**

Case studies for manipulation of wall, floor and roof planes for various interior effects, Case study for fenestrations, Case studies for treatment to structural members for interiors.

# Unit 5. Design Thinking

Introduction and terminology, principles of creative thinking, Tools & Techniques of creativity, Design functions

# Learning Outcome: The students should be able to:

**CO1:** To develop an understanding of various degrees of enclosure, various types of relationships between spaces.

**CO2:** Understanding of the various effects that could be created by manipulating the enclosing elements such as walls, roof etc.

**CO3:** Achieve a direct co-relation and understanding about the knowledge of behavioral psychology and translation of the same inside built up spaces.

CO4: Students will be able to understand the art of design thinking

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

Subject Code	IDF- 202	Subject Title	MA	MATERIALS AND CONSTRUCTION FOR INTERIORS - I						
LTPS	0,0,2 ,2	Credit	3	Subject Category	DC	Year	2 <sup>nd</sup>	Semester	Ш	

# **Objective:**

The Purpose of the course is to familiarize the students of Interior Design on Material and Construction methodology.

# Unit 1. Introduction to Materials- Timber

- Timber: Softwood and Hardwood, Plywood, Laminated wood and Particle boards; Properties, Manufacture and Uses. Advantages and disadvantages
- Joints with timber

# **Unit 2. Building Components**

- Drawings of the components of a building indicating
- 1. Foundation- Brick Footing, Stone Footing & R.C.C footing
- 2. Concrete Flooring, Plinth Beam and Floor Finish
- 3. Superstructure- Brickwork with sill, Lintel, Window opening and sunshade.

Flat R.C.C roof, parapet & coping

# Unit 3. Tiled Roofs

Drawing of various types of sloped & Hipped roof, Types of sloping roof- lean to & Couple roof with Mangalore tiles, Country tiles, pan tiles etc

# **Unit 4. Structural Systems**

Structures- Load Bearing wall and R.C.C slab roof system- Beam, Column and Framed structure.

# Unit 5. Basic Services

Components of Toilet & Bathroom: Sanitary ware-W.C, Wash Basin, Bidet, Bathtub, Jacuzzi etc.

Learning Outcome: The students should be able to:

- Timber: Softwood and Hardwood, Plywood, Laminated wood and Particle boards; Properties, Manufacture and Uses.
- Fabrics: Textile, Jute, Leather etc. different types and uses.
- Synthetic Materials: Glass (Different types and their properties, Manufacturing Processes and Uses, Plastics (Different types, Introduction to different manufacturing process wrt interior vacuum forming, laser cutting, injection molding etc.)

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

Subject Code	IDF- 203	Subject Title		INTE	ERIOR DE	ESIGN S	SERVIC	ES - I	
LTPS	2,0,0 ,0	Credit	2	Subject Category	DC	Year	2 <sup>nd</sup>	Semester	

# **Objective:**

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

# Unit 1. Water Supply in buildings

Standards for Potable water and methods of removal of impurities, Demand of water per capita for domestic purposes, Household water connection from mains, House-Service design, tube well, pumping of water, types of pumps, cisterns for storage.

# Unit 2. Building Drainage

Layout, Principles of drainage, Types of traps, materials and functions, Inspection chambers, Design of Soak Pits and Septic Tanks, Ventilation of house drains. Anti siphonage and vent Pipes: One pipe and Two pipe systems, Sinks, Bath tub, Water closets, Flushing cisterns, Urinals, Bidet, Shower panel etc.

# Unit 3. Plumbing

- 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, wrought iron, galvanised iron, copper, cement, 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 pipes etc.

Rain water disposal drainage pipes spouts, sizes etc.

# Unit 4. Solid Waste Disposal

Solid waste collection and removal from buildings. On- site processing and disposal methods. Aerobic and anaerobic decomposition.

# Unit 5. Exercise

Apply the plumbing services to prepare layout plan of a small building project.

# Learning Outcome: The students should be able to:

CO1: Understand the water distribution systems for buildings

CO2: Understand the concept of drainage systems in buildings and its types

CO3: Understand the requirement of plumbing and its various systems used in buildings

CO4: Understand the process of solid waste disposal system

CO5: Will be able to apply the learning of plumbing services to building project

# Text Books:

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

# **Reference Books:**

Charangith Shah, Water supply and sanitary engineering, Galgotia Publishers A Kamala and DL Kanth Rao, Environmental Engineering, Tata McGraw Hill publishing company limited.

Subject Code	IDF- 204	Subject Title			DESIG	N STUD	010 - III		
LTPS	0,0,6 ,1	Credit	4	Subject Category	DC	Year	2 <sup>nd</sup>	Semester	=

# **Objective:**

To introduce the basics of designing for Residential interiors and to develop and apply the skills in the form of a project.

# Unit 1. Kitchens

- Area of work, planning for activity- anthropometrics- types of kitchen- modular kitchens. Materials used in counters, shelves, worktops, washing areas and their comparative study justifying context of use.
- Lighting and color scheme- color, texture and patterns..

# Unit 2. Toilets

• Anthropometry- Various types of sanitary ware and their use, types of layouts, concepts in modern day toilet interiors, materials and finishes

# Unit 3. Bedrooms and Living Rooms

 Concepts in bedroom and living room interiors, various layouts of these spaces, use of furniture and accessories to create a certain type of ambience, materials and finisheslighting, color and texture.

# Unit 4. Studio Project

- Integrate various individual spaces into one theme, treatment of patios, courtyards, verandas and other semi covered spaces, integration of built form and open spaces.
- Small residence interior project.

# Learning Outcome: The students should be able to:

- **CO1:** Develop understanding of the scale, function and options when designing small scale spaces in residences such as toilets, kitchens, living, bedroom etc.
- **CO2:** Develop ideas w.r.t. to treatments such as false ceiling, wall panelling, flooring, floor coverings, dressings in fenestrations and other elements with regards to residential interiors.
- **CO3:** Design interior scheme for a small residential project

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

Subject Code	IDF- 205	Subject Title		CO	MPUTER	APPLI	CATIO	NS-II	
LTPS	0,0,4 ,0	Credit	2	Subject Category	DC	Year	2 <sup>nd</sup>	Semester	111

# **Course Objective:**

This course aims to enable the students to visualize and graphically reproduce simple and complex layouts to succeed in subsequent drafting and design courses.

# Unit 1: Drawing Organization, making changes, Getting Information and object types

• Templates, Units, Layers, Controlling Layer States Move and Copy, Rotate and Scale, Mirror, Grip Editing, Arcs, Poly lines, Polygons, Ellipses, Object Properties, Measuring Objects

# Unit 2: Advance Editing, Blocks, setting up Layout, adding text, Hatching, Dimensioning, Printing

- Trim and Extend, Stretching Objects, Fillets and Chamfers, Offset and Array, Using Blocks, Defining a Block, Reusing Blocks, Printing Concepts, Working in Layouts, Copying Layouts, Creating Viewports.
- Modifying Text, Adding Leaders, Creating Tables, Creating Hatches, Modifying Hatches, Linear Dimensions, Radial and Angular Dimensions, Editing Dimensions, Printing Layouts, Printing from Model Space.

# Unit 3: Sketchup

Purpose and use of the software, Basic commands and usage of different tools like zoom, pan, rotate etc., Selecting toolbars, applying templates, understanding axis, Drawing basic geometric shapes, circles and arcs with measurement and learn to use pencil tool, Understanding the Sticky Geometry benefits, Information and database, Discovering layers, measuring items inside Sketch-Up, Learning commands like Simple Array techniques. Rotating objects, Rotate & copy and scale fractional, Making components, groups. Comparing and benefits, saving components, reloading them etc.

# Unit 4: 3D Modelling in Sketchup

- Learning Modelling techniques, using Push, Pull, follow me and intersecting geometry.
- Creating offset faces & copy, edges, polygon and learn how to use polygon in 2Ddrawings.
- Understand using Paint bucket, material editor, textures and bitmaps etc
- Create textures, positioning textures

# Unit 5:

Exercises Using Interior design projects: Students will prepare interior design projects in 3D format as per the consultation with course faculty.

# Learning Outcome

At the end of the course, the student will be able to:

- Create, annotate, edit and plot drawings using basic AutoCAD commands and features.
- Apply basic AutoCAD skills to intermediate AutoCAD course and other design and drafting courses.
- Apply the tool to prepare a building plan in AutoCAD
- Understand and apply Sketchup for studio projects

# Text Book [TB]:

- 1. Fundamentals of CAD/CAM/CIM, Sharma.V
- 2. Sketchup for Interior Design by Lydla Sloan Cline

# **Reference Books [RB]:**

- 1. Mastering Autocad, George Omura, Brian C. Benton
- 2. Autodesk Officail Training Guide, Krygiel, Eddy
- 3. Rendering in SketchUp by Daniel Tal

Subject Code	IDF 206	Subje ct Title		Ś	SIGNAGE	AND S	YSTEN	IS	
LTPS	0,0,2, 2	Credit	3	Subject Category	DC	Year	2 <sup>ND</sup>	Semester	IV

# **Course Objective:**

The course should enable the student to

- Understand the need and importance of signage and graphic process
- Understand the process of signage design and planning

# Unit 1:

Introduction - environmental graphic Design, wayfinding, Need, importance

# Unit 2:

Information content system – kinds of sign information, hierarchy of content, developing the sign information content, Navigation – message hierarchy and proximity, Other factors affecting sign information content, pictorial information content, signage master plans

# Unit 3:

The Graphic system - Typography overview, choosing a typeface, typographic treatment, typographic considerations in signage for non-sighted and low sighted people, symbols and arrows, other graphic elements, color, layout, overview of signage graphic process.

# Unit 4:

The hardware system – shape, connotations of form, sign mounting considerations, sign size considerations, sign lighting overview, sign materials overview, basic sign materials, electronic message displays, stock sign hardware systems, sign materials and codes, overview of coatings and finishes applied to signs.

# Unit 5:

Signage Design – Eyelevel, light, Fonts, typographical systems and type area, pictograms, arrows, color – contrast, language, systems, tones, Coding, privacy and protection, Room identification, Signage Planning – contract, obtaining information, preliminary design, design, construction, work plan and prototypes, tenders, specifications, on-site management, completion

# Learning outcome:

The students will be able to understand the signage design and planning process The students will be able to understand the graphic system

# **Text Books:**

- 1. Joseph DeChiara, Julius Panero, and Martin Zelnik Time-Saver Standards for Interior Design and Space Planning, 2nd edition, Mc-Graw Hill Professional,2001.
- 2. Andreas Uebele, Signage Systems and Information Graphics, Thames and Hudson, 2007
- **3.** Craig Berger, Wayfinding: Designing and Implementing Graphic Navigational Systems, Rotovision, 2009.

- **4.** Chris Calori, Signage and Wayfinding Design: A Complete Guide to Creating Environmental Graphic Design Systems, Wiley and sons, 2007.
- **5.** David Gibson, The Wayfinding Handbook: Information Design for Public Places, Princeton Architectural Press; 1st edition, 2009.
- **6.** Rayan Abdullah and Roger Hubner, Pictograms, Icons and Signs, Thames and Hudson, illustrated edition, 2006

Subject Code	IDF- 207	Subject Title	MA	TERIALS AN	ID CONS	TRUCTI	ION FO		S - II
LTPS	0,0,2 ,2	Credit	3	Subject Category	DC	Year	2 <sup>nd</sup>	Semester	IV

# **Objective:**

To familiarize the students with material and construction methodology

#### Unit 1: Walls- Brick walls

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

# **Unit 2: Floors**

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 3: False Ceiling**

Construction of various kinds of false ceiling such as thermocol, plaster of paris, gypboard, metal sheets, glass and wood Construction of domes, vaults, & other special ceilings

#### **Unit 4: Wall Panelling**

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

#### **Unit 5: Wall Finishes**

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

# Learning Outcome: The students should be able to:

CO1: Understand and prepare construction details of vertical structural member- wallsCO2: Explore the materials used to cover floors, ceilings and walls and their application detailsCO3: Explore the various types of wall finishes

- 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.

Subject Code	IDF- 208	Subject Title		INTE	RIOR DE	SIGN S	ERVIC	ES - II	
LTPS	2,0,0 ,0	Credit	2	Subject Category	DC	Year	2 <sup>nd</sup>	Semester	IV

# **Objective:**

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

# Unit 1: Basic Concepts and System Components in Air Conditioning-I

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

# Unit 2: Basic Concepts and System Components in Air Conditioning-II

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. Furniture for the physically challenged

# **Unit 3: Fire Safety**

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.

# **Unit 4: Acoustics & Sound Insulation**

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 5: Electrical Systems**

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.

# Learning Outcome: The students should be able to:

- **CO1:** Understand the basics of mechanical and electrical services involved in a building.
- CO2: Understand the importance fire safety in a building and explore the equipment required
- **CO3:** Understand the basics of building acoustics and explore the appropriate materials for the same

# Text Books:

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

- 1. V.K.Jain, Fire Safety in Buildings.
- 2. Peter templeton & Saunders Detailing for architectural acoustics Architectural press, 1994
- 3. R.G.Hopkinson and J.D.Kay, the Lighting of Buildings, Faber and Faber, London, 1969

Subject Code	IDF- 209	Subject Title		DESIGN STUDIO - IV						
LTPS	0,0,6 ,2	Credit	5	Subject Category	DC	Year	2 <sup>nd</sup>	Semester	IV	

# **Objective:**

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

# Unit 1. Shops

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 2. Commercial Spaces**

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 3. Shopping Malls**

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.

# Learning Outcome: The course is intend to

CO1: Prepare layout of larger scale spaces with an emphasis on planning commercial spaces.

CO2: Develop design skills of visually literate students who are proficient at analytical thinking, conceptualization and the problem-inquiry, solution cycle.

CO3: Examine the connection between abstract design principles and the physical and visual environments.

- 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.

Subject Code	IDF 143	Subject Title		MARKET	RESEAR	CH & SI	POTTIN	IG TRENDS	
LTPS	3,0,0 ,0	Credit	3	Subject Category	DE	Year	2nd	Semester	IV

Objective: The course should enable the student to

- Understand the basic concept of marketing
- Equip the students with the methods of marketing research.
- Aware about the market factors influencing development of new design solutions

# Unit 1. Introduction to Marketing

Introduction to concepts of marketing, organizational conditions & USP Marketing strategy and tactics

Planning, operation and implementation Unit 2. Building Marketing Strategy

Competitive settings, marketing decisions in a competitive settings, formulating overall marketing strategy, factors in selecting marketing inputs, 3C's of marketing strategy

# **Unit 3. Understanding Customers**

How marketing influences society- economic aspects, consumer behavior, how society influences marketing- public opinion, benefits of understanding customers

# **Unit 4. Understanding Trends**

Utilize the market research to recognize past and present trend in interior design and explore the requirement for future trends.

Learning Outcome: The students should be able to:

- Apply the principles of marketing research
- Understand the behavior of consumer and its influences on market requirement

- Recognize the past and present trends in interior design and explore the future requirement

# **Reference Books:**

 Don Senton, "Marketing 101", Wiley Edward W. Cundiff, Richard R. Still "Fundamentals of Modern Marketing", PHI

Subject Code	IDF1 45	Subject Title		Т	RADITIO	NAL IN	TERIO	RS	
LTPS	0,0,0 ,3	Credit	3	Subject Category	DE	Year	2nd	Semester	IV

### **Course Objective:**

The course will provide the knowledge of Interior Design Trends of the later part of the 20<sup>th</sup> century and of traditional Indian styles.

### **Unit 1: Recent Directions**

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

# **Unit 2: Non-European Traditions**

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

### **Unit 3: Scandinavian Traditions**

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

### **Unit 4: Indian Traditional Designs**

TraditionalStylesofdesign&decorationsofhomes&accessoriesacrossthestatesinIndiaincluding Rajasthan, Gujarat, Andhra, Tamil Nadu, Madhya Pradesh etc.

#### Unit 5: Project

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

#### Learning Outcome:

- **1.** The student will be able to identify the interior design trends of late 20<sup>th</sup> century.
- **2.** The students will be able to understand the traditional style of interior design in various parts of India.
- 3. The students will be able to prepare a project on traditional designs of India

# Text Books:

- 1. Interior Design Course, Mary Gilliat Coyran, OctopusLtd., London
- 2. Interior Design, FrancisD.K. Ching, John Wiley & Sons, New York
- **3.** Time Saver Standards for Interior Design, JosephDeChiara, McGrawHill, New York. Publications on Traditional Arts & Crafts of India, Ministryof Handicrafts Development, Government of India

Subject Code	IDF- 242	Subject Title			TEXTILE	S IN INT	ERIOR	S	
LTPS	2,0,2 ,0	Credit	3	Subject Category	DE	Year	2 <sup>nd</sup>	Semester	IV

# **Course Objective:**

The course should enable the student to

- To acquire a deeper, understand and awareness of yarns and weavers for being able to identify the different kinds of fabric
- To be able to make correct selections of fabric for specific end uses.
- To be able to relate the quality of a garment with the quality of textile inputs in it.

# **Unit 1: Introduction**

The Indian textile industry: its strength and weakness; Stages on the development/manufacturing of textile (terms and definitions); properties of fabrics used vis a vis role of fiber, yarn, construction and finishing.

# **Unit 2: Fiber and Weaving**

Fiber: Classification and properties of fiber, yarn parameters, yarn types.

*Weaving:* types of weavers and its properties, properties of important woven fabrics weaving defects.

# **Unit 3: Knitted Fabrics and Non-Woven & Coated Fabrics**

Types of knits and blended fabrics

# Unit 4: Finishes, Dyeing and Printing

*Finishes:* Routine finishes (advantages and relative cost); Specific finishes (performance enhancement and costing)

**Dyeing and Printing:** Types of dyes, stages of dyeing, dyeing procedures, fastness properties; Styles and methods of printing; Defects in dyeing and printing.

# **Unit 5: Textile Testing**

Different methods and techniques for textile testing.

# Learning Outcome:

On completion of this module the students will be able to: Understand practical handling & characteristics of fibers used for making fabrics. Interpret technical aspects of textiles End user of fabrics

# **Text Books:**

1. Fabric Science – Pizzuto, Joseph J

# **Reference Books:**

1. Textile fiber to fabric - P Corbman

Subject Code	IDF- 243	Subject Title			INTERIO	R LAND	SCAP	E	
LTPS	0,0,2 ,2	Credit	3	Subject Category	DE	Year	2 <sup>ND</sup>	Semester	IV

### Course Objective:

- 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 1: Interior Landscaping**

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

# **Unit 2: Physical Requirements of Plants**

Physical requirements of plants-light, temperature, water, planting medium, soil separator, weight of plants, acclimatization & maintenance. Techniques to meet physical requirements

# **Unit 3: Interior Landscaping Elements & Principles**

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

# Unit 4: Roof and Deck Landscape

Protection of the integrity of the roof and structure, provisions for drainage, light weight planting medium, irrigation, selection of materials, water proofing, provision for utilities and maintenance.

# **Unit 5: Exercise On Interior Landscape**

Courtyard design, an outdoor room design, Terrace garden

# Learning Outcome:

The students will be able to understand the basic concept of interior landscaping The students will be able to apply the basic concepts to design interior spaces

# **Text 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.

;	Subject Code	IDF- 244	Subject Title		LIGHTI	NG AND	COLOU	ir in in	ITERIOR	
	LTPS	0,0,2 ,2	Credit	3	Subject Category	DE	Year	2 <sup>ND</sup>	Semester	IV

# Course Objective:

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

# **Unit 1: Introduction to Daylighting**

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 2: Artificial Lighting**

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

# Unit 3: Effect of Color in Lighting

Colors, color schemes - Monochromatic, analogous, complementary color schemes, triadic and tetradic schemes, effects of color in different areas, color temperature, psychological effects of color in interiors, factors affecting color, Prang theory – Color wheel, Munsell system and Oswald system.

# Unit 4: Luminares & Fixtures

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

# Learning Outcome:

The students will be able to understand the concept and terminology of day lighting The students will be able to calculate the artificial lighting requirement and related terminology The student will be able to understand the effect of colour in lighting.

# Text Books:

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

Subject Code	IDF- 301	Subject Title	MA	TERIALS AN		IRUCTI	ON FO		6 - III
LTPS	0,0,2 ,2	Credit	3	Subject Category	DC	Year	3 <sup>rd</sup>	Semester	V

# **Objective:**

To familiarize the students with material and construction methodology.

# Unit 1: Doors

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

# **Unit 2: Windows- Timber**

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 3: Windows- Steel & Aluminum

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

# **Unit 4: Partitions**

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 5: Staircase**

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

# Learning Outcome: The students should be able to:

CO1: Understand and prepare details of various components for openings- doors, windowsCO2: Understand and prepare the details of components used to divide a space- partitionsCO3: Understand and prepare the details of components connecting two levels- stairs

# **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.

Subject Code	IDF- 302	Subject Title			WORKI	NG DR	AWING		
LTPS	0,0,6 ,1	Credit	4	Subject Category	DC	Year	3 <sup>rd</sup>	Semester	V

#### **Objective:**

The students will prepare working drawing of interior project done in design studio. The students are expected to prepare working drawing and detail of residential and commercial furniture systems using various materials.

# **Unit 1: Building Component**

Working drawing of different types of doors and windows

### **Unit 2: Building Surfaces**

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

# **Unit 3: Detailing of Special Areas**

Working drawing for toilets with plumbing diagram – working drawing of kitchen Preparation of detail plan showing lighting fixtures and electric fans with specification.

### **Unit 4: Furniture Detailing**

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

# **Unit 5: Storage Area Detailing**

Working drawing o wardrobes, TV cabinet and showcase, crockery shelves, cadenza, chest of drawers, dressing table, detailing of kitchen shelves and cupboards

Learning Outcome: The students should be able to:

**CO1:** Prepare working drawings with illustrations

CO2: Suggest suitable material with specification

**CO3:** Prepare working drawing and construction details of various furniture.

- 1. F D K Ching, Building Construction Illustrated, Van Nortrand
- 2. William P. Spence L. Duane Griffith, Furniture & Cabinet Construction, Prentice Hall Inc. New Jersey
- 3. De Chiara and Callender Time Saver Standards for interior design, 1982

Subject Code	IDF- 303	Subject Title			ESTIMAT	ION & C	COSTIN	G	
LTPS	3,0,0 ,0	Credit	3	Subject Category	DC	Year	3 <sup>rd</sup>	Semester	V

# **Objective:**

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

# Unit 1: Introduction to Estimation

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

# **Unit 2: Rate Analysis**

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 3: Detailed Estimate**

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

# **Unit 4: Costing of Fixtures & Fittings**

Cost of the following items: electrical fitting like, luminaries, fan, cables, switches etc., tiles in skirting & dado, cement plaster, joinery in wood, steel & aluminum, painting to walls – cement paint, oil paints, distemper acrylic emulsion, enamel paint painting to joinery, varnishing, French polishing plumbing 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 5: Introduction to Specification**

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

Learning Outcome: The students should be able to:

- CO1: Understand process of estimation
- CO2: Prepare detailed estimate in order to establish cost of work
- CO3: Understand rate analysis and costing of fixtures & fittings
- CO4: Understand the procedure of writing specification

- **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

Subject Code	IDF- 304	Subject Title			DESIG	IN STU	DIO - V		
LTPS	0,0,6 ,1	Credit	4	Subject Category	DC	Year	3 <sup>rd</sup>	Semester	V

### **Objective:**

To introduce the design of office interiors.

### **Unit 1: Office for Professional Consultant**

• 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 2: Corporate Office**

•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

### LEARNING OUTCOME: The student will be able to

**CO1:** Understand the various stages of work spaces with an emphasis on office space planning.

**CO2:** Prepare design scheme for Professional Consultant's Office.

**CO3:** Prepare design scheme for corporate office.

- 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.

Subject Code	IDF- 341	Subject Title			DESIGN	MANA	GEMEN	IT	
LTPS	2,0,2 ,0	Credit	3	Subject Category	DE	Year	3 <sup>rd</sup>	Semester	V

### **Course Objective:**

The course will provide the knowledge of working of a design organization and the student will learn the responsibility of a designer and technical aspects of the profession.

# **Unit 1: Interior Design Profession**

Issues of Professional Practice courses, Nature of Profession. Types of Interior Design practice. Types of design office organization.

### **Unit 2: Client and Designer**

Nature of relationship between a client and the professional. Taking instruction from the client, its interpretation.

### **Unit 3: Design Process**

Design process and its stages. Scope of services. Other aspects of design creation and its management, design methodologies, problem solving, fore-casting, decision making information systems, finance etc.

#### **Unit 4: Code of Conduct**

Professional code of conduct and ethics. Scale of professional change, types of fees, Process of fee negotiation

#### **Unit 5: Technical Aspects**

Tenders, types of tenders, tender document, work order, Contract, types of contracts, contract documents, arbitration

#### Learning outcome:

- 1. The student will be able to understand the working of a design organization.
- 2. The students will be able to understand the ethics of the profession and responsibilities of a designer.
- 3. The students will be able to understand the technical aspects of the profession

#### Text Books:

#### **Reference Books:**

1. A guide to business principles and practices for Interior Designers by Harry Siegel

Subject Code	IDF- 342	Subject Title		INTE	ERIOR FC	R RET	AIL SE	CTOR	
LTPS	0,0,2 ,2	Credit	3	Subject Category	DE	Year	3rd	Semester	V

# **Course Objective:**

The course should enable the student to

- Introduce the strong relation and influence of customer, retail and merchandize.
- To comprehend and develop an appreciation in the world of Marketing in terms of interior space design. To brainstorm creative visual ideations.

# Unit 1: Importance of Learning Interior for Retail: Research and Contexualisation

Introduction to understanding the need to learn Interior for Retail Design. Develop research skills and methods for commercial interiors, with a comprehensive introduction to history of interior design from ancient world to present day (history of shopping) Indian context and world context.

# **Unit 2: Retail Ergonomics and Anthropometrics**

Retail interior space function and anthropometrics with hidden attributes of ergonomics, maintain brand reinforcement within retail context. Learn to improve viewing space criterias.

# Unit 3: Customer Experience and space planning

The module analyses the methods used to develop relationship with customers with a significant effect on interior design based on unit 1 and 2. Address specific areas of retail design for a target market, research and analysis, space planning, organization and presentation skills.

# Unit 3: Branding and Sustainable design technology

Principles and components of brand development directly affecting customer – retail relationship. Choice of sustainable materials and construction methods used within interior design scheme as well as providing an overview of Building regulations with relevant regulatory factors.

# **Unit 4: Visual Communication and Merchandising**

Interrelated aspects of retail design and visual techniques to attract customers into a retail store. Merchandising methods: colour blocking, horizontal and vertical grouping, essential lighting and materials.

# Learning Outcome:

The course builds Analytical thinking of various application of theory, research, ideation in 3d design development in retail sector, critically. Understand and apply the relationship between retail communication and visual merchandizing explaining their causes and effects on the human world.

# **Text Books:**

Basics interior design 01: retail design by Lymne Mesher

- **1.** Interior design and space planning, Joseph dechara, Julius and martin, Indian edition, second edition.
- 2. Holistic retail design: reshaping shopping for the digital era, Philip Teufel.

Subject Code	IDF- 343	Subject Title			SE	T DESIC	GN		
LTPS	0,0,2 ,2	Credit	3	Subject Category	DE	Year	3 <sup>RD</sup>	Semester	V

# **Course Objective:**

- To help the student to understand the concept and process of set design.
- To help the student to understand the concept and process of stage design

# Unit 1: Film and Society

Examination of the twentieth-century culture and society through film. Critical analysis of cultural and social conflicts are portrayed and worked out in popular films, and examination of how motion pictures create a window into modern society. Film as cultural texts to better understand history and culture manifestations.

# Unit 2: History and Theater Film Set Design

Investigation the production methods, dramatic theory and conventions, and scene design of various performance media since the popularization of the motion picture, and how it has influenced all entertainment design in the 20th and 21st centuries

# Unit 3: Graphic Design and Typography for Exhibit Design

Principles of layout for creating effective visual signage and explore the unique problems, technique, theory, and approaches of signage in film, theatre, and other forms of mediated exhibition. Introduction to the design applications for building signage.

# Unit 4: Set Design and Concept Wrap

Introduction to the basic concepts, through theory and practice, of scene design in theatre, film, and other fine arts and entertainment media. Students will learn how to analyze scripts for proper scenery, how to conceptualize designs that will translate into actual sets, and develop visual thinking within the creative process

# Unit 5: Stage Design

Stage design process from inception to performance, script analysis, visual arts analysis, research skills, and the application of principles and elements of design. Understanding stage setting through language, color, and architectural analysis

# Learning Outcome:

The students will be able to understand the influence of historical production methods, dramatic theory and its influence on entertainment design

The students will be able to understand the set design process

The student will be able to understand the stage design process.

# Text Books:

- 1. Time saver standards for building types, DeChiara and Callender, Mc Graw hill company
- 2. Neufert Architect"s data, Bousmaha Baiche & Nicholas Walliman, Blackwell science Itd

Subject Code	IDF- 344	Subject Title		ENVIRONMENTAL GRAPHICS						
LTPS	0,0,2 ,2	Credit	3	Subject Category	DE	Year	3 <sup>RD</sup>	Semester	V	

# **Course Objective:**

The course is structured to help students become aware of many design disciplines including graphic, architectural, interior, landscape and industrial design, all concerned with the visual aspects of way finding, communicating identity and information.

# Unit 1:

Understand the different areas of environmental graphic design and it relates to other design disciplines including graphic design, information design, architecture and interior design

# Unit 2:

Different types of Environmental art: Site specific art, Green art, Sustainable art and Environmental architecture to develop design concepts

#### Unit 3:

Develop strategies and design goals that translate into usual communication pieces that connect people to places through Way finding systems, Place making and identity, Exhibition design, Public installations, Branded environments and themed environments.

#### Unit 4:

Apply principles of colour theory, design systems, narrative, legibility, usability and accessibility to articulate visual messages in the environment

#### Unit 5:

Research and understand the main fabrication processes, technologies and materials involved in the implementation of environmental design projects

#### Learning Outcome:

The students will be able to connect with various design disciplines

The students will be able to understand the visual aspects of wayfinding, communicating identity and information.

- 1. Land and Environment, Jeffrey Kastner
- 2. Signage and Wayfinding Design, Chris Calori
- 3. Environmental Graphics- Project & Process, Wayne Hunt

Subject Code	IDF- 305	Subject Title			PRACTI	CAL TR	RAININ	G	
LTPS		Credit	16	Subject Category	ST	Year	3 <sup>rd</sup>	Semester	VI

### **Objective:**

The students shall have to go for practical training in an architectural/ interior firm/ organization working in the field of interior design. They have to work under an experienced designer/ architect and the training would include the process of development of conceptual ideas, presentation skills, involvement in office discussions, client meetings, development of concepts into working drawings, tendering procedure and site supervision etc.

Learning Outcome: The student will be able to

**CO1:** Understand the practical aspects of interior design profession and office management

Subject Code	IDF- 401	Subject Title	CODES AND STANDARDS INTERIOR DESIGN						
LTPS	2,0,0 ,0	Credit	2	Subject Category	DC	Year	4 <sup>th</sup>	Semester	VII

# **Objective:**

The purpose of this course is to expose the students to various problems and issues encountered during professional practice.

# **Unit 1: Fire Safety Codes**

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

### **Unit 2: Codes for Lighting**

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

### **Unit 3: Codes for Ventilation**

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

#### **Unit 4: Electrical Code**

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 5: Code for Bareer Free Environment**

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

#### Learning Outcome: The student will be able to

- **CO1:** To be able to develop understanding of the responsibilities and liabilities of an Interior Designer.
- **CO2:** Understand the building codes and bye laws.
- CO3: To be able to relate the building codes and bye laws to built environment

#### **Reference Books:**

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

Subject Code	IDF- 402	Subject Title	MA	FERIALS AN		RUCTI	ON FO	R INTERIOR	S - IV
LTPS	0,0,2 ,2	Credit	3	Subject Category	DC	Year	4 <sup>th</sup>	Semester	VII

### **Objective:**

The Purpose of the course is to familiarize the students with materials used for furniture.

# **Unit 1: The Basics of Furniture Construction & Tools**

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

### **Unit 2: Plywood Construction Techniques**

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

### **Unit 3: Furniture Model Making**

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

### Unit 4: Modular Kitchen

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.

#### **Unit 5: Other Materials**

Study of material available for interiors other than wood.

#### Learning Outcome: The student will be able to

CO1: Understand furniture construction, tools and prepare scale models

CO2: Understand apply various joints in wooden furniture

CO3: Explore various materials and construction details of modular kitchen

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

Subject Code	IDF- 403	Subject Title		RESEARCH SKILLS AND SEMINAR							
LTPS	2,0,0 ,0	Credit	2	Subject Category	DC	Year	4 <sup>th</sup>	Semester	VII		

# **Objective:**

To Develop an Understanding and apply the fundamentals of Research

# **Unit 1: Introduction**

•Understanding Need of Research

•Exploring methods and approach to develop a Research Subject

# Unit 2: Research Methodology

•Steps and Methods involved in Research: Data Collection and Organization

•Exploring ways to approach and developing/limiting scope of Research

•Importance of Referencing and Citations in a Research

# Unit 3: Dissertation

•Selection of research topic related to interior design

•Preparation & Submission of Draft proposal

•Drawing Inferences, conclusions and questions from the research argument and submitting a final report on a specific area in which students want to do their Final project. A report will be submitted at the end of semester.

Learning Outcome: The student will be able to

CO1: Understand the need of Qualitative Research

**CO2:** Critically introspect, analyze and discuss issues by research

CO3: To make new/alternate propositions based on research

- **1.** A step by step guide for the first time researcher by Walliman Nicholas; 2008; Vistaar Publications; New Delhi.
- **2.** Qualitative Research Methods by Hennink, Monique, Hutter, Inge and Bailey, Ajay-2011; Sage, New Delhi

Subje Cod		IDF- 404	Subject Title		PROJECT MANAGEMENT						
LTP	S	2,0,0 ,0	Credit	2	Subject Category	DC	Year	4 <sup>th</sup>	Semester	VII	

# **Objective:**

The purpose of this course is to introduce the methodology of executing a project.

# **Unit 1: Introduction**

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 2: Elements of Network**

Event, activity, dummy, network rules, graphical guidelines for network, numbering of events

# Unit 3: CPM and Pert

CPM network analysis & PERT time estimates, time computation & network analysis

# **Unit 4: Project Time Optimization**

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 5: Project Updating and Allocation**

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.

# Learning Outcome: The student will be able to

CO1: To be able to understand the importance and necessity of project management

**CO2:** Understand the techniques of project management.

- 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

Subject Code	IDF- 405	Subject Title		DESIGN STUDIO - VI						
LTPS	0,0,6 ,1	Credit	4	Subject Category	DC	Year	4 <sup>th</sup>	Semester	VII	

# **Objective:**

To introduce the interior design for healthcare spaces and restaurant.

# **Unit 1: Interior Design for Healthcare Centres**

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 2: Interior Design for Restaurants**

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

# Learning Outcome: The student will be able to

- **CO1:** Understand the design process for various stages of work spaces with an emphasis on healthcare facilities and restaurants.
- **CO2:** Prepare design scheme for Healthcare Centres.
- CO3: Prepare design scheme for Restaurants.

# **Reference Books:**

Designs for 20th century Interiors – Fiona Leolie, VH Publications, London.

Interior Design; The New Freedom, Barbaralec Diamonstein, Rizzoli International Publications, New York, 1982.

Subject Code	IDF- 406	Subject Title			٦	THESIS			
LTPS	0,0,2 4,0	Credit	14	Subject Category	DC	Year	4 <sup>th</sup>	Semester	VIII

### **Objective:**

This is culmination of undergraduate studies and hence shall display the capability of the candidate to conceive/ formulate an interior design project and provide solution, aptly demonstrated through supporting research. The main areas of study and research can include contemporary design processes, environmental concern, innovative materials, innovative construction details etc. Project should reflect the knowledge gained from all the courses undertaken by the student in all the previous semesters. Preparation of presentation drawings, working drawings, detailed drawings and study model are part of the requirements for submission.

# Learning Outcome: The student will be able to

**CO1:** The students would be able to understand the evolution of interior project from design to execution.

Subject Code	IDF- 441	Subject Title			AC	COUSTI	CS		
LTPS	3,0,0 ,0	Credit	3	Subject Category	DE	Year	4 <sup>⊤H</sup>	Semester	

# **Course Objective:**

To help the student to understand the basics concept of acoustics and its implementation in buildings

# **Unit 1: Introduction to Basics of Acoustics**

Basic laws and terminologies related to Acoustics. Sound Intensity and Sound Intensity Level. Sound Absorption, Transmission, Reflection, Diffusion and Diffraction. Free field conditions and Inverse Square Law for noise reduction with distance. Sound Absorbing Materials – descriptions and characteristics

# **Unit 2: Acoustics for Building Design**

Reverberation Time and its importance for acoustical performance of an enclosure. Sabin's Equation and its application for designing new auditoriums and correcting RT of existing ones. Acoustical defects in an auditorium and their remedies. Acoustical design of auditorium and other acoustically sensitive enclosures meant for speech, music, lecture, etc. Properties of materials and their application for acoustical treatment, shape analysis for different enclosures. Designing enclosures for variable RT's. Sound Amplification Systems

# **Unit 3: Noise Isolation & Control**

Noise and its effects. Types of noise and its transmission. Sound Insulation and Transmission Loss. Speech privacy and noise control in specific situations. Methods of Sound Insulation - control of mechanical noise and vibrations. Codal Provisions

# Unit 4: Case Study

Case study of an auditorium, cinema hall etc. with respect to the acoustical treatment done

# Learning Outcome:

The students will be able to understand the basic concepts and terminology of acoustics The students will be able to calculate the various acoustical parameters for a space.

# Text Books:

- 1. National Building Code 2005
- 2. Mechanical and Electrical Equipment for Buildings by Walter T. Grondzik, Alison G. Kwok, Benjamin Stein.
- 3. Basic Refrigeration and Air Conditioning by A. Ananthanarayana

Subje Code		DF- 142	Subject Title		J	OURNAL	ISM IN	INTER	IOR	
LTPS	<b>3</b> ,	,0,0 ,0	Credit	3	Subject Category	DE	Year	4 <sup>⊤н</sup>	Semester	

# **Course Objective:**

To understand and acquire knowledge in interior journalism, Documentation and analysis of works

# Unit 1: Journalism

Analysis of recent historical and contemporary examples of written and journalistic criticism of interior, including selected writings by Indian and overseas critics; discursive techniques, analysis of major critical themes, thematic categories in interior writing over the past three centuries

# **Unit 2: Analysis of Works**

Works of Indian and international writers and critics will be presented and discussed. Seminars on Indian interior design writers, journalists and critics

# **Unit 3: Field Program**

Exercise on integrating photography in interior journalism

# **Unit 4: Documenting and Reporting**

Preparation of documentaries and reports in any media such as Video, Still images, Reports, presentations etc., and present as a Seminar

# Learning Outcome:

The students will be able to understand meaning and techniques of journalism The students will be able to analyze the works of Indian and international writers. The student will be able to document and report

# **Text Books:**

- 1. Dave Sounders, Professional Advertising Photography, Merchurst, London 1988
- 2. Roger Hicks, Practical photography, Cassell, London 1996
- **3.** Julian Calder and john Garrett, The 35mm Photographer"s Handbook, Pan Books, London 1999
- 4. Julie Adair King, Digital Photography for Dummies, COMDEX, New Delhi 1998

			<u> </u>								
Subject	IDF-	Subject		DIGITA	L PRESE	NTATIC	ON TEC	HNIQUES			
Code	443	Title		(ADOBE PHOTOSHOP & ILLUSTRATOR)							
LTPS	0,0,4 ,2	Credit	2	Subject Category	DE	Year	4 <sup>TH</sup>	Semester	VIIth		

### **Course Objective:**

To enable students with learnings of basics of advanced digital presentation tools like Photoshop and Illustrator in order to sharpen their graphical skills.

# **Unit 1: Introduction to Photoshop**

Workspace basic, Palettes and Menus, Toolbar – selection tools, painting tools, understanding Preferences tab, Colours, Making colour and tonal adjustments.

# **Unit 2: Basics of Photoshop**

Introduction to filter basics, Filter effect, applying specific filters, Add Lighting Effects, Introduction to Types, Different Types Tools etc.

### **Unit 3: Introduction to Illustrator**

Use of tools and layers, Introduction to stroke, Interface & Workspace, Type tools, Introduction to Shape Objects

### **Unit 4: Basics of Illustrator**

Understanding scale tool, Clipping Mask, Brush tools, Gradients etc.

# Unit 5: Assignment:

linterior Design Project presentation using Photoshop & Illustrator.

#### **Course Outcome:**

To develop technology oriented approach amongst students. To extend professional skills of students in order to prepare them for requirements of the industry.

#### **Reference Books:**

1. User manual & tutorials of Adobe Photoshop and Adobe Illustrator.