COURSE CONTENTS

FIRST YEAR/SEMESTER ONE

DOD 6301   **DESIGN STUDIO - I**

Course Intent:

The course intends to create a functionality and usability of available space.

Course Contents:

The innumerable underused or abandoned public and private interior spaces in cities worldwide can become places where people collaborate to create alternative service provision and development.

Study involves identification, investigation and interpretation of available space, inside and outside of the traditional architectural envelope, whilst considering human occupation, engagement and experience as the catalyst.

Requirements for proposals will be based on client interaction, researching their needs and preferences. Design and detailed proposals will reflect solutions considering various aspects of space such as scale, context, configuration, light sources, colors, materials, and proportions in relation to the technical performance of the setting.

Course Outcome:

The students will develop a realization of an unused or abandoned available space and manifest them to understand, analyze the potential for appropriate use and work in the specialty of reuse of such spaces.

Reference Books:

1. Adaptive Reuse: Extending the Lives of Buildings, by Liliane Wong (Author), Publisher: Birkhauser (21 November 2016)
2. How Buildings Learn: What Happens After They're Built, by Stewart Brand (Author), Publisher: Penguin USA; Reprint edition (1 October 1995)
3. Building Reuse: Sustainability, Preservation, and the Value of Design (Sustainable Design Solutions from the Pacific Northwest), by Kathryn Rogers Merlino (Author), Publisher: University of Washington Press (29 June 2018)

DOD 6303   **DESIGN HISTORY**

Course Intent:

The course focuses to create an understanding and recognition of the prominence and evolution of Interior design through the ages.

Course Contents:

Overview of the History of Interior design, its relatedness to different periods and cultures, and its integral relationship with design and decorative arts.

Study of timeline of Art & Interior Design across continents such as Asia, Europe, America etc.; Pioneers in design that led to different art movements and its relevance to present day.

While the geographical emphasis is European and American, it will also include design practices and traditions of non-Western cultures, such as Middle Eastern and Asian. Example interiors covered will include: icons, like the Great Pyramids of Ancient Egypt or Forbidden City in China; those that most embody their time and place, including the Pantheon in Italy; and well-preserved case studies of specific types or styles, such as The Palace of Versailles, France.

Course Outcome:

The students will be able to trace back to the designs and their elements, its influences and its applications in the present context.

Reference Books:

1.Interior design by John F Pile.
2. History of Interior Design, Francis Ching 6

DOD 6305   **MATERIAL EXPLORATION**

Course Intent:

The course intends to explore various new materials with respect to behavioral properties and applications in Interiors.

Course Contents:

Introduction to different types of natural and synthetic materials used in Interior Design. Application of the above according to their property and usability.

Broad classification of Wood, Metal, FRP & Other materials - Properties and working processes of wood, the different types and sections of wood available; Various Metals and their alloys, different processes of welding, forging, FRP: prefabricated structures, concrete: casting processes and Ferro cement: casting and prefabricated structures.

Combination of different materials, natural and industrial such as wood and metal, wood and concrete, wood and Ferro cement etc. Understanding how different materials are being used in the Design field.

Exploration of Innovative materials through research and hands on experience to design and develop a prototype with respect to Interiors.

Course Outcome:

The students will be equipped on selection of appropriate materials and to innovate new materials as per the design requirements.

Reference:

1. Fundamentals of Modern Manufacturing: Materials, Processes, and Systems by Mikell P. Groover
2. Workshop Processes, Practices and Materials by Bruce J Black
3. Woodworking with Hand Tools: Tools, Techniques & Projects

ELECTIVE 1

DOD 7311   **ADAPTIVE REUSE & RECYCLE**

Course Intent:

To enable the student to understand the need for adaptive reuse of old heritage buildings and applications of using recycled materials. This course exposes students to learn the principles, examples and material knowledge for adaptive reuse and recycled interiors with integration of technical disciplines such as structural, mechanical, electrical, envelope design.

Course Contents:

Theory of Adaptive reuse and recycle, adaptive reuse and recycled materials
Principles followed during the reuse and recycle process, Benefits and limitations of using adaptive reuse and recycle methods and materials, Regulatory guidelines for Adaptive Reuse
Architectural conservation – conservation of heritage and important buildings, levels of intervention – structural, construction related, finishes etc. Revival of old building techniques and finishes.
Cultural Inheritance, heritage buildings, Case studies of adaptive reuse and recycle methods and materials in different spatial components of the buildings, techniques of construction
Discuss and explain sustainable criteria, through which environmentally friendly, healthy and socially adaptive reuse and recycle can be achieved.

Design exercise:
Design a space using reuse and recycle materials learned during the course and apply design principles of adaptive reuse and recycle and create own adaptive reuse and recycle solutions for the given space.

Course Outcome:

Students would be able to understand the importance of adaptive reuse and recycle methods and materials in interiors and apply the principles, techniques to create a sustainable and recycle interior projects.

Reference Books

Sandra F Mendler - The HOK Guidebook for sustainable design – John Wiley and Sons, Canada,2002. Conservation guidelines for Pondicherry – DTCP, Pondichery – INTACH 2000. Langston FKW Wong, Hui ECM, Shen LY (2008) Strategic assessment of Building Adaptive Reuse opportunities in Honk Kong. Building and Environment 10: 1709-1718. Ouroussoff N (2011) An Architect's Fear That Preservation Distorts. Exhibition review Cronocaos an exhibition at the New Museum organized by Rem Koolhaas and Shohei Shigematsu, NEW-YORK TIMES. Ching F (1979) Architecture Form, Space and Order. Van Nostrand Reinhold, NY. Park O (2009) A Design Strategy for Transforming and Old Power Plant into a Cultural Canter. Submitted to the department of Architecture for the degree of Master of Architecture at the MIT Latham D (2009) Creative Re-use of Buildings. Principles and Practice

Building Types: Selected Examples. Donhead, Bath Press, Bath, UK p: 1. Uffelen, Van C (2011) Re-Use Architecture. Braun publishing.

DOD 7313   DIGITAL DESIGN

Course Intent:

To give exposure to the latest digital tools used in the design field namely Rhinoceros, Grasshopper, Sketch Up, V-Ray, Key-Shot.

Course Contents:

Advanced 3D modelling and rendering tools will be introduced which are being used in design industry around the world which are as follows:

Rhinoceros: Learning the basics of latest version of Rhinoceros 6 as a digital tool for developing product or Furniture with surrounding interior.

Key-Shot: Basic rendering tool which will be handy to create quick and realistic results.

V-Ray: Advance rendering Software to give professional look to the work

Grasshopper: learning the basics of 3d programming tool.

Modelling and rendering of installations, temporary structures, interior elements and spaces.

Course Outcome:

The students will be able to express, demonstrate their designs digitally and give a virtual experience to the clients with latest soft wares and techniques.

Reference Books:

1. Sketch Up for Interior Design by Lydia Sloan Cline

DOD 7315   PROJECT MANAGEMENT

Course Intent:

The course aims to create an understanding on project formulation, feasibility analysis, social cost benefit analysis and principles relevant to interior design profession

Course Contents:

Introduction to Project Management, applied management techniques in construction projects, Project management team model. Relevance of project management to building industry.

Networking of projects and use of CPM and PERT networking and scheduling tools. BIM Frameworks - an introduction to Building Information Modelling (BIM) from a holistic perspective.

Project monitoring – updating of networks, advantages and limitations of Bar and Milestone charts. Resource levelling. Project formulation and feasibility analysis. Social cost benefits analysis. Theories and principles of valuation of immovable properties, differences and similarities of cost, price and value.

Course Outcome:

The student will be able to check for any constraints and avoid producing unworkable designs, due to technical or regulatory limitations to minimize errors.

Reference Books:

1. Project Management for the Design Professional: A Handbook for Architects, Engineers, and Interior Designers, by David Burstein (Author), Frank Stasiowski (Author)

2. Dr. B.C. Punmia et al. Project planning and control with PERT and CPM, Laxmi Publications,

3. Jerome D. Wiest and Ferdinand K. Levy, A Management Guide to PERT, CPM, prentice Hall of India Pub, Ltd., New Delhi, 1982.

ELECTIVE 2

DOD 7001   DESIGN FOR SOCIETY, CULTURE AND HERITAGE

Course Intent:

To create awareness about the rich Indian cultural heritage and understand importance of conserving the heritage in modern context, to learn to draw connections between the society, cultural practices and problem solving by Design. To understand the spaces, volumes, materials, surfaces, constructive aspects, actual and past functions and configurations, degradation, etc. as a result of continuous modification through time.

Course Contents:

Broad overview about the Indian heritage, Culture and Society since Indus valley civilization till post-colonial era.

Study of various region wise cultural impact on the elements of interior design.

The impact of living and working culture of different region on interior elements like floor, columns, wall, door, window, stair, roof etc., design in everyday objects.

Research and document existing interior elements in context of heritage.

Identify different construction techniques, and art and craft involved in making space.

Design and Social Concern.

Cultural artifacts, ritualistic artifacts, myths and legends.

Design Exercise: To Design a space in modern context using the knowledge of heritage interiors and elements from any region in India

Course Outcome

To be able to apply knowledge of heritage in modern day context through different space making elements.

Reference Books:

Sahaj: Vernacular Furniture of Gujarat by Mitraja Bais, Jay Thakkar, Samrudha Dixit and Ben Cartwright Crafts in Interior Architecture: India, 1990 onwards, Rishav Jain Yatin Pandya, Elements of Space-Making Delhi: the built heritage: a listing. Vol.1. by Indian National Trust for Art & Cultural Heritage [INTACH] 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 by Thakkar, Jay

Papanek, Victor; Design for the Real World: Human Ecology and Social Change: Academy Chicago Publishers; 1985, 2 Revised edition ISBN-10: 0897331532 ISBN-13: 978-0897331531

Whitely, Nigel; Design for Society Publisher: Reaktion Books, 1997, ISBN-10: 0948462655 ISBN-13: 978-0948462658 - Jain,

Jyotindra; India's Popular Culture: Iconic Spaces and Fluid Images: Marg Publications, 2008, ISBN-10: 8185026815 ISBN-13: 978- 8185026817 15

DOD 7003   TEMPORARY DESIGN

Course Intent:

The course explores the world of production design and art direction for films and temporary spaces. Students will also gain a historical perspective of how the role of production design has evolved and how advances in technology have influenced the various crafts.

Course Contents:

The course focuses on the development of visual solutions based on in-depth text analysis, character study, the use of research to explore historical and sociological aspects of cultures, and the collaborative nature of the theatre.

Coursework also includes scale model-building techniques, Representation techniques, photography and rendering techniques, as well as presentation methodologies.

By watching films, analyzing concepts, using a series of practical paper/model projects this course includes the fundamentals of a production designer's approach towards visualizing and conceptualizing story including text interpretation, scenery for studio, location, color concepts and the collaborative relationship between direction, production designer, and cinematographer.

Course Outcome:

A deep understanding of the discipline of design for screen and ability to take on key roles in the development of artistic works and implementation of ideas. Written, oral and visual communication skills for the successful presentation of design concepts. Cross-discipline collaboration skills, knowledge about other disciplines and the ability to work alongside others to produce creative works.

Reference Books:

1.Ulrich, Karl, and Steven Eppinger, Product Design and Development.

2. Thomke, Stefan, and Ashok Nimgade, "IDEO Product Development.

DOD 7005   LIGHTING & ILLUMINATION

Course Intent:

The course aims at providing a theoretical knowledge and hand on experience in developing a Human Centric Lighting (HCL) design by problem-based learning method.

Course Contents:

Introduction to Lighting design, different fields of implementation of Lighting Design, meaning of light and its impact on human perception.

Psychology of color and light assists in the conception of human experiential needs. Overview of the basic principles for the understanding of HCL.

Problem identification in an existing scenario such as the problem so chosen by the individual student should be an example that could be solved functionally, technically and aesthetically by the application of HCL.

Designing an HCL as solution for the identified existent lighting problem in terms of the complicatedness and relation between light, spaces, human perception and wellbeing when designing with light in real space.

The course emphasizes on real time practical application on site which prepares them for professional work.

Course Outcome:

Students will be able to Create a dialogue between light, space, context, and human perception. Communication of design ideas through computer generated models and practical execution.

Reference Books:

1. Human Centric Lighting by Stan Walerczyk

2. litcht. wissen 21 Guide to Human Centric Lighting (HCL)

3. Whitepaper Human Centric Lighting 18

DOD 6302   **DESIGN STUDIO-II**

Course Intent:

The course focuses on creating a brand identity and signature through interior design.

Course Contents:

A preliminary understanding of the history and philosophy and motto of brand(s) as well as their marketing strategies in design through research. Investigating the design signature of the brand which gives its identity for designing the space to enhance marketing and sale of the brand while considering the context. Exploring materiality, fabrication and realization of ideas, through technical rigor at a variety of scales whilst having engagement with industry.

Analyzing the study to formulate design guidelines for brand identity and signature interiors. Students can collaborate with brands and institutions and Investigate issues of product marketing, product selection, branding, packaging, promotion, design of an initial 'pop up' store, culminating in the fully detailed propositional design.

The documented data has to be analyzed to create identity and signature design guidelines for a brand. Propose business strategies to promote visual merchandising which has to be transformed into design and detailing of interiors. The design has to be represented through sketches, conceptual drawings, design, technical drawings, bill of quantities etc., along with 3D visualization, and reports.

Course Outcome:

The students will comprehend as to how interiors communicate the brand values in a retail environment or in a corporate space through the use of design elements and spatial graphics. Students will be equipped to develop creative and innovative designs in the area of commercial environments.

Reference Books:

1. Brand Spaces: Branded Architecture and the Future of Retail Design, by Sven Ehmann (Editor), S. Borges (Editor)
2. Powershop 4: New Retail Design, by Jane Szita (Author)
3. Store Design and Visual Merchandising: Creating Store Space That Encourages Buying, by Claus Ebster (Author)
4. Silent Selling: Best Practices and Effective Strategies in Visual Merchandising 5th Edition, by Judy Bell (Author), Kate Ternus (Author)
5. Oriental Interiors: Design, Identity, Space, by John Potvin (Editor)
6. Designing the Brand Identity in Retail Spaces, By: Martin M. Pegler
7. Interior Design and Identity, Susie McKellar, Penny Sparke
8. Design Brand Identity, an essential guide for the entire branding team, Alina Wheeler

DOD 6304 RESEARCH METHODOLOGY

Course Intent:

Research enables students to develop the skills and tools for solving a design problem with evidence in order to achieve creative excellence in the design of interior space from inception to the final solution.

Course Contents:

Significance of research in interior design, role of environment behavior and psychology in research of interiors, reliability of measurement, ethical issues, qualitative and quantitative research measures.

Data collection methods – Survey, observation, case study, post-occupancy evaluation, behavioral mapping, tracking, documentation and interpretation, selection of respondents and sampling procedures, techniques of analysis.

Use of software in analysis, presentation and interpretation methods and techniques. Emphasis on style and writing of research reports, publications and proposals.

Course Outcome:

Students would get equipped with the techniques to prepare and conduct research that adds to the body of knowledge in the profession through examination and consolidation of previous research findings.

The course also prepares the students to apply in design and disseminate knowledge through publication, conferences, readings, and collaboration with various professionals in related fields.

Reference Books:

1. C.R Kothari (2004) Research Methods & Methodology, New Age Publishers, New Delhi
2. William.G. Zikmund (2002), Business Research, Thomson / South-Western, Australia

DOD 6306 INTER PROFESSIONAL

Course Intent:

The course intends to enhance the learning of various professions and create an opportunity for a collaborative approach to develop and design different types of interior environments.

Course Content:

Students have to select a domain in collaboration with any one of the related Institutes of Manipal Academy of Higher Education such as technical, health care, hospitality, humanities, management, communications, etc. subject to availability and prior approval of the Institute. The students have to explore along with the faculty to create a coherent study plan for the same. It facilitates interaction, exchange and co-reflection as the perceptions, values, roles, responsibilities, expertise and experiences of different professionals are compared.

The selected domain may be studied by the students under the guidance of the faculty by getting involved in field works, market study, readings, discussions, demonstrations and lectures. During the course, the students are intended to critically study the aspects involved from different perspectives of the chosen inter-disciplines and work with shared objectives towards a common goal.

Course Outcome:

The course helps students to understand their own professional identity while gaining an understanding of other professional's roles on the design of Interior spaces and environments.

DOD6308   OPEN ELECTIVE I

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

ELECTIVE 3

DOD 7306   FURNITURE DESIGN

Course Intent:

To learn the techniques of craftsmanship and sensitize the visual perception of furniture as a single form and design by considering the user-activity, structural concepts of furniture, materials and their essential attributes.

Course Contents:

Understanding furniture categories: Exploration of the idea of furniture, role of furniture in interior design, Design approaches in furniture design. Styles of furniture: traditional, contemporary and modern design. Furniture for different purpose

Seating Design: Different types of seating with a focus on the following – Functionality, Aesthetics, Style, Human factors and ergonomics.

Modular approach to furniture design: Soft furnishings. Meaning, Importance – relationship of furnishings with space, selection and use of furnishings. Visiting to different manufacturers to understand material and its processes.

Design Problem: Exercise oriented for designing a furniture by creative explorations, observation and constraints along with measured drawing – plan, elevation and drawings on full scale supported by prototype making.

Course Outcome:

Students will relate various design fundamentals and ergonomics with existing day to day furniture, Understand the evolution of furniture design through the developments in history, Learn the material and processes involved in furniture design and its making. They will be able to analyze the relationship between user and space in terms of Furniture Design in different spatial typologies and apply design thinking and process to create a new and innovative furniture.

Reference Books:

1. Indian anthropometric dimensions for ergonomic design practice(1997), by Debkumar Chakrabarti
2. Joseph Aronson, (1961) The Encyclopedia of Furniture: Third Edition.
3. Bradley Quinn, (2006) Mid-Century Modern: Interiors, Furniture, Design Details, Conran Octopus Interiors.
4. Edward Lucie-Smith (1985) Furniture: A Concise History (World of Art), Thames and Hudson.
5. Jim Postell, (2007) Furniture Design, Wiley publishers.
6. John.F. Pile (2005) Interior Design, 2nd edition, illustrated, H.N.Abrams.
7. Robbie. G. Blakemore, (2005) History of Interior Design and Furniture: From Ancient Egypt to Nineteenth-Century Europe, Wiley publishers.

DOD 7308   **Design for the Vulnerable**

Course Intent:

To give awareness about understanding of user-centered design, design for the vulnerable like the differently abled, the aged, children or animals.

Course Contents:

Design for differently abled, temporarily ailing/ special care, elderly, children, Pets and other animals.

Understanding of human needs and diversity, human factors and human-centric design process.

Understanding of the needs of our four legged companions, and complexities involved in designing for them.

Understanding various user abilities, skills and inabilities. To develop empathy through role playing.

Various principles of universal design to make inclusive spaces and the various ways the principles can be accommodated in spatial design in innovative ways.

Anthropometry, ergonomics, cognitive and physical behavior theories, mapping of various user flows, activities, accessibilities which can help in developing innovative and functional design solutions.

Investigate, document and present the complex connections and problems in socio-spatial environments.

Course Outcome

To identify problem, develop solution for creating comfortable environments for the vulnerable

Increase ability to use research and generative design to develop and explain an underlying rationale for the end design. Increase capacity to critique and provide feedback on design ideas, especially through lenses of accessibility, inclusivity, and equity.

Reference Books:

1. Roberto J Rangel, The Interior Plan by Inclusive Design-A Universal Need by Linda L Nussbaumer
2. Edward Steinfeld & Jordana Maisel, Universal Design-Creating Inclusive Environments
3. Edward Steinfeld & Jonathan White, Inclusive Housing: A Pattern book: Design for Diversity & Equality
4. DeChaira Joseph, Time-Saver Standards for Interior Design and Space Planning 2nd Edition
5. Mugendi K. M'Rithaa, Universal Design in Majority World Contexts

DOD 7310   **Interior Landscape**

Course Intent:

To introduce and design landscape in the interior spaces by understanding the spatial relationships and applying the knowledge of elements and materials of landscape design effectively for enhancing human health, aesthetics, visual comfort etc.

Course Contents:

Introduction to landscape architecture. Significance of landscape design in the Built environment. Types of natural elements – stones, rocks, pebbles, water forms, plants and vegetation. Elements of interior landscape. Elements of interior landscape – Natural elements -– stones, rocks, pebbles, water forms, plants. Vegetation etc. types of indoor plants, their characteristics - size, biology, soil, moisture, light, nutrient, atmospheric conditions, growing medium, pests & diseases. Flowers, its colors, texture and visual perception in various indoor spaces and science of its arrangements etc.

Botanical nomenclature, anatomy and physiology of plant growth. Indoor plants in Indian context. Market survey and costs. Market survey & costs.

Manual versions, automatic irrigation, costing and installation of micro irrigation systems.

Physical attributes of plants and relation to design. Appearance, functional and visual effects of plants in landscape design in the Interior built environments. Design concepts related to use of sculpture, lightings, garden furniture, architectural features and grouping them into meaningful compositions for visual and functional effects. Landscaping design parameters for various types of built forms- indoor and outdoor linkage to spaces.

Interior landscape application for residential, commercial and other public use spaces.

Reference Books:

1. Laurie, Michael, An Introduction to Landscape. 2nd edition, Prentice Hall, New Jersey, 1986.
2. Trivedi. P.Prathiba. Beautiful Shrubs. Indian council of Agricultural Research. New Delhi, 1990.
3. Hacheat, Blan. Plant Design.
4. Gerald Robert Vizenor , A Guide to Interior Landscapes, Univ of Minnesota Press,
5. Nelson Hammer and Mel Green, Interior Landscape Design, Mc Graw Hill, 1991.

SECOND YEAR/SEMESTER THREE

DOD 7301   **DESIGN STUDIO-III**

Course Intent:

To develop an awareness of the role and value of design in solving healthcare challenges, as well as a multi-professional perspective on problem-solving and the importance of design collaboration.

Course Contents:

Explore current issues in the design of healthcare interiors through research and theory to identify the association between functional, technical and aesthetic aspects with wellbeing of patients and other users. Knowledge of Materials and surface finishes, textiles, accessories, furniture and furnishings for Healthcare Settings. Standards and regulations with relevance to regulatory bodies in context. Services including, lighting, HVAC, waste management, fire safety, automation, etc. for efficient healthcare interiors.
The study of different aspects to be evaluated in existing scenario and propose design guidelines to be applied in the interior design of healthcare settings. The proposals can be demonstrated through sketches, conceptual drawings, design, detail and technical drawings, bill of quantities etc., along with 3D visualization, and reports.

Course Outcome:

Students will translate research literature into real-world design practice. They will be equipped to apply knowledge and skills effectively in support of safety, quality, and efficiency in healthcare interior environments.

Reference Books:

1. Designing the Patient Room: A New Approach to Healthcare Interiors, by Sylvia Leydecker (Author), Publisher: Birkhauser; 1 edition (22 May 2017)
2. Evidence–Based Healthcare Design, by Rosalyn Cama (Author), Publisher: John Wiley & Sons; 1 edition (27 March 2009)
3. Design Details for Health: Making the Most of Design's Healing Potential 2nd Edition, by Cynthia A. Leibrock (Author), Debra D. Harris PhD. (Author), Publisher: Wiley; 2 edition (March 22, 2011) 8

DOD 7303   **CULTURAL ANTHROPOLOGY**

Course Intent:

Intent of the course is to understand and explore the influence of community and society in terms of socio-economic factors and its impact in Spatial Design.

Course Content:

Introduction to Anthropology, key terminologies, definitions and concepts - characteristics of culture, society and anthropology.

Understand and analyses the historical development of anthropology, Factors that bring changes in culture - Modernization, Urbanization and technology.

Understand human relationships with its own kind and their surroundings, built and unbuilt which will help them understand and translate cultural similarities and differences.

Explore ways of comparing the structures of social relationships and belief system (Vaastu Shastra) that operate in different cultural settings which includes rural, indigenous and urban.

Recognizing prominent anthropologist and their contribution to their field with study of their research work and documentation. Learning techniques and methodology to decode and conduct ethnographic studies.

Overview of Ethnography, History of ethnography and its significance in Interior Design.

Course Outcome:

Students will understand theoretical perspectives that have been used in anthropology to illuminate micro and macro scale social and cultural processes over time and space. They will become proficient in translating Cultural aspects and it's understanding into the Process of Design.

References:

1. Social and Cultural Anthropology the Key Concept Nigel Rapport and Joanna Overing
2. Design Anthropology: Object Culture in the 21st Century Alison J. Clarke

DOD 7305   **THESIS ENQUIRY – DISSERTATION**

Course Intent:

The course process will give opportunity to students to connect their research abilities on identifiable domain and demonstrate the research as an application for Thesis in the same identifiable manner.

Course Content:

The process for Thesis enquiry - Dissertation will include subject description, identification of domain, fundamentals of design domain, identification of project, its scale and complexity, identification of scope of work, user activity analysis, identification of parameters of Thesis and prioritization, formulation of focus.

Research focus - Domain research will prepare the base work for the design project in the subsequent semester. Base work will involve scope of study, literature survey for identified parameters, methodology, data collection, secondary case studies, analysis, interpretation, primary guidelines. It will also involve identification of and preparation for case studies and site, and checklist for case and site studies.

The continuous progressive evaluation for the enquiry will be through digital methods, culminating in a digital report and presentation on the study.

Course Outcome:

To develop integration, synthesis and application of research in Interior Design.

Reference Books:

John F. Pile, Abrams, Interior Design.
Brenda Laurel (Editor), Peter Lunenfeld, Design Research: Methods and Perspectives.
Zeisel John, Inquiry by Design.
Iain Borden, Katerina Ruedi, Dissertation - An Architectural Student's Handbook. 9

DOD 7307   **PRACTICAL TRAINING**

Course Intent:

The course intends to give exposure to real life scenarios in design industry.

Course Contents:

The student will undergo practical training for minimum of 45 working days that provides practical experience of the general workplace in an Interior Design firm/Interior accessory manufacturing companies/Research lab. Students can opt for practical training only during the summer break before the completion of the course. The student will undertake an independent critical study and a report of the same shall be submitted.

Course Outcome:

The outcome expected is to develop competencies to address real-time large-scale interior projects through hands-on training.

DOD 7309   **STUDY REPORT**

Course Intent:

To prepare detailed written reports of the practical training.

Course Contents:

The student will have to prepare a report on the practical training including the office protocol, site visits, factory visits, client meetings, project reports, workshops etc.

Course Outcome:

Students will learn to document, concise and present written reports of programs attended.

ELECTIVE 1

DOD 7311   **ADAPTIVE REUSE & RECYCLE**

Course Intent:

To enable the student to understand the need for adaptive reuse of old heritage buildings and applications of using recycled materials. This course exposes students to learn the principles, examples and material knowledge for adaptive reuse and recycled interiors with integration of technical disciplines such as structural, mechanical, electrical, envelope design.

Course Contents:

Theory of Adaptive reuse and recycle, adaptive reuse and recycled materials
Principles followed during the reuse and recycle process, Benefits and limitations of using adaptive reuse and recycle methods and materials, Regulatory guidelines for Adaptive Reuse
Architectural conservation – conservation of heritage and important buildings, levels of intervention – structural, construction related, finishes etc. Revival of old building techniques and finishes.
Cultural Inheritance, heritage buildings, Case studies of adaptive reuse and recycle methods and materials in different spatial components of the buildings, techniques of construction
Discuss and explain sustainable criteria, through which environmentally friendly, healthy and socially adaptive reuse and recycle can be achieved.

Design exercise:
Design a space using reuse and recycle materials learned during the course and apply design principles of adaptive reuse and recycle and create own adaptive reuse and recycle solutions for the given space.

Course Outcome:

Students would be able to understand the importance of adaptive reuse and recycle methods and materials in interiors and apply the principles, techniques to create a sustainable and recycle interior projects.

Reference Books

Sandra F Mendler - The HOK Guidebook for sustainable design – John Wiley and Sons, Canada,2002. Conservation guidelines for Pondicherry – DTCP, Pondichery – INTACH 2000. Langston FKW Wong, Hui ECM, Shen LY (2008) Strategic assessment of Building Adaptive Reuse opportunities in Honk Kong. Building and Environment 10: 1709-1718. Ouroussoff N (2011) An Architect's Fear That Preservation Distorts. Exhibition review Cronocaos an exhibition at the New Museum organized by Rem Koolhaas and Shohei Shigematsu, NEW-YORK TIMES. Ching F (1979) Architecture Form, Space and Order. Van Nostrand Reinhold, NY. Park O (2009) A Design Strategy for Transforming and Old Power Plant into a Cultural Canter. Submitted to the department of Architecture for the degree of Master of Architecture at the MIT Latham D (2009) Creative Re-use of Buildings. Principles and Practice

Building Types: Selected Examples. Donhead, Bath Press, Bath, UK p: 1. Uffelen, Van C (2011) Re-Use Architecture. Braun publishing.

DOD 7313   DIGITAL DESIGN

Course Intent:

To give exposure to the latest digital tools used in the design field namely Rhinoceros, Grasshopper, Sketch Up, V-Ray, Key-Shot.

Course Contents:

Advanced 3D modelling and rendering tools will be introduced which are being used in design industry around the world which are as follows:

Rhinoceros: Learning the basics of latest version of Rhinoceros 6 as a digital tool for developing product or Furniture with surrounding interior.

Key-Shot: Basic rendering tool which will be handy to create quick and realistic results.

V-Ray: Advance rendering Software to give professional look to the work

Grasshopper: learning the basics of 3d programming tool.

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Course Outcome:

The students will be able to express, demonstrate their designs digitally and give a virtual experience to the clients with latest soft wares and techniques.

Reference Books:

1. Sketch Up for Interior Design by Lydia Sloan Cline

DOD 7315   PROJECT MANAGEMENT

Course Intent:

The course aims to create an understanding on project formulation, feasibility analysis, social cost benefit analysis and principles relevant to interior design profession

Course Contents:

Introduction to Project Management, applied management techniques in construction projects, Project management team model. Relevance of project management to building industry.

Networking of projects and use of CPM and PERT networking and scheduling tools. BIM Frameworks - an introduction to Building Information Modelling (BIM) from a holistic perspective.

Project monitoring – updating of networks, advantages and limitations of Bar and Milestone charts. Resource levelling. Project formulation and feasibility analysis. Social cost benefits analysis. Theories and principles of valuation of immovable properties, differences and similarities of cost, price and value.

Course Outcome:

The student will be able to check for any constraints and avoid producing unworkable designs, due to technical or regulatory limitations to minimize errors.

Reference Books:

1. Project Management for the Design Professional: A Handbook for Architects, Engineers, and Interior Designers, by David Burstein (Author), Frank Stasiowski (Author)

2. Dr. B.C. Punmia et al. Project planning and control with PERT and CPM, Laxmi Publications,

3. Jerome D. Wiest and Ferdinand K. Levy, A Management Guide to PERT, CPM, prentice Hall of India Pub, Ltd., New Delhi, 1982.

ELECTIVE 2

DOD 7001   DESIGN FOR SOCIETY, CULTURE AND HERITAGE

Course Intent:

To create awareness about the rich Indian cultural heritage and understand importance of conserving the heritage in modern context, to learn to draw connections between the society, cultural practices and problem solving by Design. To understand the spaces, volumes, materials, surfaces, constructive aspects, actual and past functions and configurations, degradation, etc. as a result of continuous modification through time.

Course Contents:

Broad overview about the Indian heritage, Culture and Society since Indus valley civilization till post-colonial era.

Study of various region wise cultural impact on the elements of interior design.

The impact of living and working culture of different region on interior elements like floor, columns, wall, door, window, stair, roof etc., design in everyday objects.

Research and document existing interior elements in context of heritage.

Identify different construction techniques, and art and craft involved in making space.

Design and Social Concern.

Cultural artifacts, ritualistic artifacts, myths and legends.

Design Exercise: To Design a space in modern context using the knowledge of heritage interiors and elements from any region in India

Course Outcome

To be able to apply knowledge of heritage in modern day context through different space making elements.

Reference Books:

Sahaj: Vernacular Furniture of Gujarat by Mitraja Bais, Jay Thakkar, Samrudha Dixit and Ben Cartwright Crafts in Interior Architecture: India, 1990 onwards, Rishav Jain Yatin Pandya, Elements of Space-Making Delhi: the built heritage: a listing. Vol.1. by Indian National Trust for Art & Cultural Heritage [INTACH] 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 by Thakkar, Jay

Papanek, Victor; Design for the Real World: Human Ecology and Social Change: Academy Chicago Publishers; 1985, 2 Revised edition ISBN-10: 0897331532 ISBN-13: 978-0897331531

Whitely, Nigel; Design for Society Publisher: Reaktion Books, 1997, ISBN-10: 0948462655 ISBN-13: 978-0948462658 - Jain,

Jyotindra; India's Popular Culture: Iconic Spaces and Fluid Images: Marg Publications, 2008, ISBN-10: 8185026815 ISBN-13: 978- 8185026817 15

DOD 7003   TEMPORARY DESIGN

Course Intent:

The course explores the world of production design and art direction for films and temporary spaces. Students will also gain a historical perspective of how the role of production design has evolved and how advances in technology have influenced the various crafts.

Course Contents:

The course focuses on the development of visual solutions based on in-depth text analysis, character study, the use of research to explore historical and sociological aspects of cultures, and the collaborative nature of the theatre.

Coursework also includes scale model-building techniques, Representation techniques, photography and rendering techniques, as well as presentation methodologies.

By watching films, analyzing concepts, using a series of practical paper/model projects this course includes the fundamentals of a production designer's approach towards visualizing and conceptualizing story including text interpretation, scenery for studio, location, color concepts and the collaborative relationship between direction, production designer, and cinematographer.

Course Outcome:

A deep understanding of the discipline of design for screen and ability to take on key roles in the development of artistic works and implementation of ideas. Written, oral and visual communication skills for the successful presentation of design concepts. Cross-discipline collaboration skills, knowledge about other disciplines and the ability to work alongside others to produce creative works.

Reference Books:

1.Ulrich, Karl, and Steven Eppinger, Product Design and Development.

2. Thomke, Stefan, and Ashok Nimgade, "IDEO Product Development.

DOD 7005   LIGHTING & ILLUMINATION

Course Intent:

The course aims at providing a theoretical knowledge and hand on experience in developing a Human Centric Lighting (HCL) design by problem-based learning method.

Course Contents:

Introduction to Lighting design, different fields of implementation of Lighting Design, meaning of light and its impact on human perception.

Psychology of color and light assists in the conception of human experiential needs. Overview of the basic principles for the understanding of HCL.

Problem identification in an existing scenario such as the problem so chosen by the individual student should be an example that could be solved functionally, technically and aesthetically by the application of HCL.

Designing an HCL as solution for the identified existent lighting problem in terms of the complicatedness and relation between light, spaces, human perception and wellbeing when designing with light in real space.

The course emphasizes on real time practical application on site which prepares them for professional work.

Course Outcome:

Students will be able to Create a dialogue between light, space, context, and human perception. Communication of design ideas through computer generated models and practical execution.

Reference Books:

1. Human Centric Lighting by Stan Walerczyk

2. litcht. wissen 21 Guide to Human Centric Lighting (HCL)

3. Whitepaper Human Centric Lighting 18

SECOND YEAR/SEMESTER FOUR

DOD 7302   **THESIS**

Course Intent:

Intent of the thesis process is to harness their research abilities on identifiable domains and demonstrate as an application for a design project.

Course Content:

To develop design abilities for demonstration of research and base work studies done in Thesis Enquiry - Dissertation for the identified domain. These abilities are to be demonstrated in an Interior Design project. The process for Thesis Project will include subject description, identification of domain, fundamentals of design domain, identification of project, its scale and complexity, identification of scope of work, user activity analysis, identification of parameters of Thesis and prioritization, formulation of focus.

Design Development will have contents such as – Concept and Theme Development: Enclosures and envelops to formulate the volumes, response to functional spaces; Functionality: Spatial Organization and Planning; Derivation of quantitative aspect of spaces based on Psychology, Behavior, User-Activity Analysis, furniture / equipment, Anthropometry, Ergonomics, Layout, Circulation, etc.; qualitative aspects based on ambience.

Technical decisions- Constructional details and Material specification- Exploration and selection responding to functionality and aesthetics; Decisions for aesthetics: Color, textures, patterns, surface finishes, ornamentation, furnishings, accessories, interior Landscaping, etc. with reference to visual comfort and ambience in the interiors. Services - Mechanical and Environmental System: HVAC, electrical, firefighting, sanitary and plumbing, security, telecommunications, lifts, escalators, lighting and acoustical systems etc. responding to functionality and aesthetics.

The process for Thesis Project will include – Description, Case Study, Site Study- Analysis and Inferences, Development of specific Design Guidelines, Design Program and Area Requirements, Conceptual Development, Design Development, Final Design, Presentation.

Course Outcome:

The thesis shall encompass the learning and understanding of the two years of the course with respect to all aspects of Interior Design.

ELECTIVE 3

DOD 7306   FURNITURE DESIGN

Course Intent:

To learn the techniques of craftsmanship and sensitize the visual perception of furniture as a single form and design by considering the user-activity, structural concepts of furniture, materials and their essential attributes.

Course Contents:

Understanding furniture categories: Exploration of the idea of furniture, role of furniture in interior design, Design approaches in furniture design. Styles of furniture: traditional, contemporary and modern design. Furniture for different purpose

Seating Design: Different types of seating with a focus on the following – Functionality, Aesthetics, Style, Human factors and ergonomics.

Modular approach to furniture design: Soft furnishings. Meaning, Importance – relationship of furnishings with space, selection and use of furnishings. Visiting to different manufacturers to understand material and its processes.

Design Problem: Exercise oriented for designing a furniture by creative explorations, observation and constraints along with measured drawing – plan, elevation and drawings on full scale supported by prototype making.

Course Outcome:

Students will relate various design fundamentals and ergonomics with existing day to day furniture, Understand the evolution of furniture design through the developments in history, Learn the material and processes involved in furniture design and its making. They will be able to analyze the relationship between user and space in terms of Furniture Design in different spatial typologies and apply design thinking and process to create a new and innovative furniture.

Reference Books:

8. Indian anthropometric dimensions for ergonomic design practice(1997), by Debkumar Chakrabarti
9. Joseph Aronson, (1961) The Encyclopedia of Furniture: Third Edition.
10. Bradley Quinn, (2006) Mid-Century Modern: Interiors, Furniture, Design Details, Conran Octopus Interiors.
11. Edward Lucie-Smith (1985) Furniture: A Concise History (World of Art), Thames and Hudson.
12. Jim Postell, (2007) Furniture Design, Wiley publishers.
13. John.F. Pile (2005) Interior Design, 2nd edition, illustrated, H.N.Abrams.
14. Robbie. G. Blakemore, (2005) History of Interior Design and Furniture: From Ancient Egypt to Nineteenth-Century Europe, Wiley publishers.

DOD 7308   **Design for the Vulnerable**

Course Intent:

To give awareness about understanding of user-centered design, design for the vulnerable like the differently abled, the aged, children or animals.

Course Contents:

Design for differently abled, temporarily ailing/ special care, elderly, children, Pets and other animals.

Understanding of human needs and diversity, human factors and human-centric design process.

Understanding of the needs of our four legged companions, and complexities involved in designing for them.

Understanding various user abilities, skills and inabilities. To develop empathy through role playing.

Various principles of universal design to make inclusive spaces and the various ways the principles can be accommodated in spatial design in innovative ways.

Anthropometry, ergonomics, cognitive and physical behavior theories, mapping of various user flows, activities, accessibilities which can help in developing innovative and functional design solutions.

Investigate, document and present the complex connections and problems in socio-spatial environments.

Course Outcome

To identify problem, develop solution for creating comfortable environments for the vulnerable

Increase ability to use research and generative design to develop and explain an underlying rationale for the end design. Increase capacity to critique and provide feedback on design ideas, especially through lenses of accessibility, inclusivity, and equity.

Reference Books:

6. Roberto J Rangel, The Interior Plan by Inclusive Design-A Universal Need by Linda L Nussbaumer
7. Edward Steinfeld & Jordana Maisel, Universal Design-Creating Inclusive Environments
8. Edward Steinfeld & Jonathan White, Inclusive Housing: A Pattern book: Design for Diversity & Equality
9. DeChaira Joseph, Time-Saver Standards for Interior Design and Space Planning 2nd Edition
10. Mugendi K. M'Rithaa, Universal Design in Majority World Contexts

DOD 7310   Interior Landscape

Course Intent:

To introduce and design landscape in the interior spaces by understanding the spatial relationships and applying the knowledge of elements and materials of landscape design effectively for enhancing human health, aesthetics, visual comfort etc.

Course Contents:

Introduction to landscape architecture. Significance of landscape design in the Built environment. Types of natural elements – stones, rocks, pebbles, water forms, plants and vegetation. Elements of interior landscape. Elements of interior landscape – Natural elements -– stones, rocks, pebbles, water forms, plants. Vegetation etc. types of indoor plants, their characteristics - size, biology, soil, moisture, light, nutrient, atmospheric conditions, growing medium, pests & diseases. Flowers, its colors, texture and visual perception in various indoor spaces and science of its arrangements etc.

Botanical nomenclature, anatomy and physiology of plant growth. Indoor plants in Indian context. Market survey and costs. Market survey & costs.

Manual versions, automatic irrigation, costing and installation of micro irrigation systems.

Physical attributes of plants and relation to design. Appearance, functional and visual effects of plants in landscape design in the Interior built environments. Design concepts related to use of sculpture, lightings, garden furniture, architectural features and grouping them into meaningful compositions for visual and functional effects. Landscaping design parameters for various types of built forms- indoor and outdoor linkage to spaces.

Interior landscape application for residential, commercial and other public use spaces.

Reference Books:

6. Laurie, Michael, An Introduction to Landscape. 2nd edition, Prentice Hall, New Jersey, 1986.
7. Trivedi. P.Prathiba. Beautiful Shrubs. Indian council of Agricultural Research. New Delhi, 1990.
8. Hacheat, Blan. Plant Design.
9. Gerald Robert Vizenor , A Guide to Interior Landscapes, Univ of Minnesota Press,
10. Nelson Hammer and Mel Green, Interior Landscape Design, Mc Graw Hill, 1991.

DOD 7304   OPEN ELECTIVE II

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