BHARATHIDASAN UNIVERSITY,



B.Sc. INTERIOR DESIGN

CHOICE BASED CREDIT SYSTEM

LEARNING OUTCOMES BASED CURRICULUM FRAMEWORK (CBCS - LOCF)

(Applicable to the candidates admitted from the academic year 2022-23 onwards)

(NAAN MUDHALVAN SCHEME was implemented from 2nd to 6th Semester)

Sem	Part	Course Title	Title	Ins.	Credi	Exam	Marks		Total
Ň			Hrs	Cre	Hour	Int.	Ext.		
	Ι	Language Course – I (Tamil \$/Other Languages + #)			3	3	25	75	100
	II	English Course - I		6	3	3	25	75	100
I	III	Core Course – I (CC)	Fundamentals of Design	5	5	3	25	75	100
		Core Practical – I (CP)	Design sketching and Visual Art	4	4	3	40	60	100
		First Allied Course – I (AC)	Building components and Materials	4	4	3	25	75	100
		First Allied Practical – I (AP)	Drafting and Representation Techniques	3	-	-	-	-	-
	IV			2	2	3	25	75	100
	TOTAL				21	-	-	-	600
	Ι	Language Course - II (Tamil \$/Other Languages + #)		6	3	3	25	75	100
	II	English Course - II		4	3	3	25	75	100
	ш	Core Course – II (CC)	Planning the Life Space	5	5	3	25	75	100
		Core Practical - II(CP)	Model Making Studio	4	4	3	40	60	100
		First Allied Practical (AP)	Drafting and Representation Techniques	3	2	3	40	60	100
II		First Allied Course – II (AC)	Interior Components and Materials	4	4	3	25	75	100
		Add on Course – I ##	Professional English – I	6*	4	3	25	75	100
	IV	Environmental Studies		2	2	3	25	75	100
	VI	Naan Mudhalvan Scheme (NMS) @@	Language Proficiency for Employability - Effective English	2	2	3	25	75	100
		TOTAL				-	-	-	900

		Language Course – III							
III	Ι	(Tamil \$/Other Languages + #)		6	3	3	25	75	100
	II	English Course - III		6	3	3	25	75	100
		Core Course – III (CC)	Interior Space Planning	5	5	3	25	75	100
	III	Core Practical - III (CP)	Interior Space Planning Studio	4	4	3	40	60	100
		Second Allied Course – I (AC)	Lighting and Light Fixtures	4	4	3	25	75	100
		Second Allied Practical (AP)	Computer Aided Drafting and Design	3	-	-	-	-	-
		Add on Course – II ##	Professional English - II	6*	4	3	25	75	100
	IV	 Non-Major Elective I @ - Those who choose Tamil in Part I can choose a non-major elective course offered by other departments. Those who do not choose Tamil in Part I must choose either a) Basic Tamil if Tamil language was not studied in school level or b) Special Tamil if Tamil language was studied upto 10th & 12th st. 			2	3	25	75	100
	VI	Naan Mudhalvan Scheme (NMS) @@	Digital Skills for Employability – Microsoft Digital Skills	-	2	3	25	75	100
		TOTAL		30	27	-	-	-	800
	Ι	Language Course –IV (Tamil \$/Other Languages + #)		6	3	3	25	75	100
	II	English Course – IV		6	3	3	25	75	100
	III	Core Course - IV (CC)	Furniture Design	5	5	3	25	75	100
		Core Practical - IV (CP)	Furniture Design and Detailing Studio	4	4	3	40	60	100
		Second Allied Practical (AP)	Computer Aided Drafting and Design	3	2	3	40	60	100
		Second Allied Course – II (AC)	Landscape Design for Interiors	4	4	3	25	75	100
IV	IV	 Non-Major Elective II @ - Those who choose Tamil in Part I can choose a non-major elective course offered by other departments. Those who do not choose Tamil in Part I must choose either a) Basic Tamil if Tamil language was not studied in school level or b) Special Tamil if Tamil language was studied upto 10th & 12th std. 		2	2	3	25	75	100
	VI	Naan Mudhalvan Scheme	Employability Skills -	-	2	3	25	75	100
	• •	(NMS) (a)(a) Employability Skills							
		TOTAL	30	25	-	-	-	800	

		Core Course - V (CC)	Commercial Space Design	5	5	3	25	75	100
V		Core Course – VI (CC)	Building Services for Interiors	5	5	3	25	75	100
	III	Core Course – VII (CC) Introduction to Interior Architecture		5	5	3	25	75	100
		Core Practical -V (CP)	Advanced Computer Applications	4	4	3	40	60	100
		Major Based Elective – I1. Set Design and Art Direction(Any one)2. Kitchen Design		5	4	3	25	75	100
		Skill Based Elective I	Pottery and Terracotta	4	2	3	25	75	100
	IV	Soft Skills Development		2	2	3	25	75	100
	VI	Naan Mudhalvan Scheme (NMS) @@	Marketing & Design Tools – Digital Marketing	-	2	3	25	75	100
		TOTAL		30	29	-	-	-	800
		Core Course - VIII (CC)	Building Design and Planning	6	5	3	25	75	100
	III	Core Course - IX (CC)	Specification and Estimation	6	5	3	25	75	100
		Core Practical – VI (CP)	Retail Furniture Design Studio	4	4	3	40	60	100
		Major Based Elective – II1. Design Management(Any one)2. Codes and Practices		5	4	3	25	75	100
		Project	Project	4	3	-	20	80	100
-	IV	Skill Based Elective – II	Portfolio Design and Presentation	4	2	3	25	75	100
		Gender Studies		1	1	3	25	75	100
	V	Extension Activities*		-	1	-	-	-	-
	VI	Naan Mudhalvan Scheme (NMS) @@	Career Readiness Programme	-	2	3	25	75	100
	TOTAL					-	-	-	800
	GRAND TOTAL				158	-	-	-	4700

- \$ For those who studied Tamil upto $10^{\text{th}} + 2$ (Regular Stream).
- + Syllabus for other Languages should be on par with Tamil at degree level.
- # Those who studied Tamil upto 10th +2 but opt for other languages in degree level under Part- I should study special Tamil in Part – IV.
- ## The Professional English Four Streams Course is offered in the 2nd and 3rd Semester (only for 2022-2023 Batch) in all UG Courses. It will be taught apart from the Existing hours of teaching / additional hours of teaching (1 hour /day) as a 4 credit paper as an add on course on par with Major Paper and completion of the paper is must to continue his / her studies further. (As per G.O. No. 76, Higher Education (K2) Department dated: 18.07.2020).
- * The Extra 6 hrs / cycle as per the G.O. 76/2020 will be utilized for the Add on Professional English Course.
- @ NCC Course is one of the Choices in Non-Major Elective Course. Only the NCC cadets are eligible to choose this course. However, NCC Course is not a Compulsory Course for the NCC Cadets.

** Extension Activities shall be outside instruction hours.

@@ Naan Mudhalvan Scheme.

S1. No.	Part	Types of the Courses	No. of Cour ses	No. of Credi ts	Marks
1.	Ι	Language Courses	4	12	400
2.	II	English Courses	4	12	400
3.		Core Courses	9	45	900
4.		Core Practical	6	24	600
5.		Allied Courses I & II	4	16	400
6.	III	Allied Practical	2	4	200
7.		Major Based Elective Courses	2	8	200
8.		Add –on Course (Professional English I & II)	2	8	200
9.		Project	1	3	100
10.		Non-Major Elective Courses	2	4	200
11.		Skill Based Elective Courses	2	4	200
12.	IV	Soft Skills Development	1	2	100
13.		Value Education	1	2	100
14.		Environmental Studies	1	2	100
15.	v	Gender Studies	1	1	100
16.	v	Extension Activities	1	1	0
17.	VI	Naan Mudhalvan Scheme	5	10	500
18.		Total	48	158	4700

SUMMARY OF CURRICULUM STRUCTURE OF UG PROGRAMMES

PROGRAMME OUTCOMES:

- B.Sc. Interior Design, is a degree programme meant to prepare students to excel in the field of
- Design, with a focus on creating interior environments.
- Develop exceptionally qualified and professional designers in the field of Interior Design
- Acquire the necessary practical abilities for a designer in the field.
- Practical training improves comprehension of how to plan and execute projects.
- The curriculum provides systematic and cognitive training to the student
- Emphasize development of personality, communication, and leadership skills.
- Enhance the abilities and characteristics necessary for international employment.
- Motivate to launch a design career independently after receiving necessary field experience.
- Design the interiors with safety, efficiency, health, and environmental considerations in mind.
- Exhibit professional ethics and conventions in their initiatives.
- Analyze diverse scenarios logically and successfully solve challenges.

PROGRAMME SPECIFIC OUTCOMES:

- Inspire the curiosity to question and find solutions to design issues
- Upgrade both theoretical and practical knowledge and communication abilities.
- Develop the abilities and information necessary to write design admission examinations for various institutions of higher education.
- The curriculum includes both practical and theoretical studies, both of which are required for mastering the subject.
- The curriculum exposes students to the different parallel disciplines in design that are open to them if they possess the necessary skills.
- The hands-on instruction on the interior construction equipment and materials.
- Acquire the core abilities necessary for a designer to enter parallel fields
- Utilize lateral reasoning with technological zeal and serve as a proactive agent of change.
- Develop professional opportunity and become a capable and responsible designer.
- Expand technological connections with professional growth.
- (B.Sc. Interior Design is an entry-level degree that can lead to a master's degree in a design-specific PGDPD/M.Sc./M.Des. course).

First Year

CORE COURSE I FUNDAMENTALS OF DESIGN (Theory)

CREDIT 5

CODE:

COURSE OBJECTIVES:

- Distinguish between interior design and interior decoration
- Learn to comprehend and implement the concepts and principles of interior design.
- Apply theoretical colour knowledge in a real setting

UNIT – I CONCEPT OF INTERIOR DESIGN:

Meaning of Interior Design and Interior Decoration, history of Interior design in India, significance of Interior Design in modern era, functions and qualities of Interior Designer.

UNIT – II DESIGN VOCABULARY:

Aesthetics of planning- beauty, expressiveness, functionalism and economy, need for developing skill in aesthetics, design concept and types, significance of Good taste

UNIT – III DESIGN ELEMENTS AND PRINCIPLES:

Elements of Design-Meaning and importance, line and direction, shape and form, size, colour, texture, space, light and ornamentation. Principles of Design- balance, rhythm, emphasis, harmony, proportion.

UNIT – IV COLOR AND ITS THEORIES:

Sources of color, color systems-Prang, Munsell and Ostwald Color system, qualities of color, color schemes, modern trends in application of color in interiors

UNIT – V APPLICATION OF ELEMENTS AND PRINCIPLES:

Designs involving various elements such as point, line, shape, colour and texture – suitable for mural, design on fabric such as curtains, draperies, wall hanging, furnishings, tiles, stained glass, block printing, collage– involving all the principles of design. Study and critical analysis of man-made objects – their purpose, functional suitability, formal appeal, etc. –evolving suggestions for improvement of the same. Accessories- Types - functional and decorative

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

2d compositions using gestalt principles, color compositions using basic color schemes - abstract posters/artwork interior spaces.

REFERENCES:

1. Paul Laseau, (2000), *Graphic Thinking for Architects and Designers*, John Wiley & Sons.

- 2. TrewinCopplestone, (1983), Arts in Society, Prentice Hall Inc.
- 3. H. Gardner, (2011), Art through Ages, 14th Revised edition, Wadsworth, Cengage Learning.
- 4. David Fair, (1987), Design Graphics, Hodder and Stoughton Ltd.
- 5. Guild Source Books, (2000), Architectural arts and Sculpture, North Light Books.
- 6. Virginia Cobb Watson, (1988), Discovering the Inner Eye, Guptill Publication.
- 7. Johannes Itten, (1974), the Art of Colour. Revised edition, John Wiley & Sons.
- 8. H.H. Arnason, (2003), History of Modern Art; 5th edition, Prentice Hall.
- 9. Frank, I, (2000), "The Theory of Decorative Art: An Anthology of European and American Writings", New Haven: Yale University Press.
- 10. Campbell, G., (2006), "The Grove Encyclopedia of Decorative Arts", New York: Oxford University Press.
- 11. Thornton, P., (2000), "Authentic Decor: Domestic Interior", 1620–1920. London: Seven Dials.
- 12. <u>https://study.com/academy/lesson/what-are-the-seven-elements-of-art-definition-examples.html</u>
- 13. https://thevirtualinstructor.com/artfundamentals.html
- 14. http://ecoursesonline.iasri.res.in/mod/page/view.php?id=120889
- 15. https://www.slideshare.net/KKIIMMII/aesthetics-13339798
- 16. <u>https://www.curbed.com/2016/7/21/12228858/interior-design-decorating-</u>principles
- 17. <u>https://justdecorate.wordpress.com/2014/06/19/the-most-popular-interior-design</u> -motifs-and-their-symbolic-meaning/

COURSE OUTCOMES:

- Differentiate design and decoration
- Design vocabulary to express their design ideas.
- Understand visual language
- Analyse colors and its visual relationships
- Apply design elements and principles in real objects and spaces.

First Year

CORE PRACTICAL I DESIGN SKETCHING AND VISUAL ART

CODE:

(Practical)

CREDIT 4

COURSE OBJECTIVES:

- Learn to draw shapes and lines and create rough sketches of the shapes using perspective and proportion.
- Create abstract compositions using simple forms
- Combine a variety of 3D shapes with ease
- Become familiar with a variety of drawing materials gained through practice.

For practical examination the students have to demonstrate one 3d sketch and render the same with lighting using any medium of their choice.

EXERCISE – I LINE QUALITY AND 2D SHAPES:

Exercises include freehand drawing and sketching studies - Exploring Line, Shape, Tone, Texture and Depth. Quality of line, material representation, proportions are considered.

EXERCISE – II 3D FORMS:

Basics of one point and two-point perspectives to draw. Construct basic to complex 3d basic and platonic forms using freehand method.

EXERCISE – III COMPOSITION OF 2D SHAPES:

Abstraction and composition of 2d shapes to form interesting compositions. Ability to show depth in 2d compositions.

EXERCISE – IV COMPOSITION OF 3D FORMS:

Methods to construct 3d forms, addition and subtraction of form, forms with single and doubly curved surfaces. Abstraction and composition of 2d and 3d forms. Multiplication and division of forms using geometric methods.

EXERCISE - V MATERIAL REPRESENTATION USING DIFFERENT MEDIUMS:

Represent different textures and surfaces using different mediums. etc.Illustrate the techniques of rendering using different media - charcoal dust, markers, colour pencils, water colors & poster colours.

REFERENCES:

1. Francis D.K. Ching, (1990), *Drawing – A creative Process*, First Edition, New York, John Wiley Sons.

- 2. Bodo W. Jaxtheimer, (1962), *How to paint & draw*, London, Thames & Hudson.
- 3. I.H. Morris, (1995), *Geometrical drawing for art students*, 2nd revised edition; Calcutta, Orient Longman.
- 4. Lal.R and Rana.R ., (2015), A Textbook of Engineering Drawing: Along with an introduction to AutoCAD® 2015, New Delhi: IK International Publishing House
- 5. Natarajan K. V, (2006), *A Text Book of Engineering Graphics*, Chennai :Dhanalakshmi Publishers, India.
- 6. Ernest R. Weidhaas, (1981), Architectural drafting and design, 4th edition, Allyn and Bacon, Boston.
- 7. M G Shah, C M Kale, Tata Mcgraw, (1985) ,*Building drawing*, 3rd edition; Hill publishing, New Delhi.
- 8. https://www.youtube.com/watch?v=b45kVcG1RqQ
- 9. https://www.youtube.com/watch?v=j7YPAHnvrEQ
- 10. <u>https://www.youtube.com/watch?v=oEQcE1a8fbk</u>
- 11. <u>https://www.youtube.com/watch?v=xAZ8ust2P5Y</u>
- 12. <u>https://artincontext.org/art-mediums/</u>

COURSE OUTCOMES:

- Sketch straight lines and shapes with even line weight
- Develop basic forms in perspective and in proportion
- Create basic shapes to form abstract compositions
- Combine different 3d forms
- Acquire knowledge of different sketching mediums.

First Year

FIRST ALLIED COURSE I BUILDING COMPONENTS AND MATERIALS

CODE:

(Theory)

CREDIT 4

COURSE OBJECTIVES:

- Have a fundamental understanding of the types of building materials utilised in construction.
- Get a knowledge of the basic building components.
- Gain knowledge of the fundamentals of building service
- Recognize the different interior materials and finishes available in the market.

UNIT – I INTRODUCTION TO BUILDING MATERIALS:

Classification of building materials- Stone, sand, brick, metal, cement, wood, its types, properties, manufacturing process & uses. Synthetic Materials – Different types of Glass, their properties, manufacturing processes and uses. Plastics – injection molding & other manufacturing methods.

UNIT – II BUILDING COMPONENTS:

Components of a building -Foundation – (brick footing, stone footing & RCC footing concrete flooring), plinth beam, wall & flooring and its finishes, superstructure-brickwork (sill, lintel, arches, doors, windows & sunshade), Flat and sloped roof and its types

UNIT – III STRUCTURAL SYSTEMS:

Structural Systems: Design Loads - Live load, Dead load, Wind load, Snow load, Earthquake loads. Framed structures- load bearing structural components- columns and beams - steel, concrete; Load bearing walls - Masonry structures, Prefabrication, cast-in situ construction-Brief design concepts for earthquake loads.

UNIT – IV WATER SUPPLY AND DRAINAGE:

Plumbing services, Components of a toilet & bathroom – sanitary ware –W.C, wash basin, bidet, bathtub, Jacuzzi etc., Sanitary fittings – taps, mixers, shower units.

UNIT – V FINISHING MATERIALS:

Interior Wall materials, construction, finish - Wood, glass, paints, tiles, plaster, metal, stonewall paper, fabric, - texturing marble, granite, white wash, colour wash, wall paper. Exterior Wall finishes - Stone, rubble, tiles, fresco, murals, glass and metals, paints. Interior floor finishes-hard floor finishes, Resilient–asphalt tile, linoleum, cork, rubber – Soft floor coverings -carpets and rugs, Exterior floors -Concrete slabs, tiles, mosaic, terrazzo and terracotta, Selection and characteristics of Wall and Floor finishes

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Market survey of different material samples to understand the availability and cost. Make a catalogue of the same in the material library and keep them updated.

REFERENCES:

1. S.C. Rangwala, (2019), Engineering materials, Charotar Publishing, Anand.

- 2. Francis D. K. Ching, (1975), Building Construction Illustrated, VNR.
- 3. W.B.Mckay, (1981), Building construction Vol1 –Longmans, UK.
- 4. W.B.Mckay, (1981), Building construction Vol 3 Longmans, UK.
- 5. P.Purushothama Raj, (2016), Building Construction Materials and Techniques, Pearson Education India.
- 6. G.C.Sahu, Joygopal Jena, (2015), *Building Materials and Construction*, McGraw-Hill Education.
- 7. Michael S. Mamlouk and John P. Zaniewski, (2016), *Materials for Civil and Construction Engineers*, 4th edition; Pearson.
- 8. Rob Avis P. Eng and Michelle Avis P. Eng (2018) Essential Rainwater Harvesting: A Guide to Home-Scale System Design (Sustainable Building Essentials Series), New Society Publishers.
- 9. http://bieap.gov.in/pdf/buildingmaterialsconstruction.pdf
- 10. www.mppcb.nic.in/rwh.htm
- 11. <u>http://ocw.mit.edu/courses/architecture/4-461-building-technology-i-materials-and-construction-fall-2004/lecture-notes/</u>
- 12. http://seminarprojects.org/c/building-materials-and-construction-notes-pdf
- 13. http://www.aboutcivil.org/engineering-materials.html
- 14. https://www.cedengineering.com/userfiles/Building%20Elevators.pdf
- 15. https://www.hebelifte.de/images/PDF/Englisch/Ramp-calculation.pdf
- 16. <u>http://www.vssut.ac.in/lecture_notes/lecture1424085991.pdf</u>
- 17. https://www.academia.edu/9182843/Lintel_and_Arches_Details_of_Construction
- 18. <u>https://nptel.ac.in/content/storage2/courses/105105104/pdf/m9120.pdf</u>
- 19. <u>https://www.aboutcivil.org/Floors.html</u>
- 20. http://www.slcdocs.com/historicpreservation/GuideRes/Ch7.pdf
- 21. https://www.civilengineeringx.com/super-structures/doors-and-windows
- 22. <u>https://theconstructor.org/building/types-bonds-brick-masonry-flemish-english-wall/11616/</u>
- 23. <u>http://www.yourarticlelibrary.com/water/rain-water-harvesting-in-india-need-</u>methods-and-other-details/20917

COURSE OUTCOMES:

- Obtain awareness on building materials used for construction.
- Know the basic building components.
- Understand how buildings stand structurally
- Acquire knowledge of building services.
- Assess the qualities of various interior materials and finishes.

First Year FIRST ALLIED PRACTICAL **DRAFTING AND REPRESENTATION TECHNIQUES** (PRACTICAL)

CODE:

CREDIT: 2

COURSE OBJECTIVES:

- Develop a distinct lettering style •
- Learn to use orthographic projection to depict things.
- To evolve a 3D model and sketch it •
- Create a plan for the presentation •
- To gain skill in visualising and sketch things

For practical examination the students have to demonstrate one 3d drafting exercise and one exercise involving 3d representation technique.

EXERCISE – I **ARCHITECTURAL LETTERING:**

Practice an unique lettering style for each individual.

EXERCISE – II **DRAFTING ORTHOGRAPHIC PROJECTION:**

Exercises to enable them to understand points, lines in space, top view, side views, front view of basic forms.

EXERCISE – IV ISOMETRIC DRAWING:

Isometric projection of all platonic solids such as cube, cuboids, hexagonal prism, pyramids, cone and sphere etc. - isometric projection of singly and doubly curve surfaces. Isometric drawings of furniture.

EXERCISE - III MEASURED DRAWING:

Measured drawing of basic household furniture. Measured drawing of a spaces. Drawing plans, elevations and sections. Isometric drawing of a space.

PRESENTATION OF PLANS AND WALL ELEVATIONS: EXERCISE – V

Drawing plans and wall Elevations for presentations and using different mediums to represent it. Watercolor, pastels, color pencils, markers.

EXERCISE - VI LIGHTING AND RENDERING 3D FORMS (SCIOGRAPHY):

Lighting and shading basic forms, lighting curved surfaces, representing matte and reflective surfaces. Contrast in lighting, atmospheric effect and colour while representing objects.

EXERCISE - VII VISUALISING OBJECTS AND SPACES:

Sketching furniture in proportion using perspective construction techniques, Placing furniture and objects in spaces.

REFERENCES:

- 1. Francis D.K. Ching, (1990), *Drawing A creative Process*, First Edition, New York, John Wiley Sons.
- 2. Bodo W. Jaxtheimer, (1962), *How to paint & draw*, London, Thames & Hudson.
- 3. I.H. Morris, (1995), *Geometrical drawing for art students*, 2nd revised edition; Calcutta, Orient Longman.
- 4. Ernest R. Weidhaas, (1981), Architectural drafting and design, 4th edition, Allyn and Bacon, Boston.
- 5. M G Shah, C M Kale, Tata Mcgraw, (1985) ,*Building drawing*, 3rd edition; Hill publishing, New Delhi.
- 6. Pratap. R.M (1988), Interior Design, Principles and Practice, Standard Publishers, distribution, Delhi.
- 7. Birdie. G.S and Birdie.J.S (2003), *Civil Draughtsmanship, Theory and Practice*. DhanpatRai Publishing company (P) Ltd., New Delhi.
- 8. Venugopal.K. (2004) *Engineering Graphics*, 5th edition, New Age International Publishers, New Delhi.
- 9. Frank M. Rines, (2006) ,Landscape Drawing in Pencil (Dover Art Instruction) Kindle Edition
- 10. Oscar SchutteTeale, (2009), How To Do Architectural Drawing A TextBook And Practical Guide For Students In Architectural Draftsmanship Paperback -Import.
- 11. Malik & G.S. Meo, (2014), Draughtsman Civil Theory & Practical Paperback-5thEdition Asian Publisher. New Delhi
- 12. <u>http://nimi.gov.in/nimi/forms/nimicart_listproduct.aspx?idCategory=205</u>
- 13. <u>https://targetstudy.com/iti/trade/26-draughtsman-civil/</u>
- 14. <u>https://study.com/draftsman_course.html</u>
- 15. https://en.wikipedia.org/wiki/Drafter
- 16. <u>https://computechpublications.in/product/draughtsman-civil-th-pr-sem-1-to-4-rev-ed/</u>
- 17. <u>https://www.next.cc/journey/tools/architectural-lettering</u>
- 18. <u>https://mech.iitm.ac.in/part1.pdf</u>

COURSE OUTCOMES:

- Have an identifiable lettering style
- Represent objects in orthographic projection
- Visualise and draw in 3d
- Make presentation plans
- Envisage and draw objects and spaces

First Year

CORE COURSE II PLANNING THE LIFE SPACE

SEMESTER II

CODE:

(Theory)

CREDIT 5

OURSE OBJECTIVES:

- Comprehend the aims of planning, the elements impacting planning, and the demand for space,
- Learn the fundamentals of planning and the types of plans
- Be familiar with kinds of houses,
- Sense the significance of zoning
- Be familiar with housing standards and funding agencies

UNIT – I **SPACE FOR LIVING:**

Concept of space - factors influencing living space, Location and Orientation, Planning objectives- utility, economy, beauty and character. Requirements, need for space, space occupancy. Merits and demerits of owned and rented houses.

UNIT – II SIGNIFICANCE OF HOUSING:

Functions of house, selection of site, Types of house plans-site plan, floor plan, open and closed plans, elevation, cross-sectional plan, perspective plan and landscape plan. Principles of planning a house to suit the basic requirements, developing house plans for various income groups

UNIT - III COMPONENTS ATTRIBUTED TO LIVABILITY IN LIFE SPACE:

Comfort, convenience, safety, workability, maintenance, and lighting. Satisfaction in individual houses, multi- storied flats, row houses, split level houses and one room apartments.

UNIT - IV ZONING OF SPACE:

Private-bedroom, bathroom.Public-living, dining and lounge.Work and traffic kitchen-types and work triangle.

$\mathbf{UNIT} - \mathbf{V}$ **STANDARDIZATION:**

Need for standardization in housing - Types of standards, Role of BIS. Legal restriction- Meaning-Plot, Easement, Zoning law, Building law. Finance for housing - Funding agencies - Private-HDFC, HUDCO. Government - SBI, LIC, Research institutions-NBO, CBRI, SERC

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Identify existing housing types (Apartments, Villas, Villaments, Row Housing) and study the plans from the brochures/websites of real estate companies.

- 1. Francis. D. K. Ching, (2018), *Interior design Illustrated*, Van Nostrand Reinhold.
- 2. John. F. Pile, (1988), Interior Design, 1st edition; Harry AbramsInc,
- 3. Sam. F. Miller, (1995), *Design process a primer for Architectural and Interior Design*, Van Nostrand Reinhold.
- 4. Gary Gordon, (2015), Interior lighting for designers, John Wiley & Sons Inc.
- 5. YatinPandya, (2014), *Elements of spacemaking*, 2 edition, Mapin.
- 6. Harold Linton, (2003), Colour in Architecture, McGraw Hills.
- 7. Prabhakar, L.V. (1998), *Vasthu- The User's Manual*, The Avenue Press, Chennai.
- 8. Despande, R.S. (1974), *Build Your Own Home*, United Book Corporation, Poona.
- 9. Riggs, R. (1992), *Materials and Components of Interior Design*, Prentice Hall of India Pvt.Ltd, New Delhi.
- 10. Rao, C.H.G. (1995), *Plants for Small Houses*, Jai Ganesh offset Printers, chennai.
- 11. Faulkner, R, and Faulkner s. (1987), *Inside Today's Home*, Rinehart Publishing Company, Newyork.
- 12. <u>https://www.engelvoelkers.com/en-pt/portugal/blog/the-advantages-and-disadvantages-of-houses-and-flats/</u>
- 13. <u>https://www.makaan.com/iq/rent-property/advantages-and-disadvantages-of-renting-a-house</u>
- 14. <u>http://www.yourarticlelibrary.com/home-management/planning-a-residential- house-9-principles/47825</u>
- 15. <u>https://theconstructor.org/construction/modern-methods-of-</u> <u>construction/17487/</u>
- 16. <u>https://www.designingbuildings.co.uk/wiki/Modern_methods_of_constructio</u> <u>n</u>
- 17. https://theconstructor.org/practical-guide/building-plans-types/24963/
- 18. <u>https://en.wikipedia.org/wiki/House_plan</u>

COURSE OUTCOMES:

- Conceptualize space for living.
- Differentiate kinds of housing.
- Assess the factors affecting livability in a space.
- Identify the basic activities in a household.
- Understand the typologies of houses and their required standards.

First Year

CODE:

CORE PRACTICAL II MODEL MAKING STUDIO (Practical)

CREDIT 4

COURSE OBJECTIVES:

- Have conceptual and practical model-building experience.
- Learn model-making methods
- Understand commercial model making and fundamental approaches
- Develop the skill in making models to boost employment prospects.

For practical examination the students have to demonstrate one block modelling exercise and one exercise involving wood as a medium.

EXERCISE – I INTRODUCTION TO MODEL MAKING MATERIALS AND TOOLS:

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

EXERCISE – II BLOCK MODELLING:

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 Foam boards Thermocol, Soap/Wax, Boards and Clay.

EXERCISE – III DETAILED MODELLING:

Making detailed models which include the representation of various building elements like Walls, Columns, Steps, Windows/glazing, Sunshades, and Handrails using materials like Mount board, Snow-white board, and acrylic sheets. Representing various surface finishes like brick/stone representation and stucco finish.

EXERCISE – IV INTERIOR MODELS OF INTERIOR SPACES:

Making models of the various interior spaces such as residences, offices, retail spaces, recreational spaces and scaled models of furniture.

EXERCISE – V CARPENTRY:

Introducing the techniques of planning, chiseling& joinery in timber to learn the use of hand tools.

EXERCISE - VI:

Identify and study a designer and their furniture designs and make a scale model of one of their furniture.

- 1. BENN, The book of the House, Ernest Benn Limited, London
- 2. Janssen, (1973), Constructional Drawings & Architectural models, Karl Kramer Verlag Stuttgart.
- 3. Harry W.Smith, (1982), *The art of making furniture in miniature*, E.P.DuttorInc, New York.
- 4. J. Garratt, (2004), Design and Technology, Cambridge University Press, UK.
- 5. R. Thompson, (2007), *Manufacturing processes for design professionals*, Thames & Hudson, London.
- 6. Michael Ashby and Kara Johnson, (2002), *Materials and Design: The Art and Science of Material Selection in Product Design*, Butterworth Heinemann.
- 7. https://www.youtube.com/watch?v=04Y57sykuA4
- 8. <u>https://www.youtube.com/watch?v=Kfj2-A5rJoQ</u>
- 9. https://www.youtube.com/watch?v=x6s3lGH4MyI
- 10. https://www.youtube.com/watch?v=hBXjVJBxYnI
- 11. <u>https://restless.co.uk/leisure-and-lifestyle/learning/a-beginners-guide-to-carpentry/</u>

COURSE OUTCOMES:

- Acquire conceptual and hands on experience in model building.
- Have an introduction to varied practices of model making
- Have insight into the different aspects of commercial model making and demonstrate the techniques used in key areas
- Do single model, enabling skill development which can enhance their career prospects
- Able to handle the hand tools

First Year

FIRST ALLIED COURSE II INTERIOR COMPONENTS AND MATERIALS (THEORY)

CREDIT 4

CODE:

COURSE OBJECTIVES:

- Obtain information about joineries.
- Be familiar with the materials used for partitions
- Know how to finish a wall, a floor, and a ceiling.
- Become familiar with the parts and types of staircases

UNIT – I DOORS & WINDOWS:

Types including, openable, sliding, folding pivoted Lodged and braced, paneled doors, glazed doors, Joinery details for doors. 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.Details of sliding and openable windows in wood, aluminium, steel and UPVC frames with glazed panels

UNIT – II PARTITIONS:

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

UNIT – III FALSE CEILING & WALL PANELING:

Construction of various kinds of false ceiling such as thermocol, plaster of paris, gyp-board, metal sheets, glass and wood. Construction of domes, vaults, & other special ceilings Paneling – Using wooden planks, laminated plywood, cork sheets, fibre glass wool & fabric for sound insulation and wall paneling for thermal insulation.

UNIT – IV STAIRCASE:

Types according to profile – straight flight, dog legged, quarter turn, half turn, bifurcated, spiral & helical. Types based on materials - timber, wood, steel and synthetic materials. Details on parts of stairs. Designing and detailing for physically handicapped.

UNIT – V FLOOR FINISHES:

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

UNIT-VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Market survey of finishing materials used for interior spaces.

REFERENCES:

- 1. S.C. Rangwala, (2019), Engineering materials, Charotar Publishing, Anand.
- 2. W.B.Mckay, (1981), Building construction Vol1-Longmans, UK.
- 3. Dr. B.C Punmia , (1993), *building construction* , Laxmi publications Pvt. Ltd., New Delhi.
- 4. PurushothamaRaj.P, (2017), *Building Construction Materials and Techniques*, Pearson Education India.
- 5. M G Shah, C M Kale, Tata Mcgraw, (1985) *"Building drawing*, 3rd edition; Hill publishing, New Delhi.
- 6. M G Shah, C M Kale, Tata Mcgraw, (1985) *"Building drawing*, 3rd edition; Hill publishing, New Delhi.
- 7. Michael S. Mamlouk and John P. Zaniewski, (2016), *Materials for Civil and Construction Engineers*, Pearson; 4 edition (12 January)
- 8. William P. Spence, *Constructing Staircases,(2000)*, Balustrades & Landings: (Building Basics Series), Sterling
- 9. http://bieap.gov.in/pdf/buildingmaterialsconstruction.pdf
- 10. www.mppcb.nic.in/rwh.htm
- 11. http://ocw.mit.edu/courses/architecture/4-461-building-technology-imaterials- and-construction-fall-2004/lecture-notes/
- 12. http://seminarprojects.org/c/building-materials-and-construction-notes-pdf
- 13. <u>http://www.aboutcivil.org/engineering-materials.html</u>
- 14. <u>https://www.cedengineering.com/userfiles/Building%20Elevators.pdf</u>
- 15. <u>https://www.hebelifte.de/images/PDF/Englisch/Ramp-calculation.pdf</u>
- 16. <u>http://www.vssut.ac.in/lecture_notes/lecture1424085991.pdf</u>
- 17. <u>https://www.academia.edu/9182843/Lintel_and_Arches_Details_of_Construction_</u>
- 18. https://nptel.ac.in/content/storage2/courses/105105104/pdf/m9l20.pdf
- 19. <u>https://www.aboutcivil.org/Floors.html</u>

COURSE OUTCOMES:

- Recall the basic elements that constitute the interior space
- Design space using non structural components
- Enhance a space by treating the overhead plane.
- Understand staircase as a circulation system and its detailing.
- Complement and define spaces using flooring materials.

CORE COURSE III **INTERIOR SPACE PLANNING** (Theory)

CODE:

CREDIT 5

COURSE OBJECTIVES:

- Study the evolution of furniture across time. •
- Comprehend the relationship between space and furniture and human • dimensions.
- Different materials and their procedures followed in designing furniture •
- Understand different planning alternatives in arranging furniture.
- Appreciate how it is applied through real-world initiatives. •

UNIT – I **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,Le Corbusier and Paul Evans& other modern furniture designs.

UNIT – II **HUMAN FACTORS:**

Study of Anthropometry & Design criteria involved in the designing of furniture for sitting, storing, working and relaxing. Designing furniture for the physically challenged.

UNIT - III PRINCIPLES OF DESIGN & DETAILINGS:

Form - Colour - Symbols , Materials & finishes - Wood, Glass, Metal, Plastics Cane and wicker. Furniture finishes - polish, varnish. Upholstery - construction techniques and finishes. Fabrication Techniques involved - shaping, fluting, reading, carving, turning, joining, welding, moulding and finishing. Multiple Utility Oriented Approaches to Furniture Design.

UNIT – IV ROOM PLANS AND FURNITURE ARRANGEMENT:

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

UNIT – V **PROJECTS:**

Designing & detailing of Residential Furniture – Seating, Sleeping, Storage & Children's furniture Commercial furniture – Showcases, Counters, Display units, Restaurant furniture, Bar furniture Office furniture – Adjustable desks & storage, Mobile & Resilient chairs, Portable chairs, Movable Tables, Lounge seating.

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Study and understand the different furniture arrangements done by architects during their space planning process. Use examples from the internet and analyse the same. Study examples of how space is used in small Japanese houses(tight spaces).

REFERENCES:

- 1. John F. Pile, (2013), Interior Design, 4th edition; Harry N.AbramsInc Publishers, Wiley.
- 2. Mary Gilliat Coyran, (2005), Interior Design Course, Octopus Ltd., London.
- 3. Joseph Aronson, (1989), The Encyclopedia of Furniture, New edition; Crown Publishers, Batsford Ltd.
- 4. Sherril Whiton, (2001), Interior Design & Decoration; 5th Edition, Prentice Hall, Pearson.
- 5. Francis D.K. Ching, (2012), Interior Design, 3 editions, John Wiley & Sons, Wiley.
- 6. Susan S. Szenasy, (1984), Office Furniture, Facts on file Inc, New York, Olympic Marketing Corp.
- 7. Joseph De Chiara, (1991), Time Saver Standards for Interior Design,1st edition, McGraw Hill, New York.
- 8. <u>https://viesso.com/blogs/a-la-mod/the-history-of-modern-furniture-design</u>
- 9. https://en.wikipedia.org/wiki/Anthropometry
- 10. <u>https://italica.com/how-to-choose-the-right-material-for-your-home-furniture/</u>
- 11. <u>https://en.wikipedia.org/wiki/List_of_furniture_types</u>
- 12. <u>https://en.wikipedia.org/wiki/Ready-to-assemble_furniture</u>

COURSE OUTCOMES:

- 1. Know how furniture evolved over time.
- 2. Appraise space and furniture in relation to human dimensions.
- 3. Classify the different kinds of materials and its processes
- 4. Plan for furniture selection and arrangement in different rooms
- 5. Understand from live projects how it is implemented.

CORE PRACTICAL III INTERIOR SPACE PLANNING STUDIO

SEMESTER III

CODE:

(Practical)

CREDIT 4

COURSE OBJECTIVES:

- Plan and furnish the space for a living room, bed room and kitchen
- Assess the spatial needs based on anthropometric measurements
- Design a modular kitchen and assessing its utility

For practical examination the students have to plan, design and draft for a given activity and do a presentation and demonstrate their design.

EXERCISE-I:

Living Room Concepts living room interiors – various layout of these spaces. The use of furniture and accessories – materials & finishes – lighting, colour & texture to create different moods

EXERCISE-II:

Bedroom Concepts in bedroom interiors – various layout of these spaces –using different styles of furniture ,accessories ,materials , finishes, lighting, colour & texture to create different illusions of space.

EXERCISE-III:

Kitchen Design Work triangle, planning for activity – anthropometrics – types of kitchen- Modular kitchens - Materials used in counters, shelves, worktops, washing areas & their comparative study.

EXERCISE-IV:

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

EXERCISE-V:

Residence Holistic concepts in residential interiors – ability to integrate various individual spaces into one theme – treatment of patios, courtyards, verandahs.

EXERCISE-VI:

Using a combination of 2x20' or 1x40' shipping containers and find different spatial uses.

- 1. Fiona Leolie, (2000), *Designs for 20th century Interiors*, VH Publications, London.
- 2. BarbaraleeDiamonstein, (1982), Interior Design; The New Freedom, Rizzoli International Publications, New York.
- 3. Jonathan Poore, (1994), Interior Colour by Design, Rockport Publishers.
- 4. Rikuyo-Sha, (1987), Worldwide Interiors International Federation of Interior Architects & Designers, Japan.
- 5. <u>https://www.youtube.com/watch?v=wfd2x0Z6X_c</u>
- 6. https://www.youtube.com/watch?v=ChmoR1k8Yus
- 7. https://www.youtube.com/watch?v=1Cp2UgRcZIU
- 8. https://www.gomansrl.com/blog/designing-an-assisted-bathroom.php
- 9. https://www.youtube.com/watch?v=JGfhz6NoAC4

COURSE OUTCOMES:

- Create a conceptual design for a living space
- Plan a conceptual design for a bedroom
- Develop a conceptual design for a basic Kitchen
- Construct a conceptual design for a Bathroom
- Plan and use a modular space.

SECOND ALLIED COURSE I LIGHTING AND LIGHT FIXTURES

SEMESTER III

CODE:

(Theory)

CREDIT 4

COURSE OBJECTIVES:

- Comprehend natural lighting facts.
- Know the lighting measurements and lighting needs for diverse activities •
- Consider the influence of colour on lighting •
- Recognize the market-available lighting fixtures
- Plan the lighting for various spaces.

INTRODUCTION TO DAY LIGHTING: UNIT – I

Nature of light - Wavelength, Photometric quantities - intensity, Flux, illumination and luminance, visual efficiency, sources of light, daylight factor concept, design sky concept, day lighting requirements

UNIT – II **ARTIFICIAL LIGHTING:**

Classification of lighting. Elements used, reflection of light and architectural and non-architectural lighting. Electric lamps- incandescent, fluorescent, sodium vapour, mercury, halogen and neon, CFL and LED .Different types of lights in interior and exterior - task lighting, special purpose lighting. Calculation of artificial lighting, guidelines for lighting design, Glare and shadow in artificial lighting- causes, effects and prevention.. Requirement of good lighting. Measurement of lighting and lighting requirements for various activities

UNIT – III EFFECT OF COLOR IN LIGHTING:

Effects of color in different areas, color temperature, psychological effects of colour in interiors, factors affecting colour, Planning lighting for different rooms. Effect of light on colours.

UNIT - IV LUMINARES & FIXTURES:

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

UNIT – V CASE STUDY:

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

UNIT-VI: CURRENT CONTOURS (For Continuous Internal Assessment Only):

Prepare a catalogue of lighting products available in the market and compile it for future reference. The list should include both functional and decorative light fittings and fixtures.

REFERENCES:

- 1. Randall Whitehead, (1998), The Art of living, Rockport Publishers.
- 2. Randall Whitehead, Lighting design Source book, Rockport Publishers.
- 3. M.K.Halpeth, T.Senthilkumar, G.Harikumar, *Light right*, The Energy and Resources Institute, TERI.
- 4. Torquil Barker, (1997), Concepts of lighting, Lighting design in Architecture, Batsford.
- 5. J R Coaton and A. M. Marsden, (1996), *Lamps and Lighting, 4th edition,* Architectural Press.
- 6. Gary Gordon, (2003), Interior Lighting for Designers, 4 editions, Wiley.
- 7. Mark Karlen, (2017), Lighting Design Basics, Wiley.
- 8. <u>https://www.leefilters.com/lighting/colour-list.html</u>
- 9. <u>https://www.lampshoponline.com/advice/top-ten-tips-for-restaurant-lighting</u>
- 10. <u>https://www.designingbuildings.co.uk/wiki/Lighting_in_commercial_buildings</u>
- 11. <u>https://www.warehouse-lighting.com/blogs/lighting-application-</u> <u>suggestions/different-types-of-office-lighting</u>
- 12. <u>https://www.academia.edu/1746322/lighting_principles_in_interior_design_of_managment_space</u>

COURSE OUTCOMES:

Upon successful completion of this course the students would be able to

- Understand the facts about natural lighting.
- Know the measurement of lighting and lighting requirements for various activities
- Realize the effect of colour on lighting
- Recognize the lighting fixtures available in the market
- Plan lighting fixtures for various spaces

SECOND ALLIED PRACTICAL COMPUTER AIDED DRAFTING AND DESIGN (PRACTICAL)

CODE:

CREDIT: 2

COURSE OBJECTIVES:

- Draft in 2d CAD with the appropriate line weight
- Learn comprehensive drawing using layers
- Employ Sketchup as a design programme.
- Exploit Sketchup as a tool for detailing and investigate its BIM capabilities.
- Promote Sketchup layout as a tool for drawing and presenting.

For practical examination the students have to plan, design and draft in Acad for a given activity and do a presentation in Sketchup and demonstrate their design.

EXERCISE – I INTRODUCTION TO 2D DRAFTING USING AUTO CAD 2D:

Understanding the use of drawing tools, object editing, drawing objects, filing and setting drawing units, scales, limits that size and dimensioning, lettering. Setting up of drawing of various simple objects with complete text and dimensioning.

EXERCISE – II DETAILED DRAWINGS USING AUTO CAD:

Advance command programming – Transparent overlays, hatching utilities, assigned colour and line type, use of multi-line, style, block, symbol library, manipulation for accurate drawings, incorporating the above mentioned utilities. Introduction to tools of productivity – Blocks, slide facilities, script files and attributes. Understanding concepts of View port, concept of object linking and editing session.

EXERCISE – III INTRODUCTION TO 3D MODELLING USING SKETCHUP:

Introduction to 3D-modelling technique and construction planes, drawing objects, 3D surfaces setting up elevation thickness and use of dynamic projections.

EXERCISE – IV USING COMPONENTS IN SKETCHUP:

Detailed furniture modelling using components in sketchup. Use dynamic components in sketchup to show material variations and change dimensions. Use component properties to generate reports and take quantities for estimation.

EXERCISE – V DESIGN PRESENTATION USING SKETCHUP AND LAYOUT:

Use Line weights in drawings in sketchup layout. How to create plans with material representations. Create drawings to scale.

- 1. Omura, G., (2005), *Mastering Auto CAD 2005 and AutoCAD LT 2005*, BPB Publications, New Delhi.
- 2. Byron S. Gottfried, (1996), *Theory and Problems of Programming with C.Schaum's outline series*, McGraw Hill Publishing Co.
- 3. Saxena, S., (2003), A first Course in Computers, Vikas Publishing house, New Delhi.
- 4. Sham Tickoo, (2014), Understanding AutoCAD 14
- 5. Teach Yourself Auto CAD, GIBBS, BPE Publication New Delhi.
- 6. V. Rajaraman,(1988), Principles of Computer Programming, Prentice Hall of India.
- 7. Auto CAD Reference Manual Autodesk INC, 1998.
- 8. <u>http://nimi.gov.in/nimi/forms/nimicart_listproduct.aspx?idCategory=205</u>
- 9. https://targetstudy.com/iti/trade/26-draughtsman-civil/
- 10. https://study.com/draftsman_course.html
- 11. https://en.wikipedia.org/wiki/Drafter
- 12. <u>https://computechpublications.in/product/draughtsman-civil-th-pr-sem-1-to-4-rev-ed/</u>
- 13. https://www.next.cc/journey/tools/architectural-lettering
- 14. https://mech.iitm.ac.in/part1.pdf

COURSE OUTCOMES:

- Draft in 2d acad with proper line weight
- Apply layers to separate information in a detailed drawing
- Use Sketchup as a design software.
- Practice Sketchup as a detailing and explore its BIM Capabilities
- Apply Sketchup layout as a drawing and presentation tool.

NON MAJOR ELECTIVE - I **BASICS OF INTERIOR DESIGN**

CODE:

(Theory)

CREDIT 2

COURSE OBJECTIVES:

- Understand the concept, history and significance of interior design
- Appreciate the aesthetics of planning •
- Learn the elements and principles of design •
- Know the theories and facts about colour
- Design interiors applying the principles of design •

UNIT – I **CONCEPT OF INTERIOR DESIGN:**

Meaning of Interior Design and Interior Decoration, history of Interior design in India, significance of Interior Design in modern era, functions and qualities of Interior Designer.

UNIT – II **DESIGN VOCABULARY:**

Aesthetics of planning- beauty, expressiveness, functionalism and economy, need for developing skill in aesthetics, design concept and types, significance of Good taste

UNIT - III DESIGN ELEMENTS AND PRINCIPLES:

Elements of Design-Meaning and importance, line and direction, shape and form, size, colour, texture, space, light and ornamentation. Principles of Designbalance, rhythm, emphasis, harmony, proportion.

UNIT - IV COLOR AND ITS THEORIES:

Sources and qualities of color, color systems-Prang and Munsell, color schemes, modern trends in application of color in interiors

APPLICATION OF ELEMENTS AND PRINCIPLES: $\mathbf{UNIT} - \mathbf{V}$

Designs involving various elements such as point, line, shape, colour and texture -suitable for mural, design on fabric such as curtains, draperies, wall hanging, furnishings, tiles, stained glass, block printing and collage- involving the principles of design. Study and critical analysis of man-made objects - their purpose, functional suitability and formal appeal -evolving suggestions for improvement of the same.

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Scrap book on application of elements, principles of design and colors in interiors

- 1. Faulkner, S. and Faulkner, R, (1987), Inside Today's Home, Rinehart Publishing company, Newyork.
- 2. Caroline cliftenet. al.,(1995), The Complete Home Decorator, Portland House New York.
- 3. Seetharaman, P and Pannu, (2017), P. Interior Design and Decoration, CBS Publishers and Distributors, New Delhi.
- 4. Pratap R.M, (1988), Interior Design Principles and Practice, Standard Publishers Distribution, Delhi.
- 5. Goldstein, (1940), Art in Everyday life, Oxford and IBH Publishing House.
- 6. <u>https://study.com/academy/lesson/what-are-the-seven-elements-of-art-definition-examples.html</u>
- 7. <u>https://thevirtualinstructor.com/artfundamentals.html</u>
- 8. http://ecoursesonline.iasri.res.in/mod/page/view.php?id=120889
- 9. https://www.slideshare.net/KKIIMMII/aesthetics-13339798
- 10. https://www.curbed.com/2016/7/21/12228858/interior-design-decoratingprinciples
- 11. https://justdecorate.wordpress.com/2014/06/19/the-most-popular-interiordesign-motifs-and-their-symbolic-meaning/

COURSE OUTCOMES:

- Acquire knowledge of the meanings, concepts, and developments of interior design.
- Cultivate an appreciation for the aesthetics of planning.
- Identify the concepts and principles of design
- Knowledge of colour theories and facts.
- Apply design fundamentals to the creation of interior spaces.

CORE COURSE IV FURNITURE DESIGN (Theory)

CODE:

CREDIT 5

COURSE OBJECTIVES:

- Gain an understanding of wood and its use in the furniture industry
- Make use of the many tools and techniques used in carpentry.
- Use diverse wooden joinery techniques.
- Know the specifications of the kitchen cabinets
- Construct prototypes and models by utilising a wide variety of materials.

UNIT – I INTRODUCTION TO WOOD:

Wood as a building material: Identification, selection, application, types of wood, commercial Classification, nomenclature, structure Anatomy and Ultrastructure, Conversion figure and natural defects, availability of wood products, wood based panels such as plywood, MDF, HDF, Particle board, pre laminated boards etc

UNIT – II THE BASICS OF FURNITURE CONSTRUCTION & TOOLS:

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

UNIT – III PLYWOOD CONSTRUCTION TECHNIQUES:

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

UNIT – IV MODULAR KITCHENS:

Modular kitchens, components basis of Construction involving, layouts, carcase, hardware selection, fixing details finishes and special types such as tall units, grain trolleys, and carousels fold outs etc. A detailed project involving the design of a small kitchen using modular components.

UNIT – V FURNITURE MODEL MAKING:

Preparation of block study models and prototypes of furniture using wood, boards, leather, fabric, metal wires, thermocol, clay, soap/wax etc.

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

List the available resources and materials that can be for furniture construction with updated prices for future reference.

- 1. Editors of Fine Homebuilding & Fine Woodworking (2009) "Practical Furniture Design" Taunton
- 2. Lawson, Stuart (2013) "Furniture design: an introduction to development, materials and manufacturing" Laurence King Publishing
- 3. Jerzy Smardzewski (auth.)(2015) "Furniture Design" Springer International Publishing
- 1. Anita .T, (2011), "Textiles for Apparel and Home Furnishing", New Delhi: Sonali Publications, India.
- 2. Kharuna. S, (2012), "Fabrics for Fashion and Textile Design", New Delhi: Sonali Publications, India.
- 3. Chaudhari. S.N, (2006), "Interior Design", Jaipur: Aavishkar Publisher, India.
- 4. Stepat. D. Van, (1991), "Introduction to Home Furnishing", New York: The MacMillan Company.
- 5. <u>http://www.itraveluk.co.uk/photos/showphoto/photo/2747.php][img]</u>
- 6. http://www.itraveluk.co.uk/photos/data/1015/thumbs/neolithic-furniture.jpg[/img][/url]
- 7. http://chestofbooks.com/home-improvement/furniture/Period/Jacobean-Period-1603-1688-Part-2.html
- 8. http://www.maysvalues.co.uk/casestudy/09.html
- 9. <u>http://chestofbooks.com/home-improvement/furniture/Period/Chapter-IV-</u> Queen-Anne-And-Early-<u>Georgian</u>-1702-1750.html
- 10. metalhttp://www.museumfurniture.com/georgeI/
- 11. http://www.museumfurniture.com/georgeII/
- 12. http://www.museumfurniture.com/georgeIII/
- 13. http://www.mobisharb.com/Mobisharb_Museum_Art_
- 14. http://www.life.com/image/50541241
- 15. http://chestofbooks.com/home-improvement/furniture/How-To-Collect-Old-Furniture/Chapter-VII-The-Nineteenth-Century.html

COURSE OUTCOMES:

- Understand wood as a material for furnitures
- Handle carpentry tools and its usage methods.
- Use different wooden joinery techniques.
- Detail kitchen cabinetry
- Make prototypes and models

CORE PRACTICAL IV FURNITURE DESIGN AND DETAILING STUDIO (Practical)

SEMESTER IV

CREDIT 4

CODE:

COURSE OBJECTIVES:

- Create prototype models of a stool a chair coffee table
- Build the model for a dining table set.
- Prepare furniture block models and prototypes using any suitable materials.

(Students can do a minimum of one model and maximum of 3 depending upon the model scale they choose)

For practical examination the students have to design and sketch furniture for a given activity and do a presentation and demonstrate their design.

EXERCISE – I DESIGN SKETCHES AND PROTOTYPES OF FURNITURE:

Design ideation sketches to represent the design of the furniture chosen by the student to be made. Mock scaled prototypes as part of the design development.

EXERCISE – II SCALE MODEL OF A STOOL:

Design and make the model of a stool using relevant materials. The material should preferably be wood or wood based. Scale of the furniture can be 1:1 (true prototype), 1:2,1:4 or 1:8

EXERCISE – III SCALE MODEL OF A CHAIR:

Design and make the model of a Chair using relevant materials. The material should preferably be wood or wood based. Scale of the furniture can be 1:1(true prototype), 1:2,1:4 or 1:8.

EXERCISE – IV SCALE MODEL OF A COFFEE TABLE:

Design and make the model of a coffee table using relevant materials. The material should preferably be wood or wood based. Scale of the furniture can be 1:1(true prototype), 1:2, 1:4 or 1:8.

EXERCISE – V DESIGN AND SCALE MODEL OF A WORKTABLE:

Design and make the model of a worktable for a professional using relevant materials. The material should preferably be wood or wood based. Scale of the furniture can be 1:1(true prototype), 1:2, 1:4 or 1:8.

EXERCISE - VI DESIGN AND SCALE MODEL OF A DINING TABLE SET:

Design and make the model of a dining table set (1Table + 1Chair) using relevant materials. The material should preferably be wood or wood based. Scale of the furniture can be 1:1(true prototype),1:2,1:4 or 1:8

REFERENCES:

- 1. S. C. Rangwala Engineering materials Charotar Publishing,
- 2. Francis D. K. Ching Building Construction Illustrated, VNR, 1975,
- 3. Fevicol Furniture series.
- 4. W.B.Mckay Building construction Vol1 Longmans, UK 1981.
- 5. W.B.Mckay Building construction Vol 3 Longmans, UK 1981.
- 6. <u>https://www.youtube.com/c/ISHITANIFURNITURE</u>
- 7. https://www.youtube.com/channel/UCVOpX2P5wygh7sB1KXgh_5g
- 8. <u>https://www.youtube.com/c/ChrisSalomone1</u>
- 9. https://www.youtube.com/channel/UCJkUhZ4Zlk6HTmeV-M4q06g
- 10. <u>https://www.youtube.com/channel/UChiQ73lwc97xXbZSLi6znhw</u>
- 11. <u>https://www.youtube.com/c/WoodworkingEnthusiasts</u>

COURSE OUTCOMES:

- Use prototyping as a tool in their design process
- Design a furniture for a particular use
- Evaluate and use suitable materials to construct the model
- Create a design with a consistent design language.
- Present a finished prototype to an audience.

SEMESTER IV

Second Year SECOND ALLIED COURSE II LANDSCAPE DESIGN FOR INTERIORS

CODE:

(Theory)

CREDIT 4

COURSE OBJECTIVES:

- Know the principles and elements of landscaping
- Design landscape for residences
- Estimate the requirement of plants for a landscape
- Plan for a terrace garden

UNIT – I FUNDAMENTALS OF LANDSCAPING:

Importance and scope of landscape garden, principles of landscape gardening, styles and types of garden, famous gardens of India

UNIT – II DESIGNING LANDSCAPE FOR RESIDENTIAL AREAS:

Definition and classification of plants. Indoor plants and their functions, components of landscapes, Floriculture – commercial, ornamental, Selection of plants & pest control, Designing a home landscape garden

UNIT – III PHYSICAL REQUIREMENT OF PLANTS:

Physical requirement of plants – light, temperature, water, planting medium, soil separator, acclimatization & maintenance. Techniques to meet physical requirements. Garden tools and implements

UNIT – IV INTERIOR LANDSCAPING ELEMENTS:

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

UNIT – V 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. Develop a Courtyard design, an outdoor room design, terrace garden

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Identify local nurseries and list the indoor and outdoor plants that grow in your climate and catalogue the price of the plants.

- 1. Time saver standards for landscape architecture.
- 2. Theodore D. Walker "Plantingdesign", VNR Publications New York.
- 3. Jack E. Ingels "Landscaping Principles and Practices, Delmar Publishers.
- 4. Bose et al, (1999), "Floriculture and Landscaping": Calcutta, Naya Prakash, India.
- 5. Singh, A. and Sisodia. A, (2017), *"Floriculture and Landscaping*:, New Delhi: New India Publishing Agency, India.
- 6. Bruce. S, (2016), "Thinking about Landscape Architecture: Principles of a Design Profession for the 21st century": New York, Routledge Taylor and Francis group, London.
- 7. Kumar. N, (1999), *"Introduction to Horticulture"*, Nagarkoil: Rajalakshmi Publications, "ICAR Publications", India.
- 8. Randhawa, G.S, and Mukhopadhy. A, (2000) *"Floriculture in India"*, Chennai: Allied Publishers, India.
- 9. Reed Sue, (2010), "Energy-Wise Landscape Design: A New Approach for Your Home and Garden":, Canada, New Society publishers, North America
- 10. <u>https://www.greenmylife.in/principles-of-landscaping/</u>
- 11. <u>https://www.gardendesign.com/landscape-design/</u>
- 12. https://www.bbc.co.uk/bitesize/topics/zxfrwmn/articles/zkf2mfr
- 13. https://planterra.com/what-is-interior-landscaping/
- 14. https://agritech.tnau.ac.in/horticulture/horti_Landscaping_roofgarden.html

COURSE OUTCOMES:

- Understand the principles and elements and relate it with the elements and principles used in famous gardens
- Draft a home landscape garden
- Apply the techniques in meeting the physical requirement of plants
- Raise a garden following the guidelines
- Design a roof and deck garden

NON MAJOR ELECTIVE II CREATIVE APPLIED ARTS (Theory)

SEMESTER IV

CODE:

CREDIT 2

COURSE OBJECTIVES:

- Know the role of arts and crafts in decorating the interiors
- Gather information on traditional arts and crafts of India
- Understand the influence of art movements in interior design
- Create decorative art objects
- Apply the art in different interior spaces

UNIT – I INTRODUCTION TO CREATIVE ARTS AND CRAFTS:

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

UNIT – II TRADITIONAL ARTS AND CRAFTS OF INDIA:

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

UNIT – III ART MOVEMENTS IN POST MODERN INDIA:

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

UNIT – IV CREATIVE ART OBJECTS:

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

UNIT – V PROJECTS:

Assignment or projects on application of the Art in interior spaces such as – Reception, Lobby spaces, Theme Boutiques, Hotels and restaurants.

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Visit art and craft exhibitions and submit a report.

REFERENCES:

1. Evans, A, (1973), Man the Designer, The Macmillan Company, New York.

- 2. Faulkner. R, (1986) Art Today, Zory Field and Hill, New York.
- 3. Holmes. O, (1982) A Grammer of Arts, the Macmillan Company.
- 4. French. B, (1969) Principles of Collage, Mills and Bean, London.
- 5. Reader's Digest, (1991), Crafts and Hobbier.
- 6. Singaravelavan. R. , (2016), *Food and Beverage Service*, 2nd edition, Oxford University Press.
- 7. <u>https://en.wikipedia.org/wiki/Art</u>
- 8. <u>https://en.wikipedia.org/wiki/Collage</u>
- 9. <u>https://www.artyfactory.com/art-appreciation.html</u>
- 10. <u>https://nomliving.com/blogs/thingswedo/pottery-and-ceramics-a-brief-explanation</u>
- 11. <u>https://www.webstaurantstore.com/blog/2852/restaurant-table-settings.html</u>
- 12. https://www.creativebloq.com/art/painting-techniques-artists-31619638
- 13. www.yarnspirations.com

Upon successful completion of this course

- Know the history and development of art
- Identify and appreciate the traditional arts and crafts of India
- Become aware of art movements in post modern India
- Develop art objects using various techniques
- Arrange different mock areas and commercial spaces

SEMESTER V

Third Year

CORE COURSE V COMMERCIAL SPACE DESIGN (Theory)

CREDIT 5

CODE:

COURSE OBJECTIVES:

- Understand the concept of enterprise and commercial art
- Design and plan different commercial spaces
- Know the techniques of visual merchandising and techniques of interior and window display

UNIT- I CONCEPT OF ENTERPRISES, RETAILING AND COMMERCIAL ART:

Meaning and definition; development of commercial art; evolution of a retail store; role and principles of advertising, exhibition and trade fairs- types of trade fairs; sales, sales promotion and publicity.

UNIT - II ART IN COMMERCIAL SPACE:

Designing and planning space for various commercial purposes - restaurants, and hotels, public utility services, airport, educational institutions, hospitals, railway stations etc. and shopping complex; architectural designs in commercial buildings - basic concepts, features of retail stores architecture.

UNIT – III VISUAL MERCHANDISING:

Meaning and definition, significance of display; store interiors - windows, highpoints, focal points, nesting tables, staircase landings, step risers, lift area, pennants/danglers, cash counters, space on hire like pillars and entrances; store exteriors - store signs, facade; banners planters and awnings, elements of display.

UNIT – IV DISPLAY TECHNIQUES:

Types of merchandise and merchandise display - Interior display - store layout, general arrangement, principles and factors; merchandise display equipment; role of lighting

UNIT – V WINDOW DISPLAY:

Meaning and concept, basic principles and techniques, factors considered; types of window display and window arrangement.

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Visit retail outlets and understand the display techniques.

REFERENCES:

- 1. Morgan, T, (2010), Window Display: New Visual Merchandising. Laurence King Publishing, New York
- 2. Nair, R., (2002), Marketing., New Delhi.
- 3. Ebster. C. and Garus. M, (2011). Store Design and Visual Merchandising: Creating Store Space That Encourages Buying, Business Expert Press, New Delhi, Sultan Chand and Sons Publishers
- 4. Jodidio. P, (2010), Shopping Architecture Now! Taschen.
- 1. Uffelen, V. C, (2008), Malls & Department Stores, (2 edition), Braun Publishers, New York
- 2. Gormann. G. M, (1996), Visual Merchandising and Store Design Workbook, St Books; Workbook edition, New York
- 3. Fernie.J, Fernie, S, Moore, C and Fernie.A, (2003), *Principles of Retailing*, Routledge, (Taylor and Francis Group), London.
- 4. Kubba.S, (2003), Space Planning for Commercial and Residential Interiors, (1 edition) McGraw-Hill Professional, New Delhi.
- 1. <u>https://en.wikipedia.org/wiki/Retail</u>
- 2. <u>https://www.borada.in/blog-ubdesigns/the-power-of-art-in-commercial-space</u>
- 3. https://en.wikipedia.org/wiki/Visual_merchandising
- 4. <u>https://www.lightspeedhq.com/blog/visual-merchandising/</u>
- 5. <u>https://unibox.co.uk/blog/7-types-of-window-display</u>

COURSE OUTCOMES:

- 1. Clarify the role and principles of advertising, exhibition and trade fairs
- 2. Design and plan for various commercial spaces
- 3. Understand the significance and process involved in decorating the store interiors
- 4. Become familiar with the techniques involved in decorating the store interiors
- 5. Understand the types of window display and window arrangement

CORE COURSE VI BUILDING SERVICES FOR INTERIORS (Theory)

SEMESTER V

CODE:

CREDIT 5

COURSE OBJECTIVES:

- Understand the principles of air conditioning system and planning a lay out
- Comprehend the fire safety measures available
- Know the acoustical requirements for different buildings and planning accordingly
- Sense the wiring systems and plan a layout of a residential building
- Acquaint with principles of plumbing

UNIT - I BASIC CONCEPTS AND SYSTEM COMPONENTS IN AIR CONDITIONING

Vapour compression cycle – Compressors – Evaporators – Refrigerant control devices – Electric motors – Air handling units – Cooling towers. Window type and packaged air conditioners – Chilled water plants – Fan coiled systems – Water piping – Cooling load.- Air-conditioning systems for different types of buildings – Duct lay out etc.

UNIT – II FIRE SAFETY:

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

UNIT – III ACOUSTICS AND SOUND INSULATION:

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

UNIT – IV 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.

UNIT V PLUMBING:

Joints for various types of pipes, Sanitary fitting standards for public conveniences, Different types of pipes and accessories for water supply, controlling fixtures like valves, taps, etc. Fittings and Choice of materials for piping: cast iron, steel, wrought iron, galvanized lead, copper, cement concrete and asbestos pipes, PVC pipes, Sizes of pipes and taps for house drainage.

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Case study of implementation of building services in a residential building and prepare a report of the same.

REFERENCES:

- 1. S.C. Rangwala, (2016), *Water supply and sanitary engineering*, Charotar publishing house
- 2. Peter Templeton &Saunders,(1994), Detailing for architectural acoustics Architectural press.
- 3. National Building code of India 2005 Bureau of Indian Standards
- 4. V.K. Jain, (2007), *Fire Safety in Buildings*, New age International (Pvt Ltd) publishers, Chennai.
- 5. IS 9668: 1990 Firefighting code of practice Bureau of Indian Standards.
- 6. M.H. Lulla, Air conditioning.
- 7. Kasu, (2005), 'Interior Design', Mumbai: Ashish Book Center, India.
- 8. Leger.È, (2003), 'Complete Building Construction', London: Wiley-dreamtech India Pvt Ltd, UK.
- 9. IS codes and NBC publications
- 10. BIS special publications
- 11. Grondzik, Kwok, Stein and Reynolds, (2002), 'Mechanical and electrical equipment for buildings',
- 12. https://en.wikipedia.org/wiki/Air_conditioning
- 13. https://journalsofindia.com/fire-safety-in-india/
- 14. https://www.homequestionsanswered.com/what-is-acoustic-insulation.htm
- 15. <u>https://www.northernarchitecture.us/interior-designers/electrical-system-design-process.html</u>
- 16. <u>https://www.homelane.com/blog/basics-of-plumbing/</u>

COURSE OUTCOMES:

- Plan air-conditioning systems for different types of buildings
- Suggest various fire safety measures to be adopted in different buildings
- Identify the acoustical problems and plan for its treatment
- Draw an electrical layout for a building
- Understand the plumbing requirement for a building

CORE COURSE VII INTRODUCTION TO INTERIOR ARCHITECTURE (Theory)

SEMESTER V

CREDIT 5

CODE:

COURSE OBJECTIVES:

- Be familiar with the pioneers in Interior design
- Gain knowledge on interior design during the period of Bahuhan, Post war, modernist and Modernism
- Understand International styles followed by the famous interior designers
- Recognize the recent trends in interior design

UNIT – I EARLY PIONEERS:

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

UNIT – II BAUHAUS AND POST WAR MODERNISTS:

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

UNIT – III MODERNISM:

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

UNIT – IV INTERNATIONAL STYLE:

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

UNIT – V POST MODERNISM AND MINIMALISM:

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

UNIT-VI: CURRENT CONTOURS (For Continuous Internal Assessment Only):

Literature case study of award winning projects.(Interior related)

REFERENCES:

1. History of Architecture, Sir Banister Fletcher, CBS Publishers & distributors, New Delhi 5.Time Saver Standards for Interior Design, Joseph De Chiara, McGraw Hill, New York.

- 2. Interior Design Course, Mary Gilliat Coyran, Octopus Ltd., London
- 3. Interior Design & Decoration, Sherril Whiton, Prentice Hall
- 4. Interior Design, Francis D.K. Ching, John Wiley & Sons, New York
- 5. <u>https://www.vogue.com/article/legendary-interior-designers-decorators-everyone-should-know</u>
- 6. <u>https://www.vam.ac.uk/articles/modernist-architecture-the-bauhaus-and-beyond</u>
- 7. <u>https://onlyinteriordesign.com/2021/03/modernism-in-interior-design.html</u>
- 8. <u>https://www.theartstory.org/movement/international-style/</u>
- 9. <u>https://davidcharlesfox.com/minimalist-and-postmodern-interior-design-the-choice-of-lazy/</u>

Upon successful completion of this course the students would be able to

- Know the contributions made by early pioneers in the field
- Realize the styles followed during Bauhaus and Post war modernists
- Understand the development in Interior design during the period of modernism
- Recognize the speciality of international style
- Identify the interiors during post modernism and minimalisms

CORE PRACTICAL V ADVANCED COMPUTER APPLICATIONS (Practical)

SEMESTER V

CODE:

CREDIT 4

COURSE OBJECTIVES:

- Use basic Autodesk 3Ds Max Design commands for professional 3D model design and rendering.
- Provide complete rendering and animation in building interior and exterior
- Gain experience in Professional ability of an interior designer.

For practical examination the students have to plan, design and model for a given activity and do a presentation render using any one rendering medium.

EXERCISE – I INTRODUCTION TO 3DS MAX:

Introduction to concepts of model making and various materials used for model making, Lathing, displacement, lofting, Boolean operations using standard and compound primitives, modeling with lofts, low polygon modeling and Nurbsmodeling.

EXERCISE – II INTRODUCTION TO RHINO AND GRASSHOPPER:

Introduction to model making in Rhino 3d and using parametric modelling in grasshopper to modify based on inputs

EXERCISE – III INTRODUCTION TO V RAY, LUMION/ENSCAPE:

Rendering using one of the standalone render engines to create photorealistic renders and video outputs for design presentation.

EXERCISE – IV APPLYING MATERIALS AND RENDERING:

Creating and editing materials for realism in renders. Creating custom materials for renders.

EXERCISE - V INTRODUCTION TO AR AND VR:

Using Google cardboard to create and view VR and AR content for immersive experiences.

REFERENCES:

- 1. Autodesk 3ds Max 2019: A Comprehensive Guide
- 2. Sham Tickoo Purdue Univ
- 3. 3D Photorealistic Rendering. Interiors & Exteriors with V-Ray and 3ds Max
- 4. Jamie Cardoso
- 5. Mastering Lumion 3D: Master the art of creating real-time 3D architectural visualizations using Lumion 3DCiro Cardoso

- 6. Lumion 3D Best Practices: Explore the best practices to build architectural visualizations efficiently in Lumion 3DCiro Cardoso
- 7. New realities in audio : a practical guide for VR, AR, MR and 360 video
- 8. Irwin-Schütze, Anna, Schutze, Stephan
- 9. <u>https://www.youtube.com/watch?v=hS4b6eSwUBQ</u>
- 10. https://www.youtube.com/watch?v=9O1MkpLdZvs
- 11. <u>https://www.youtube.com/watch?v=moPjYHnL6PI</u>
- 12. https://www.youtube.com/watch?v=vP4i7y3ht1o
- 13. <u>https://www.youtube.com/watch?v=U4t5crRC6CI</u>
- 14. <u>https://www.youtube.com/watch?v=YSUpB3z8NHc</u>
- 15. https://www.youtube.com/watch?v=SdcIAT9rV9c

- Learn about various materials used for model making.
- Know the use of parametric modelling in grasshopper.
- Create photorealistic renders and video outputs
- Designmaterials for realism in renders.
- Gain knowledge to create VR and AR content

SEMESTER V

Third Year

MAJOR BASED ELECTIVE I 1) SET DESIGN AND ART DIRECTION

CODE:

(Theory)

CREDIT 4

COURSE OBJECTIVES:

- Familiarise students with an alternate job opportunity where their skill sets can be utilised.
- Enhance their ability to understand and appreciate the role of designers in a film.
- Enable them to think of a space in a viewer's perspective (camera angle) and design.

UNIT – I VISUAL LANGUAGE IN FILMS:

Understanding the visual language in film. Concept of moving images. Framing and composition. Design elements and principles in films.

UNIT – II ANALYSIS OF FILMS:

Analyse and understand film visually. Style of space and time shown in films. Props in films.

UNIT - III INTRODUCTION TO ART DIRECTION:

Art direction and its use in events, exhibitions, theater etc. Creating experiences in spaces using design.

UNIT – IV INTRODUCTION TO SET DESIGN:

Construction of sets for theatre and films - materials and techniques used. Accentuating a real location using props and design elements.

UNIT – V INTRODUCTION TO PRODUCTION DESIGN:

Production design for films- roles and responsibilities. Examples of indian films with production design teams and their works.

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Identify and study the latest films and its visual presentation.

REFERENCES:

- 1. Designing for Screen: Production and Art Direction Explained Georgina Shorter
- 2. The Art Direction Handbook for Film Michael Rizzo
- 3. Designs on Film: A Century of Hollywood Art Direction Cathy Whitlock

- 4. Art Direction The Visual Language of Film (Teacher's Guide and Activities)
- 5. Roberta Nusim
- 6. The Art Direction Handbook for Film & Television Rizzo, Michael
- 7. Film Production Management Bastian Cleve
- 8. The Education of an Art Director Steven Heller, Veronique Vienne
- 9. https://writingstudio.co.za/the-language-of-film-a-visual-guide/
- 10. https://en.wikipedia.org/wiki/Film_analysis#:~:text=Film%20analysis%20is %20the%20process,for%20small%20clips%20or%20scenes.
- 11. <u>https://alistapart.com/article/art-direction-and-design/</u>
- 12. https://study.com/learn/lesson/set-design-overview-history-process.html
- 13. <u>https://www.qualtrics.com/experience-management/product/product-design/</u>

- Identify and appreciate the visual language used in films.
- Analyse in depth a film and its spatial context.
- Understand the different fields where art directors work.
- Realise the basics of how a set is built with respect to the camera positions.
- Know the role of the production design team in films.

MAJOR BASED ELECTIVE - I 2) KITCHEN DESIGN (THEORY)

SEMESTER V

CODE:

CREDIT 4

COURSE OBJECTIVES:

- Gain knowledge of different materials used for various surfaces in kitchen.
- Develop skill in planning different layouts.
- Understand about kitchen work height and space dimension
- Learn about essential services required in the kitchen
- Study about maintenance of kitchen

UNIT - 1:

Kitchen planning – Functions performed in a kitchen, types of kitchen, principles of planning kitchen – orientation and location, ventilation, storage needs, work triangle, colour, light and safety.

UNIT - II:

Kitchen geometry – work heights and space dimension of different work areas and storage areas, anthropometric measurements of an individual worker and its application to kitchen layout designing.

UNIT - III:

Materials and finishes – Various materials and finishes used in kitchen – floor, walls, sink, ceiling, platforms, storage and their characteristics

UNIT - IV:

Essential services needed in a kitchen. Water supply – hot and cold, taping, water purifiers. - Electricity services – electric current, exhaust fans, electrical equipment and their locations, Drainage services – Wastewater drainage system, waste disposal.

UNIT - V:

Kitchen storage – principles of kitchen storage, storage areas in kitchen and its dimensions, hand operated tools and their location. Care and maintenance of storage.

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Redesign your own kitchen.

REFERENCES:

- 1. Alexander, N.J, (1972), Designing Interior Environment, Havanouich Inc.,
- 2. Faulkner, R., and Faulkner. S, (1987), *Inside Today's Home*, Rinehart publishing company, New york.
- 3. Riggs, R., (1992), *Materials and components of Interior Design*, Prentice Hall of India Pvt Ltd., New Delhi.
- 4. Allendizik (1988), *A concise encyclopedia of Interior Design*, 2nd edition, van nos trend reinbold, Newyork.
- 5. Varghese.M.A. etal., (1994), Ergonomics in Kitchen design, Bombay.
- 6. <u>https://www.designcafe.com/guides/different-types-of-kitchen-layouts/</u>
- 7. <u>https://thesquaredmoon.wordpress.com/2017/03/08/geometry-in-the-kitchen/</u>
- 8. <u>https://www.livspace.com/in/magazine/kitchens101-kitchen-cabinet-materials</u>
- 9. <u>https://www.prolinerangehoods.com/blog/all-the-services-you-need-for-kitchen-and-home-renovation/</u>
- 10. <u>https://declutteringschool.com/organize-your-kitchen/</u>

COURSE OUTCOMES:

- Summarize the functions performing in the kitchen and need of work triangle.
- Draw and apply the principles of planning and standards in Kitchen design.
- Examine the Material and finishes of the kitchen well suited for performance.
- Interpret the Current trends in modular kitchens.
- Create a Design for storage spaces and their requirements for kitchen.

YEAR: III

SKILL BASED ELECTIVE I POTTERY AND TERRACOTTA (Theory)

CODE:

CREDIT 2

COURSE OBJECTIVES:

- Prepare terracotta clay to make different articles
- Familiarize with the tools and techniques used in preparing clay articles
- Learn to finish the article prepared to increase its face value

UNIT – 1 INTRODUCTION TO CLAY AND POTTERY:

Clay preparation, Making of terracotta clay with fine grogs.

UNIT – 2 COLOUR MAKING AND TOOL USES:

Preparation of slip, engobe and glazes, Hand building techniques.

UNIT - 3 MAKING FORMS:

Ceramic/terracotta forms, sculpture making, Ceramic bowl and glass making, Jewelry making, Turning and finishing

UNIT – 4 PRODUCT MAKING:

Ceramic coffee mug making with different type of handles

UNIT – 5 GLAZING , BAKING, FINISHING:

Applying glazes on ceramic products with different processes, Oven loading and unloading, Temperature control and reading at baking.

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Do a conceptual design of a ceramic set of products.

REFERENCES:

- 1. Pottery Making Techniques: A Pottery Making Illustrated Handbook Anderson Turner
- 2. Complete Pottery Techniques: Design, Form, Throw, Decorate and More, with Workshops from Professional Makers DK Publishing.
- 3. Pottery for Beginners: Projects for Beautiful Ceramic Bowls, Mugs, Vases and More Kara Leigh Ford
- 4. Designing for Screen: Production and Art Direction Explained Georgina Shorter
- 5. <u>https://en.wikipedia.org/wiki/Pottery</u>

- 6. <u>https://www.dsource.in/resource/ceramic-pottery-khurja/tools-and-raw-materials</u>
- 7. <u>https://www.youtube.com/watch?v=n1hsl916uIQ</u>
- 8. <u>http://www.madehow.com/Volume-4/Pottery.html</u>
- 9. https://www.thecrucible.org/guides/ceramics/how-to-glaze/

- Design and decorate ceramics using a variety of techniques.
- Study simple hand twisting techniques to create ceramics products using clay.
- Understand how to make different handles suitable for a coffee mug
- Know the techniques of finishing the product
- Create products out of clay and terracotta and fix the price.

YEAR: III

CORE COURSE VIII **BUILDING DESIGN AND PLANNING**

CODE:

(Theory)

CREDIT 5

COURSE OBJECTIVES:

- Recognize spatial needs and standards for different types of auditoriums •
- Study lighting requirements for different areas in entertainment spaces •
- Know the spatial needs and service standards for hotel •
- Appreciate the interiors of educational institutions •
- Plan to design and decorate selected commercial interiors

UNIT- I **AUDITORIUM SPACES:**

Spatial and environmental standards for various auditoriums - performing arts, cinema, and convention centre. Detail schematics of wall paneling, false ceiling and carpeting to satisfy acoustic requirements.

ENTERTAINMENT SPACES: UNIT- II

Lighting studv to develop ideas for foyer, auditorium and stage requirements. Study of interiors for entertainment buildings such as clubs, multiplex and amusement parks - schemes for video games parlous, food court areas and exclusive indoor game areas of clubs.

UNIT - III HOTELS:

Spatial and service standards for five star hotels - integration of interior design schemes for rooms, restaurants, bars, health clubs, shopping arcade and other guest areas with the general theme of the hotel. Special ideas for suites and banquet halls - contemporary interior schemes to integrate new concepts in lighting and materials.

EDUCATIONAL AND SPORTING SPACES: UNIT – IV

Study of interiors for class rooms, seminar halls and AV halls - schemes for library, smart class rooms and discussion areas. Study of interior requirements for gymnasium, indoor stadium and aquatic complex - schemes for interiors of stadium with focus on lighting requirements and visibility.

$\mathbf{UNIT} - \mathbf{V}$ **COMMERCIAL SPACES:**

Study of interiors in Marriage hall/ Party hall, Beauty parlour, Department stores, saloons, pubs, discotheque and banks.and developing schemes for the same.

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Site Visit to Commercial Spaces for case study and submit a report.

REFERENCES:

- 1. Joseph, D.C., Julies, P. and Martiv, Z. ,(1992), Time Saver Standards for Interior Design and Space Planning, McGraw-Hill Inc. New York.
- Gupta, C.B., Dr. Nair, Rajan, (2003) , Marketing Management, Sultan Chand &Som, New Delhi.
- 3. Nair, R., 2002, Marketing, Sultan Chand and Sons Publisher, New Delhi.
- 4. Pattanchetti, C.C. Reddy, P.N., 1995, *Marketing*, Rainbow publishers, Coimbatore.
- 5. <u>https://www.smartsheet.com/retail-merchandising</u>
- 6. <u>https://sinalite.com/printersuccess/visual-merchandising-7-steps-to-revitalize-your-print-shop/</u>
- 7. <u>https://www.digitalvidya.com/blog/display-advertising/</u>
- 8. <u>https://www.warehouse-lighting.com/blogs/lighting-application-</u> <u>suggestions/different-types-of-office-lighting</u>
- 9. <u>https://www.unibox.co.uk/news-inspiration/types-importance-of-window-displays</u>
- 10. <u>https://smallbusiness.chron.com/psychology-visual-merchandising-66054.html</u>
- 11. <u>https://timesofstartups.com/more/factors-consider-planning-office-design-layout/</u>
- 12. <u>https://accountlearning.com/selection-of-office-building-important-factors-to-be-considered/</u>

COURSE OUTCOMES:

Upon successful completion of this course the students would be able to:

- Know about different entertainment areas like auditoriums
- Identify lighting required for different areas in entertainment spaces
- Suggest ideas to enhance the arrangement of educational spaces
- Design the interiors of different commercial spaces
- Develop interior schemes for commercial spaces

CORE COURSE IX SPECIFICATION AND ESTIMATION (Theory)

SEMESTER VI

CODE:

CREDIT 5

COURSE OBJECTIVES:

- Gain experience in estimating the cost of making products related to interior design
- Understand the rate analysis of different processes involved in construction
- Find out the methods of measuring and estimating for interior design works and electrical and sanitary fittings
- Know the procedure involved in writing specifications.

UNIT – I 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 – II RATE ANALYSIS & ESTIMATION FORMAT:

Rate Analysis – definition, method of preparation, quantity & labour estimate for woodwork, steelwork, Aluminum work, glass & its rate for different, thickness & sections, finishing (enamel paint, duco paints, melamine, DU coats, Hand polishing, veneering and laminating) for walls & ceilings. Electrical & plumbing products, wiring, ducting etc., and laying of tiles & wall paneling in the estimate format of the project.

UNIT – III DETAILED ESTIMATE:

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

UNIT – IV COSTING OF FIXTURES & FITTINGS:

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 equipment like piping, shower panels, cubicles, tubs, Jacuzzis, taps, motors, fountains, false ceiling of 25 aluminum panels, steel & wooden frame work, thermocol etc. wall paneling of ceramic tiles & other tiles of materials suitable for the same, partitions made of materials like aluminum wood, steel etc.

UNIT – V INTRODUCTION TO SPECIFICATION:

Specification– Definition, purpose, procedure for writing specification for the purpose of calling tenders, types of specification. Specification for different items related to interior design projects – woodwork for furniture window frames & pelmets, partitions also of materials like steel, aluminum, glass of different types.

Wall paneling& false ceiling of materials like aluminum, steel, wood, electrical, plumbing, air conditioning & fire fighting equipment.

UNIT – VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Write specifications and arrive at a detailed costing for one of your design projects.

REFERENCES:

- 1. Dutta, B.N., (2003), "Estimating and Costing in Civil Engineering", UBS Publishers & Distributors Pvt. Ltd., 2.K
- 2. Kohli, D.D and Kohli, R.C.,(2004), "A Text Book of Estimating and Costing (Civil)", S. Chand & Company Ltd.,
- 3. Arulmanickam A.P. and T.K. Palaniappan (1993), Estimating and Costing, Pratheeba Publishers, Coimbatore.
- 4. Tessie, A., (1986), The House, its Plan and Use, J.B. Lippincett, New York.
- 5. Day P.G., (1982), A guide to Professional Architectural and Industrial Scale Model Building, Eagle wood clifts, N.J. Prentice Hall.
- 6. Indian Standards Institutions, (1983), National Building Code of India ISI rol, 1 New Delhi, Marak Bhavan.
- 7. Deshpande, R.S., (1995), *Modern Ideal Homes for India*, Deshpande Publication, Poona.
- 8. Faulkner, S. and Faulkner. R, (1987), *Inside Today's Home*, Rinehart Publishing Company, New York
- 9. <u>http://expertrealtycompany.blogspot.com/2015/04/what-are-five-principal-types-of.html</u>
- 10. <u>http://www.civilprojectsonline.com/civil-projects/purpose-of-specifications-and-types-of-specifications/</u>
- 11. <u>https://www.basiccivilengineering.com/2018/07/types-estimate-types-estimates-prepared-various-stages-project.html</u>
- 12. <u>https://www.redfin.com/resources/difference-between-building-types</u>
- 13. https://www.opuskinetic.com/2019/04/4-types-of-tender-and-tenderingprocesses/

COURSE OUTCOMES:

- Appraise the cost of making products related to interior design
- Assess the rate of different processes involved in construction
- Measure and calculate the labour charges
- Estimate the cost of installation of electrical and plumbing fixtures
- Create an estimate for a project.

CORE PRACTICAL VI RETAIL FURNITURE DESIGN STUDIO

SEMESTER VI

CODE:

(Practical)

CREDIT 4

COURSE OBJECTIVES:

- Understand the spatial requirements for a retail activity
- Knowledge of different kinds of fixtures and display systems used in a retail space.
- Explore how different materials affect the experience of a retail space.

For practical examination the students have to plan, design and draft for a given retail activity/typology and do a presentation and demonstrate their design.

EXERCISE - I:

Shops –Draft a plan for retail activity – anthropometrics – types of Shop layout and Modular units. Materials used in counters, shelves, worktops, their comparative study - Case study

EXERCISE - II:

Create a Lighting & colour scheme – natural & artificial light. Lighting design for commercial spaces – task/display/atmospheric/focal lighting. Concept Design

EXERCISE - III:

Design an Shelving unit or a Floor standing unit for a retail store. - Detailed Design

EXERCISE - IV:

Create a Concept design for a boutique/retail showroom- materials & finishes - colour, texture & pattern.

REFERENCES:

- 1. Fiona Leolie, (1982), Designs for 20th century Interiors -, VH Publications, London.
- 2. Barbaralec Diamonstein, (1982), Interior Design; The New Freedom,, Rizzoli International Publications, New York.
- 3. Jonathan Poore, (1994), Interior Colour by Design, Rockport Publishers.
- 4. Rikuyo-Sha, (1987), Worldwide Interiors International Federation of Interior Architects & Designers, Japan.
- 5. <u>https://www.youtube.com/watch?v=E6BBl2Fj5wc</u>
- 6. <u>https://www.youtube.com/watch?v=F8e_PZ0hQHU</u>

- 7. <u>https://www.youtube.com/watch?v=LtTagG0gFpo</u>
- 8. https://www.youtube.com/watch?v=HeJzDbCTseo
- 9. https://www.youtube.com/watch?v=eX1vSyj_ilU
- 10. <u>https://www.youtube.com/watch?v=qfsjS3sENH8</u>

- Interpret the elements in a retail store
- Understand and create lighting for a retail space
- Recognize the retail display and shelving systems
- Design a store for a retail activity.

MAJOR BASED ELECTIVE II **1. DESIGN MANAGEMENT**

CODE:

(Theory)

CREDIT 4

COURSE OBJECTIVES:

- Develop strategies and methods for presenting design ideas and mock-up models
- Understand the methodology involved for product designing and its management
- Realise the importance of marketing the product and understanding the • consumer behaviour
- Know the significance of design documentation and the procedure involved ٠
- Find out more about the importance of patents and other intellectual property rights.

UNIT- I DESIGN PROPOSAL:

Fundamental ideas in Interaction Design. Structural design as a key device in the corporate part. Design strategy formulation. Contextual analyses like case studies in the event, brand and advertisement management. Strategies and methods for presenting design ideas and portrayals through mock-up models and material techniques.

UNIT – II **PRODUCT MANAGEMENT:**

Writing product documents, Product Specification and Concept Generation, Product Proposals, product design, development and management process over whole product lifecycle, methodology for product design and Management.

UNIT - III MARKETING AND CONSUMER BEHAVIOUR:

Creativity, innovation and its management in a team work. Team building, interpersonal relationship and conflict resolution. Market gaps, Professional practice, contracts, fees, negotiations, ethics and public relations, project planning. Public speaking effectively with presentation.

UNIT – IV DESIGN DOCUMENTATION:

Concept of documentation, Product details, Specific guidelines, Interactive role of Design including administration Policies, procedures, brochures, flyers, reviews.

INTELLECTUAL PROPERTY RIGHTS: UNIT –V

Product differentiation and identity; Patent laws, History, Budapest Treaty, Current State of Enforcement; Structure of a Patent Application; Design Rights, Trademarks, and intellectual property, India Design Act; Global and local frameworks of securing Intellectual Property Rights; indigenous intellectual property; Indian laws and their enforcement mechanisms. International laws and their enforcement mechanism.

UNIT-VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Find the procedure to be followed for patenting a product developed.

REFERENCES:

- 1. Kathryn Best,(2010), *The Fundamentals of Design Management*, AVA Publishing
- 2. Brigitte Borja De Mozota, (2004), Design Management: Using Design to Build Brand Value and Corporate Innovation, Allworth, Press.
- 3. Kenneth B Khan, (2011), Product Planning Essentials, M E Sharpe Inc
- 4. John Stark, (2011), Product Lifecycle Management: 21st Century Paradigm for Product Realisation, Springer
- 5. Craig M. Vogel and Jonathan Cagan, (2001), Creating Breakthrough Products: Innovation from Product Planning Program Approval, FT Press
- 6. David L. Rainey, (2011), Product Innovation: Leading Change through Integrated Product Development, Cambridge University Press
- 7. <u>https://creativemarket.com/blog/how-to-write-design-proposal</u>
- 8. <u>http://productdesignmanagement.com/what-is-product-design-management/</u>
- 9. https://www.moshi.com.au/blog/understanding-consumer-behaviour
- 10. <u>https://xd.adobe.com/ideas/principles/web-design/design-documentation/</u>
- 11. https://ipindia.gov.in/designs.htm

COURSE OUTCOMES:

Create approaches and techniques for showcasing design concepts and mockup models.

- Recognize the processes used in product design and management.
- Analyse the significance of marketing the product and consumer Behavior
- Understand the purpose of design documentation and the steps required.
- Learn about the significance of patents and other forms of intellectual property.

MAJOR BASED ELECTIVE II 2. CODES AND PRACTICES

SEMESTER VI

CODE:

(Theory)

CREDIT 4

COURSE OBJECTIVES:

- Gain knowledge on fire fighting requirements
- Know about recommended illumination levels for various spaces •
- Recognize the ventilation different rooms •
- Understand the requirement of a typical electrical layout
- Comprehend the codes for barrier free environment

UNIT – I **FIRE SAFETY CODES:**

Fire – combustibility – NBC – fire resistant rating of materials – fire fighting, requirements - wet riser, dry riser, fire zones, fire escape staircase, fire alarms, smoke detectors and fire lifts.

UNIT – II **CODES FOR LIGHTING:**

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

UNIT - III CODES FOR VENTILATION:

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

UNIT - IV CODES FOR ELECTRICAL LAYOUT:

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.

CODES FOR BARRIER FREE ENVIRONMENT: $\mathbf{UNIT} - \mathbf{V}$

Requirement of toilets, corridors, for handicapped persons - wheelchair clearances - ramps for physically challenged according to ISO 9001 Standards

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Evaluate existing plans of a building and analyse its safety codes.

REFERENCES:

- 1. IS codes and NBC publications
- 2. BIS special publications
- 3. Kasu, (2005), 'Interior Design', Mumbai: Ashish Book Center, India.
- 4. Leger.E, (2003), 'Complete Building Construction', London: Wiley-dreamtech India Pvt Ltd, UK.
- 5. Grondzik, Kwok, Stein and Reynolds, (2002), 'Mechanical and electrical equipment for buildings', (11th Ed)
- 6. <u>https://dgfscdhg.gov.in/national-building-code-india-fire-and-life-safety</u>
- 7. https://law.resource.org/pub/in/bis/S05/is.sp.72.2010.pdf
- 8. https://law.resource.org/pub/in/bis/S03/is.3362.1977.pdf
- 9. https://www.electricalclassroom.com/electrical-wiring-color-codes/
- 10. https://cpwd.gov.in/publication/aged&disabled.PDF

COURSE OUTCOMES:

Upon successful completion of this course the students would be able to:

- Discern the requirements for fire safety in a building.
- Analyse the recommended lighting levels for various spaces.
- Recognize the ventilation in various rooms.
- Identify the requirements of a typical electrical layout.
- Understand the codes for a barrier-free environment.

PROJECT

Semester VI

Code:

Credit: 3

Choose one of the following options for the project work.

EXERCISE - I:

Design and Detailing a Residential interior for an apartment/villa

EXERCISE - II:

Material/ Style based furniture design collection

EXERCISE - III:

Design and Detailing of a Retail Outlet/ Boutique

EXERCISE - I:V

Design and Detailing of a small Office Space

EXERCISE - V:

Set Design of Interior Spaces For a Novel(book)

EXERCISE - VI:

Special Projects (Proposals covering Project typology not listed above shall be vetted and approved by the faculty Incharge).

COURSE OUTCOMES:

- 1. Design with detailing an interior of an apartment villa
- 2. Plan based on material available and style
- 3. Design a retail outlet
- 4. Draw an office space
- 5. Create an interior space from a novel (book)

The candidate shall be required to take up a Project Work by group or individual and submit it at the end of the final year. The Head of the Department shall assign the Guide who, in turn, will suggest the Project Work to the students in the beginning of the final year. A copy of the Project Report will be submitted to the University through the Head of the Department on or before the date fixed by the University. The Project will be evaluated by an internal and an external examiner nominated by the University. The candidate concerned will have to defend his/her Project through a Viva-voce.

ASSESSMENT/EVALUATION/VIVA VOCE:

1. PROJECT REPORT EVALUATION (Both Internal & External)

TOTAL	- 100 marks
2. Viva-Voce / Internal & External	- 20 marks
III. Individual initiative	- 15 marks
 II. Execution of the Plan/collection of Data / Organisation of Materials / Hypothesis, Testing etc and presentation of the report. 	- 45 marks
I. Plan of the Project	- 20 marks

PASSING MINIMUM:

	Vivo-Voce 20 Marks	Dissertation 80 Marks
Project	40% out of 20 Marks	40% out of 80 marks
	(i.e. 8 Marks)	(i.e. 32 marks)

A candidate who gets less than 40% in the Project must resubmit the Project Report. Such candidates need to defend the resubmitted Project at the Viva-voce within a month. A maximum of 2 chances will be given to the candidate.

SKILL BASED ELECTIVE II PORTFOLIO DESIGN AND PRESENTATION (Theory)

Semester VI

Code:

Credit: 2

COURSE OBJECTIVES:

- Have an activity based on understanding the application of design principles in design field
- Know to document the works made through digital tools
- Identify and select appropriate work to compile a portfolio
- Edit and enhance the work using digital graphics
- Export and publish the work done by the candidate

UNIT – I VISUAL DESIGN PRINCIPLES:

Activity based on understanding the application of Design Principles (Gestalt Principle) and Identifying the Principles applied in the design field: Movie posters, Magazines, Brochures, etc.

UNIT – II DOCUMENTATION:

Documenting the works made through all the semesters using cameras and digital tools, understanding the technique and method to use the camera and digital tools.

UNIT - III SELECTION OF WORKS:

Identifying and selecting the appropriate works to be compiled in the portfolio.

UNIT – V EDITING& VISUAL COMPOSITION:

Post processing of selected works : Creating an identity of your portfolio using colour-pallet and fonts, Editing and enhancing photographs of the works using digital graphics. Exercise in creating visual compositions using grids in digital graphics

UNIT – V PRINT VS DIGITAL PUBLISHING:

Processing and printing the portfolio. Digital publication mediums and formats.Printing methods and media.

UNIT - VI CURRENT CONTOURS (For Continuous Internal Assessment Only):

Design your Portfolio and compile your works in it and take print.

REFERENCES:

- 1. Aaris Sherin, Irina Lee, Poppy Evans, (2013), *The Graphic Design Reference* & *Specification Book Everything Graphic Designers Need to Know Every Day*, Rockport Publishers.
- 2. Ryan Hembree, (2008), The Complete Graphic Designer: A Guide to Understanding Graphics and Visual Communication, Rockport Publishers
- 3. Samara, Timothy, (2003), Making and breaking the grid: a graphic design layout workshop, Rockport Publishers
- 4. Samara, Timothy, (2014), Design Elements: A Graphic Style Manual: Understanding the Rules and Knowing When to Break Them, 2nd Edition, Rockport Publishers
- 5. Samara, Timothy, Drawing for Graphic Design Understanding Conceptual Principles and Practical Techniques to Create Unique, Effective Design Solutions
- 6. <u>https://www.elluminatiinc.com/graphic-design-principles/</u>
- 7. https://en.wikipedia.org/wiki/Identity_documents_of_India
- 8. https://www.atlasofplaces.com/painting/selection-of-works/
- 9. <u>https://en.wikipedia.org/wiki/Composition_(visual_arts)</u>
- 10. <u>https://issuu.com/astridcintya/docs/interior_design_portfolio-astrid_cintya_ramadhani_</u>

COURSE OUTCOMES:

- Use design principles in presenting their design..
- Recognise the need to record the works created using digital tools
- Identify the right pieces of work to put together and prepare a portfolio.
- Apply digital graphics to edit and improve the work
- Understand to export and publish the candidate's work