1ID1: WRITING & COMMUNICATION SKILLS IN DESIGN

B. Des.: 1st Semester **Max. Marks: 100**
2L **Exam Hours: 3**

UNIT	CONTENTS	CONTACT HOURS
I	**Fundamentals of Communication in Design:** Nature, purpose and importance of communication, types of communication in design process, communication barriers and strategies to overcome them, role of storytelling in design communication, understanding the target audience in design presentations.	6
II	**Writing Skills for Designers:** Basics of grammar, vocabulary building and clarity in writing, writing design briefs, concept notes, and project proposals, descriptive and analytical writing for design documentation, writing for academic, professional and promotional purposes, introduction to product descriptions and portfolio text.	6
III	**Visual & Verbal Presentation Skills:** Structuring an oral presentation for design projects, Voice modulation, body language, using visual aids effectively (digital media, slides, models), tips for pitching design ideas to clients or juries, group presentation and peer feedback exercises.	6
IV	**Research & Report writing in Design:** Introduction to research methods for design projects, gathering and organizing data, writing observation notes, case study reports and user study summaries, structuring and formatting reports with visuals, tables, and references.	6
V	**Communication for Professional Practice:** Writing CVs, cover letters, design portfolios, Email and digital communication etiquette for designers, preparing design presentations for clients and competitions, article writing for magazines, newspaper article, blog writing, networking and self-promotion through professional communication	6
	TOTAL	**30**

COURSE OUTCOME (CO):

Upon successful completion of the course, students will be able to:

CO1	To understand the role of communication as an essential part of the design process and its impact on conveying ideas.
CO2	To integrate the skills so that students will be able to write clear, concise and compelling text that supports design concepts and documentation.
CO3	To develop the verbal presentation techniques and the ability to present design work persuasively.
CO4	To understand the compilation of research and design information into professionally written reports.
CO5	To acquire professional communication skills relevant to internships, client interaction, and the design industry.

REFERENCE BOOKS:

S. No.	NAME OF AUTHORS / BOOKS/ PUBLISHER	YEAR OF PUBLICATION
1.	Writing for Interior Design – Patricia Eakins	2015
2.	Presentation Basics – Doona Lynne Fullmer	2014
3.	The business style handbook: An A-to-Z guide for effective writing on the Job- Cuuningham & Greene	2012
4.	Business Communication: Techniques and Methods, O.P. Juneja and Aarati Mujumdar	
5.	Thinking with type: A Critical Guide for Designers, Writers, Editors & Students – Ellen Lupton	2024

1ID2: INTERIOR MATERIALS – I (Structural)

B. DES.: 1st Semester **Max. Marks: 100**
2L **Exam Hours: 3**

UNIT	CONTENTS	CONTACT HOURS
I	**Introduction to Structural materials in Interiors:** Role of materials in Interior design, classification of materials: structural vs. nonstructural, factors influencing material selection: strength, durability, cost, sustainability, material life cycle, and environmental considerations.	6
II	**Timber and wood products:** Types of natural wood (hardwood, softwood), properties, seasoning and preservation of timber, engineered wood: plywood, MDF, HDF, particle board, structural applications in furniture and interior partitions.	6
III	**Metals in Interior Structures:** Common metals: steel, aluminum, brass, copper, properties of materials, structural uses in frameworks, supports and joinery, finishes and protection for metals.	6
IV	**Masonry and Concrete:** Brick, stone, AAC blocks: types and properties, concrete and RCC elements in interiors, structural role in walls, floors, and load bearing features, exposed structural elements as design features	6
V	**Glass and structural plastics:** Types of Glass – annealed, tempered, laminated, weird, properties and safety considerations in structural use, structural plastics and compositions in furniture and interiors, case studies of innovative material applications.	6
	TOTAL	**30**

COURSE OUTCOME (CO):

Upon successful completion of the course, students will be able to:

CO1	To analyze the role of structural and non-structural materials in interior design and evaluate their selection based on strength, durability, cost, sustainability and environmental impact.
CO2	To understand the natural and engineered wood products, their properties, seasoning, and applications in structural interior elements such as furniture and partitions.
CO3	To evaluate the properties and structural applications of metals in interior framework, supports and joinery, along with appropriate finishing and protection techniques.
CO4	To apply knowledge of masonry materials in designing functional and aesthetic structural features within interiors.
CO5	Assess the properties, safety considerations, and innovative applications of glass and structural plastics in furniture and interior design.

REFERENCE BOOKS:

S. No.	NAME OF AUTHORS / BOOKS/ PUBLISHER	YEAR OF PUBLICATION
1.	Interiors an introduction by Karla. Neilson. David A. Taylor	2012
2.	Plunket, D. Constructions & Detailing for Interior Design, London, Laurence King Publishing.	2015
3.	Ching, F &B.Corky. Interior Design Illustrated, N.J., John Wiley and sons, Inc.	2005
4.	Materials for Interior Environments – Corky Binggeli	2013
5.	Interior Design Materials and Specification – Lisa Godsey	2021

1ID3: DRAWING & REPRENTATION TECHNIQUES -I

B. Des.: 1st Semester **Max. Marks: 100**

1L, 3S

UNIT	CONTENTS	CONTACT HOURS
I	**Hand drafting tools & basic drawing conventions:** Overview of drawing instruments- drawing boards, parallel bars, set squares, French curves, triangular scale, compasses, scales, pencils, erasers and drafting sheets, standard sheet sizes and layouts, line types, line weights, and their significance in design communication, standard lettering styles, and annotation methods, introduction to drafting scales and measurement transfer techniques. Use of various scales in interiors & their measuring units – Architectural & Imperial Scales.	8
II	**Introduction to spatial Geometry – 2D Drawings:** Understanding geometric construction principles, points, lines, angles and plane figures, Orthographic projection basics in 2D, Geometrical constructions- polygons, circles, arcs, ellipses, curves, technical drawings.	12
III	**Introduction to spatial Geometry – 3D Drawings:** Introduction to three-dimensional form representation, isometric and axonometric projections: principles and applications, drawing simple solids (cube, prism, pyramid, cylinder, cone, sphere), combination of solids and intersections, exploded views of design components, representing objects from multiple viewpoints, 3D Projections – isometric, plan oblique, elevation oblique, axonometric.	12
IV	**Perspective:** Theory of perspective: eye level, picture plane, vanishing points, one point perspective – interiors, furniture, objects, two-point perspective: street views, architectural & interior elements, application of perspective in conceptual sketches and presentations, view of interior spaces of different categories.	14
V	**Basic Model making:** Introduction to model making as a design communication tool, materials, paper, cardboard, foam board, model making tools, basic techniques: folding, cutting, joining, finishing, creating simpler solids – cubes, cylinders, pyramids, prism, sphere, cones, polyhedrons.	14
	TOTAL	**60**

COURSE OUTCOME (CO):

Upon successful completion of the course, students will be able to:

CO1	To develop familiarity with professional drafting tools, learn standard drawing conventions, and produce neat, accurate technical drawings.
CO2	To develop the ability to construct precise 2d drawings and develop visual accuracy for representing shapes and forms in design.
CO3	To understand the principles of 3D geometry and be able to translate spatial forms into accurate three-dimensional drawings.
CO4	To understand the space and objects with depth using correct perspective techniques.
CO5	To develop the basic skills in translating 2D and 3D drawings into physical models, understanding scale, proportion, and construction techniques.

REFERENCE BOOKS:

S. No.	NAME OF AUTHORS / BOOKS/ PUBLISHER	YEAR OF PUBLICATION
1.	Philip Meggs, "A History of Graphic Design", John Wiley & Sons; 3 edition	1998
2.	N.D.Bhatt, "Elementary Engineering", Charotar Publishing House, Anand	1991
3.	Alexander W. White, "The elements of Graphic Design Space, Unity, Page, Architecture and Types", All worth press, 1 edition.	2002
4.	Francis D.K.Ching with Steven P. Juroszek, "Design Drawing", John wiley & sons, NY.	1998
5.	Porter T. -Design Drawing Techniques for Architects Graphic Designers and Artists. Oxford: Architectural Press.	1994
6.	Brehm, M. - Drawing Perspective: How to See It and How to Apply It. B.E.S. Publishing Co.	2015

1ID4: INTERIOR CONSTRUCTION -I (Structural)

B. Des.: 1st Semester **Max. Marks: 100**

1L, 3S

UNIT	CONTENTS	CONTACT HOURS
I	**Introduction to Structural Systems in Interiors:** Role of construction in interiors, types of structural systems: load bearing, framed, hybrid, Structural design considerations, relationship between architectural and interior structural elements	8
II	**Foundations and flooring base structure:** Types of foundations, ground floor base preparation, sub floor construction, and load considerations, damp proofing and insulation at foundation level.	12
III	**Structural walls and columns:** Masonry walls – brick, stone and block construction, RCC frame systems: columns, beams, slabs, Openings in structural walls – lintels, arches. Integration of services in structural elements.	12
IV	**Structural Roof and Slab systems:** Flat slab construction, RCC slab types and reinforcement basics, sloped roofs and truss systems in interiors, load consideration for roof/ceiling integration.	14
V	**Staircase construction:** Types of staircases – straight, dog legged, spiral, helical. Components of staircase, structural materials used for stairs, ergonomics and safety in staircase design.	14
	TOTAL	**60**

COURSE OUTCOME (CO):

Upon successful completion of the course, students will be able to:

CO1	To understand the types of structural systems and evaluate the relationship between architectural and interior structural elements in design considerations.
CO2	To analyze different types of foundations and flooring base structures with emphasis on load considerations, damp proofing and insulation in interiors.
CO3	To apply knowledge of masonry construction and RCC frame systems to design walls, columns, and openings and integration of building services.

CO4	To evaluate various roof and slab construction methods, reinforcement basics and load considerations for effective integration in interior spaces.
CO5	To understand the staircase system by selecting suitable structural material.

REFERENCE BOOKS:

S. No.	NAME OF AUTHORS / BOOKS/ PUBLISHER	YEAR OF PUBLICATION
1.	Sushil Kumar, "Building Construction", M/s. Standard Publishers & Distributors, Delhi	2003
2.	Francis D.K. Ching, "Building Construction Illustrated", John Wiley	1975
3.	Handbook on Building Construction Practices, BIS, New Delhi	1997
4.	Panero, J. & Zelnik, M. Time-Saver Standards for Interior Design and Space Planning, McGraw- Hill Inc.	2001
5.	Robin Barry, "The construction of buildings (Vol. I-V)", Blackwell publishing	2000

1ID5: FUNDAMENTALS OF DESIGN -I

B. Des.: 1st Semester **Max. Marks: 100**

2L, 4S

UNIT	CONTENTS	CONTACT HOURS
I	**Elements of Design:** Introduction to design and its role in visual communication, elements of design – line, shape, form, texture, color, value, observation studies- translating real life objects into simplified design elements.	18
II	**Principles of Design:** Exploration of the basic principles of composition, overview of the principles: balance, contrast, emphasis, rhythm, proportion, unity and harmony. Relationship between elements and principles in a composition. Exercises applying principles to design layouts and patterns.	18
III	**Color Theory:** Introduction to color as a design element, Color wheel, Color schemes – complementary, analogous, triadic, warm and cool colors, color schemes for interiors, color psychology in design projects.	18
IV	**Composition:** Understanding composition as arrangement of elements in a space. Role of third, golden ratio, focal points. Positive & negative space in design, layering overlapping & depth in 2D & 3D design. Composition exercises using mixed media.	18
V	**Interior Sketching:** Introduction to freehand interior sketching, basic perspective drawing for interior spaces. Sketching furniture, fixtures and spatial details. Indicating textures and materials through quick rendering, adding human figures and accessories for scale and context. Sketching interior from observation and imagination.	18
	TOTAL	**90**

COURSE OUTCOME (CO):

Upon successful completion of the course, students will be able to:

CO1	To understand and apply the elements of design (Line, shape, form, space, texture, value, color) to create visually balanced and cohesive compositions.
CO2	To understand the application of design principles to create compositions that are visually engaging.
CO3	Analyze and implement the color theory, including the color wheel, color schemes, mixing technique, preparation of tints, shades and tones for interior applications.
CO4	To understand the arrangement of elements to guide the viewer's eye and to create visually balanced and cohesive compositions.
CO5	To develop the ability to sketch interior spaces with correct proportion, perspective, and a sense of atmosphere.

REFERENCE BOOKS:

S. No.	NAME OF AUTHORS / BOOKS/ PUBLISHER	YEAR OF PUBLICATION
1.	Gianni A. Sarcone, "Drawing & Illustration", Arcturus Publication	2012
2.	Otto G. Ocvirk, "Art Fundamentals", Mcgraw Hill	2006
3.	Gianni A. Sarcone, "Drawing optical illusions", Arcturus Publication	2012
4.	Edwards, B. Color. USA. Penguin	2004
5.	Ching, F.D.K. . Architecture, Form, space & order. New York: Van Nostrand Reinhold.	1979

1ID6: BASIC WORKSHOP

B. Des.: 1st Semester **Max. Marks: 100**

4S

UNIT	CONTENTS	CONTACT HOURS
I	**Paper Workshop:** Introduction to properties, types, and thickness of paper in design, Techniques – cutting, folding, pasting, paper joinery and bending for structural strength. Prototyping small scale interior accessories (lampshades, table organizers, etc.), exploration of origami & tessellations for decorative panels.	10
II	**Cardboard and Thermocol:** Understanding cardboard grades, ply types, and thermocol densities, techniques like cutting, folding, bending and joining. Materials – foam board, mount board, card board. Prototyping light weight furniture mockups – stools, storage boxes, etc.	10
III	**Photography:** Basics of DSLR and mobile photography for interior products, lighting techniques – natural, artificial and studio setups, composition, framing, and styling for product shoots. Editing basics for enhancing design presentation, documenting. Documenting workshop outputs and creating a product portfolio	10
IV	**Carpentry workshop:** Introduction to types of woods, veneers, wood products. Woodworking tools: hand tools & basic power tool, Joinery techniques, surface finish paletots wood, creating wooden products	15
V	**Metal workshop:** Understanding types of metals used in interiors like steel, aluminum. Cutting, bending and welding basics, Surface treatment polishing, powder coating, painting, Combining metal with other materials. And combining metal with other materials, for hybrid product. Creating small interior products	15
	TOTAL	**60**

COURSE OUTCOME (CO):

Upon successful completion of the course, students will be able to:

CO1	To understand the paper as a versatile design medium and create simple interior products using paper crafting techniques.
CO2	To gain skills in cardboard and thermocol for quick prototyping and model representation for design presentations.
CO3	To learn to capture and present interior products professionally for portfolios.
CO4	To acquire hands on skills in wood working and create functional interior products.
CO5	To understand the basic metal fabrication skills to create durable and aesthetic interior products.

REFERENCE BOOKS:

S. No.	NAME OF AUTHORS / BOOKS/ PUBLISHER	YEAR OF PUBLICATION
1.	Donald Stoltenberg, "The Artist & Built Environment", Davis Publication	1980
2.	Keith Critchlow, " Order in Space", Thames & Hudson	2000
3.	R.C. Gupta, "Basic Shop Theory carpentry", Dhanpat Rai publications	
4.	Edword Luice Smith, Paul J Karlstroam," Fletcher Benton", Harry N Abrams publications, First Edition	1990
5.	Robert J. Lang, "Origami animals", Crescent Books Publishers	1992

1ID7: Digital Skills-I

B. Des.: 1st Semester **Max. Marks: 100**

2S

UNIT	CONTENTS	CONTACT HOURS
I	**MS Word:** Introduction MS word interface and tools, creating professional reports, specifications, project proposals, Formatting: heading, tables, and image documents Creating project summaries in word.	2
II	**PowerPoint:** PowerPoint interface and slide design principles, creating concept presentations and design proposals, using themes , templates and master slides, inserting images, floor plans and rendering. Preparations for client meetings and juries.	2
III	**Basics of 2d AutoCAD:** Introduction of AutoCAD, tools, navigation, drawing basic lines, shapes, layer management and object, layer management and other properties, drafting simple floor plans, elevations, printing and exporting scaled drawings for presentation.	10
IV	**Basics of Adobe Photoshop:** Introduction to photoshop workspace, tools and layers, image editing: cropping, color correction, adding textures, patterns and materials to floor plans, exporting images for presentations and portfolios.	10
V	**Basics of Adobe Indesign :** Introduction to Indesign interface and document setup, paper layout for design portfolios, brochures and magazine spreads, placing and arranging images, drawings, text, exporting layouts for print and digital sharing.	6
	TOTAL	**30**

COURSE OUTCOME (CO):

Upon successful completion of the course, students will be able to:

CO1	To understand the preparation of well structured, visually organized and professional interior project documentation.
CO2	To create compelling visual presentations to communicate design concepts effectively.
CO3	To create accurate 2D interior drawings for design documentation and presentations.
CO4	To understand the image enhancement, create visual compositions, and add realistic textures in interior design.
CO5	To understand the designing well-structured and visually appealing portfolios, brochures and presentations for interior projects.

REFERENCE BOOKS:

S. No.	NAME OF AUTHORS / BOOKS/ PUBLISHER	YEAR OF PUBLICATION
1.	Cadfolks, "Autocad 2014 for Beginners", Create Space Independent Publishing Platform	2014
2.	Bill Fane, "AutoCAD 2014 For Dummies", John Wiley & Sons	2013
3.	Randy H. Shih, "Exploring DraftSight" Schroff Development Corp	2009
4.	Lisa Danae Dayley, Brad Dayley, "The Essential Photoshop Book" Adobe Photoshop CS5 Bible, Wiley India Pvt. Ltd	2010
5.	Eileen Mullin, "The Essential Photoshop Book", Prima Publishing US	1998

2ID1: INTERIOR ENVIRONMENT - I

B. Des.: 2nd Semester **Max. Marks: 100**
2L **Exam Hours: 3**

UNIT	CONTENTS	CONTACT HOURS
I	**Introduction to Interior Environment:** Definition and scope of interior environment, interaction between built spaces and human well being, overview of physical, psychological, cultural influences son interiors, concept of user centric design in environment planning.	6
II	**Natural and Artificial lighting in Interiors:** Principles of light and visual comfort, daylighting- orientation, glazing, and shading devices, Types of artificial lighting – ambient, task, accent, decorative. Color temperature, CRI and lighting effects on mood and perception.	6
III	**Indoor Air Quality and Ventilation:** Basics of indoor air quality and its impact on health, natural ventilation strategies – cross, stack, single sided, mechanical ventilation system, controlling humidity, pollutants and odors in interiors.	6
IV	**Acoustics in Interior Spaces:** Sound behavior in enclosed spaces, parameters- absorption, reflection, reverberation time and noise control, acoustic materials and treatments, acoustic planning for residential and small commercial interiors.	6
V	**Thermal comfort & Climate responsiveness:** Parameters influencing thermal comfort- temperature, humidity, air movement, passive design strategies for thermal comfort, climate zones and design adaptations in India, case studies of climate responsive interiors.	6
	TOTAL	**30**

COURSE OUTCOME (CO):

Upon successful completion of the course, students will be able to:

CO1	To explain the scope of interior environment and analyze the interaction of built spaces with human well being through physical, psychological and cultural influences.
CO2	To apply principles of daylighting and artificial lighting to achieve visual comfort and enhance mood, perception, and functionality in interior spaces.
CO3	To evaluate natural and mechanical ventilation strategies to ensure healthy indoor air quality by controlling humidity, and pollutants.
CO4	To assess sound behavior and apply acoustic materials and treatments for effective noise control and comfort in interiors.
CO5	To analyze parameters of thermal comfort and integrate passive design strategies responsive to Indian climate zones for energy efficient interiors.

REFERENCE BOOKS:

S. No.	NAME OF AUTHORS / BOOKS/ PUBLISHER	YEAR OF PUBLICATION
1.	Sustainable Design for Interior Environments – Susan M. Winchip	2010
2.	Environmental Psychology for Design – Dak Kopec	2024
3.	Environmental Design Sourcebook – Innovative Ideas for a Sustainable Built Environment – Peter Silver & William McLean	2021
4.	Indoor Environmental Quality – Muhammad Abdul Mujeebu	2019
5.	Interior Lighting for Environmental Designers – James L.Nuckolls	1976

2ID2: INTERIOR MATERIALS – II (Non-Structural)

B. Des.: 2nd Semester **Max. Marks: 100**

2L **Exam Hours: 3**

UNIT	CONTENTS	CONTACT HOURS
I	**Nonstructural material overview:** Difference between structural and nonstructural use, material performance factors – acoustics, thermal comfort, weight, installation ease, temporary and permanent applications.	6
II	**Partition Materials:** Gypsum boards, calcium silicate boards, fiber cement boards, Modular partition systems (metal, wood, glass), acoustic partitions and panels, fabric wrapped and movable partitions.	6
III	**False Ceiling Materials:** Gypsum, POP, metal tiles, mineral fiber tiles, wooden ceilings and acoustic ceiling system, installation systems – grid and concealed, lighting integration in ceiling materials.	6
IV	**Wall cladding materials:** Laminate, veneer, cork, PVC panels, stone, brick veneer, ceramic and decorative tiles, acoustic and thermal wall panels, Textured paints and 3D panels.	6
V	**Flooring Base Materials (Non Finish):** Subfloor preparation materials – cement screed, plywood underlayment, raised flooring systems, underfloor services, vapor barriers and insulation layers.	6
	TOTAL	**30**

COURSE OUTCOME (CO):

Upon successful completion of the course, students will be able to:

CO1	To understand the structural and non structural applications of materials and evaluate their performance.
CO2	To understand the properties and applications of various partition systems .
CO3	To apply knowledge of ceiling materials and installation systems to design functional false ceilings with acoustic control and integrated lighting solutions.
CO4	To evaluate diverse wall cladding options.
CO5	To analyse flooring base preparation methods and materials.

REFERENCE BOOKS:

S. No.	NAME OF AUTHORS / BOOKS/ PUBLISHER	YEAR OF PUBLICATION
1.	Interiors an introduction by Karla. Neilson. David A. Taylor	2012
2.	Plunket, D. Constructions & Detailing for Interior Design, London, Laurence King Publishing.	2015
3.	Ching, F &B. Corky. Interior Design Illustrated, N.J., John Wiley and sons, Inc.	2005
4.	Materials for Interior Environments – Corky Binggeli	2013
5.	Interior Design Materials and Specification – Lisa Godsey	2021

2ID3: INTERIOR DESIGN -I

B. Des.: 2nd Semester **Max. Marks: 100**

4S

UNIT	CONTENTS	CONTACT HOURS
I	**Project Introduction & Research:** Understanding Research methods- Case studies, site observation, user profiling, Constraints & opportunities of compact spaces – ergonomics, circulation & visual appeal, defining project brief & requirements.	6
II	**Concept Development:** Translating research insights into design concepts, ideation methods- sketches, mind mapping, material exploration, space planning principles – zoning, circulation, storage integration. Furniture layout	10
III	**Bubble diagram, zoning, circulation & design:** Private & public spaces, semipublic and semi-private spaces, circulation paths Developing 2D drawings – plans, elevations, sections, material & finish selection suitable for small scale projects, furniture, display units, signage & lighting, incorporating ergonomics.	10
IV	**Mood boards & material boards:** Development of physical & digital boards to explain design intent, color palette & materials used.	10
V	**Space Design:** Design and development of small-scale interior spaces- kiosks, exhibition stalls, pop up stores, food carts, small cafes, Final presentation sheet, model, concept drawings, 2d and 3d drawings.	24
	TOTAL	**60**

COURSE OUTCOME (CO):

Upon successful completion of the course, students will be able to:

CO1	To apply research methods such as case studies, site observations, user profile compact space designing
CO2	To develop design concepts using ideation techniques, sketches and space planning principles.
CO3	To apply zoning, circulation, ergonomics, material selection to create functional small-scale space.
CO4	To create mood boards to effectively communicate design intent, color palette
CO5	To design and present small scale interior spaces.

REFERENCE BOOKS:

S. No.	NAME OF AUTHORS / BOOKS/ PUBLISHER	YEAR OF PUBLICATION
1.	Ching, F.D.K. Architecture, Form, space & order. New York: Van Nostrand Reinhold.	1979
2.	Graeme B. Stone S. Basics: Interior Architecture- Volumes 1-6, AVA Publishing SA Switzerland	2007
3.	Ching, F. Interior design illustrated. New York: Van Nostrand Reinhold.	1987
4.	Neufert, E., Neufert P., Kister, J. Architects Data: Chichester, West Sussex, Ames, Iowa : Wiley-Blackwell	2012
5.	Ching, F.D.K. Architectural graphics. New York: Van Nostrand Reinhold Co.	1975

2ID4: INTERIOR CONSTRUCTION -II (Non-Structural)

B. Des.: 2nd Semester **Max. Marks: 100**

1L, 3S

UNIT	CONTENTS	CONTACT HOURS
I	**Partition Systems:** Fixed partitions – timber, metal, glass, composite materials, fixed and movable partitions, acoustic and thermal insulation in partitions, detailing for junctions and service integration.	12
II	**Ceiling Systems:** Suspended ceilings – grid, concealed, stretch ceilings, ceiling materials – gypsum, POP, metal tiles, wood, Acoustic and thermal considerations, lighting integration in ceilings.	12
III	**Nonstructural floor construction:** Raised flooring systems, underfloor service channels, substrate preparation for various finishes, expansion joints and detailing.	12
IV	**Wall paneling and cladding systems:** Timber, laminate, veneer, stone, and metal panels, dry cladding methods, integrated storage and display wall systems, acoustic wall paneling.	12
V	**Joinery and built in furniture construction:** Fixed cabinetry, shelving and counters, modular construction methods, hinges, sliders, and other hardware integration, ergonomics in built in furniture details	12
		60

COURSE OUTCOME (CO):

Upon successful completion of the course, students will be able to:

CO1	To apply knowledge of fixed and movable partition materials and detailing to design functional interior partitions with integrated service considerations.
CO2	To evaluate different suspended ceiling systems and materials.
CO3	To analyze raised flooring systems, service channels, and substrate preparation techniques.
CO4	To assess various wall paneling and cladding materials & construction methods.
CO5	To understand the joinery and built in furniture system.

REFERENCE BOOKS:

S. No.	NAME OF AUTHORS / BOOKS/ PUBLISHER	YEAR OF PUBLICATION
1.	Sushil Kumar, "Building Construction", M/s. Standard Publishers & Distributors, Delhi	2003
2.	Francis D.K.Ching, "Building Construction Illustrated", John Wiley	1975
3.	Handbook on Building Construction Practices, BIS, New Delhi	1997
4.	Panero, J. & Zelnik, M. Time-Saver Standards for Interior Design and Space Planning, McGraw- Hill Inc.	2001
5.	Robin Barry, "The construction of buildings (Vol. I-V)", Blackwell publishing	2000

2ID5: FUNDAMENTALS OF DESIGN -II

B. Des.: 2nd Semester **Max. Marks: 100**

2L, 4S

UNIT	CONTENTS	CONTACT HOURS
I	**Form & Space:** Form and nature, visual and emotional effects of geometric forms and their derivatives. Transformation of forms such as dimensional, subtractive, additive forms. Articulation of forms. Space defining elements – horizontals & vertical elements. Openings in space defining elements, spatial relationship and organization.	18
II	**Proportion and Scale:** Historical overview of proportion in design, Vitruvian man, Golden ratio, Modular, Proportion in architecture and interiors: symmetry, balance, scale, relationship between proportion and aesthetics, applying proportion grids to basic interior layouts.	18
III	**Anthropometry- Human Dimensions:** Definition and importance of anthropometry in design, measuring human dimensions – standing, sitting, reaching, bending, anthropometric charts for diverse user groups (age, gender, abilities).	18
IV	**Ergonomics- Designing for Comfort & Efficiency:** Introduction to ergonomics and its role in interior design, human interaction with furniture, equipment and environments, physical comfort, posture and movement analysis, workplace and home ergonomics- safety and efficiency.	18
V	**Application in Furniture & Interiors:** Anthropometry and Ergonomics dimensions for seating, tables, beds, storage units, designing furniture for different contexts, proportion, scale and comfort in furniture, case studies of iconic ergonomics furniture design. Space planning using proportion, anthropometry and ergonomics, circulation space, clearance standards, integrating ergonomics principles into residential and commercial interiors.	18
	TOTAL	**90**

COURSE OUTCOME (CO):

Upon successful completion of the course, students will be able to:

CO1	To understand the proportion systems and their application in achieving visual harmony in interior spaces.
CO2	Able to interpret and apply human measurement data in design decisions.
CO3	To understand how to design interiors that enhance comfort, safety, and user efficiency.
CO4	To understand the design functional and comfortable furniture aligned with human dimensions.
CO5	To equipe students with essential manual and digital representation techniques for interior design, enabling them to create professional quality presentation boards and visualizations.

REFERENCE BOOKS:

S. No.	NAME OF AUTHORS / BOOKS/ PUBLISHER	YEAR OF PUBLICATION
1.	Francis D.K. Ching, "Architecture Form, Space & Order", John Wiley & Sons, Incorporated	2007
2.	Debkumar Chakrabarti, "Indian Anthropometric Dimensions", NID	1997
3.	Alvin R. Tilly, "The measures of man & woman human factors in design", Whitney library of design, NY.	1993
4.	K.W.Smithies, "Principles of Design in Architecture", Van Nostrand Reinhold company.	1981
5.	Interior an Introduction by Karla. Nielson. David A. Taylor	2002

2ID6: DRAWING & REPRESENTATION TECHNIQUES -II

B. Des.: 2nd Semester **Max. Marks: 100**

1L, 3S

UNIT	CONTENTS	CONTACT HOURS
I	**Presentation & Rendering Skills:** Importance of visual presentation in interior design, sheet composition, layout planning, margins, title blocks, line weights, hatching, stippling, shading techniques.	18
II	**Basic Rendering with Mixed Media:** Introduction to mixed media for design, understanding light, shade and shadow in interiors, rendering of geometric forms & basic furniture in mixed media, material rendering basics – wood, fabric, stone, glass.	12
III	**Advanced Rendering with Mixed Media:** Detailed material rendering – marble, polished wood, metallic finishes, transparent surfaces, perspective rendering: one point & two-point interiors, Human figures and accessories for scale and ambiance, blending and layering multiple media, combining hand rendering with minimal digital enhancement.	12
IV	**Digital representation of Interiors in AUTOCAD:** Introduction to AutoCAD interface, drawing interior plans, sections, elevations to scale, using line weights, hatching, furniture layouts and interior detailing, exporting drawings for presentation and rendering. Developing plan and elevation rendered.	9
V	**Digital Representation of Interiors in Photoshop:** Importing and enhancing AutoCAD drawings in Photoshop, digital coloring, texturing, shadow creation, layer management, editing techniques, mood boards and final presentation sheets.	9
	TOTAL	**60**

COURSE OUTCOME (CO):

Upon successful completion of the course, students will be able to:

CO1	To prepare neat, well organized presentation sheets with accurate line work.
CO2	To gain basic skills in representing interior materials and finishes using a combination of traditional media.
CO3	To produce realistic, aesthetically appealing interior renderings using advanced hand techniques.
CO4	To produce accurate, professional quality 2D interior drawings digitally in AutoCAD.
CO5	To understand the process of digitally enhancing interior designs for professional presentation using Photoshop.

REFERENCE BOOKS:

S. No.	NAME OF AUTHORS / BOOKS/ PUBLISHER	YEAR OF PUBLICATION
1.	Mitton, M.,Interior Design Visual Presentation: A Guide to graphics, models, and presentation techniques, Wiley & Sons, Inc.	2012
2.	Robert Gill, "Rendering with pen and ink", Thames & Hudson	1990
3.	Gianni A. Sarcone, "Drawing & Illustration", Arcturus Publication	2012
4.	Otto G. Ocvirk, "Art Fundamentals", Mcgraw Hill	2006
5.	Eileen Mullin, "The Essential Photoshop Book", Prima Publishing US	1998

2ID7: Digital Skills-II

B. Des.: 2nd Semester **Max. Marks: 100**

2S

UNIT	CONTENTS	CONTACT HOURS
I	**AutoCAD 2D Advanced:** Advanced drawing tools – polylines, splines, regions, blocks with attributes, layer management, filters and standards, External references (XREF) and working with multiple layouts, advanced dimensioning, annotation styles and hatching techniques, plot styles, preparing drawings for professional printing.	6
II	**AutoCAD 2D for Interior Design applications:** Creating detailed floor plans, elevations, and sections, furniture layout, lighting layout, using CAD standards for interior drawings, preparing complete project on AutoCAD.	6
III	**Photoshop Advanced for Interior Visualizations:** Advanced selection techniques channel, refine, edge, layer masks, nondestructive editing using smart objects and adjustment layers, creating realistic lighting and shadow effects for interior renders, color correction, perspective wrap, compositing multiple images, rendering textures and materials on line drawings and 3d views. Preparing high quality presentation boards with layouts.	6
IV	**Sketch up for visualization –**Introduction to basic modeling tools. Modifying the existing model by using transformers (move, scale, rotate, copy etc.) Exercise based on above tools-Single function unit, simple and complex forms.	6
V	**Integrated Digital Project:** Drafting detailed drawing on AutoCAD, developing conceptual renders in Rhino, enhancing renders and creating a presentation board in Photoshop.	6
	TOTAL	**30**

COURSE OUTCOME (CO):

Upon successful completion of the course, students will be able to:

CO1	To produce professional, detailed and standardized 2D drawings for interior projects.
CO2	To create a complete, layered and dimensional set of working drawings for an interior project.
CO3	To understand the photoshop workflows for producing high quality, realistic interior presentation boards.
CO4	To understand the sketchup basic skills to create accurate 3D models from 2D drawings.
CO5	To integrate multiple digital tools into a cohesive workflow for interior design presentation and execution.

REFERENCE BOOKS:

S. No.	NAME OF AUTHORS / BOOKS/ PUBLISHER	YEAR OF PUBLICATION
1.	Cadfolks, "Autocad 2014 for Beginners", Create Space Independent Publishing Platform	2014
2.	Bill Fane, "AutoCAD 2014 For Dummies", John Wiley & Sons	2013
3.	Chris Grover, "Google Sketch Up", Shroff/O'Reilly	2009
4.	Lisa Danae Dayley, Brad Dayley, "The Essential Photoshop Book" Adobe Photoshop CS5 Bible, Wiley India Pvt. Ltd	2010
5.	Eileen Mullin, "The Essential Photoshop Book", Prima Publishing US	1998