# DIT UNIVERSITY Dehradun



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

#### **Course Structure**

Year: 1 Semester: I

Course Category	Course Code	Course Title	L/S*	Т	P	Credit
DC	BDI 111	History, Culture and Society-I	2	0	0	2
DC	BDI 112	Aesthetics and Explorations -I	2	0	2	3
DC	BDI 113	Design Methods-1 (Basic Design Research and Design Principles)	2	0	0	2
DC	BDI 114	Architectural /Interiors Drawing & Representation Skills-I	1	0	4	3
DC	BDI 115	Design Studio-I	4	0	2	5
DE		Departmental Elective-1	3	0	0	3
		Total	14	0	8	18

#### **Departmental Elective-1**

BDI-141- INTERIOR PHOTOGRAPHY
BDI-142- INTRODUCTION TO GRAPHICS

Year: 1 Semester: II

Course Category	Course Code	Course Title	L/S*	Т	P	Credit
DC	BDI 116	History,Culture and Society-II	2	0	0	2
DC	BDI 117	Aesthetics and Explorations-II	2	0	2	3
DC	BDI 118	Design Methods-II (Anthropometrics & Ergonomics)	2	0	0	2
DC	BDI 119	Architectural /Interiors Drawing & Representation Skills-II	1	0	4	3
DC	BDI 121	Design Studio-II	4	0	2	5
DE		Departmental Elective-2	3	0	0	3
		Total	14	0	8	18

#### **Departmental Elective-2**

BDI-146- MARKET RESEARCH & SPOTTING TRENDS
BDI-147- IMPACT OF POPULAR CULTURE ON DESIGN
BDI-148- TRADITIONAL INTERIORS

Year: 2 Semester: III

Course Category	Course Code	Course Title	L/S*	Т	P	Credit
DC	BDI 201	Interior Design Elements-I	2	0	2	3
DC	BDI 202	Materials & Construction for Interiors-I	2	0	2	3
DC	BDI 203	Interior Design Services-I	2	0	0	2
DC	BDI 213	Communication Skills	2	0	0	2
DC	BDI 205	Design Studio-III	4	0	2	5
DE		Departmental Elective-3	3	0	0	3
OE		Open Elective-1	3	0	0	3
		Total	18	0	6	21

#### **Departmental Elective-3**

BDI-241- ART, DESIGN & SOCIETY
BDI-242- TEXTILES IN INTERIORS
BDI-243- SIGNAGE & GRAPHICS

#### **Open Elective-1**

Course Code	Course Title	L	T	Р	Credit
AR242	Art in Architecture	3	0	0	3

Year: 2 Semester: IV

Course Category	Course Code	Course Title	L/S*	Т	Р	Credit
DC	BDI 212	Computer Applications	1	0	4	3
DC	BDI 207	Materials & Construction for Interiors-II	2	0	2	3
DC	BDI 208	Interior Design Services-II	2	0	0	2
DC	BDI 209	Furniture Design	3	0	0	3
DC	BDI 211	Design Studio-IV	4	0	2	5
DE		Departmental Elective-4	3	0	0	3
OE		Open Elective-2	3	0	0	3
		Total	18	0	8	22

#### **Departmental Elective-4**

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BDI-244- INTERIOR LANDSCAPE
BDI-245- LIGHTING & COLOR IN INTERIORS
BDI-246- MURALS & SCULPTURES

#### **Open Elective-2**

Course Code	Course Title	L	Т	Р	Credit
AR384	Green Building	3	0	0	3

Year: 3 Semester: V

Course Category	Course Code	Course Title	L/S*	Т	P	Credit
DC	BDI 301	Global Design Thoughts in Interior	2	0	0	2
DC	BDI 302	Materials & Construction for Interiors-III	2	0	2	3
DC	BDI 303	Working Drawing & Furniture Detailing	1	0	4	3
DC	BDI 304	Estimation & Costing	3	0	0	3
DC	BDI 305	Design Studio-V	4	0	2	5
DE		Departmental Elective-5	3	0	0	3
OE		Open Elective-3	3	0	0	3
		Total	18	0	8	22

#### **Departmental Elective-5**

BDI-341- DESIGN MANAGEMENT
BDI-342- INTERIOR FOR RETAIL SECTOR
BDI-343- SET DESIGN

#### Open Elective-3

Course Code	Course Title	L	Т	Р	Credit
AR381	Architectural Photography	3	0	0	3

Year: 3 Semester: VI

Course Category	Course Code	Course Title	L/S*	Т	P	Credit
ST	BDI 306	Practical Training	0	0	42	21
		Total	0	0	42	21

Year: 4 Semester: VII

Course Category	Course Code	Course Title	L/S*	Т	Р	Credit
DC	BDI 401	Codes & Standards in Interior Design	2	0	0	2
DC	BDI 402	Materials & Construction for Interiors-IV	2	0	2	3
DC	BDI 403	Research Skills & Seminars	2	0	0	2
DC	BDI 404	Project Management	2	0	0	2
DC	BDI 405	Design Studio-VI	5	0	4	7
DE		Departmental Elective-6	3	0	0	3
OE		Open Elective-4	3	0	0	3
		Total	19	0	6	22

#### **Departmental Elective-6**

BDI-441- ACOUSTICS
BDI-442- BARRIER FREE INTERIORS
BDI-443- JOURNALISM IN INTERIORS

#### **Open Elective-4**

Course Code	Course Title	L	T	Р	Credit
AR481	Graphics & Product Design	3	0	0	3

Year: 4 Semester: VIII

Course Category	Course Code	Course Title	L/S*	Т	P	Credit
THESIS	BDI 406	Interior Project	0	0	28	14
DC	BDI 407	Materials & Construction for Interiors-V	2	0	0	2
		Total	2	0	28	16

#### **Summary of the Credit**

Year	Semester	Total Credit
1	1	18
1	2	18
2	3	21
2	4	22
3	5	22
3	6	21
4	7	22
4	8	16
То	160	

Subject Code	BDI-111	Subject Title	HISTO	ISTORY, CULTURE & SOCIETY - I					
LTP	200	Credit	2	Subject Category		Year	1 <sup>st</sup>	Semester	1

#### **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 behing 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.

#### **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	BDI 112	Subject Title	AEST	ESTHETICS & EXPLORATIONS – I					
LTP	202	Credit	3	Subject Category		Year	1 <sup>st</sup>	Semester	1

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

- Develop cognition skills for visual communication of ideas and concepts.
- Learn the skills required to be able to accomplish the above.
- Develop the skills for 3-D representation and modelling.

Study the symbolic and semantic use of drawing and other visual communication material through history

#### **Unit 1.Basic Drawing**

Line and Line drawings: Horizontal lines, vertical lines, inclined lines freehand drawings, drawing of basic shapes specially circles.

Effect of light and shadow on basic shapes and forms.

Understanding perspective in drawing.

Lines and shapes in nature.

Lines and shapes in early history and cultures

(Egyptian Hieroglyphys, nazca lines, aesthetics in tibetan, chinese and japanese paintings)

#### **Unit 2.Compositions**

Understanding composition of lines, line weights, character of lines.

Composition of geometric shapes (2D): Principles of Design, Gestalt

Composition of geometric shapes (3D)

Material exploration and 3D model making: Material representation and model making

#### **Unit 3.Visual Representations (Drawing By Seeing)**

Sketching and representing still life drawing by paying attention to texture, form and effect of light on different materials.

Human Body; Abstraction of human form, Architectural and Design representation of human form and postures.

Aesthetic and material fabric of a city: Plein air sketching

Hand drawing and representation of interiors.

Iconography and Symbols (historical, contemporary, classical, popular). Understand derivation and usage of icons and symbols for conveying actions or context.

#### **LEARNING OUTCOME:** The students should be able to:

Learn the skills of free hand and drafted drawing.

Draw confidently to express his ideas and thoughts clearly applying the above skills.

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

- 1. Ching Francis D.K, "Form Space and Order" Wiley
- 2. Guptill Arthur L, "Rendering in Pen and ink"
- 1. Loomis Andrew, "Figure Drawing for all it's worth"

	ubject ode	BDI 113	Subject Title	DESIGN Design F		- I	(Bas	sic De	sign Resea	rch &	Α'
L	TP	200	Credit	, , , , , , , , , , , , , , , , , , ,	ubject ategory	Ye	ear	1 <sup>st</sup>	Semester	1	

#### **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 3.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 4.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 provotypes (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"

Subject Code	BDI 114	Subject Title		HITECTURAL/ ESENTATION	INTERI SKILLS -	_	DRAWING	GS &
LTP	104	Credit	3	Subject Category	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 realisation 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 and finish

Subject Code	BDI 115	Subject Title	DESIG	GN STUD	IO - I				
LTP	402	Credit	5	Subject Category		Year	1 <sup>st</sup>	Semester	1

#### **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.

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

Subject Code	BDI-141	Subject Title	INTE	RIOR PH	OTOGRA	PHY			
LTP	300	Credit	3	Subject Category		Year	1 <sup>st</sup>	Semester	1

#### **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, 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:**

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

Subject Code	BDI-142	Subject Title	INTRO	ODUCTI	ON TO GR	RAPHI	CS		
LTP	300	Credit	3	Subject Category	PE	Year	1 <sup>st</sup>	Semester	1

#### **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

- 1. Drawing –A creative Process, Francis D.K. Ching, John Wiley Sons, New York
- 2. How to paint & draw, BodoW.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

**SEMESTER II** 

Subject Code	BDI 116	Subject Title	HISTO	ORY, CU	LTURE &	SOCIE	ETY - 1	I	
LTP	200	Credit	2	Subject Category		Year	1 <sup>st</sup>	Semester	II

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

- Introduce the strong relation of Culture and Society and Interior Design.
- Understand that the material culture of any place is a good way to understand its societal and cultural constructs and vice versa.
- Comprehend the role that economics and politics play in shaping our material world and especially the discipline of design

#### **Unit 1. Sociology and Interior Design**

Nature and meaning of Sociology – origin, definition, scope and relation,

#### **Unit 2. Concepts of Sociology**

Providing tasks to the students to understand the effects of the following in defining spaces - Society, Community, Institution, Association, Group, Social Structure, Status and Role

#### **Unit 3. Culture and Art**

Philosophy of Art and its Evolution with time, Art in Spaces – psychological and emotional aspects of aesthetics. Relevance with individual states of India, their color palettes and identifying patterns.

#### Unit 4. Religion and Art

Introduction to the religions Hinduism, Jainisn and Buddhism, their ideologies, associated patterns and identity markers.

#### **Unit 5. Design Movements**

Study of important design movements of the world

#### **LEARNING OUTCOME:** The students should be able to:

CO1: Understand the manner in which spaces may be "read" relative to a specific culture.

CO2: Decipher that design is a process in which the needs of society are erected to subsequently define the goals of the society

CO3: Have a comprehensive knowledge about the design of our environment, which has largely been essential in defining our culture and sub-cultures, while providing a long-term replication of ideals within spaces.

- 1. M Haralambos and R M Heald *Sociology Themes and Perspectives –* Oxford University Press, London, 1980
- 2. Francis D K Ching, Mark Jarzombek and Vikramaditya Prakash, *A Global History of Architecture*, Second Edition
- 3. PercyBrown *Indian Architecture (Buddhist and Hindu)* DBT Sons and Co, Bombay
- 4. Sir Bannister Fletcher's, A History of Architecture, Twentieth Edition edited by Dan Cruickshank

Subject Code	BDI 117	Subject Title	AEST	HETICS	& EXPLO	RATIC	)NS – 1	П	
LTP	202	Credit	3	Subject Category		Year	1 <sup>st</sup>	Semester	II

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

- Develop skills for visual and 3d communication of complex ideas and concepts
- Enable them to make relevant renderings and presentations of their ideas and concepts.
- Introduce the use of software and digital technologies as tools of communication.
- Start generating thematic concepts and narratives for their design interventions.

#### **Unit 1.Introduction to Model Making & Block Models**

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

Preparation of base for models using wood or boards

Introduction to block models of buildings (or 3D Compositions) involving the usage of various materials like Thermocol, Soap/Wax, Boards, Clay etc.

#### **Unit 2.Detailed Model Making**

Making detailed models which includes the representation of various building elements like Walls, Columns, Steps, Windows/glazing, Sunshades, Handrails using materials like Mountboard, Sun board, acrylic sheets.

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

#### **Unit 3.Visual Communication & Design Themes**

Hand skills in rendering and presentation: Introduction to presentation softwares, typography and layouts.

Role of Communication Design in: Branding, Signage design with respect to interior space.

Storyboards and User journey maps.

#### **LEARNING OUTCOME:** The students should be able to:

- Develop the model making skills
- Represent the building elements through 3 D models
- Be able to communicate their innovative ideas through rendered drawings

- Ching Francis D.K, "Form Space and Order" Wiley
- Guptill Arthur L, "Rendering in Pen and ink"
- Loomis Andrew, "Figure Drawing for all it's worth"

Subject Code	BDI 118	Subject Title	DESIGN Ergonomi	METHODS cs)	- II	(Ant	hropometri	ics &
LTP	200	Credit	· /	oject egory	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, wabisabi, 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. ChakrabartiDebkumar, "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"

Subject Code	BDI 119	Subject Title	_	IITECTU ESENTA	RAL/ IN	NTERI LLS - 1		DRAWING	GS &
LTP	104	Credit	3	Subject Category	Univ. Core	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.

- 1. Architectural Graphic standards editor, Boaz Joseph
- 2. Rendering with pen and ink
- 3. Practical Plane and Solid Geometry, H. Joseph and Morris.

Subject Code	BDI 121	Subject Title	DESIG	GN STUD	OIO - II				
LTP	40 2	Credit	5	Subject Category		Year	1 <sup>st</sup>	Semester	II

#### **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
- 4. Studios & Workshops: Spaces for Creatives (Architecture in Focus) 24 November 2014 Sibylle Kramer

Subject Code	BDI 146	Subject Title	MARI	KET RES	EARCH &	SPOT	TING	TRENDS	
LTP	300	Credit	3	Subject Category		Year	1 <sup>st</sup>	Semester	=

**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:**

1. Don Senton, "Marketing 101", Wiley

Edward W. Cundiff, Richard R. Still "Fundamentals of Modern Marketing", PHI

Subject Code	BDI-147	Subject Title	IMPA	CT OF P	OPULAR (	CULTU	JRE O	N DESIGN	Ī
LTP	300	Credit	3	Subject Category		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
- 2. 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	BDI-148	Subject Title	TRAD	ITIONA	L INTERIO	ORS			
LTP	300	Credit	3	Subject Category		Year	1 <sup>st</sup>	Semester	II

#### **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:**

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

#### **Text Books:**

- 1. InteriorDesign Course, Mary GilliatCoyran, OctopusLtd., London
- 2. InteriorDesign, FrancisD.K. Ching, John Wiley & Sons, New York
- 3. Time Saver Standards for Interior Design, JosephDeChiara, McGrawHill, New York. PublicationsonTraditionalArts&CraftsofIndia,MinistryofHandicraftsDevelopment,Government of India

**SEMESTER III** 

Subject Code	BDI- 201	Subject Title	INTE	RIOR DE	SIGN ELE	EMENT	S-I		
LTP	202	Credit	3	Subject Category		Year	2 <sup>nd</sup>	Semester	Ш

#### **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 planes- niches and alcoves, Wall accents- cornices and moldings.

#### **Unit 2. Horizontal Planes**

Roof Planes: Different types and their visual impact, skylights and roof apertures, false ceiling- materials, 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:

- To develop an understanding of various degrees of enclosure, various types of relationships between spaces.
- Understanding of the various effects that could be created by manipulating the enclosing elements such as walls, roof etc.
- Achieve a direct co-relation and understanding about the knowledge of behavioral psychology and translation of the same inside built up spaces.

#### **Reference Books:**

- 1. The making of interiors- An introduction; Allen Tate; Harper and Row Publishers, New York, 1987.
- 2. Interior Design and Decoration, Fourth Edition, SherillWhiton- Prentice Hall, 1974.
- 3. Interior lighting for Designers, Third Edition; Gary Gordon & Jamco L. Nuckolls, John Wiley & Sons, New York, 1995.

The Encyclopedia of Decorative Styles- William Hardy & Steve Adams; New Burlington Books, London, 1988.

Subject Code	BDI- 202	Subject Title		ERIALS RIORS - I	AND	CON	NSTRU	JCTION	FOR
LTP	202	Credit	3	Subject Category		Year	2 <sup>nd</sup>	Semester	III

#### **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: 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.)

#### **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, BarbaralecDiamonstein, 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	BDI- 203	Subject Title	INTE	RIOR DE	SIGN SER	VICES	S - I		
LTP	200	Credit	2	Subject Category		Year	2 <sup>nd</sup>	Semester	III

#### **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

#### **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	BDI- 213	Subject Title	COM	COMMUNICATION SKILLS					
LTP	200	Credit	2	Subject Category		Year	2 <sup>nd</sup>	Semester	III

#### **OBJECTIVE:**

This course aims to enable the students with good verbal and written skills in English and develop the business communication skills

#### **Unit 1.Business Communication**

Importance & features of Business Communication, Flow of Communication: Channels & Network.

Computation: E.Mails& E-Tools.

**Business Presentation** 

Business Etiquette, Telephonic Etiqueette

**Business Letter Writing** 

Job Application Letter & Resume

Interview Skills, Impression Management

#### **Unit 2.Personal Skills for Corporate Communication-I**

SWOT Analysis: Self Assessment, identifying Strength & weakness Self Awareness, Self Disclosure&Self Management (Stress, Anger) Goal Setting: Personal & Professional Goals, SMART-ER Goals. Human Perception: Understanding People, Perceptions, Attitudes

Personality (Personality Test).

#### **Unit 3.Personal Skills for Corporate Communication-II**

Decision Making: Techniques, Six Thinking Hats.

Creative Thinking, Lateral Thinking Team Building & Leadership Skills

Time Management: Planning Organizing, Time Wasters.

**Conflict Resolution Skills** 

**Negotiation Skills** 

#### **LEARNING OUTCOME:** The students should be able to:

- Apply the various strategies of presentation Skills.
- Analyze the given topics and situations and applying the strategies of group discussion.
- Analyze the basic concepts of critical and analytical reading skills.
- Apply the strategies of sentence formation and sentence completion.

#### **Reference Books:**

1. Essentials of Business Communication, Guffey& Loewy's

Subject Code	BDI- 205	Subject Title	DESIG	DESIGN STUDIO - III					
LTP	402	Credit	5	Subject Category		Year	2 <sup>nd</sup>	Semester	III

#### **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 finishes- lighting, 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

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

Subject Code	BDI-241	Subject Title	ART, DESIGN & SOCIETY						
LTP	300	Credit	3	Subject Category	PE	Year	2 <sup>nd</sup>	Semester	III

#### **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: Art Movements**

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.

#### **Unit 3: Evolution and Development of Art Forms**

Various styles of painting and sculpture in historic outline

#### Unit 4: Development of modernity in 19th and 20th 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:**

- 7. J. Nehru, the Discovery of India, Penguin Books India, 2008.
- 8. 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	BDI-242	Subject Title	TEXTILES IN INTERIORS						
LTP	300	Credit	3	Subject Category	PE	Year	2 <sup>nd</sup>	Semester	III

#### **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:**

9. Fabric Science – Pizzuto, Joseph J

#### **Reference Books:**

3. Textile fiber to fabric – P Corbman

Subject Code	BDI-243	Subject Title	SIGNAGE AND GRAPHICS						
LTP	300	Credit	3	Subject Category		Year	2 <sup>ND</sup>	Semester	III

#### **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	AR-242	Subject Title		ART IN ARCHITECTURE						
LTP	3, 0, 0	Credit	3	Subject Category	DE	Year	I	Semester	Ш	

#### **Course Objective:**

• An overview of role of art in the history of world architecture and the symbiotic relationship of art in Architecture. Brief history of world art and different isms of art. Influence of art and artists on architecture. Artist –Architects in history. Paintings to murals – art as body of architecture. History of Indian art and influences on architecture. Ethnic/tribal art and architecture.

#### **UNIT 1: Understanding Arts**

• The definition of art - the needs and meanings of the work of art - Technical language of the art - Technique of look in and appreciation of art form.

#### **UNIT 2: The Techniques of Art**

Drawing - architecture - sculpture - painting - printing minor arts(glassware, stain glass, lithographic prints, etc.)
 Industrial art (Art Nouveau, Bauhaus)

#### **UNIT 3: Art History of Western World**

- Works of western artists and architects
- 20 cent: Birth of modern art, Cubism, Impressionism, Post impressionism and others. Introduction to art, movement of 1920-modern: abstract art, constructivism action painting, use of modern materials and technique.

#### **UNIT 4: Art History of Asian World**

- Cave art, Indus valley civilization, Vedic civilization, Buddhist, Hindu (Indo Aryan and Dravidian), rock-cut art.
- Islamic art form, Imperial style, Post-independent, Mughal. Recent developments in Indian Art and Architecture.

#### **Learning Outcome**

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

- Understand the relation of Art and Architecture in Indian context.
- Understand the historical art of western world.
- Understand the various Ism's evolved over the period of time

#### Text books [TB]:

- 1. Art though Ages, Cardver, Harcourt, Brace & World.
- 2. Art and Nature appreciation, Opdyke, H.G.-Macmillan.

#### Reference books [RB]:

- 1. Jean annevincent, College out time serious History of Art, Wiley
- 2. Weilenkampf, How to appreciate prints -, New Editon, Wiley

**SEMESTER IV** 

Subject Code	BDI- 212	Subject Title	COMI	COMPUTER APPLICATIONS						
LTP	104	Credit	3	Subject Category	DC	Year	2 <sup>nd</sup>	Semester	IV	

#### **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: 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 2: 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 3: 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 4: 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

#### **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

	Applicable	101	Batchi 2020-2024	
•	Rendering in SketchUp by Daniel Tal			

Subject Code	BDI- 207	Subject Title	MATERIALS INTERIORS - II		AND	CONSTRUCTION			FOR
LTP	202	Credit	3	Subject Category		Year	2 <sup>nd</sup>	Semester	IV

#### **OBJECTIVE:**

To familiarize the students with material and construction methodology

#### **Unit 1: Walls- Types of Masonry**

Different types - Stone walls - random rubble, coursed rubble, square rubble, polygonal rubble & Ashlar etc Brick masonry -Types of bonds - single & double Flemish bond, header bond, stretcher bond, rat trap bond, ornamental bonding.

#### **Unit 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- walls

CO2: Explore the materials used to cover floors, ceilings and walls and their application details

CO3: Explore the various types of wall finishes

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

Subject Code	BDI- 208	Subject Title	INTE	NTERIOR DESIGN SERVICES - II					
LTP	200	Credit	2	Subject Category		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 coefficient 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 R.G.Hopkinson and J.D.Kay, the Lighting of Buildings, Faber and Faber, London, 1969

Subject Code	BDI- 209	Subject Title	FURN	ITURE I	DESIGN				
LTP	300	Credit	3	Subject Category		Year	2 <sup>nd</sup>	Semester	IV

#### **OBJECTIVE:**

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

### **Unit 1: HISTORY OF FURNITURE DESIGN**

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

### **Unit 2: HUMAN FACTORS**

Study of Anthropometry & Design criteria involved in the design of Sofa, settee, couch, etc.
Cot, bedside lockers, wardrobes
Cupboards, shelves
Bunk beds, study table
Display furniture
Furniture for the physically challenged

### **Unit 3: PRINCIPLES OF DESIGN & DETAILINGS**

Form – Colour - Symbols

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

Fabrication Techniques involved

Multiple Utility Oriented Approaches to Furniture Design.

#### Unit 4: ROOM PLANS AND FURNITURE ARRANGEMENT

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

### **LEARNING OUTCOME:** The students should be able to:

CO1: Understand the timeline and evolution of furniture design

CO2: Understand the various anthropometric aspects, human factors & other design considerations involved in the design of furniture.

CO3: Explore the various materials & technology involved in the making of furniture.

CO4: Prepare furniture layout for different spaces

### **Reference Books:**

- 3. Interior Design, John F. Pile, Harry N. AbramsInc Publishers, New York
- 4. Interior Design Course, Mary GilliatCoyran, Octopus Ltd., London
- 5. The Encyclopaedia of Funriture, Joseph Aronson, Crwon Publishers, New York
- 6. Interior Design & Decoration, SherrilWhiton, Prentice Hall
- 7. Interior Design, Francis D.K. Ching, John Wiley & Sons, New York
- 8. Office Furniture, Susan S.Szenasy, Facts on file Inc, New York

Time Saver Standards for Interior Design, Joseph De Chiara, McGraw Hill, New York.iors

Subject Code	BDI- 211	Subject Title	DESIG	GN STUD	OIO - IV				
LTP	402	Credit	5	Subject Category		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.

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

Subject Code	BDI-244	Subject Title	INTE	RIOR LA	NDSCAPE	2			
LTP	300	Credit	3	Subject Category		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 REQUIREMENTSOF 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 LANDSCAPINGELEMENTS& 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. LandscapingPrinciples and Practices byJackE.Ingels,Delmar Publishers.

Subject Code	BDI-245	Subject Title	LIGH	LIGHTING AND COLOUR IN INTERIOR					
LTP	300	Credit	3	Subject Category		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.Senthilkumar, G.Harikumar
- 4. Conceptsof lighting, Lighting design in Architecture- Torquil Barker

Subject Code	BDI-246	Subject Title	MURA	MURALS & SCULPTURES					
LTP	300	Credit	3	Subject Category	PE	Year	2 <sup>nd</sup>	Semester	4

## **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 Doingi.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 Generationby Kiriakoslosifidis
- 2. Walled City: The Art of the Muralby Sandu Publishing
- 3. The Elements of Sculpture by Herbert George
- 4. The Sculpting Techniques Bible: An Essential Illustrated Reference for Both Beginner and Experienced Sculptorsby Claire Waite Brown

Subject Code	AR384	Subject Title	GREEN	BUILDING					
LTP	3,0,0	Credit	3	Subject Category	OE	Year	3rd	Semester	VI

**Course Objective:** A growing worldwide concern for the conservation of energy & environment has led to the emphasis on sustainable habitats as a key solution to growing urban concerns. Sustainable architecture aims to create environment – friendly and energy efficient building by actively harnessing renewable nature sources of energy (solar energy etc) and utilizing materials that least pollute the environment.

#### **UNIT-1 BIO CLIMATIC DESIGN CONCEPTS**

Green buildings- salients features- LEED rating systems by IGBC - origin from USGBC -Concept of Sustainable sites -Orientation to sun and Wind -Land form & orientation - Vegetation & Pattern - Water Bodies - Open Space & Built form - Plan form & Elements - Roof form - Fenestration pattern & Configuration

#### **Unit 2: PASSIVE AND ACTIVE HEATING TECHNIQUES**

Passive Heating techniques: General principles – Direct gain systems - Glazed walls, Bay windows, attached sun spaces etc. Indirect gain systems – Trombe wall, Water wall, Solar Chimney, Transwall, Roof pond, etc - Isolated gain systems – Natural convective loop etc. Active Heating Systems: Solar water heating systems Case studies on buildings designed with passive and heating techniques.

#### **Unit 3:PASSIVE AND ACTIVE COOLING CONCEPTS**

Passive Cooling techniques: General principles – Evaporative cooling, Nocturnal radiation cooling, Passive Dessicant cooling, induced ventilation, earth sheltering, Berming, Wind Towers, earth – Air tunnels, Curved Roofs & Air Vents, Insulation, etc. Active Cooling techniques: Air coolers. Case studies on buildings designed with passive cooling techniques.

#### **Unit 4: REDUCE, RECYCLE AND REUSE**

Water conservation by Rainwater Harvesting systems – Treatment of waste water: Physical, Chemical and Biological methods – RootZone treatment -Use of recycled water. Use of Environment friendly materials, Embodied Energy of materials, Bio degradable materials. Recycling and Reuse of steel, Aluminium and Glass

### **Unit 5: INNOVATIVE GREEN TECHNOLOGIES AND CASE STUDIES**

Innovative uses of solar energy: BIPV, Solar Forest, Solar powered street elements, - Innovative materials: Phase changing materials, Light sensitive glass, Self cleansing glass- Integrated Use of Landscape: Vertical Landscape, Green Wall, Green Roof. Case studies on Green buildings

#### **LEARNING OUTCOME:**

To create awareness of the green building requirement and technology used To understand the role of environmental friendly buildings for sustainability To understand the active and passive concepts used in energy efficient buildings

#### **TEXTBOOK**

- 1. Sustainable design manual, Vols 1& 2, The energy and resource institute, New Delhi
- 2. Arvind Krishnan & Others Climate Responsive Architecture, Tata Mcgraw Hill New Delhi

#### **REFERENCES:**

1. Ralph M .Lebens – Passive Solar Architecture in Europe – 2, Architecture Press, London 1983. Sandra Mendler, William Odell, The Guide Book Of Sustainable Design, John Wiley & Sons,

**SEMESTER V** 

Subject Code	BDI- 301	Subject Title	GLOB	BAL DES	IGN THOU	JGHTS	S IN IN	TERIOR	
LTP	200	Credit	2	Subject Category		Year	3 <sup>rd</sup>	Semester	٧

#### **OBJECTIVE:**

The purpose of this course of to understand the significance of thoughts on design in the context of the globalized sustainable world.

## Unit 1: FORM, NATURE, FUNCTION & EMOTION

Understanding Form Follows Nature

**Understanding Form Follows Function** 

Understanding Form Follows Emotion

#### **Unit 2: LESS IS MORE**

Concept of Less is More and its relevance at present time

## **Unit 3: SOCIETY & AESTHETICS**

Relationship between society and aesthetics.

#### Unit 4: DESIGN AND GLOBALIZED WORLD: SUSTAINABLE APPROACH

Role of design in a sustainable world, design in context of a globalized world, incorporating sustainability in design. Exposure to Indian & Asian thoughts on design.

### .LEARNING OUTCOME: The students should be able to:

CO1: To be able to relate form, nature, function and emotion.

CO2: Understand the concept of less is more in present context.

CO3: To develop an understanding of role of aesthetics and design for social development

- William Lidwell, Kritina Holden, Jill Butler; Universal Principles of Design, Rockport Publishers, 2003
- Stefano Marzano; Creating Value by Design: Thoughts and Facts, Antique Collectors' Club, 1999

Subject Code	BDI- 302	Subject Title		ERIALS RIORS - 1	AND III	COI	NSTRU	JCTION	FOR
LTP	202	Credit	3	Subject Category		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, windows

CO2: Understand and prepare the details of components used to divide a space-partitions

CO3: Understand and prepare the details of components connecting two levels- stairs

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

Subject Code	BDI- 303	Subject Title	WOR	WORKING DRAWING & FURNITURE DETAILING					
LTP	104	Credit	3	Subject Category		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	BDI- 304	Subject Title	ESTIN	MATION	& COSTI	NG			
LTP	300	Credit	3	Subject Category		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&firefightingequipments

### .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	BDI- 305	Subject Title	DESIG	GN STUD	OIO - V				
LTP	402	Credit	5	Subject Category		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.

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

Subject Code	BDI-341	Subject Title	DESIG	GN MAN	AGEMENT	Γ			
LTP	300	Credit	3	Subject Category		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:**

- 7. The student will be able to understand the working of a design organization.
- 8. The students will be able to understand the ethics of the profession and responsibilities of a designer.
- 9. The students will be able to understand the technical aspects of the profession

#### **Text Books:**

### **Reference Books:**

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

Subject Code	BDI-342	Subject Title	Interio	or for Ret	ail Sector				
LTP	300	Credit	3	Subject Category		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 LymneMesher

- 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	BDI-343	Subject Title	SET D	ESIGN				
LTP	300	Credit	3	Subject Category	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 4: 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, McGraw hill company
- 2. NeufertArchitect"s data, BousmahaBaiche& Nicholas Walliman, Blackwell science ltd

Subject Code	AR381	Subject Title		AF	RCHITECTUF	RAL PHO	ОТО	GRAPHY	
LTP	3,0,0	Credit	3	Subject Category	OE	Year	3rd	Semester	V

**CourseObjective**: To provide the students' knowledge on different aspects of Professional photography and its application in architecture.

## **UNIT 1: INTRODUCTION TO PHOTOGRAPHY**

General introduction to the art of photography; concept of color; concepts of lighting, distance, visual angle, frames; media

#### **UNIT 2: PHOTOGRAPHIC TECHNIQUES**

Types of camera, properties and priorities; Exposure, Aperture, Speed; Photographic films, Film processing color, black and white, printing techniques, developing.

## **UNIT3: ANALYSIS OF WORKS**

Works of Indian and international photographers will be presented and discussed. Seminars on Indian architectural photography

## **UNIT4: FIELD PROGRAM**

Exercise on integrating photography in architectural journalism

## **Learning Outcome:** At the end of the course, the student can:

- Understand the basics of photography.
- Understand the importance and relevance of photography in architecture filed.
- Implement the techniques of photography in a small exercise.

#### Text book [TB]:

- 1. Dave Sounders, Professional Advertising Photography, Merchurst, London 1988
- 2. Roger Hicks, Practical photography, Cassell, London 1996

## Reference books [RB]:

- 1. Julian Calder and john Garrett, The 35mm Photographer's Handbook, Pan Books, London 1999
- 2. Julie Adair King, Digital Photography for Dummies, COMDEX, New Delhi 1998

**SEMESTER VI** 

Subject Code	BDI- 306	Subject Title	PRAC	TICAL 1	TRAINING	ī			
LTP	0 0 42	Credit	21	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

**SEMESTER VII** 

Subject Code	BDI- 401	Subject Title	CODE	S AND S	TANDARI	OS INT	ERIO	R DESIGN	
LTP	200	Credit	2	Subject Category		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 – fire fighting 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 – Fire fighting code of practice - Bureau of Indian Standards

Subject Code	BDI- 402	Subject Title		ERIALS RIORS - IV	AND	CON	NSTRU	JCTION	FOR
LTP	202	Credit	3	Subject Category		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 building components- walls, foundations, roofs. Openings etc

CO2: Understand the usage of various materials for interiors

CO3: Understand the basic concepts of structural systems and simple construction details

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

Subject Code	BDI- 403	Subject Title	RESE	ARCH SI	KILLS AN	D SEM	INAR		
LTP	200	Credit	2	Subject Category		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

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

Subject Code	BDI- 404	Subject Title	PROJ	ECT MA	NAGEME	NT			
LTP	200	Credit	2	Subject Category		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	BDI- 405	Subject Title	DESIG	GN STUD	OIO - VI				
LTP	5 0 4	Credit	7	Subject Category		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, BarbaralecDiamonstein, Rizzoli International Publications, New York, 1982.

Subject Code	BDI-441	Subject Title	ACOU	JSTICS				
LTP	300	Credit	3	Subject Category	Year	4 <sup>TH</sup>	Semester	VII

## **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

Subject Code	BDI-442	Subject Title	BARR	BARRIER FREE INTERIORS						
LTP	300	Credit	3	Subject Category	PE	Year	4 <sup>th</sup>	Semester	7	

## **Course Objective:**

The course should enable the student to

- Understand the Importance of Accessibility and need of Designing for Barrier Free Accessibility.
- Understand the components of a Barrier Free Interior Design.
- Application of Barrier Free Interiors in Public as well as Residential Architecture.

## Unit 1 :Importance of Accessibility and need of Designing for Barrier Free Accessibility

The barrier-free design concept is simple at its core i.e. to create an environment that is easy to get into, easy to get around and it's easy to get to everything you need.

It makes sense that barriers present a problem for some people, such as those who use a wheelchair or other type of walking aide or those who have a physical or cognitive condition, where accessibility helps them live a fuller, richer life of independence.

## Unit 2: The components of a Barrier Free Interior Design

Part 1: Understanding the components of Barrier Free Interior Design including the Architectural and Technical Aspects

Part 2: Designing for Accessibility and remodelling the Existing

## **Unit 3: Major Design Exercises:**

- 1. To Design/Remodel an Existing Residential Environment as per need in a Barrier Free Interior
- 2. To Design/Remodel a Public Space as per the requirements of a Barrier Free Environment

### **LEARNING OUTCOME:**

To be Efficient in Designing, Remodelling and in improvements that and be done while dealing with Barrier Free Interior Design.

## Example

- Installing a ramp for wheelchairs or other assistive devices in place of or next to steps.
- Motion or touch-controlled faucets or other fixtures.
- Installing a cooktop in the kitchen, which allows one to sit while cooking.
- A no-step entry shower, having a seamless transition from the main bathroom floor to the shower.
- Wide doorways and hallways.
- Installing vanities that you can sit at.
- Adding handrails down hallways.
- Installing grab bars in bathrooms.

Text Books: Barrier-Free Design: Principles Planning, Examples (Detail Practice) by Oliver Heiss

- 5. Accessible America: A History of Disability and Design (Crip)by Bess Williamson
- 6. Barrier-Free Design: A Manual for Building Designers and Managersby James Holmes-Seidle

Subject Code	BDI-443	Subject Title	JOUR	JOURNALISM IN INTERIOR					
LTP	300	Credit	3	Subject Category		Year	4 <sup>TH</sup>	Semester	VII

## **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

The student will be able to document and rep

#### **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

Code	AR-481	Subject Title		GRAPHICS & PRODUCT DESIGN						
LTP	300	Credit	3	Subject Category	OE	Year	4 <sup>th</sup>	Semester	VII	

## **Course Objective:**

To introduce the various aspects og graphics design and important stages of product design and development.

#### **Unit 1: Introduction**

Introduction and importance of graphics and product design. Principles and elements of design. History of Design. Colour Theory. Techniques and processes to communicate graphically.

## **Unit 2: Product Design Cycle**

Stages of product development. Introduction to ergonomics

## **Unit 3: Design Process**

Introduction to concept. Concept development. Role of sketching in concept development. Implementation stages of concept for product development

## **Unit 4: Technology & Market Assessment**

Customer needs identification, Market research essentials. Advertising and marketing tools.

## **Unit 5: Design Tools**

Introduction to various design tools.

### **LEARNING OUTCOME:**

- 10. The student will be able to understand the importance of Graphics.
- 11. The students will be able to understand and demonstrate their ideas visually.
- 12. The students will be able to understand the various stages of product development.

#### **Text Books:**

- 1. The Elements of Graphic Design, Alex W. White
- 2. The Design of Everyday Things, Don Norman

## **Reference Books:**

1. Product Design & Development, Karl T. Ulrich & Steven D. Eppinger

**SEMESTER VIII** 

Subject Code	BDI- 406	Subject Title	INTE	INTERIOR PROJECT					
LTP	0 0 28	Credit	14	Subject Category		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	BDI-407	Subject Title	MATERIAL & CONSTRUCTION FOR INTERIOR - V						
LTP	200	Credit	2	Subject Category		Year	4 <sup>TH</sup>	Semester	VIII

## **Course Objective:**

To understand and acquire knowledge in recycling of materials used in Interiors and to understand the use of fabrics in Interior design.

### UNIT - I NEED FOR ADAPTIVE REUSE

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

## UNIT - II NEED FOR RECYCLING OF MATERIALS

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

## **UNIT – III INTRODUCTION TO FABRICS**

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

### **UNIT – IV FURNISHINGS**

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

### **LEARNING OUTCOME:**

The students will be able to understand meaning and techniques recycling of material The students will be able to analyze the importance and requirement of sustainability. The student will be able to understand the uses of Fabrics and furnishing in Interior design

### **Text Books:**

- Inside today's home, Faulkner, R. and Faulkner 1987, Rinebart Winston, New York
- Interior Design & Decoration, SherrilWhiton, Prentice Hall