



MANIPAL SCHOOL OF ARCHITECTURE AND PLANNING

MANIPAL
(A constituent unit of MAHE, Manipal)

1. PROGRAM CONTENTS

FIRST YEAR / SEMESTER ONE

ID 4501 INTERIOR DESIGN FUNDAMENTALS - I

COURSE INTENT:

The course aims at the importance of elements and principles of design and providing the foundation of the design process. The course would also help in translating the fundamentals of design towards innovative thinking through creative problem-solving exercises.

COURSE CONTENTS:

The course covers the introduction to design with focus on principles and elements of design, golden ratio; psychology in design that involves Gestalt's law and optical illusion, form, and abstraction; colour perception and application; design process that enables application of the design processes through case studies; design development.

Typologies: Single user spaces e.g. ATM booth, Guard room etc.

Scale of Project: 10 sq.m. to 15 sq.m area

COURSE OUTCOMES:

CO1: Demonstrate the importance of elements and principles of design.

CO2: Apply the knowledge of psychology in design.

CO3: Demonstrate the application of colour creatively.

CO4: Analyse design processes through case studies.

CO5: Interpret Design processes.

REFERENCES:

1. Meiss, Pierre Von. Elements of Architecture: Form to place, E and FN Spon, London, 1992.
2. Ching, Francis D.K. Architecture Form, space, and Order, 2nd ed. Van Nostrand Reinhold, New York, 1996.
3. Wucius, Wong. Principles of Two Dimensional Design. Van Nostrand Reinhold 1972
4. John.F. Pile, Color in Interior Design, Mc-Graw Hill professional, 1st edition, 1997.
5. Ethel Rompilla, Color for Interior Design, Harry N. Abrams, 2005.
6. Johannes Itten, The Art of color, John Wiley & Sons; Revised edition, 1997
7. Jonathan Pore, Interior Colour by Design, Volume 2: A design tool for Homeowners, Designers, and Architects, Rockport publishers, 2005.



ID 4503 MATERIAL & CONSTRUCTION - I

COURSE INTENT:

This course offers knowledge and experience about the classic drawing and sketching techniques and develops the appropriate skills for visualization and representation to facilitate effective visual communication.

COURSE CONTENTS:

The course covers introduction to theoretical study of spatial and structural components foundation, floor, walls, roofs, ceiling, doors, windows and staircase (Theoretical study), material specifications; Brick & Stone - material, finishes, types, application, and technical details (including drafting); Masonry – bricks, lime, sand, mortars, cement and aggregates, concrete, stone masonry, gypsum-based plaster etc. along with laying, bonding, and jointing these materials, Floor and floorings details – material, finishes, types, technical details (including drafting). Various natural as well as artificial flooring materials like, ceramic tiles, full body vitrified tiles, terracotta tiles, glass mosaic tiles, stone tiles, Mosaic, Rubber, Linoleum, PVC and PVA flooring, their properties, other uses and applications in the interior. Roof & ceiling details- material, finishes, types, technical details (including drafting). Terracotta, sheets and fiber boards – properties and application. Introduction to false ceiling & its details; Openings: Doors & windows- material, finishes, types, technical details (including drafting). Detailed plan, sections & elevations of all woodworks: joinery, types of doors, windows, etc. The study of building materials would be compiled in the form of a portfolio.

COURSE OUTCOMES:

CO1: Understand foundational building components and material specifications.

CO2: Learn brick and stone masonry techniques, including material types, finishes & technical details.

CO3: Classify various flooring materials, their properties, finishes, applications & technical details.

CO4: Understand the insight of roofing and ceiling materials their properties, finishes, application & technical details.

CO5: Develop an ability for selection & detailing of doors & windows, integrating them into interior space.

REFERENCES:

1. B. C. Punmia; Building Materials and Construction. Laxmi Publications Pvt Ltd, New Delhi, 1993
2. Bindra & Arora; Building Materials and Construction.
3. W.B. Mckay, 'Building Construction,' Vol. 1,2,3 Longmans, U.K. 1981.
4. Arthur Lyons; Materials for Architects and Builders- An Introduction; Arnold, London 1997.
5. Francis K Ching 'Building construction', Wiley; 5 edition (February 17, 2014)
6. R. Barry, "Construction of Buildings" Vol 1., 1999 by Wiley-Blackwell
7. Roy Chudley, "Construction Technology", 3rd Edition, Longman, 1999

ID 4505 INTERIOR GRAPHICS - I

COURSE INTENT:

The course offers knowledge and experience about the fundamentals of drafting and representation techniques. It develops appropriate skills for graphical representation to facilitate effective technical drawing for simple forms.

COURSE CONTENT:

The course includes introduction to Graphic Representation with focus on understanding scale and application of scale in design representation; Drafting and Technical drawings with understanding various methods of drafting, familiarization, use and handling of instruments; Generic technical representation of design, usage of symbols, elements and signs for simple detailing; Introduction to Geometry: Exploration of basic geometric constructions – simple lines, shapes, forms and their applications (Euclidian geometry). Introduction to plane curves such as ellipse, parabola, hyperbola and ovals and their construction methods; Introduction to 2D Projections: Principles of orthographic projection, projections of points, lines and planes in different positions as 2D projections; Introduction to 3D Projections: Isometric and Axonometric views of simple forms and planes. Continuous exploration from 2D to 3D projections. 3D representation of exploded isometric and axonometric views of simple forms. Sketching of furniture.

COURSE OUTCOMES:

CO1: Understand the process of measured drawing and scale in design presentation.

CO2: Develop technical design drawings, typography, symbols, and representation signs.

CO3: Translate simple geometry through drafting techniques.

CO4: Demonstrate 2D projections through drafting techniques.

CO5: Develop 3D projections through drafting techniques.

REFERENCES:

1. Mitton, M., & Mitton, M. A. (2007). *Interior Design Visual Presentation: A Guide to Graphics, Models, and Presentation Techniques* (3rd ed.). Wiley
2. Mogali Delgade Yanes, M., & Ernest Redondo Dominquez, E. (2005). *Freehand Drawing for Architects and Interior Designers*. W.W. Norton & Co
3. Ching, F. D. (2002). *Architectural Graphics*. Wiley.
4. Moris, I.H. *Geometrical Drawing for Art Students*.
5. Bhatt, N.D., & Panchal, V.M. (2000). *Engineering Drawing: Plane and Solid Geometry (42nd ed.)*. Charotar Pub



ID 4507 HISTORY OF WORLD INTERIOR DESIGN - I

COURSE INTENT:

The course provides a comprehensive exploration of world interior design history, encompassing ancient times to the onset of industrial revolution, and its interplay with cultural influences, societal dynamics, and evolving concepts of identity.

COURSE CONTENT:

The course includes the architecture and interior design of the ancient world, spanning from Prehistoric art and the advancement of River Valley civilizations such as Mesopotamia, the Indus Valley, Ancient China, and Ancient Egypt, to the classical architectural marvels of Egyptian, Greek, and Roman civilizations. The course further transitions from localities to nationhood by the rich tapestry of the Middle Ages in Europe, spanning the Early Christian, Byzantine, Romanesque, Gothic, Renaissance, Baroque, Rococo and Neoclassic periods. Furthermore, it explores the intricate designs of African cultures, the elegance of Islamic design, and the unique influences of African artistry. Through this journey, students gain a deep understanding of the historical and cultural underpinnings that have shaped the world of design. The course explores each period's origin, climate, socio-political context, key figures, unique features, materials, construction techniques, and significant works. Additionally, it examines the evolution of furniture styles, decorative elements, and their cultural significance, offering a comprehensive understanding of interior design's historical and cultural aspects.

COURSE OUTCOMES:

CO1: Explain the progression of the historical interior design as a reflection of changing influences in the social and cultural context across world cultures.

CO2: Understand the key features and characteristics of various art and architectural movements pertaining to Interior Design.

CO3: Interpret the materials and construction methods employed in interior design and its aspects that relate to various art movements and their notable works.

CO4: Apply the knowledge of historical design in contemporary context.

CO5: Analyse present day design on how it takes inspiration from art movements.

REFERENCES:

1. Janson, H. W., & Janson, A. F. (2001). *History of Art (Sixth ed.)*. Thames and Hudson.
2. Pile, J. (2013). *A History of Interior Design*. Thames & Hudson.
3. Barnard, A., & Spencer, J. (1996). *Encyclopedia of Social and Cultural Anthropology*. Taylor & Francis.
4. Amiet, P. (1980). *Art of the Ancient Near East*. Harry N. Abrams, Inc.
5. Geertz, C. (1977). *The Interpretation of Cultures*. Basic Books



ID 4509 VISUALIZATION & REPRESENTATION

COURSE INTENT:

The course introduces students to the graphic representation of ideas, concepts, and design principles. It enables a student's mastery of Co-ordination skills, Perceptual skills, Sketching, Drawing, Rendering etc., over various expressive media, as well as a discovery of aesthetic principles and tastes.

COURSE CONTENT:

Enhancement of perceptual skills in visual representation, Sensitization of artistic perception, Development of Visuomotor integration, Proficiency in visualization and representation. Drawing different shapes and forms in various mediums - Drawing from nature, product drawings, perspective drawing, representing spaces, tonal values with different mediums of drawing. Exploration of various mediums for rendering - Pen and ink rendering, pencil and color pencil, watercolor rendering etc.

COURSE OUTCOMES:

On the completion of this course, the students should be able to:

CO1: Illustrate with focus on proportion, scale, and spatial relationships.

CO2: Translate the elements and principles of design to represent design ideas.

CO3: Analyze the various drawing techniques for the interpretation of nature in art, and human proportions in varied environments.

CO4: Apply the elements and principles of design in graphical representation of the project developed.

REFERENCES:

1. Broome F. Gerald. (1974). *Elements of Design: Space*. Davis Publications Inc., Worcester, Massachusetts.
 2. Wong Wucius. (1977). *Principles of two dimensional Design*. Van Nostrand Reinhold, NY
 3. Dodson B. (1990). *Keys to Drawing*. North Light Publications, Cincinnati.
 4. Edwards B. Color by Betty Edwards: *A Course in Mastering the Art of Mixing Colors*. Penguin Group Inc, New York. ISBN: 1-58542-199-5
 5. Mark W., Mary W. (1999). *Drawing for Absolute Beginner*. F&W Publications, Cincinnati.
 6. Davis M. L. (1996). *Visual Design in Dress*, (3rd ed.). Prentice Hall, Canada.
 7. Graves M. (1951). *Art of Colour and Design*, (2nd ed.). Macgraw-Hill Book Company
 8. Hayashi Studio. (1994). *Water Colour Rendering*. Graphic-Sha Publishing Co., Ltd.
 9. Robert W. Gill. (1984). *Manual of Rendering in pen and ink*. Thames and Hudson, London. 2019
- Department of Design, Manipal School of Architecture and Planning | 32



ID 4511 PROFESSIONAL COMMUNICATION SKILLS

COURSE INTENT:

Educates the advantage of good hold over major communication & language skills of listening, speaking, reading and writing though exploring various mediums.

The course aims at developing communication skills in writing, speaking as well as body language.

COURSE CONTENT:

The content covers communication comprehensively, addressing various forms and factors. It explores language skills, communication barriers, and etiquette. Verbal communication elements like diction and body language are discussed, as well as written communication aspects such as sentence formation and document structuring. Business communication scenarios, including emails and job applications, are outlined. Presentation skills, including meeting conduct and visual aids, are also touched upon. The content provides a broad understanding of communication in diverse contexts.

COURSE OUTCOMES:

CO1: Recall the importance of graphic and verbal communication in professional settings.

Recognize the role of presentation skills in effective communication with clients and stakeholders.

CO2: Explain the significance of confidence in both graphic and verbal communication.

CO3: Apply refined presentation skills in real-world scenarios, specifically when engaging with clients and stakeholders.

CO4: Compare the components of efficient communication, including graphic and verbal elements.

CO5: Assess the impact of enhanced graphic and verbal communication skills on successful interactions with clients.

REFERENCES:

1. Geetha Jajivan, & Kiranmai. (Year of Publication). *Course in Listening and Speaking Skills Part I*. Foundation Books Pvt Ltd.
2. Lorven. (Year of Publication). *Enrich Your Communication in English*.
3. Mckay, M., Davis, M. & Fanning, P.(2008). *Messages: The Communication Skills Book*. New Harbinger Publications
4. Perkins, P.S., & Brown, L. (2008). *The Art and Science of Communication: Tools for Effective communication in the workplace*. John Wiley and Sons
5. Krizan et al (2010). *Effective Business Communication*, Cengage Learning.
6. Scot, O. (2009). *Contemporary Business Communication*, Biztantra, New Delhi.
7. Chaney & Martin (2009). *Intercultural Business Communication*, Pearson Education
8. Penrose et al (2009). *Business Communication for Managers*, Cengage Learning.



FIRST YEAR / SEMESTER TWO

ID 4502 INTERIOR DESIGN FUNDAMENTAL-II

COURSE INTENT:

The course facilitates comprehension of the characteristics and essence of spaces, as well as the scale and different design layers within a given space. It provides insight into perceiving interior space through various design elements.

COURSE CONTENT:

Introduction & decoding the design problem; Introduction to pre-design phase through literature study - Understanding the user/ user group behavior & user/user group analysis, Anthropometry & Ergonomics; Understanding the context & its environment, spatial elements. Introduction to data collection: Visit different case studies pertaining to typology, Observations & inferences in terms of comparative analysis. Conceptual Development & Design Thinking- Introduction & investigation into conceptual development through different strategies, methods for problem solving; adaption of design thinking, integration of material & mood board. Design Development- Development of the study into practical details of the project.

Typologies: Single Room Residence, Studio Apartment, Reading Lounge with home office, Entertainment zone for home, Fitness corner or Wellness room, artist or designers' studio, Collaborative Space, Reception & waiting lounge, Cafeteria or café, open office workspace, Breakout areas, Co-working spaces, Doctor's Clinic.

Scale of Project: 100 sq.m. to 150 sq.m area.

COURSE OUTCOMES:

CO1: Understand the character and nature of spaces, scale, and various layers of design within a space.

CO2: Analyze and infer required learnings from the relevant case and literature studies.

CO3: Justify design concepts and apply appropriate materials.

CO4: Propose design solutions based on Form, function, space planning, user perception and behavior.

CO5: Compile the final design proposal in the form of portfolio and models.

REFERENCES:

1. Meiss, Pierre Von.(1992). *Elements of Architecture: Form to place*. E and FN Spon, London.
2. Panero J, Zelnik M. (2014) *Human Dimension and Interior Space: A Source Book of Design Reference Standards*. Watson-Guptill.
3. Ching, Francis D.K. (1996). *Architecture Form, space, and Order*, 2nd ed. Van Nostrand Reinhold, New York.
4. Dodsworth S, Anderson S. (2015). *The Fundamentals of Interior Design*. Bloomsbury Publishing.
5. Wucius, Wong. (1997). *Principles of Two-Dimensional Design*. Van Nostrand Reinhold
6. John.F. Pile. (1997). *Color in Interior Design*, Mc-Graw Hill professional, 1st edition.
7. Jonathan Pore. (2005). *Interior Colour by Design*, Volume 2: A design tool for Homeowners, Designers, and Architects. Rockport publishers.
8. Ramstedt F. (2020). *The Interior Design Handbook: Furnish, Decorate, and Style Your Space*. Appetite by Random House.



ID 4504 MATERIAL & CONSTRUCTION – II

COURSE INTENT:

The course covers a comprehensive exploration of building materials and components, including staircases, timber, industrial wood derivatives, glass, and metal, encompassing their materials, finishes, types, technical details, drawing details, and applications in built forms and interiors, providing students with a thorough understanding of construction and design principles.

COURSE CONTENT:

The course includes study on Staircases (vertical component) - material, finishes, types, technical details (including drafting); types of stairs; Timber and its application- material, finishes, types, technical details (including drafting); characteristics of good timber; applications of timber: doors, windows, furniture, interior accessories, etc. Finishes to timber – types of polishes; Industrial wood derivatives- material, finishes, types, technical details (including drafting). Plywood, block boards, particle board, medium density fiber boards, laminates etc. – their properties, process of manufacture, tools and technology of its application and quality assessment, finishes to reconstituted wood, - lamination, polishing etc. Glass and its application- material, finishes, types, applications, technical details (including drafting). Application of Glass: structural considerations, decorative techniques, joinery/fixing details with respect to different applications; Metal and its application- material, finishes, types, technical details (including drafting). Steel, iron, aluminium, bronze, brass, copper – alloys, characteristics, form and uses, properties, definition of terms, methods of working with metals, fixing and joinery in metals, finishing and treatment to metals. Application of Metals to Build Form and Interiors - Special doors and windows, ventilators – sliding, sliding, and folding, revolving, pivoted, rolling, collapsible, dormer, skylights, clerestory etc. Study of building materials may be compiled in the form of portfolio.

COURSE OUTCOMES:

CO1: Understand different staircase types, materials & technical detailing.

CO2: Identify timber characteristics & its application in interiors construction.

CO3: Categories industrial wood derivatives based on properties & its application in interiors construction.

CO4: Apply knowledge of glass, based on its properties & application in interiors construction.

CO5: Apply knowledge of metals, based on its properties & application in interiors construction.

REFERENCES:

1. B. C. Punmia. (1993). *Building Materials and Construction*. Laxmi Publications Pvt Ltd, New Delhi.
2. Bindra & Arora; *Building Materials and Construction*.
3. W.B. McKay, (1981). *Building Construction*. Vol. 1,2,3 Longmans, U.K.
4. Arthur Lyons. (1997) *Materials for Architects and Builders- An Introduction*; Arnold, London.
5. Francis K Ching. (2014). *Building construction*. Wiley, 5 edition.
6. R. Barry. (1999). *Construction of Buildings*. Vol 1. Wiley-Blackwell
7. Roy Chudley. (1999). *Construction Technology*. 3rd Edition, Longman.



ID 4506 INTERIOR GRAPHICS – II

COURSE INTENT:

The course offers knowledge and experience of advanced drafting and representation techniques. It develops the appropriate skills for graphical representation to facilitate effective technical drawing for complex forms.

COURSE CONTENT:

The course includes introduction to Complex Geometric Forms with focus on Interpenetration of geometric solids, combination of different forms in complex compositions; Introduction to Perspective Drawings with understanding of the methods of perspective projection(One Point, Two-point & Free Hand perspective); Importance and purpose of picture plane, station point, vanishing point, ground level, eye level, cone of vision and central line of vision - their variations and resultant effects; Perspective drawings for interior elements such as furniture, simple interior spaces with human forms, vehicles and buildings with suitable elements of foreground and background. Sciography for interior design that includes principles of shade and shadow constructions for geometrical solids, interior elements and interior spaces. Construction of shadows on floor plans, elevations, sectional elevations and aerial views; Rendering techniques - Manual rendering techniques using drafting equipment or otherwise for floor plans and sectional elevations such as stippling, pen & ink rendering, etc.

COURSE OUTCOMES:

- CO1: Develop complex geometric forms.
- CO2: Develop basic perspective drawings.
- CO3: Translate interior designs and elements to perspective drawings.
- CO4: Demonstrate the need for sciography in interior representation.
- CO5: Apply various rendering techniques to interior design drawings.

REFERENCES:

1. Francis D.K.Ching. (1985). *Architectural Graphics*. Van Nostrand Reinhold Co.
2. I.H.Morris. (1902). *Geometrical Drawing for Art Students*. Longmans.
3. Robert.W.Gill, *Rendering with pen and ink*.
4. Shankar Malik. (1994). *Perspective & Sciography*. Allied Publisher



ID 4508 HISTORY OF WORLD INTERIOR DESIGN – II

COURSE INTENT:

The course offers a comprehensive exploration of the history of global interior design, ranging from the industrial revolution to the contemporary era. It explores the interaction between cultural influences, societal dynamics, and the evolving concepts of identity within this context.

COURSE CONTENT:

The course addresses the transition leading to global modern architecture, scrutinizing the impacts of the Industrial Revolution, the rise of skyscrapers, and the evolution of architectural theories across distinct historical periods. It delves into the transformative eras like the Great Reform Movements and Art Nouveau, Eclectic leading up to Modernism including the Arts & Crafts movements and Art Deco. Furthermore, the course examines the rise of Post-modern architecture and introduces new architectural theories spanning Hi-tech architecture, Minimalism, Structuralism, Deconstructivism, Metabolism, New Expressionism, Novelty architecture, Organic architecture, Blobitecture to the contemporary era. The course explores each period's backdrop, distinctive characteristics, materials, construction techniques, and courses through significant works and pioneering figures. Additionally, it delves into the evolution of furniture styles, decorative elements, and their cultural relevance, providing a comprehensive grasp of interior design's historical and cultural dimensions.

COURSE OUTCOMES:

CO1: Explain the progression of the historical interior design as a reflection of changing influences in the social and cultural context across world cultures.

CO2: Understand the key features and characteristics of various art and architectural movements pertaining to Interior Design.

CO3: Interpret the materials and construction methods employed in interior design and its aspects that relate to various art movements and their notable works.

CO4: Apply the knowledge of historical design in contemporary context.

CO5: Analyse present day design on how it takes inspiration from art movements.

REFERENCES:

1. Pile, J. (2013). *A History of Interior Design*. Thames & Hudson.
2. Barnard, A., & Spencer, J. (1996). *Encyclopedia of Social and Cultural Anthropology*. Taylor & Francis.
3. Amiet, P. (1980). *Art of the Ancient Near East*. Harry N. Abrams, Inc.
4. Gura, J. (2017). *Postmodern Design Complete*. Thames and Hudson
5. Piotrowski, C. M. (2003). *Becoming an Interior Designer*. John Wiley and Sons.



ID 4510 DIGITAL MODELLING - I

COURSE INTENT:

The course shares fundamental knowledge on digital software to enable the student to make effective visual presentations, and create two dimensional drawings.

COURSE CONTENT:

The course includes fundamentals of Photo editing and presentation skills with Adobe Photoshop /Illustrator; Introduction to interface, tools and applications of Illustrator in interior design; CAD 2D Modelling with focus on understanding paper area, unit, scale, planes, using the UCS icon, design templates, types and use of 2D drafting tools, dimensioning, 2D keyboard commands; 2D isometric views, Materials and textures, Reference other drawing files, Work with data in other formats and exporting 2D drawings to various software, Extract data from drawings and spread sheets, Access external databases; Presentation of digital drawing – Layer management, Plotting and publishing the drawing in modal space and paper space; Building Information Modelling (BIM) – User interface and basic commands, drafting of plan, elevation and section, layers, layout, options, print, etc.

COURSE OUTCOMES:

CO1: Demonstrate the knowledge of two-dimensional drawing manipulation using photo editing/ CAD/ BIM for various spaces.

CO2: Understand the commands for drafting in given timeframe.

CO3: Apply the skill of the development of two-dimensional drawings for indoor spaces.

CO4: Analyze the available commands and determine the most optimal one to use.

CO5: Develop intricate two-dimensional drawings by manipulating options in the user interface.

References:

1. Adobe Creative Team, Adobe Photoshop CS (Class Workbook)
2. Droblas, Adele Greenberg, Fundamental Photoshop: A Complete Introduction.
3. Adele CroblasGreenberg, Fundamental Photoshop: A complete introduction.
4. Teyapooan. T., Engineering Drawing with Auto CAD 2000. Vikas Pub House Pvt Ltd, New Delhi, 2000.
5. Parker, Daniel and Rice, Habert. Inside Auto CAD Daniel, 1987.
6. Georgeomura, Auto CAD, Release 2000.



ID 4512 ENVIRONMENTAL SCIENCES

COURSE INTENT:

The content of the course on Environmental Sciences typically covers a wide range of topics related to environmental conservation: issues, principles, practices, design, integration of the built environment, and explores the relationship between the environment and its surroundings, addressing concerns and future effects.

COURSE CONTENT:

The course covers Introduction to Environmental Sciences; Ecosystems and Biodiversity; Environmental Pollution and Resource Management; Climate Change and Sustainable Development; Sustainable Environmental Design.

COURSE OUTCOMES:

CO1: Infer the scope and multidisciplinary nature of Environmental Sciences course

CO2: Interpret the concept of ecosystem and importance of biodiversity conservation

CO3: Identify recent environmental pollution and resource management strategies

CO4: Interpret the climate change challenges for sustainable development

CO5: Adapt awareness of sustainable environmental design.

REFERENCES:

1. Dash, M. C. (1993). *Fundamentals of Ecology* Tata McGraw Hill. New Delhi-373pp.
2. Dash, M. C. *Ecology, chemistry and Management of environmental Pollution*. Macmillan, 2004.
3. Bharucha, E. (2004). *Textbook of Environmental studies*.
4. Miller Jr, T. G. (2022). *Environmental Sciences*. Wadsworth Publishing Co.(TB).
5. Kibert, C. J. (2016). *Sustainable construction: green building design and delivery*. John Wiley & Sons.



SECOND YEAR / SEMESTER THREE

ID 5001 INTERIOR DESIGN STUDIO-I

COURSE INTENT: To be able to understand the various factors that are involved in designing an ideal Habitational building interior design based on the user's personality and preferences along with comfort and aesthetic appeal.

COURSE CONTENT:

The course on designing habitational building primary focus should be on:

- Design Brief: Introduction of project and consider the client.
- Literature study: Study of standards: understanding the anthropometry and ergonomics inside a given space.
- Documenting space: Offline and online case studies
- Site study
- Conceptual exploration and representation by sketching
- Spatial Planning: Scale/proportion, Application of design principles and elements, Functional requirements of user.
- Construction details and Material Exploration for furniture, flooring, and false ceiling
- Interior Design- Plumbing layout and fire fighting system
- Development of 3D
- Graphic design (page layout and composition)
- Portfolio development

Typologies include Residential Bungalow, Penthouse, 3 or 4 BHK apartment, Villa, Holiday Home, co-living, Studio Apartment

Scale of Project: 200 sq.m. to 300 sq.m Carpet area

COURSE OUTCOMES:

CO1: Explain various fundamental factors that go into designing an ideal habitational spaces and environment.

CO2: Identify issues and concerns contextually through comparative study.

CO3: Design solutions that seamlessly integrate aesthetics and functionality to meet the practical requirements of clients.

CO4: Choose material, services, and its selection involved in the interior design.

CO5: Develop technical details that translates to create innovative designs while effectively communicating the design process.

REFERENCES:

1. Choi, J.-H. (2011). *Space Residence*. Korea Archi World Co.
2. Crane, C. C. (1977). *Residential Interior Today: Insiders View from Residential Interior Magazine*. Whitney Library of Design.
3. Susan J. Slotkis. *Foundations of Interior Design*. New York
4. Jenny Grove. (2017). *The Benefits of Interior Design*. RIBA Publishing
5. Barclay, F. G. (1974). *Interior Space Designed by Architects*. McGraw-Hill.

ID 5003 MATERIAL & CONSTRUCTION – III

COURSE INTENT:

The course aims to provide comprehensive knowledge and skills in interior finishing materials, polymers, hardware, accessories, and advanced technologies, including drafting and technical details, for designing various spaces effectively.

COURSE CONTENT:

The course includes Interior finishes - material, finishes, types such as painting, plastering, wallpaper, wall paneling, texturing, cladding, textiles, decorative accents, Trims & molding etc. based on different interior applications including their technical details. (including drafting); theoretical aspects of Polymer and its application- material, finishes, types based on application such as wall & floor coverings, furniture, lightings & fixtures, acoustic systems etc along with technical details; Hardware & accessories and applications- materials, finishes, types, technical details and dimensions. all hardware required for residences, offices, other public & private spaces, etc including all types of hinges, drawer slides, handles, locks, wire managers, etc, accessories for toilet, kitchen, office, glass patch fittings, profiles, etc; Soft & hard furnishings- materials, finishes, types, technical details (including drafting) and dimensions. Details of soft furnishings: types of Draperies, curtains, bedding, carpet & rugs etc. Details of hard furnishing- blinds, shades, shutters etc; Advanced materials and latest technologies- explore cutting-edge advancements such as smart materials, nanotechnology, biophilic design, 3D printing, AR/VR, sustainable materials, interactive surfaces, and circular design. And how these technologies are reshaping interiors for sustainability, functionality, and immersive experiences.

Study of building materials may be compiled in the form of portfolio.

COURSE OUTCOMES:

CO1: Apply understanding of interior finishes by selecting and utilizing materials for effective design implementation.

CO2: Identify different types of polymers, based on their properties & application in interior construction.

CO3: Develop expertise in selecting and installing hardware and accessories essential for different applications.

CO4: Build the knowledge of soft and hard furnishings for functional and visually appealing interiors.

CO5: Analyze the advanced materials and technologies, by their properties and technical specifications for enhancing interior design solutions.

REFERENCES:

1. B. C. Punmia; Building Materials and Construction. Laxmi Publications Pvt Ltd, New Delhi, 1993
2. Bindra & Arora; Building Materials and Construction.
3. W.B. McKay, 'Building Construction,' Vol. 1,2,3 Longmans, U.K. 1981.
4. Arthur Lyons; Materials for Architects and Builders- An Introduction; Arnold, London 1997.
5. Francis K Ching 'Building construction', Wiley; 5 edition (February 17, 2014)
6. R. Barry, "Construction of Buildings" Vol 1., 1999 by Wiley-Blackwell
7. Roy Chudley, "Construction Technology", 3rd Edition, Longman, 1999



ID 5005 USER STUDY PROCESSES IN DESIGN

COURSE INTENT:

The course aims to introduce diverse design processes and foster an understanding of their applicability in both digital and physical product and space design. The primary focus of the course is to acquaint students with the systematic development of design projects.

COURSE CONTENT:

The course includes Predesign process – User data collection, analysis and synthesis, define users, functional requirements – quantitative and qualitative; It will also cover various methods for predesign stage such as brainstorming, sketching, focus group studies, diary studies, ethnographic field studies, design sprints, rapid prototyping, user personas, etc; Participatory and co-design process – Origins and benefits, nature of participation, and challenges in real-world application; Double diamond and design thinking process – Discover, define, develop and deliver; empathize, define, ideate, prototype and testing; Circular and sustainable design process – Design and prototyping, life cycle assessment (LCA), certifications and standards compliance, packaging and transportation, end-of-life considerations; Design process selection – Framing effective approach to user study, data analysis and reporting by graphical representations or infographics.

COURSE OUTCOMES:

CO1: Explain the adaptation of pre-design process and explore diverse strategies for design development.

CO2: Understand the difference between various predesign processes and select appropriate to the design project.

CO3: Interpret the design processes to real-world design issues, considering the feasibility and benefits, also challenges associated with these approaches.

CO4: Evaluate the strengths, weaknesses, and impact of various design approaches.

CO5: Develop comprehensive plans and solutions that incorporate predesign, participatory, and sustainable design processes.

REFERENCES:

1. Kumar, V. (2012). *101 design methods: A structured approach for driving innovation in your organization*. John Wiley & Sons.
2. Shah, N. and Prasad, A. (2015). *An introduction to PREDESIGN*. National Institute of Advanced Atudies in Architecture (The academic unit of the Council of Architecture)
3. T. E Graedd and B. R. Allenby, (1996). *Design for Environment*, Prentice Hall, New Jersey.
4. P. Knox and P. Ozoline, (2000). *Design Professionals and the Built environment- An Introduction*, Wiley, Sussex.
5. Spinuzzi, C. (2005). *The methodology of participatory design*. Technical communication, 52(2), 163-174
6. Schuler, D., & Namioka, A. (Eds.). (1993). *Participatory design: Principles and practices*. CRC Press.



ID 5007 HISTORY OF ASIAN INTERIOR DESIGN

COURSE INTENT:

This course intends to explore traditional art, architecture, and interiors of Asian Heritage and culture in the form of design elements, the evolution of furniture styles, decorative elements, and motifs throughout history in Asia across various geographical locations. Creates understanding of social and cultural dimensions of interior design. The course covers the history of Interior Design from the regions of China, Japan, and India

COURSE CONTENT:

The course explores China, one of the world's ancient civilizations, revealing enduring design motifs that reflect a deep respect for tradition. From the 18th century onwards, prevalent forms encompass pagodas, shrines, temples, monasteries, mausoleums, and imperial palaces; Traditional palace complexes, integral to governance, prioritize Feng Shui principles in construction details, decoration, and color, shaping a distinctive design language; Japan's architectural traditions embrace axiality and hierarchy, with persistent forms and motifs tracing back to the 18th century. Traditional palace complexes, attuned to Feng Shui, exert influence on temples, shrines, pagodas, and shops, embodying the Shoin Style; India's varied design history encompasses Vedic, Buddhist, and Jain influences. Temple architecture highlights Nagara, Dravida, and Vesara styles. Monuments, forts, and diverse residence typologies showcase cultural elements; Indian interiors emanate vibrancy, incorporating traditional motifs in colours, lighting, floors, walls, doors, materials, furniture, and textiles.

COURSE OUTCOMES:

- CO1: Explain with the help of a timeline, the eras, and the development of art and design.
- CO2: Interpret the key features and characteristics of these eras (Chinese, Japanese, and Indian).
- CO3: Relate the Built forms, mediums, and techniques used, significant motifs, patterns, and courses to the mentioned styles with significant and relevant examples.
- CO4: Apply the knowledge of Interior art and design in the contemporary context.
- CO5: Analyse present day condition and its relevance in today's context and situation.

REFERENCES:

1. Janson, H. W., & Janson, A. F. (2001). History of Art (Sixth ed.). Thames and Hudson.
2. Arnason, H. H. (1985). History of Modern Art: Painting, Sculpture, Architecture. Prentice Hall.
3. Pile, J. (2013). A History of Interior Design. Thames & Hudson.
4. Geertz, C. (1977). The Interpretation of Cultures. Basic Books
5. Barnard, A., & Spencer, J. (1996). Encyclopedia of Social and Cultural Anthropology. Taylor & Francis.
6. Rowl Benjamin. Art and Architecture of India.
7. Architecture of the Islamic World: Its History and Social Meaning by George Michell (Editor)
8. Publications on Traditional Arts & Crafts of India, Ministry of Handicrafts Development, Government of India.
9. Satish Grover, The Architecture of India (Buddhist and Hindu period), Vikas Publishing House, New Delhi, 1981



10. Christopher Tadgell, The History of Architecture in India, Longman Group, U.K. Ltd., London, 1990
11. A.Volwahren, Living Architecture - India (Buddhist and Hindu), Oxford and IBM, London, 1969.
12. George Mitchell, Monuments of India, Vol I, Buddhist, Jain, Hindu; Penguin books, 1990
13. Gateway to Indian Architecture, Guruswamy Vaidyanathan, Edifice Publication, 2003
14. Oriental Architecture by Mario Bussagli

ID 5009 DIGITAL MODELLING - II

COURSE INTENT:

The course shares fundamental knowledge on digital software to enable the student to make effective visual presentations, create three dimensional views and renders.

COURSE CONTENT:

The course includes Introduction to Digital Tools in Interior Design with an overview of digital modeling in interior design, introduction to key software such as SketchUp; Understanding the interface and basic tools; Drawing and drafting in AutoCAD: creating floor plans and elevations, Introduction to 3D modeling in SketchUp: basic shapes and forms, Hands-on exercises and small projects to reinforce learning; Advanced 3D Modeling Techniques – Exploration of relevant software for 3D modeling, creating interiors: furniture, fixtures, and finishes, Incorporating lighting and textures for realistic representation; Visualization and Rendering – Basics of rendering techniques and principles, Introduction to rendering software, Hands-on exercises for creating realistic materials and advanced lighting, Camera settings and post-processing techniques, Creating compelling and visually appealing interior renders; Presentation Techniques – Designing effective visual presentations for clients, integrating 3D models into presentations using Adobe Creative Suite (Photoshop, Illustrator), Creating mood boards and design narratives. Portfolio Development and Final Project: Strategies for building a strong digital portfolio, showcasing projects using various digital media. The course culminates with Digital design project which includes applying all learned skills to create a comprehensive digital interior design presentation.

COURSE OUTCOMES:

CO1: Understand the basic skills of two-dimensional drawing to 3D for various spaces.

CO2: Comprehension of 3-dimensional modelling for Interiors using relevant software.

CO3: Develop renderings for the design presentation.

CO4: Make use of Adobe Photoshop/In design to render and visualize presentation.

CO5: Develop a portfolio of works.

REFERENCES:

1. Adobe Creative Team, *Adobe Photoshop CS* (Class Workbook)
2. Droblas, Adele Greenberg, *Fundamental Photoshop: A Complete Introduction*.
3. Adele CroblasGreenberg, *Fundamental Photoshop: A complete introduction*.
4. Teyapooan. T., *Engineering Drawing with Auto CAD 2000*. Vikas Pub House Pvt Ltd, New Delhi, 2000.
5. Parker, Daniel and Rice, Habert. *Inside Auto CAD* Daniel, 1987.
6. Georgeomura, *Auto CAD*, Release 2000.



ID 5011 INTERIOR SERVICES - I

COURSE INTENT:

To empower students with comprehensive knowledge in water management, plumbing systems, wastewater solutions & fire safety protocols, fostering a holistic understanding essential for creating sustainable, safe, and sound-conscious interiors.

COURSE CONTENT:

The course includes Introduction to water resources; collection, processing/filtration process, distribution, and storage of water; calculation of water demand and consumption; sizing of storage tanks and water quality standards for code compliance, importance of water conservation; Water Distribution: Service connections and systems of hot and cold-water supply; plumbing networks; sanitary fixtures, fittings, valves and pipes, dual-plumbing systems; Wastewater systems: Systems and components for sewage and stormwater drainage; Waste Disposal: Types of waste; Waste Disposal segregation and Disposal methods; Fire Safety: Fire sources, spreading, and growth decay curve; material fire response and fire-retardant materials; fire hydrants, fire escapes, refuge areas, fire tender access; smoke detector, alarm, and sprinkler systems; representation of fire considerations in drawings.

COURSE OUTCOMES:

CO1: Understand principles behind water resources, collection and treatment process and enabling them to calculate demand, size storage facilities.

CO2: Understand design for water distribution, and conservation methods like rain harvesting and recycling.

CO3: Understand design efficient wastewater systems, including drainage, treatment, and disposal methods.

CO4: Analyse waste disposal methods while emphasizing the importance of sustainability and emerging trends in waste management.

CO5: Analyse fire dynamics, materials' response to fire, and the design and integration of fire safety systems within the interiors.

REFERENCES:

1. S.C.Rangwala, *Water Supply and Sanitary Engineering*
2. S.K.Garg, *Environmental Engineering* (vol.I& II)
3. R.G.Hopkinson and J.D.Kay, *the Lighting of Buildings*, Faber and Faber, London,196
Fundamentals of acoustics, Kinsler L E; Frey A R
4. Modi, P.N., *Water Supply Engineering*
5. Ratnayaka, D., Tward, A. C., & Brandt, M. J. ,1996. *Water Supply*.
6. Shah, C,S., *Water Supply and Sanitation*.
7. Salvan, George S., *Architectural Utilities 3: Lighting & Acoustics*
8. Barron, M., *Auditorium Acoustics and Architectural Design*; Taylor & Francis.
9. Harold, B.M. & Lewis G.F. *Acoustics for Architects*; Reinhold
10. National Building Code, 2016, Bureau of Indian Standards



SECOND YEAR / SEMESTER FOUR

ID 5002 INTERIOR DESIGN STUDIO II

COURSE INTENT:

This course introduces **Commercial building interior design** for small offices, shops, restaurants, and boutiques at a micro level. The intent is to sensitize the student towards the importance of branding and its relationship to interiors in retail spaces.

COURSE CONTENT:

The course covers interior design of commercial building with primary focus on –

- Design Brief: Introduction of project and involvement of client Importance of Client Needs and Branding
- Literature study: Study of standards: anthropometry and ergonomics user wise and space wise
- Documenting space: Offline and online case studies
- Site analysis
- Concept development for proposal and representation by sketching,
- Furniture layout Planning and sections: Based on concept, Scale/proportion, Application of design principles and elements, Functional requirements of spaces and user.
- Construction details and Material Specification for furniture, flooring, False ceiling, wall décor, partition etc.
- Interior services layout of electrical system, lighting system (with types and material specifications), Firefighting system, Plumbing system.
- Development of rendered 3D view of transitional spaces.
- Graphic design (page layout and composition)
- Portfolio development

Typologies: Offices, Hospital, Restaurant, Hospitality, Retail, Bank, shopping center, business center, government buildings.

Scale of the project: 400-650 sqm. Carpet Area

COURSE OUTCOMES:

CO1: Explain various fundamental factors that go into designing an ideal commercial spaces and environment.

CO2: Identify issues and concerns contextually through comparative study.

CO3: Design solutions that seamlessly integrate aesthetics and functionality to meet the practical requirements of clients.

CO4: Choose material, services, and its selection involved in the interior design.

CO5: Develop technical details that translates to create innovative designs while effectively communicating the design process.

REFERENCES:

1. *Time-saver Standards for Interior Design and Space Planning*. Mc Graw Hill
2. John Pile. *Interior Design*, Abrams
3. Alexander, N J; Mercoust Brace. *Designing Interior Environment*, Havanovich Inc.
4. Cerver F A. *Commercial Space, Office Design and Layout*, Rotovision S A



ID 5004 FURNITURE DESIGN & DETAILING

COURSE INTENT:

The course is intended to accustom students to practices of craftsmanship and sensitize the student's visual perception of furniture as a single form through the study and presentation of precedent works - both historical and contemporary & to cultivate the ability necessary to design by understanding the user-activity, structural concepts of furniture, materials, and their essential attributes.

COURSE CONTENT:

The course covers introduction to furniture design with focus on human factors, craftsmanship and ergonomic considerations: principles of universal design and their application in furniture design, overview of Furniture categories, exploration of the idea of furniture, role of furniture in interior design, Design approaches in furniture design; Evolution of Furniture Design- Exploration of furniture in terms of human values, social conditions, technology, and design criteria. Understanding the current design trends and the future visions in the field of furniture design; Furniture Systems -Furniture design for various context and spaces – residences, corporate, commercial etc. in terms of Seating design; Storage systems- kitchen cabinets, wardrobes, closets, bookshelves, showcases, display systems etc.; multi-functional & space-saving furniture; modular approach to furniture design; Furniture Detailing and Construction - Introduction to different materials, joinery details and manufacturing methods most frequently adopted in furniture design such as Injection Molding, investment casting, sheet metal work, die casting, blow- molding, vacuum - forming etc. Prototype Development and testing (Design Problem) - Exercise oriented by innovative explorations, observation and constrains, to design a furniture, by providing measured drawing – plan, elevation and detailing on full scale, supported by prototype.

COURSE OUTCOMES:

CO1: Relate various design fundamentals and ergonomics with existing day to day furniture.

CO2: Understand the evolution of furniture design to apply in real world situations.

CO3: Apply the knowledge of the user and space relationship in terms of furniture systems and design in context of different built spaces.

CO4: Analyze the details of designed furniture based on the material and processes involved in furniture design and making.

CO5: Develop details of furniture.

REFERENCES:

1. Aronson, J. (1961). *The Encyclopedia of Furniture*: Third Edition.
2. Quinn, B. (2006). *Mid-Century Modern: Interiors, Furniture, Design Details*. Conran Octopus Interiors.
3. Postell, J. (2007). *Furniture Design*. Wiley Publishers.
4. Lucie-Smith, E. (1985). *Furniture: A Concise History (World of Art)*. Thames and Hudson.
5. Blakemore, R. G. (2005). *History of Interior Design and Furniture: From Ancient Egypt to Nineteenth-Century Europe*. Wiley Publishers.
6. Pile, J. F. (1995). *Interior Design*. 2nd edition, Illustrated. H.N. Abrams.



ID 5006 RESEARCH METHODOLOGY

COURSE INTENT:

This course on research enables students to develop the skills and tools for solving a design problem with evidence to achieve creative excellence in Interior Design inception to the final solution. The students will get acquainted with the research methods and techniques to undertake research in Interior Design.

COURSE CONTENT:

The course includes Introduction to research methodology: definition and importance of research, types of research, research process overview; Research Design: Research Problem Identification, Research Questions and Hypotheses, Experimental and Non-Experimental Research, Variables and Measurement; Research Approaches: Quantitative Research, Qualitative Research, Mixed-Methods Research; Sampling Methods and Data Collection Methods: Probability and Non-Probability Sampling, Simple Random Sampling, Stratified and Cluster Sampling, Convenience and Purposive Sampling. Surveys and Questionnaires, Interviews, Observations, Content Analysis; Data Analysis and Research Reporting and Writing: Qualitative and Quantitative Data Analysis, brief introduction of Software for Data Analysis, Research Paper Structure, Citations and Referencing Styles (APA, MLA, etc.).

COURSE OUTCOMES:

CO 1: Demonstrate an understanding of the basic framework of research process and design.

CO 2: Identify various sources of Research Approaches for research.

CO 3: Plan the sampling method used for data collection.

CO 4: Analyse various methods for data collection data analysis.

CO 5: Compile the report or research work based on knowledge.

REFERENCES:

1. C.R. Kothari. (2004). *Research Methods & Methodology*. New Age Publishers, New Delhi.
2. William G. Zikmund .(2002). *Business Research*. Thomson/South-Western, Australia
3. Dr. Catherine Dawson. (2007). *A Practical Guide to Research Methods*. How to Books Ltd, U.K
4. Groat, Linda, & Wang, David. (2002). *Architectural Research Methods*. New York: John Wiley & Sons



ID 5008 INTERIOR SERVICES - II

COURSE INTENT:

The course intends to equip students with a comprehensive understanding of electrical systems, lighting design, air-conditioning principles, communication technologies, mobility systems and waste management in buildings, fostering expertise in integrating technological advancements for safe, efficient, and modern interiors.

COURSE CONTENT:

The course covers Electricity: Electrical distribution and safety systems in buildings; fixtures, equipment, and appliances; electrical circuitry and internal wiring; electrical loads, peak demand, operational costs; Lighting: Lighting principles, luminance, and glare; lighting systems and types of luminaires; lighting design and layouts; interior lighting and special effects; integration with daylighting and energy conserving strategies; Air-conditioning: Principles and components of mechanical ventilation and air-conditioning systems, calculation based on design conditions and system sizing, design considerations for chiller rooms, cooling plants, AHUs; integration with natural ventilation, and other energy conserving technologies; Acoustics: Basic concepts of sound and acoustics; sound insulation and transmission; absorption, reverberation, noise control and attenuation; acoustical requirements for different space types and design planning; Mobility & Communication Systems: Lifts, escalators, conveyors, and travellers; sizing of space for lifts and other mobility systems; construction and installation; design and operation of automated parking systems. Intercoms, Wi-Fi, broadband data cabling, and CCTV systems.

COURSE OUTCOMES:

CO 1: Understand electrical distribution, safety systems, and circuits within buildings, optimizing fixture and appliance selection while considering operational costs.

CO 2: Apply lighting principles effectively, design diverse lighting systems, including special effects lighting, and integrate strategies like daylighting.

CO 3: Understand mechanical ventilation and air-conditioning systems, considering design conditions & integration of natural ventilation and have a basic knowledge about communication systems like intercoms, Wi-Fi and CCTV systems.

CO 4: Apply acoustics in design including sound insulation, absorption, and control techniques, applying them appropriately to diverse space types.

CO 5: Analyse the sizing, construction, and installation of lifts, escalators, and other mobility systems within interiors, including automated parking systems.

REFERENCES:

1. Peter Templeton & Saunders. (1994). *Detailing for architectural acoustics*. Architectural press.
2. M.H.Lulla. *Air conditioning*.
3. R.G.Hopkinson & J.D.Kay. *The Lighting of Buildings*, Faber and Faber, London.
4. Kinsler L E; Frey A R. *Fundamentals of acoustics*.
5. Luckiesh. *Lighting Fixtures and effects*.
6. Robbins Claude L. *Daylighting*.
7. HVAC controls and systems, Levenhagen John I; Spethmann Donald H. *HVAC water chillers and cooling towers*. Stanford III Herbert W Fundamentals of HVAC system, MCDowall Rober



8. Roy J Dosat. *Principles of Refrigeration*.
9. Manohar Prasad. *Air Conditioning and Refrigeration Data Hand book*
10. Don Kundwar. *Refrigeration and Air Conditioning*
11. Sage, Russell. *The Architecture of Light: Architectural Lighting Design Concepts & Techniques*.
12. Koenigsberger, Ingersoll, & Mayhew. *Manual of Tropical Housing and Building*.
13. Bangash, M.Y.H. & Bangash, T. (2007). *Lifts, Elevators, Escalators and Moving Walkways /Travelators*.
14. National Building Code, 2016, *Bureau of Indian Standards*.



THIRD YEAR / SEMESTER FIVE

ID 5501 INTERIOR DESIGN STUDIO III

COURSE INTENT:

This course introduces **educational building interior design** for small school, training centre at a micro level. The intent is to sensitize the student towards the importance of interiors in educational spaces.

COURSE CONTENT:

The course covers interior design of educational building with primary focus on –

- Design Brief: Introduction of project
- Literature study: Study of standards: anthropometry and ergonomics user wise and space wise
- Documenting space: Offline and online case studies
- Site analysis
- Concept development for proposal and representation by sketching,
- Furniture layout Planning and sections: Based on concept, based on site condition, Scale/proportion, Application of design principles and elements, Functional requirements of spaces and user,
- Construction details and Material Specification furniture, flooring, False ceiling, wall décor, partition etc.
- Interior services layout of electrical system, lighting system (with types and material specifications), HVAC system, Firefighting system, Acoustical system, Plumbing system.
- Development of rendered 3D view of transitional spaces, core spaces.
- Graphic design (page layout and composition)
- Portfolio development

Typologies: Kindergarten and Primary School, training institute, Junior college, school, college, technical institute, academy, research laboratory, lecture hall, convent, gymnasium, public library,

Scale of the project: 800-1000 sqm. Carpet Area

COURSE OUTCOMES:

CO1: Explain various fundamental factors that go into designing an ideal educational spaces and environment.

CO2: Identify issues and concerns contextually through comparative study.

CO3: Design solutions that seamlessly integrate aesthetics and functionality to meet the practical requirements of clients.

CO4: Choose material, services, and its selection involved in the interior design.

CO5: Develop technical details that translates to create innovative designs while effectively communicating the design process.

REFERENCES:

1. *Time-saver Standards for Interior Design and Space Planning*. Mc Graw Hill
2. John Pile. *Interior Design*. Abrams
3. Alexander, N J, Mercoust Brace. *Designing Interior Environment*. Havanovich Inc.



ID5503 LANDSCAPE DESIGN FOR INTERIOR SPACES

COURSE INTENT:

The course in Interior Landscape Design aims to familiarize students with the principles and significance of incorporating landscaping elements within interior spaces. Students will understand how plants contribute to the psychological effects in interior design and how interior landscaping seamlessly integrates with overall design concepts.

COURSE CONTENT:

The course includes Foundations of Interior Landscape Design: explore the historical context of interior landscaping globally, understanding the scope of professional interior designers, and the basic principles of planting design; Design Parameters for Interior Landscape Element that includes softscape design, covering planting arrangements, techniques, and considerations such as daylighting, lighting, temperature, humidity, water quality, and the psychological effects of landscaping; Graphics, Branding, and Sculptural Aspects of Interior Landscape Design: Hardscaping – Indoor & Semi-Indoor Spaces. Understand the technical application of materials and explore the relationship between hardscapes and softscapes; Interior Landscape Services and Sustainability: Landscape Services: Explore landscape services specific to interior spaces, including rainwater harvesting, irrigation, firefighting, lighting, water supply, and urban farms. Address the importance of ecological and sustainability issues in interior landscape design; Advanced Interior Landscape Design and Practical Applications: Indoor Landscape Detailing: Develop technical drawings for indoor landscapes, focusing on roof gardens and terrace garden components. Apply conceptual interior landscape schemes into practical details, including comprehensive landscape development plans, planting schedules, and cross-sectional details.

COURSE OUTCOMES:

CO1: Understand the Foundations of Interior Landscape Design.

CO2: Apply Design Parameters for Various Built Forms.

CO3: Integrate Graphics, Branding, and Sculptural Aspects into Interior Landscape Design.

CO4: Demonstrate Understanding of Interior Landscape Services and Sustainability.

CO5: Design Courtyards, Atriums, and Balconies Based on Interior Landscape Concepts.

REFERENCES:

1. Charles Harris & Nicholas Dines. *Time saver standards for landscape architecture*.
2. Norman K Booth. (2001). *Residential Landscape Architecture: Design process for the Private Residence* - Pearson Education, 3rd Edition.
3. Nelson R. Hammer. (1991). *Interior Landscapes- An American Design Portfolio of Green Environments*. Rockport.
4. LeRoy G. Hannebaum. (2001). *Landscape Design: A practical approach*. Pearson Education, 5th Edition.
5. Fleming, John and Honour, Hugh. (2004). *The Penguin Dictionary of Architecture and Landscape Architecture*. 5th (revised) edition, Penguin.
6. Paul Cooper. (2002). *The New Tech Garden*. Mitchell Beazley.
7. Frances Ya-Sing Tsu. (2008). *Landscape Design in Chinese Gardens*, McGraw-Hill, 1988
8. Virginia McLeod. *Detail in Contemporary Landscape Architecture*, Laurence King Publishing.



ID5505 ESTIMATION AND SPECIFICATIONS

COURSE INTENT:

The course intends to equip the students with knowledge & skills of estimating, costing, analysing, rates; to foresee the cost of the work or to implement an interior design project & also to monitor/control project cost.

COURSE CONTENT:

The course includes Specifications - definition, uses, importance, types, requirements, points to be included in the specifications. Specification for different item related to interior design project – woodwork for door and window frames, partitions, wall panelling, false ceiling, electrical, plumbing, flooring, and interior painting; Estimation - Definition of estimates, need for estimating, units and mode of measurement, concepts of guesswork, costing. Methods of estimating (lump-sum, work specific, day-work, item-rate, etc.); costing (percentage basis, item rate basis, etc); Rate Analysis – definition, method of preparation, quantity & labour required for different interior works, analysis of rates for interior works- door and window frames, interior painting (whitewashing, distemper, and emulsion), fixed furniture, laying of wall tiles for kitchen and toilets; B.O.Q (Bill of Quantities) - Definition and importance of BOQ, Overview of BOQ components and structure, Principles of measurement for various interior elements, Application of measurement techniques, Importance of accuracy and consistency; Tender - Introduction & Definitions, Tendering Procedure, Tender Document Preparation, Types of Invitations (Public Notice, Private Invitation, Negotiation) Floating of Tender, Opening and award of tender.

COURSE OUTCOMES:

CO1: Develop Specification of materials, Specification of workmanship & Specification Writing.

CO2: Understand the fundamentals of estimation and costing for an interior design project.

CO3: Identify the different methods of estimation and costing for an interior space.

CO4: Construct the estimation and costing for an existing project.

CO5: Explain several types of tenders and tender contracts.

REFERENCES:

1. Carol Simpson. (2001). *Estimating for Interior Designers*. Watson Guptill, Rev.
2. S. C. Rangwala. (1984). *Elements of Estimating and costing*. Charoter publishing House, Anand, India.
3. Theo Susan. *The interior designers guide: to pricing, estimating budgeting*.



ID 5507 PROJECT MANAGEMENT

COURSE INTENT:

The course is intended to create awareness of project management principles and various methods of scheduling and monitoring the interior design projects.

COURSE CONTENT:

The course includes Project Management Basics: Understanding the stages of a project from initiation to completion and developing plans to efficiently achieve project goals. Project Management via Networking Channels - Handling different types of projects and teams, including small projects and self-managed groups, while also managing multiple projects at once; Project Management Techniques - Utilizing Program Evaluation and Review Technique (PERT) to estimate the probability of project completion time. Implementing Critical Path Method (CPM) for identifying the longest sequence of tasks in a project; Project Initiation and Execution & Project Planning and Control- Confining the entire project management spectrum, from initial selection criteria to project initiation, proposal development, and execution, including contract negotiations, quality assurance, and project termination procedures. Furthermore, addressing critical facets of project planning and control such as scheduling, monitoring, risk management, outsourcing, decision-making, cost management, and work breakdown structure analysis for comprehensive project oversight and management; Project communications- Utilizing project management information systems and improving communication in project meetings and negotiations.

COURSE OUTCOMES:

CO1: To define project management, the stages involved, various terms and meanings, project life cycle, analysis, Project Management processes, role and responsibilities of project manager.

CO2: To explain Project Management through Networks-Network techniques; Interrelationship of events & activities, Fulkerson's rule, Scope Management, Time Management and Scheduling.

CO3: To analyze Project Management Techniques, Critical Path Method (CPM), Program Evaluation and Review Technique (PERT).

CO4: To demonstrate Project Initiation and Execution, project selection consideration, develop winning proposals, project selection, quality in projects, Risk management, outsourcing project management.

CO5: To relate Project Communication, its importance, project management information, systems and negotiations.

REFERENCES:

1. Dr. B.C.Punmia et al. Project planning and control with PERT and CPM, Laxmi Publications,
2. Jerome D.Wiest and Ferdinand K.Levy. (1982). *A Management Guide to PERT, CPM*, prentice Hall of India Pub, Ltd., New Delhi.
3. R.A. Burgess and G.White. (1975). *Building production and project Management*, The construction press, London.
4. Joseph Phillips (2004). *Project Management Professional Study Guide*, TATA McGraw Hill Edition.
5. Stallworthy O P; Kharbanda Ernest A (1983). *Total Project management from concept to completion*, Gower Publishing, England.



6. Choudhury S. (1992). *Project management*, Tata McGraw Hill, Delhi.
7. James D Steven. *Techniques for Construction Network Scheduling*, McGraw Hill.
8. David Cleland/Lewis R. *Project Manager's Portable Handbook*, McGraw-Hill

ID 5509 OPEN ELECTIVE

The students would be given an opportunity to choose the open elective from the courses offered by MAHE.



THIRD YEAR / SEMESTER SIX

ID 5502 INTERIOR DESIGN STUDIO IV

COURSE INTENT:

This course introduces Cultural building interior design aims to provide students with a comprehensive understanding of the role of interior design in shaping and expressing cultural identities. This studio will focus on creating spaces that reflect and celebrate the rich diversity of cultures, fostering a deep appreciation for the fusion of tradition and modernity in design.

COURSE CONTENT:

This course covers interior design of cultural buildings with primary focus on –

- Design Brief: Introduction of project
- Literature study: Study of standards: anthropometry and ergonomics user wise and space wise
- Documenting space: Offline and online case studies
- Site analysis
- Develop thrust or focus area for proposal.
- Concept development for proposal on the base of thrust or focus area and representation by sketching,
- Furniture layout Planning and sections: Based on concept, Based on site condition, Scale/proportion, Application of design principles and elements, Functional requirements of spaces and user,
- Construction details and Material Specification furniture, flooring, False ceiling, wall décor, partition etc.
- Interior services layout with fixing detail of electrical system, lighting system (with types and material specifications), HVAC system, Firefighting system, Acoustical system, Plumbing system
- Development of rendered 3D view of transitional spaces, core spaces.
- Graphic design (page layout and composition)
- Portfolio development

Typologies: Museum, Museum and art gallery, auditorium, theater, sports complex, community center, conventional center, performing art center.

Scale of the project: 1200-1500 sqm. Carpet Area

COURSE OUTCOMES:

CO1: Explain various fundamental factors that go into designing an ideal cultural spaces and environment.

CO2: Identify issues and concerns contextually through comparative study.

CO3: Design solutions that seamlessly integrate aesthetics and functionality to meet the practical requirements of clients.

CO4: Choose material, services, and its selection involved in the interior design.

CO5: Develop technical details that translates to create innovative designs while effectively communicating the design process.

REFERENCES:

1. *Time-saver Standards for Interior Design and Space Planning*. Mc Graw Hill
2. John Pile. *Interior Design*. Abrams
3. Alexander, N J, Mercoust Brace. *Designing Interior Environment*. Havanovich Inc.



ID 5504 DESIGN DISSERTATION

COURSE INTENT:

This course on dissertation process will give opportunity to students to connect their research abilities on identifiable domain and demonstrate the research as application for a design project in the same identifiable manner.

COURSE CONTENT:

The course includes Introduction – Preface to dissertation and discussion on the objectives, recap, and discussion on methods of research; understanding the applicability of various techniques of research; Learning from examples and group Presentation; Identification - Research area and gap identification of the broad study area for dissertation; Developing a framework – Develop the research methodology, target the user group, primary and secondary data collection through survey, experiments, questionnaire survey etc., Content Development – Data collection and data analysis; Data Processing and Outcome of Research - Results and discussion, preparation of final report, Report writing.

COURSE OUTCOMES:

CO1: Define the domain of research.

CO2: Outline the gaps in the domains of their interests.

CO3: Develop research methodology and examine and research on an identified domain.

CO4: Demonstrate research as an application on the design project.

CO5: Apply theoretical research into practical requirements.

REFERENCES:

1. John F. Pile, Abrams. *Interior Design*.
2. Brenda Laurel (Editor), Peter Lunenfeld. *Design Research: Methods and Perspectives*.
3. Zeisel John, Inquiry by Design. Iain Borden, Katerina Ruedi, *Dissertation -An Architectural Student's Handbook*
4. Anderson, J. and Poole, M. (1998). *Thesis and assignment writing*. Brisbane: John Wiley.
5. Borden, I. and Ray, K. R. (2006). *The dissertation: an architecture student's handbook*. 2nd Ed. Oxford: Architectural Press.
6. Fink, A. (1998). *Conducting research literature reviews: from paper to the Internet*. Thousand Oaks: Sage.



ID 5506 WORKING DRAWING - I

COURSE INTENT:

The course aims to enable the students to understand, analyse and apply the techniques of preparing the drawings which are used for execution of interior design at site.

COURSE CONTENT:

The course includes Understanding the importance of working drawings in interior design, Overview of several types of interior design drawings (floor plans, elevations, learning to use scales, rulers, hatches, line weights and measuring tools accurately); Floor Plans: Developing floor plans for residential and commercial spaces with scaling and measuring interior spaces, incorporating built-in furniture placement in floor plans, Sectional Elevations: Creating elevation drawings to depict wall details and vertical elements, developing cross-sections to show interior structure; Fenestrations: Understanding the type and use of Doors, Windows, Ventilators, their placements and fixing techniques, Making Door, Window Schedules as required; Partitions, Staircase & Furniture: Different type of partitions (fixed & Type of staircase, Construction method and Finishing Details. Learning to draw various furniture and fixture types (Built-in furniture, Cabinetry, and custom furniture) with respective construction details; Material and Finish Selection: Flooring, walls and Ceiling Finish drawings and details. In-depth exploration of interior design materials (flooring, wall coverings, textiles, etc.).

COURSE OUTCOMES:

CO1: Demonstrate proficiency in creating floor plans, elevations, and sectional drawings for interior design projects.

CO2: Develop comprehensive floor plans by integrating built-in furniture effectively to optimize functionality and aesthetic appeal.

CO3: Develop detailed elevation drawings and cross-sections to illustrate wall details, vertical elements, and interior structures.

CO4: Apply knowledge of fenestrations, including doors, windows, and ventilators, to design interior spaces, creating door and window schedules as needed.

CO5: Develop drawings of various furniture including built-in furniture, while considering construction details and materials for durability and aesthetic coherence.

REFERENCES:

1. Chiava.J. & Callender.J. *Time Savers Standards Design Data*.
2. P.N. Khanna. *Construction, and material Handbook*.
3. Bisharat, K. A. (2008). *Construction graphics: A practical guide to interpreting working drawings*. John Wiley & Sons.
4. Wakita, O. A., & Linde, R. M. (1994). *The professional practice of architectural working drawings*. John Wiley & Sons.
5. Thomas, M. L. (1978). *Architectural Working Drawings: A Professional Technique*. McGraw-Hill.
6. Spence, W. P. (1993). *Architectural working drawings: Residential and commercial buildings*. John Wiley & Sons.
7. BIS (1993) *Code of Practice for Architectural and Building Drawings* (is.962:1989). Bureau of Indian Standards, New Delhi.



YEAR FOUR / SEMESTER SEVEN

ID 6001 THESIS

COURSE INTENT:

The course aims to develop design abilities for demonstration of research and base work studies done in dissertation for the identified domain to demonstrate in an interior design project.

COURSE CONTENT:

The objective of the Thesis course is to guide students in the discovery, formulation, and refinement of proposals for the Interior Design project, which they will undertake in as a core topic for their thesis. This course is designed to enrich students' perspectives by introducing diverse topics in interior design and allied disciplines. The aim is to cultivate design and research projects that exhibit creative innovation and technical competence within the design field. As a mandatory component for undergraduate students in their penultimate semester, the Thesis course is structured to inspire the exploration of new ideas, research avenues, and design experiments in the realm of interior design and related disciplines. By providing a broader framework, the course facilitates systematic research on selected topics, encouraging students to develop a well-defined proposition, narrative, and methodology. The course encourages the development of Thesis Proposals stemming from crucial issues in interior design with an interdisciplinary focus, theoretical premises involving hypothetical interior design scenarios, or real-time projects proposed by government or other (public or private) organizations. Through this course, students are empowered to engage in meaningful interior design discourse, contribute to the field's advancement, and gain valuable experience in navigating both theoretical and practical dimensions of interior design & allied disciplines.

COURSE OUTCOMES:

CO1: Demonstrate knowledge of the research as application for a design project in the same identifiable manner.

CO2: Analyse issues and concerns contextually through comparative study.

CO3: Categorise design program through inferences of data, case study & site study.

CO4: Apply design thinking and process to develop creative designs and demonstrate through relevant communication skills.

CO5: Develop the study into practical details of the project.

REFERENCES:

1. Norman K Denzin and Yvonna S Lincoln (Eds.). (1994). *Handbook of Qualitative Research*, Thousand Oaks: Sage Publications.
2. Harris D., (2019). *Literature Review and Research Design: A Guide to Effective Research Practice*. Routledge.
3. Kumar R. (2010). *Research Methodology: A Step-by-Step Guide for Beginners*. SAGE.
4. Kothari CR. (2004). *Research Methodology: Methods and Techniques*. New Age International.
5. Francis.D. Ching& Corky Bingelli. (2004). *Interior Design Illustrated*, 2nd edition, Wiley publishers.



ID 6003 INTERIOR PORTFOLIO DEVELOPMENT

COURSE INTENT:

The course intent is to guide students in crafting a professional portfolio that effectively communicates their skills and creativity. By focusing on key principles and essential aspects of design presentation, students will be equipped to highlight their work to potential employers and clients with confidence.

COURSE CONTENT:

The course covers brief explanation of the significance of a portfolio in a career and describing the essential content for a portfolio by using the best examples; Various formats to prepare a portfolio based on orientation, page size, and polio size for different mediums like online, offline, etc. shall be exposed. Selecting the best projects: Regarding all the academic projects, the best works shall be chosen for portfolio development; Exploration of various software tools which aids them to present the content as per different formats and mediums; To explore and translate the relationship between the concept and design development for each project handled at various levels. Exposure to current trends in representation, Color schemes and other relevant techniques shall be developed for the compilation of the portfolio. The course culminates with developing individual portfolio based on techniques handled throughout the semester.

COURSE OUTCOMES:

CO1: List the different attributes of portfolio design.

CO2: Explore the various formats used for portfolio development.

CO3: Demonstrate, skills, designs, values, and attributes in the preparation of portfolio.

CO4: Apply the different mediums used in preparation of a portfolio.

CO5: Develop a portfolio design for highlighting various aspects of their design.

REFERENCES:

1. Siprut Mark. *Adobe Photoshop handbook*.
2. Ching, Francis. (1979). *Architecture Form, Space and Order*. Van Nostrand Reinhold Company, New York.
3. Broomer F. Gerald. (1974), *Elements of Design: Space*. Davis Publications Inc., Worcester, Massachusetts. SYLLABUS (for internal circulation only) 2020 – Department of Design, Manipal School of Architecture and Planning | 60.
4. Kurty, Bruce D.s (1987). *Visual Imagination – An Introduction of Art*. Prentice Hall, New Jersey.
5. Luescher, A. (2010). *Architects Portfolio Planning Design Production*. Routledge.



ID 6005 WORKING DRAWING II

COURSE INTENT:

To enable the students to apply the techniques of preparing the drawings related to interior services which are used for execution of interior design aligning with the MEP services.

COURSE CONTENT:

The course covers understand the design of the RCP and prepare working drawings with specific construction technique, accordingly, Creating comprehensive reflected ceiling plans; lighting plans that specify fixture type and locations, understanding lighting design principles, requirement, and considerations. Developing electrical plans with outlet and switch placement, connections to the distribution and mains; developing detailed plumbing plans for Toilets and Kitchens with fixture specifications, incorporating plumbing information into drawings; Understanding HVAC systems and ductwork with detailed plan and fixture specifications; compiling all drawings, schedules, and specifications into a comprehensive set of construction documents, developing written specifications for materials and finishes.

COURSE OUTCOMES:

CO1: Develop reflected ceiling plans (RCPs) that gives details about ceiling materials, and detail the placement of fixtures such as lights, ceiling fans, and A/C vents.

CO2: Develop lighting plans with fixture types based on lighting design principles, requirements and develop electrical plans with precise wiring, placements along with connections to distribution and mains.

CO3: Develop plumbing plans for toilets and kitchens, encompassing water supply, sewage and drainage systems, and rainwater harvesting systems.

CO4: Understand HVAC systems and ductwork, enabling the development of detailed HVAC plans with fixture specifications.

CO5: Organize all drawings, schedules, and specifications into a comprehensive set of construction documents, including specifications for materials and finishes.

REFERENCES:

1. Chiava.J. & Callender.J, Time Savers Standards Design Data.
2. P.N. Khanna, Construction, and material Handbook.
3. Bisharat, K. A. (2008). Construction graphics: A practical guide to interpreting working drawings. John Wiley & Sons.
4. Wakita, O. A., & Linde, R. M. (1994). The professional practice of architectural working drawings. John Wiley & Sons.
5. Thomas, M. L. (1978). Architectural Working Drawings: A Professional Technique. McGraw-Hill.
6. Spence, W. P. (1993). Architectural working drawings: Residential and commercial buildings. John Wiley & Sons.
7. BIS (1993) Code of Practice for Architectural and Building Drawings (is.962:1989). Bureau of Indian Standards, New Delhi.

ID 6007 OPEN ELECTIVE

The students would be given an opportunity to choose the open elective from the courses offered by MAHE.



YEAR FOUR / SEMESTER EIGHT

ID 6002 INTERNSHIP

COURSE INTENT:

This course on Internship intends the following:

- Enable students to get acquainted with the demands of the profession, including carrying out independent critical study of each aspect of work in an office and its functions.
- To provide a platform for gaining real life experiences and exposure towards learning adaptability and flexibility.
- To provide an opportunity to develop networking skills for life-long learning and career enhancement.

COURSE CONTENT:

The student would be given an opportunity to do an internship in Architecture / Interior design firm for a period of one semester. The internship guidelines provided need to be strictly adhered to.

COURSE OUTCOMES:

CO 1: Understand the organizational structure, ethics and aspects of teamwork to coordinate and execute various tasks assigned in an Architect / Interior Design office.

CO 2: Take part in the process of design and decision making through various tools for effective communication.

CO 3: Apply acquired learning to carry out tasks assigned at the firm.

CO 4: Relate to the challenges of professional practice.

CO 5: Develop and represent the design knowledge gained from the internship experiences.

REFERENCES:

B. Des Interior Design Practice Manual 2024 – 2025



ID 6004 STUDY REPORT

COURSE INTENT:

This course enables the students to document the projects undertaken during the internship. The Practice School manual provides the guidelines and details the requirements to be completed during the internship tenure at an apparel manufacturing industry or ancillary industry. The students as per the internship manual provided are encouraged to take-up a design project and critically analyse the same.

COURSE CONTENTS:

The students will document the process flow in the industry and its functions, projects carried out and tasks and responsibilities, during the tenure at an apparel manufacturing industry or ancillary industry. The guidelines as provided in the **B Des ID Practice School Manual**, are to be followed for the compilation of the same.

COURSE OUTCOMES:

On completion of this module, students should be able to:

- CO 1: Understand the design philosophy of the project.
- CO 2: Study the trend report/clientele/market requirement as shared by the Architecture / Interior firm.
- CO 3: Analyze the requirements of the market/clientele/trend report.
- CO 4: Interpret and critically evaluate the clientele / trend being incorporated in the profession.
- CO 5: Compile the range into a study report as per the instructions of the internship manual.

REFERENCES:

B. Des Interior Design Practice Manual 2024 – 2025



ELECTIVES

ALLIED ELECTIVES

ID 5508 INTERIOR PHOTOGRAPHY AND STYLING

COURSE INTENT:

The course explores the principles and techniques of interior photography and styling. Students will learn how to capture the essence of interior spaces, create visually appealing compositions, and develop styling skills to enhance the aesthetics of their photographs. The course includes hands-on photography assignments and practical styling exercises.

COURSE CONTENT:

The course includes fundamentals of interior photography, covering the importance of this art in various fields. Importance of Photography in Interior Design, Historical Context of Interior Photography, Contemporary Trends. Fundamentals of interior styling, principles of interior styling, including colour theory, balance, contrast, and harmony; Composition techniques, such as the rule of thirds and framing, Framing and Leading Lines, Creating Depth in Interior Shots, Working with Patterns and Textures will be studied, along with practical assignments to capture basic interior compositions. lighting in interior photography, differentiating between natural and artificial lighting and examining the advantages and challenges of each, understanding space planning in styling a space, Furniture styles and trends Arranging furniture for function and aesthetics Creating focal points within a space; Essential equipment, including cameras, lenses, and lighting tools, and learn the intricacies of camera settings and exposure. How to prepare a space for a photoshoot, capture various room types (e.g., living rooms, bedrooms, kitchens), and experiment with different perspectives and angles. The significance of accessories in styling, selecting appropriate accessories for assorted styles, creating balance and harmony with accessories and will learn to select props, accessories, and furniture to enhance interior spaces; Introduction to Post-Processing Software, Basic Editing Techniques for Interior Photography, Retouching and Enhancing Details, Maintaining Colour Accuracy; Engage in hands-on photography exercises in indoor and semi-indoor settings, apply learned concepts to real-world scenarios, producing high-quality photographs.

COURSE OUTCOMES:

CO1: Understand the foundational principles and techniques of interior photography.

CO2: Apply composition techniques to effectively capture interior spaces.

CO3: Demonstrate proficiency in using photography equipment, including cameras, lenses, and lighting.

CO4: Utilize post-processing tools to edit and enhance interior photographs to professional standards.

CO5: Enhance the aesthetics of interior photographs for indoor and semi-indoor through styling principles and practices.

REFERENCES:

1. Scott Hargis. *The Photographer's Guide to Interior Lighting*.
2. Lois Burwell. *The Interior Photography Handbook*.
3. Emily Henderson. *Styled: Secrets for Arranging Rooms, from Tabletops to Bookshelves*.



ID 5510 CINEMATIC DESIGN

COURSE INTENT:

The course explores the world of stage and film design starting with historical evolution to technical aspects like sound and lighting, delve into set creation, costume design, and more. Also, the course includes understand the importance of signage techniques, tabletop animation, and event stage design, mastering every element from concept to cost estimation.

COURSE CONTENT:

The course includes Dance/drama/ lecture/theatre with emphasis on background study of the event scenario. Historical evolution of the stage, degree of encirclement in various types of stage designs such as open air, arena, thrust in and proscenium stages, script and storyboard terminology and theory of stage design, technical aspects like sound, lighting and colour scheme, visualization of and creation of sets e.g., with backdrops and scenery, set design with appropriate props, costume design, and make-up, expenses; Film set design with response to camera positioning and movement, indoor and outdoor shooting, film sets as a creation of virtual environment appropriate for the scenery and shots, support structure for film set erection for indoor and outdoor shooting, architects role in cinematography: visualization, storyboard frames, proportions, computer generated stage set up: mixing and editing, exploring various materials of stage props, budget; Set layout: principles of layout for creating effective visual signage and exploring the unique problems, techniques, theory, and approaches of signage in film, theatre, and other forms of mediated exhibition. Introduction to design application for building signage; Tabletop set up: stop motion animation and computerized animation, concepts or story, tabletop miniature box model, lighting and special effects, voice over, music and mixing, overall editing and final presentation, and costing; Event stage: concept and design, ambience lighting and special effect, stage props: video wall presentation, sound and acoustics, cost, and estimation.

COURSE OUTCOMES:

CO1: Understand the evolution of stage design and its types, and learn about script terminology, lighting, sound, and colour schemes for effective stage visualization and set creation.

CO2: Develop comprehensive skills in film set design, camera dynamics (indoor and outdoor shooting) and creating virtual environments.

CO3: Understand the diverse signage theories and layout principles in film, theatre, and mediated exhibitions for effective design application.

CO4: Applying stop motion and computerized animation, mastering storytelling concepts, miniature model creation, lighting, special effects, voice-over, music integration, and final editing for compelling presentations.

CO5: Create design event stages, incorporating ambient lighting, special effects, and audio-visual elements and analyse the estimate costs for impactful stage presentations.

References:

1. Colin Winslow. (2006). *Handbook of Set Design*. The Crowood Press Ltd.
2. Colin Winslow. (2006). *The Handbook of model-making for Set Designers*. The Crowood Press Ltd.



3. Karen Brewster and Melissa Shafer. (2011). *Fundamentals of Theatrical Design: A Guide to the Basics of Scenic, Costume, and Lighting Design*, Allworth; Illustrated edition.
4. Stephen Di Benedetto. (2012). *An Introduction to Theatre Design*. Routledge.
5. Gloman, Chuck B. (2007). *Scenic design and lighting techniques: a basic guide for theatre*. Elsevier.
6. Ben McCannm. *Ripping Open the Set, French Film Design (1930-1939): New Studies in European Cinema*, Peter Lang.
7. Ian Appleton. (2012). *Buildings for the Performing Arts*, Architectural Press, Elsevier.
8. Qian Yin. *Endless Performance, Buildings for performing arts*. Design Media Publishing Limited.

ID 5512 ADVANCED COMPUTER GRAPHICS

COURSE INTENT:

The course shares In-depth understanding of 3D modeling through digital software tools to enable the student to make effective audio-visual presentations, create three dimensional models and visualization of interiors. The intent is to possess intermediate to advanced skills with improvement in the speed and quality of modeling.

COURSE CONTENT:

This course delves into the realm of 3D modeling and design, equipping students with the skills to craft robust models and surfaces using prominent graphics software tools. Participants will explore the intricacies of interior design, honing their ability to develop compelling interior views and simple designs that resonate with aesthetic and functional considerations. Emphasis is placed on the application of materials, as well as the creation of visually stunning rendered images through sophisticated graphics and rendering software tools. Additionally, the course provides a comprehensive introduction to Walkthrough concepts and development of walkthrough, allowing students to navigate the dynamic space between static design and immersive, interactive experiences. Through a combination of theoretical understanding and hands-on practice, students will emerge proficient in the tools and techniques necessary for bringing their creative visions to life in the realm of 3D design and visualization.

COURSE OUTCOMES:

CO1: Proficiently use prominent graphics software tools, demonstrating advanced skills in 3D modeling and design to craft precise and robust models and surfaces.

CO2: Develop expertise in interior design, capable of creating compelling interior views and designs in different software tools that effectively balance aesthetic and functional considerations.

CO3: Master the application of materials, showcasing their ability to use various textures and finishes in 3D models to enhance realism and visual appeal.

CO4: Show proficiency in creating visually stunning rendered images through sophisticated graphics and rendering software tools, elevating the quality of their 3D design presentations.

CO5: Master the use of software tools for creating dynamic walkthroughs for seamless transitions from static design to immersive experiences and enhance design presentations with engaging and realistic elements.

REFERENCES:

1. <https://learn.sketchup.com/>
2. TwinMotion tutorials. <https://www.twinmotion.com/en-US/learning-resources>
3. Adobe Tutorials for Premier Pro. <https://helpx.adobe.com/in/premiere-pro/tutorials.html>
4. Auto Desk Tutorials. www.autodesk.in/campaigns/autocad-tutorials



ID 5514 DESIGN JOURNALISM

COURSE INTENT:

The course intends to provide an opportunity for understanding and expressing various issues concerning design.

COURSE CONTENT:

The course content is focused on reading, writing and presenting explorations of the concerns and opportunities from design. The course objective is to encourage learners in developing narratives in perceived arguments & essential decision-making. The methods of inquiry to explore these courses will assist the students in critical thinking in Design studies. The overview outlines the nature of contemporary journalism, while its significance explores the nature of study involved. Different techniques and genres are studied towards constructing narratives, which are also analyzed from the publishing domain. The relevance of emerging media is observed along with the inherent role of ethics.

COURSE OUTCOMES:

CO1: Relate various integral aspects of journalism.

CO2: Interpret the purpose and significance of journalism in design.

CO3: Construct a method and develop techniques of different kinds of narratives.

CO4: Discover the publishing process involved in design journalism.

CO5: Appraise the importance of emerging media and the role of ethics.

REFERENCES:

1. Wiseman, Carter. (2014) *Writing Architecture: A Practical Guide to Clear Communication about the Built Environment*.
2. Ada Louise Huxtable. (2010). *On Architecture: Collected Reflections on a Century of Change*. Bloomsbury Publishing.
3. Gene Foreman, Daniel R. Biddle, Emilie Lounsberry, Richard G. Jones. (2021). *The Ethical Journalist - Making Responsible Decisions in the Digital Age*. Wiley Blackwell.
4. Coomaraswamy, Ananda. (1995). *Essays in Architectural Theory*. Oxford University Press.
5. Doherty, Skye. (2017). *Journalism Design: The NewsCube, Interactive Technologies and Practice*.

SKILL DEVELOPMENT ELECTIVES

ID 5516 CREATIVE ARTS & CRAFTS

COURSE INTENT:

The course aims to establish a solid foundation of knowledge in traditional and ethnic arts and crafts of India for students of interior design. It endeavors to delve into diverse facets of arts and crafts, with the intention of facilitating their application in the field of interior design.

COURSE CONTENT:

Introduction & study of the characteristics of Indian arts and crafts, traditional & folk arts of India and its application interior design, materials. Application of arts & crafts into interior spaces and elements. Insight into the traditional arts and crafts of various states of India. Evaluation by analysis of acquired knowledge & creation of design elements in interior spaces. It includes Foundation of Traditional Arts & Crafts; Traditional arts and crafts & interior; Application of into interior, Synthesize knowledge to design and execute interior spaces infused with traditional arts, showcasing their creativity and expertise.

COURSE OUTCOMES:

CO1: Understand the foundation of the traditional and ethnic arts and crafts of India.

CO2: Experiment with various art and crafts in interior design.

CO3: Utilize & apply the knowledge of traditional Indian arts and crafts in the context of design.

CO4: Evaluate acquired knowledge in arts and crafts in designing of interior elements & space.

REFERENCES:

1. Bais M, Thakkar J, Dixit S, Cartwright B. (2018) *Sahaj: Vernacular Furniture of Gujarat: As Part of the Vernacular Furniture of North-West India Project: Phase I*
2. Jain, R,(1990). *Crafts in Interior Architecture: India*, Publisher
3. Ranjan A, Ranjan MP,(2009). *Handmade In India: A Geographic Encyclopedia of India Handicrafts*. Abbeville Publishing Group.
4. Foundation VS, Pandya Y, *Design VSF for S and R in E*. (2014). Elements of Spacemaking. Mapin Publishing Pvt;
5. Nanda R, Gupta N. Delhi (1999), *the Built Heritage: A Listing*. Intach Delhi Chapter.
6. Humayan K. (1970) *The Indian Heritage*.
7. Sentance B. (2004) *Ceramics: A World Guide to Traditional Techniques*.
8. Papanek VJ. (1985) *Design for the Real World: Human Ecology and Social Change*.



ID 5518 INDUSTRIAL ARTS

COURSE INTENT:

This course aims to equip students with the knowledge and skills necessary to integrate industrial processes, materials, and technologies into their design practice. By delving into the historical evolution of industrial arts and examining contemporary trends, students will gain insight into the pivotal role of manufacturing techniques in shaping interior spaces through hands-on projects and will develop proficiency in furniture design, materials selection, and technological integration. Ultimately, the intent is to empower students to create innovative, functional, and ethically conscious interior designs that reflect a mastery of industrial arts principles.

COURSE CONTENT:

The course includes Overview of Industrial Arts and its relevance in interior design. Historical development and key movements. Evolution of manufacturing techniques and materials in the context of interior design; Materials and Manufacturing Processes - Identification and analysis of materials used in industrial design. Exploration of various manufacturing processes and their applications in creating interior design elements. Practical demonstrations of manufacturing techniques; Examination of the integration of technology in industrial arts and its impact on interior design. Use of digital tools and software in the design and production process. Hands-on exercises to apply technology in design projects; Furniture Design and Production - Principles of furniture design and their application to interior spaces. Hands-on projects involving the design and production of furniture pieces. Evaluation and critique of furniture design projects; Exploration of sustainable practices in industrial design and their relevance to interior design. Discussion of ethical considerations related to materials, labor, and technology. Development of effective communication and collaboration skills through group projects. Current industry trends and case studies highlight ethical and sustainable design practices.

COURSE OUTCOMES:

CO1: Comprehensive understanding of the historical evolution of industrial arts and its impact on interior design.

CO2: Apply knowledge of various manufacturing processes and materials to design and produce interior elements.

CO3: Analyze the integration of technology in industrial arts and its implications for interior design.

CO4: Synthesize principles of furniture design to create innovative and functional furniture pieces for interior spaces.

CO5: Evaluate ethical considerations related to materials, labor, and technology in industrial design, and apply these considerations to design decisions.

REFERENCES:

1. Peter Korn. *Woodworking Basics: Mastering the Essentials of Craftsmanship*.
2. Rob Thompson. *Manufacturing Processes for Design Professionals*.



ID 5520 PRODUCT DESIGN

COURSE INTENT:

The course intends to create awareness about the design process and various ways of designing products for user needs and requirements. It also enables learning about the integration of design, manufacturing process, marketing etc. in the design of products.

COURSE CONTENT:

The course includes Introduction to Product design, product Drawing & perspective, Introduction to ergonomics, purpose and importance in inclusive design. Introduction to design language and principles. Explore the design of existing products to understand the design language; User study – It involves observing and collecting data from actual users of a product to understand their behaviors, preferences, and needs using observation, interviews, surveys and questionnaires, etc; Apprehending product design - Design opportunities identification through in-depth study of products opting user research, market analysis, technology assessment, benchmarking, user feedback and reviews, cross-disciplinary collaboration, scenario planning, material and sustainable approach towards product design; Analyze the compatibility with diverse sociocultural aspects - Explore case studies of products from diverse cultural backgrounds and technologies to uncover how incorporating design thinking can enhance development, particularly in addressing sociocultural aspects; Product development - Design and develop a product.

COURSE OUTCOMES:

CO1: Relate various design fundamentals and ergonomics with products.

CO2: Analyze the products based on the user needs, cognitive and physical conditions, usage of materials and manufacturing techniques.

CO3: Perceive the design language, form and values while designing a product. Apply design for sustainability principles in the design process.

CO4: Apply design thinking and process to solve the problem creatively.

CO5: Develop prototype and test.

REFERENCES:

1. Kolko, J. (2014). *Well-designed: how to use empathy to create products people love*. Harvard Business Press.
2. Tenner, E. (2015). *The design of everyday things by donald norman*. Technology and Culture, 56(3), 785-787.
3. Maeda, J. (2006). *The Laws of Simplicity: Design, Technology, Business*. Life, 1.
4. Byrne, K. (2006). William Lidwell, Kritina Holden and Jill Butler. *Universal Principles of Design: 100 Ways to Enhance Usability, Influence Perception, Increase Appeal, Make Better Design Decisions, and Teach Through Design*. Information Design Journal, 14(2), 185-186.
5. De Bono, E. (1969). *Information processing and new ideas—Lateral and vertical thinking*. The Journal of Creative Behavior, 3(3), 159-171.
6. McDonough, W., & Braungart, M. (2010). *Cradle to cradle: Remaking the way we make things*. North point press.
7. Hudson, J. (2008). *Process: 50 product designs from concept to manufacture*. (No Title).



ID 5522 FABRICS IN INTERIOR DESIGN

COURSE INTENT:

The course intends to familiarize the students of Interior Design on textile materials that can be used in interior design. To have an awareness of the rich and the varied types of fabrics, textiles and fabric art and craft in India.

COURSE CONTENT:

The course includes Fundamentals of Interior Fabrics, weaving, filaments to fabric- understanding of role in interior design, interior fabric, element, design, colour and application. Classification of fabrics for interiors - Introduction, types of fabric and its applications; Indian Textiles and crafts- Part A (North-South Region) Part B (East & West Region). Introduction to interior furnishing and Decorative textiles; Role of fabric in interior flooring- understanding procedure fixing and care; Introduction to creative art and its historical applications in interior design. Exploration of creative art objects, materials, types, and applications like wall hangers, ceramics, wall textures, and murals; Interior Textile and Accessories and Care and Maintenance; Exploring possibilities of combination of different fibres, mood board, material pallet

COURSE OUTCOMES:

CO1: Explain the importance and classification of Fabrics pertaining to interior design.

CO2: Interpret the textile arts and crafts of India by illustrating using mix media.

CO3: Experiment with the yarns and fabrics to create aesthetic designs and prototypes.

CO4: Demonstrate different types of furnishings through visual representation.

CO5: Develop a collection of home furnishing creatively presented and documented.

REFERENCES:

1. Elsasser, H.V. (2004). *Know Your Home Furnishings*. Fairchild Publications.
2. Peacock, J. (2000). *Illustrated Guide for Sewing Home Furnishings*. Thames and Hudson.
3. The Editors of Fox Chapel Publishing. (2010). *Illustrated Guide to Sewing Home Furnishings: Expert Techniques for Creating Custom Shades, Drapes, Slipcovers and More*. Fox Chapel Publishing
4. Donserkery K.G. *Interior Decoration in India*. Taraporeval sons and co.
5. Melanic Paine. *Curtains and shades*. Readers Digest, US.
6. Stepat, D.D. (1991). *Introduction to home furnishings*. Themaemillan Company, New York.
7. Storey Joyce. (1992). *The themes and Hudson manual of textile printing*. London
8. Jhon, F.P. (1997). *Colour in interior Design*. Mc Graw Hill Company.
9. Mart and Singh, *Handcrafted Indian Textiles*, Lustre
10. Asharani Mathur, *Woven Wonder: The Tradition of Indian Textiles*, BP! India Pvt Ltd
11. Shailaja D. Naik, *Traditional Embroideries of India*
12. Jaya Jaitly, *Woven Textiles of Varanasi*, Niyogi Books



PROFESSIONAL DEVELOPMENT ELECTIVES

ID 6009 INTRODUCTION TO UX & SYSTEM DESIGN

COURSE INTENT:

The course aims to introduce fundamentals of user experience and service design. The primary focus of the course is to acquaint students with a comprehensive understanding of design fundamentals, methodologies, user research, and interface design. They will develop proficiency in high-fidelity wireframing, prototype development, and stay abreast of emerging technologies in the dynamic field of interaction design.

COURSE CONTENTS:

The course includes UX Design Fundamentals - Design paradigm, User interface, Human-computer interface (User-centric computing), background; User Interface design - Notable development in GUI design, principles of visual communication in interface design; Design Methodology - Design and research methods, Waterfall model, Iterative model, Participatory design approach, co-design, Heuristic evaluation, Mental model, Design thinking process, User Experience laws for best practices; User Research and Ideation - User Study, Data collection methods, Data analysis (Qualitative and Quantitative), Persona, Affinity mapping, surveys, Interviews, Task Analysis, Low fidelity wireframing and user testing, A/B testing, Multivariate testing, Material design guidelines, design for iOS; High-Fidelity Wireframing and Prototype Development - Creation of mood board, Visual language, Visual elements, Brand Identity, Visual perception, The Gutenberg diagram, User eye tracking study in UI design User testing, Upcoming technologies in the field of interaction design.

COURSE OUTCOMES:

On completion of this module, students should be able to

CO1: Understand the key components of interaction and services design.

CO2: Analyze the application of User Experience laws for best practices in diverse design scenarios.

CO3: Apply principles of visual language, user testing methodologies, user perception in the creation of mood boards and low-fidelity wireframes.

CO4: Conduct usability testing on the prototype and suggest alterations for further design development.

CO5: Critically assess user experiences and apply emerging technologies in the ever-evolving field of interaction design.

REFERENCES:

1. Tenner, E. (2015). *The design of everyday things by Donald Norman*. Technology and Culture, 56(3), 785-787.
2. Weinschenk, S. (2011). *100 things every designer needs to know about people*. Pearson Education.
3. Krug, S. (2000). *Don't make me think!: a common sense approach to Web usability*. Pearson Education India.
4. Eyal, N. (2014). *Hooked: How to build habit-forming products*. Penguin.



ID 6011 ADVERTISING & BRANDING

COURSE INTENT:

The course is intended to equip students with the knowledge and skills to effectively create, market, and sustain a brand in the context of interior design. The course will focus on understanding market trends, developing brand identity, and implementing innovative strategies for successful brand marketing.

COURSE CONTENT:

The course includes Introduction to Marketing and Advertising: Explore the foundational aspects of marketing and advertising in the unique context of interior design; Brand Study: Analyze the interior design market context and create user profiles and personas specific to the field. Study relevant case studies in interior design branding, examine the relationship between customers and brand development, and assess the suitability of various marketing parameters for interior design brands; Strategies of Branding and Marketing: Focus on strategic approaches for successful branding and marketing in interior design. Learn to develop effective surveys for user personas, create working prototypes tailored to the industry, and understand strategies for discounts, packaging, and the latest trends in social media and online advertising; Brand Experience: Explore the art of crafting compelling narratives behind interior design products using the latest digital media trends. Emphasize incorporating elements of interior design aesthetics to create memorable brand experiences; Brand Marketing: Identify marketing strategies tailored for interior design products and services. Explore innovative methods for advertising and marketing interior design brands.

COURSE OUTCOMES:

CO1: Understand the fundamentals of branding, marketing, and advertising within the context of interior design.

CO2: Comprehend user aspirations, profiles, and personas specific to the interior design industry.

CO3: Apply strategies suitable for marketing and advertising interior design brands, including discounts and packaging.

CO4: Analyse brand value within the unique context of interior design.

CO5: Ideate new and effective ways of brand marketing and advertising, with a focus on social media and current trends in the interior design world.

REFERENCES:

1. Broderick, A., & Pickton, D. (2005). Integrated marketing communications. Pearson Education UK.
2. Boone, L. E., & Kurtz, D. L. (2013). Contemporary marketing. Cengage learning.
3. Belch, G. E., & Belch, M. A. (2003). Advertising and promotion: An integrated marketing communications perspective. The McGraw– Hill.
4. Wheeler, A. (2017). Designing brand identity: an essential guide for the whole branding team. John Wiley & Sons.
5. Egan, J. (2007). Marketing communications. Cengage Learning EMEA.
6. Bennett, A. G. (2010). The big book of marketing. Tata McGraw-Hill Education.
7. Creative market. (n.d.). The beginner's guide to branding. Available: <https://d3ui957tjb5bqd.cloudfront.net/ebooks/BeginnersGuidetoBranding.pdf>



8. Coleman, D. (2018). Four Elements That Shape Brand Experiences. Available: <https://www.brandingstrategyinsider.com/four-elements-that-shape-brand-experiences/#.Xh6Oe0czZPY>
9. Patel, S. (2019). The 2020 Guide to Successful Brand Positioning in Your Market. Available: <https://blog.hubspot.com/sales/brand-positioning-strategy>



ID 6013 VISUAL RENDERING

COURSE INTENT:

This course aims to provide knowledge on one of the latest technological tools, i.e Virtual Reality (VR) and train them to develop their skills in a new way of presenting their ideas.

COURSE CONTENT:

Exploration of Virtual Reality headsets, Application of VR in various fields, using 3d Visualization & Real time rendering software to develop spaces, exposure to Game Engines, developing simple Interact vities, Packaging (APK) to experience on VR headsets

COURSE OUTCOMES:

CO1: To use the VR equipment for various applications.

CO2: To develop spaces and contents based on their design abilities using 3d visualization software.

CO3: To import spaces/contents developed in 3d Visualization software into game engines like Unreal Engine/Unity, create light, materials, animations, renderings, walkthrough/movies.

CO4: To use game engine to create simple interactivities with the objects developed & imported from 3d Visualization software.

CO5: To Package the contents developed in the game engine to be used on VR headsets.

REFERENCES:

1. <https://dev.epicgames.com/documentation/en-us/twinmotion/twinmotion-2023-documentation>
2. <https://docs.unrealengine.com/5.3/en-US/>
3. <https://help.sketchup.com/en/sketchup/getting-started-sketchup>
4. <https://help.autodesk.com/view/3DSMAX/2023/ENU/>
5. <https://help.autodesk.com/view/RVT/2024/ENU/>



ID 6015 PROFESSIONAL PRACTICE

COURSE INTENT:

The course intends to equip the students with knowledge & skills of management of interior design office along with current practices, and codes of conduct required to enhance skills and techniques of handling residential and commercial interiors.

COURSE CONTENT:

The course includes Introduction to Interior design Profession, Code of Conduct & Ethics, Acts & Legislation, Duties & Liabilities, Role & Responsibility, Nature of Profession, Regulatory bodies, Professional bodies Office; Maintenance & Administration: Working of Interior Design Studio & ideal office structure; Distribution of work, authority, duties & responsibilities, reporting, etc. Basis for Professional Fees & Scales of fees; Accounting, maintenance of book of accounts and records; Tenders & Contractual Procedures: Tender Document Preparation, Types of Invitations (Public Notice, Private Invitation, Negotiation) Floating of Tender, Award of Tender, Aspects of Tender: Units of measurement & modes of measurement; Contents of Tender Document, Contract document -Work order letter and acceptance letter, Interim bills and final bills, Bills certifications. Arbitration; Practice & Management: Types, Office set-up & administration, Registration, Practice Procedure; Expansions, Collaborations, Global practice. Coordination with supporting consultants; Task allocation – Work plans, monitoring the plans, review meetings, record keeping, Accounting, Human resources; Copyrights: meaning, importance & precautions. Portfolio making required for participating in an Interior Design Contest.

COURSE OUTCOMES:

CO1: Understand the professional landscape of interior design, including ethical considerations, regulatory frameworks, and the role of professional organizations.

CO2: Demonstrate proficiency in office administration, including structuring interior design studios, managing professional fees, and maintaining accounting records.

CO3: Apply knowledge of tendering and contractual procedures in interior design, including tender document preparation, awarding contracts, and navigating arbitration processes.

CO4: Develop skills in interior design practice management, including office setup, collaboration strategies, and coordination with consultants.

CO5: Demonstrate understanding of copyright laws and portfolio development strategies essential for participating in interior design contests and protecting intellectual property rights.

REFERENCES:

1. Christine M. Piotrowski. *Professional Practice for Interior Designers*.
2. Mary V. Knackstedt. *The Interior Design Business Handbook: A Complete Guide to Profitability*
3. Justin Sweet and Marc M. Schneier. *Legal Aspects of Architecture, Engineering, and the Construction Process*
4. Christine M. Piotrowski. *Becoming an Interior Designer: A Guide to Careers in Design*
5. Keith Granet. *The Business of Design: Balancing Creativity and Profitability*.



DESIGN SPECIFIC ELECTIVES

ID 6017 HERITAGE INTERIORS

COURSE INTENT:

The course objective is to provide students with a comprehensive understanding of heritage interiors, including their historical, cultural, and architectural significance, and equip them with the skills necessary to contribute to the preservation, restoration, and design of such interiors. The students would be able to understand the spaces, volumes, materials, surfaces, constructive aspects, actual and past functions and configurations, degradation, etc. because of continuous modification through time.

COURSE CONTENT:

The course includes the significance of heritage interiors, historical, cultural, and architectural context, principles of heritage conservation, legal and ethical considerations; Social and cultural factors in interior design, historical events and their impact on interiors, regional and national styles; Historical research techniques, archival research and documentation, oral history and interviews, artifact analysis; Traditional building materials, artisanal skills and craftsmanship, historic textiles and furnishings, conservation of metals and glass. The course culminates with design exercise intended to Design a space in modern context using the knowledge of heritage interiors and elements from any region in India (Adaptive reuse).

COURSE OUTCOMES:

CO1: Explain the Significance of Heritage Interiors and Architectural Styles in different eras.

CO2: Understand the impact of Cultural and Historical Context of interior trends.

CO3: Analyse and document existing interior elements in context of Heritage.

CO4: Evaluate the heritage design elements in current context.

CO5: Develop a proposal for adaptive reuse based on the knowledge gained of heritage interiors.

REFERENCES:

1. Mitraja Bais, Jay Thakkar, Samrudha Dixit and Ben Cartwright. *Sahaj: Vernacular Furniture of Gujarat*
2. Rishav Jain. *Crafts in Interior Architecture: India, 1990 onwards.*
3. Yatin Pandya. *Elements of Space-Making.*
4. Delhi : the built heritage : a listing. Vol.1. by Indian National Trust for Art & Cultural Heritage [INTACH]
5. Thakkar, Jay. Kabir, Humayun, Indian heritage. Senance, Bryan, Ceramics : a world guide to traditional techniques by Naqsh : the art of wood carving in traditional houses of Gujarat : a focus on ornamentation.

ID 6019 SUSTAINABLE & GREEN INTERIOR

COURSE INTENT:

This course is intended to inculcate in the students the idea that sustainable green interiors are easy to implement and impactful to the environment. Introduction to green building concepts, terminologies, processes, and certifications.

COURSE CONTENT:

The course includes Introduction to Sustainable Interior Design: Concepts, terminologies, historical perspective. Cultural sustainability practices In India and other countries; Principles of sustainability, impact assessment, Life cycle: Environmental Impact Assessment, carbon footprint, cradle to grave, Environmental Product Declaration (EPD); Energy Efficiency in Interiors: Environmental Impact Assessment, carbon footprint, cradle to grave, Environmental Product Declaration (EPD); Sustainability in Materials Furniture finishing and textiles: Eco-friendly furniture, furnishings, and finishes. Sustainability, recycling, and upcycling; Green Building Certification, automation BMS, Software Introduction: LEED BREAM, Greentech, IGBC and GRIHA; BMS and IoT

COURSE OUTCOMES:

- CO1: Explain the role of sustainability in interior design from the past to the present.
- CO2: Utilize concepts and related terminologies of sustainability and its assessment.
- CO3: Explain energy efficiency in thermal comfort and lighting elements.
- CO4: Summarize eco-friendly, sustainable practices in interior elements.
- CO5: Compare green building certification systems, automation, and software usage.

REFERENCES:

1. Bonda Penny (2014). *Sustainable commercial interiors*. John Wiley, USA.
2. Manoj V. (2014). *Sustainable materials in interiors of nature resort*.
3. *Designing sustainable residential and commercial*
4. *Designing sustainable residential and commercial i Applying concepts and practices*, 12015, Bloomsbury Publishing New York.
5. *Environmentally responsible design Green and sustainable design for interior designers*, Jones Louise, 2008, John Wiley Canada.



ID 6021 SPATIAL NARRATIVES

COURSE INTENT:

The course is intended to cultivate a deeper understanding about impact of design language on quality of interior spaces and enhance ability to initiate persuasive psychological sense into design.

COURSE CONTENT:

The course includes exploring spatial narratives in the built environment, focusing on terminologies, significance, Environmental Psychology, Cognitive mapping, and Defensible spaces. Analyse elements influencing perceptions of built and urban spaces, emphasizing the development of experiential quality and user-space interrelationships. Examine space delineation, activity stimulation, and temporal transformations on a time scale; Experience and perceive interior spaces, employing methods of comprehension, understanding spatial order, and sequencing experiences. Exploring multi-layered information systems within interior spaces including anthropomorphism, Salutogenic architecture, and sensory design; Engage in the exploration of spatial narratives through case studies, drawing insights from design reviews. Develop personal design philosophies through primary experiences and conduct critical analyses using writings, visuals, and sketches. Foster comparisons of interpretations to enhance understanding.

COURSE OUTCOMES:

CO1: Recollect various elements within space.

CO2: Identify and grasp the design intentions of a space.

CO3: Interpret the experiential quality shaping the built environment.

CO4: Apply design philosophy effectively within a space considering the user and space considerations.

CO5: Express ideas and opinions about a space creatively and effectively.

REFERENCES:

1. Karlen, M. (1992). Space Planning Basics. Florence, Kentucky, U.S.A.: Van Nostrand Reinhold. <https://download.e-bookshelf.de/download/0000/5929/12/L-G-0000592912-0002338703.pdf>
2. De Chiara, J., Panero, J., & Zelnik, M. (1991). Time-Saver standards for interior design and space planning (2nd ed.). Mc-Graw Hill professional. <http://ci.nii.ac.jp/ncid/BA18174209>
2. K Ching, F., & Bingelli, C. (2004). Interior Design Illustrated (2nd ed.). Wiley.
3. Higgins, I. (2015). Spatial Strategies for Interior Design. http://opac.isi.ac.id/index.php?p=show_detail&id=41605
4. Kopec, D. A. (2018). Environmental Psychology for design. In Bloomsbury Publishing Plc eBooks. <https://doi.org/10.5040/9781501316852>



ID 6023 INTERIOR ILLUMINATION

COURSE INTENT:

These course objectives aim to provide students with a well-rounded education in interior illumination integration with daylighting, covering both the theoretical and practical aspects of the field, while also considering the evolving trends and technologies in lighting design.

COURSE CONTENT:

The course includes the Importance of Interior Illumination, Lighting Terminology and Concepts, Light Sources and Technologies. Highlight Lighting Technologies: Incandescent Lighting, Fluorescent Lighting, LED Lighting, Emerging Lighting Technologies; Types of Luminaires, Fixture Design and Aesthetics, Fixture Placement and Mounting, Lighting Control Integration. Lighting Design Principles: Visual Comfort and Ergonomics, Lighting for Different Interior, Spaces, Mood and Ambiance in Lighting, Contrast, Shadow; Residential Lighting, Commercial and Office Lighting, Hospitality and Restaurant Lighting, Healthcare and Hospital Lighting, Retail and Display Lighting. Lighting and Aesthetics: Artistic and Decorative Lighting, Creating Focal Points with Lighting, Sculptural and Architectural Lighting, Light as an Artistic Element; Energy-Efficient Lighting Design, Environmental Impact and Sustainability, Lighting Certifications and Ratings, Codes and Regulations; Design Process and Workflow, Project Planning and Budgeting. The course culminates with design exercise oriented for lighting design based on research investigation and conceptual approach with detailing and prototype.

COURSE OUTCOMES:

CO1: Understand the fundamentals of Lighting, Lighting Terminology and Concepts and principles.

CO2: Classify the various techniques, technologies, and materials for the designing of lighting systems.

CO3: Identify various components of lighting based on purpose and function of interior spaces.

CO4: Apply knowledge of lighting design to achieve energy efficiency and sustainability.

CO5: Select the design strategies for various lighting techniques in interior spaces.

References:

1. John.F. Pile. (1995). *Interior Design*. 2nd edition, illustrated, H.N. Abrams.
2. Wanda Jankowski. (1985). *Lighting: In Architecture and Interior Design*, pbc intl, 1995. Moore Fuller, Concepts and practice of Architectural Day lighting, Van Nostrand Reinhold co., New York, 1985.
3. David Egan. M. *Concepts in Architectural lighting* Mcgraw Hill Book company, New York, 1983. Edward Lucie-Smith, *Furniture: A Concise History (World of Art)* , Thames and Hudson, 1985. Robbie. G. Blakemore, *History of Interior Design and Furniture: From Ancient Egypt to Nineteenth-Century Europe*, Wiley publishers, 2005.
4. Robert J. Alonzo , P.E. Elsevier. *Electrical Codes, Standards, Recommended Practices and Regulations*.
5. National Lighting Code- Published by Govt of India, 2011.