REVISED SYLLABUS...2017-18
THIRD YEAR BACHELOR OF DESIGN.
PRODUCT DESIGN.
SEMISTER V.

PD173558 HISTORY III

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 1 = 3

EXAMINATION SCHEME:

Paper: Nil. Oral: Nil

Sessional Assessment: 50(Internal).

Aim: This course aims to equip thestudents to develop an understanding of design, its origins and its evolutions as an organized modern profession.

Objectives: To acquaint students with a broad framework of design history, this recognizes design as material embodiment of social, cultural and economic values.

Course Contents:

- 1. An introduction to the history of design from 1945 to contemporary times.
- 2. Design development in Europe, America, Russia and rest of the world.
- 3. Influences on Indian design and Indian design history:
 - · Company school.
 - Bengal School and Bombay School.
 - Swadeshi Movement.
 - Progressive art movement
 - Charles Eames report and formation of National School of Design, Ahmedabad.

Assignments:

Journal writing supported with sketches of the above relevant topics.

- Design source book Penny Sparke.
- Thinking Design ByS.Balaram.
- Art History of India ByParulDhar.
- Design Since 1945 ... World of art series.
- Design Directory -- World Of art Series.
- Design as Future making by Yelavich Susan.
- The Industrialization of Design by Gantz Carroll.
- World History of Design Vol I by Margolin Victor.
- World History of Design Vol II by Margolin Victor.
- Star product designers by Alegre Irene.

PD173559 ELEMENTS OF FORM III

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 6 = 8.

EXAMINATION SCHEME:

Paper: Nil Oral: 50

Sessional Assessment: 50(Internal).

Aim: This course aims to equip thestudents to understand relationship between movement and form.

Objectives:

1. To study forms in nature to understand the what, why and hownature articulates it.

2. To understand the rational logic of the form in response to the function.

Course Contents:

- 1. Analysis of natural form in order to understand the inter-relationship between form, movement (time and space) and structure in response to the process of evolution in natural environment.
- 2. Creation of a three-dimensional abstract form.
- 3. Transformation of derived form into a product.

Assignment:

- Study of the natural form through drawings, sketches to understand form and structure.
- This understanding shall be communicated through physical models.
- Abstraction of the natural form with models at each stage of the process.
- Transformation of derived form into a product with prototype.

- Biomimicry: Innovation Inspired by Natureby Janine M. Benyus
- The Secret Language of Animals: A Guide to Remarkable Behaviorby Janine M. Benyus and Juan Carlos Barberis
- Biomimicry: Nature as Designer byMr. Benjamin R. Krueger.
- Nature Form & Spirit: The Life and Legacy of George Nakashima by Mira Nakashima
- Art Forms in Nature (Dover Pictorial Archive) by Ernst Haeckel

PD173560 ERGONOMICS III

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 1 = 3

EXAMINATION SCHEME:

Paper: Nil. Oral: Nil

Sessional Assessment: 50(Internal).

Aim: This course aims at making students understand product semantics.

Objectives: To equips the students to understand the importance of cognitive ergonomics and semantics.

Course Contents:

- 1. Advance cognitive ergonomics.
- 2. Introduction to stereotypes, mental models.
- 3. Introduction to methods of mapping mental models of the users.
- 4. Introduction to semantics and its implication in the process of design.
- 5. Introduction to signifier and signified.

Assignments:

• Journal writing and exercises related to all the above topics.

- Perception; The basic process in cognitive development, Ronald H. Forgus; USA, McGraw-Hill 1996
- Visual Intelligence: Perception, Image, and Manipulation in Visual Communication, Ann Marie Barry; State University of New York Press, 1999
- Thinking Design by S. Blaram.
- Research Papers by Prof. UdayAthavankar.
- Semantic Turn by Kripendroff.

PD173561 MATERIAL AND PROCESSES III

TEACHING SCHEME: Total contact period per week – lectures2 + studio 1 = 3

EXAMINATION SCHEME:

Paper: NIL. Oral: NIL

Sessional Assessment: 50(Internal).

Aim: This course equips the students to understand the right material and the manufacturing processes best suitable for the product from the view point of cost and benefits.

Objective:

- **1.** To provide an in-depth understanding of materials with the major emphasis on plastics and rubber, glass and ceramics and other advance materials.
- **2.** To equip the students with the methods of selecting materials and related processes based on cost, product safety, form, function, etc.

Course content:

- **1.** Analysis of plastics and rubber and related manufacturing processes utilized in production of mass-produced products.
- **2.** Advance studies in mass production processes and their influence on design and development of products.
- **3.** Emphasis on material search and process selection in relation to cost, product safety, function, human factors, form, finishes and joining methods.
- **4.** To conduct industry /workshop visits to observe and understand processes.

Assignments:

- Documentation of manufacturing processes of materials mentioned above & journal writing.
- Minimum 5 industrial visits for materials understanding.

- Design and Technology, Garratt J Cambridge University Press, UK, 20004
- Manufacturing processes for design professionals, Thompson R.: Thames & Hudson, London 2007
- Materials and Design: The Art and Science of Material Selection in Product Design, Ashby,
 Michael; Johnson, Kara; Publisher: Butterworth-Heinemann; 2002
- Architectural Metals by Zanier and L. William
- Basic product design II Material thoughts by David Bramston.
- Industrial design: Materials and manufacturing guide by Jim Lesko

PD173562 TECHNICAL STUDIES II

TEACHING SCHEME: Total contact period per week – lectures 2 + studio1 = 3

EXAMINATION SCHEME:

Paper: Nil Oral: Nil

Sessional Assessment: 50(Internal).50 (External).

Aim: This course equips the students with the latest techno-scientific principles and their use in Industrial Design which shall help them in designing complex products as well as systems.

Objectives:

1. To introduce the students to the basic understanding of the latest techno-scientific principles and their possible innovative and creative use in Industrial Design.

Course Contents:

- 1. Introduction to various contemporary technologies like robotics, nano-technology, computers and AI, ICT and digital technologies, optics, aerodynamics, bionics, medical technology, biotechnology, biophysics, lasers, energy and environment.
- 2. The futuristic and upcoming technologies and processes that have a bearing on the design field.

Assignments:

Report writing.

- www.khanacademy.com
- Fundamentals of Sensors for Engineering and Science (Volume 1) 1st Edition by <u>Patrick F. Dunn</u>.
- Optics principles by K.K. Sharma.
- Aerodynamics by Singer, StandfordS, PhysicsStandford Edition
- Fundamentals of Robotics by Prof.Charria.
- TRONIX 1 LAB- Fundamental concepts "Electronics for Robotics" Lab By Electronix Express

PD173563 DESIGN PROJECT III

TEACHING SCHEME: Total contact period per week – lectures4 + studio 9 = 13

EXAMINATION SCHEME:

Paper: Nil. Oral: 50.

Sessional Assessment: 100(Internal) 50(External).

Aim: This course equips the students to understand the process of technically complex product design and to find solutions to the need.

Objectives:

- **1.** To introduce the students to the technically complex product design challenges, considerations and deliverables.
- 2. The focus is on being able to identify and analyze the need, articulate it and generate solution with an understanding of how things work.

Course Content:

- 1. Introduction to the design intervention in the human realm which add value and quality to the life of people.
- 2. Identifying design opportunity in accessible environments.
- 3. Literature survey to collect relevant data on the product.
- 4. Activity recording and task analysis.
- 5. Questionnaire and interview techniques for enlisting and elaborating the different problem areas.
- 6. Study on the existing product: it's working principle, its advantages and disadvantages.
- 7. Study to understand technology and/or mechanisms in the context of identified need.
- 8. Conduct market research.
- 9. Study on materials and manufacturing processes.
- 10. Formulation of the design brief.
- 11. Introducing students to critical creative thinking tools.
- 12. Ideation -- concept generation and explorations with quick explanatory models.
- 13. Evaluation and validation of new concepts.
- 14. Finalization of the concept with design development and detailing.
- 15. Prototyping of 3D models.
- 16. Hand and computer Renderings and finished model of the final design solution.

Assignments:

- 1. Research, documentation & presentation (30%)
- 2. Analysis & formulation of design brief (15%)
- 3. Ideation & exploration -- sketches & study models (35%)
- 4. Final design solution -- product detailing, rendering& finished models/prototype(20%)

PD173564 COMPUTERS III.

TEACHING SCHEME: Total contact period per week – lectures 1 + studio 2 = 3

EXAMINATION SCHEME:

Paper: Nil. Oral: Nil.

Sessional Assessment: 50(Internal).

Aim: This course equips the students with the computer aided design skills essential for understanding, visualizing and presentation of design.

Objectives:

1. To introduce the students to the use of advance computer aided design tools in Designing and 3D visualization of products through parametric software modeling like solid works, UniGraphics or ProE

Course Contents:

- 1. Introduction to the advanced principles of parametric solid modeling.
- 2. Information about parts and assemblies.
- 3. Export of files for photorealistic renderings in 3rd party software.
- 4. Creation of technical drawing required for industrial production purpose.

Assignments:

• Minimum 5 products to be modelled.

Recommended readings:-

User manual of related software.

PD173565 CRAFT AND CULTURAL DOCUMENTATION.

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 2 = 4

EXAMINATION SCHEME:

Paper: NIL. Oral: 50

Sessional Assessment: 50(Internal) 50(external).

Aim: This course aims to develop an understanding and appreciation for India's rich cultural heritage and vast repertoire of craft traditions to a designer who may choose to function as a design professional in the craft sector. Indigenous crafts offer a phenomenal base for drawing inspiration and developing culturally relevant designs in a contemporary context.

Objective:

- 1. To establish an appreciation and understanding of our rich culture, heritage and vast vocabulary of craft techniques.
- 2. To expose the students to the gamut of contextually responsive space design of a community, craft activity and the role of design thereof.
- 3. To evaluate the possibility of extending the traditional material, construction techniques and craft techniques to contemporary application.
- To equip the students to undertake field research using suitable research tools wherein they
 directly interact with communities, artisans and skilled craftsman to collect analyze and record
 data.

Course content:

- 1. The course primarily focuses on an in-depth study, research and documentation of a particular context, craft community and craft: keeping in view various aspects such as the evolution of the craft, communities engaged in practicing the craft, socio-cultural economic influences on the craft, traditional methods of designing and production, use of indigenous materials and use of local technology, market linkages, external influences, etc.
- 2. The students are required to spend a part of their project time on field interacting directly with practitioners of the selected craft. They collect and analyze the data using multiple tools in written and visual form. This is recorded by the students in form of a document wherein the students are also encouraged to present their individual insights, findings, and suggestions to effectively converge the traditional craft with the contemporary scenario.

Methodology:

• Field work. • Analysis and synthesis. • Discussions and feedback sessions. • Documentation.

Assignments:

Individual Report writing & sketches about the craft community and craft identified.

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SEMISTER VI.

PD173566 ELEMENTS OF FORM IV

TEACHING SCHEME: Total contact period per week – lectures 2+ studio 6= 8

EXAMINATION SCHEME:

Paper: Nil Oral: 50

Sessional Assessment: 50(Internal).

Aim: This course aims at making the students understand the product styling.

Objectives:

Taking the learning of form studies that is platonic forms, natural forms, colors, materials and finishes; students shall advance in the form studies towards product styling.

Course Content:

- To understand the meaning of the form (metaphor, attributes and emotions) through stylized products from different domains.
- To understand the role of light in surface transitions with color and finishes.
- To understand the resultant of the articulation with finishes.

Assignments:

- Study of attributes of stylized products.
- This understanding shall be communicated through sketches and physical models.
- Stylizing a product based on the course learning.
- Making a scaled model of the final expression with desired material color and finishes supported with digital renders.

- Emotional Design: Why We Love (or Hate) Everyday Things by **Don Norman**
- The Psychology Of Everyday Things by Don Norman
- The Semantic Turn: A New Foundation for Design by Klaus Krippendorff.

PD173567 DISSERTATION I

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 1 = 3

EXAMINATION SCHEME:

Paper: Nil Oral: NIL

Sessional Assessment: 50(Internal).

Aim: The dissertation provides a forum for discussion of issues relating to design concerns , design philosophy, design need or any other design related areas.

Objectives:

- 1. To strengthen the students' ability to undertake self-initiated research or acquire particular competence.
- **2.** To explore and reflect the students' perception and understanding of the chosen area through facts.

Course Content:

1. Students have to select any topics relating to design concerns, design philosophy or any other

after consultation with the guide/course teacher.

2 The students shall identify potential areas of intervention for design and present the case with facts, figures, statistical data, field data or data by the reputed source. The subject of enquiry shall be considered valid only if provided with needful supporting data.

Assignments:

· Report writing.

PD173568 MATERIALS AND PROCESSES IV (Sessional) PD173569 MATERIALS AND PROCESSES IV. (Theory)

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 1= 3

EXAMINATION SCHEME:

Paper: 100 Oral: NIL

Sessional Assessment: 50(Internal).

Aim: This course equips the students to understand the right material and the manufacturing processes best suitable for the product from the view point of cost and benefits.

Objective:

- To provide an in-depth understanding of materials with the major emphasis on advanced new materials and finishes.
- An introduction to sustainable and eco friendly materials and processes.
- To equip the students with the methods of selecting materials and related processes based on cost, product safety, form, function, etc.

Course Content:

- Introduction to new materials and processes.
- Introduction to environment friendly materials and the processes. (Including traditionally used materials in our context and culture.)
- Advance studies in mass production processes and their influence on design and development of products.
- Emphasis on material search and process selection in relation to cost, product safety, function, human factors, form, finishes and joining methods.
- To conduct industry /workshop visits to observe and understand processes.

Assignments:

- Documentation of manufacturing processes of materials mentioned above & journal writing.
- Minimum 5 industrial visits for materials understanding.

- Cradle to cradle by William Macdoungh.
- Industrial design: Materials and manufacturing guide by Jim Lesko.
- Sustainable Materials, Processes and Production (The Manufacturing Guides) by Rob Thompson.
- Modern Materials and Manufacturing Processes (3rd Edition) by R. Gregg Bruce and William K. Dalton

PD173570 DESIGN PROJECT IV

TEACHING SCHEME: Total contact period per week – lectures 4 + studio 9 = 13

EXAMINATION SCHEME:

Paper: Nil. Oral: 50.

Sessional Assessment: 100(Internal)50(External).

Aim: This course aims at making students understand

1. The process of system thinking.

2. A system is an arrangement (pattern, design) of parts, which interact with each other within the system's boundaries (form, structure, organization) to function as a whole. The nature (purpose, operation) of the whole is always different from, and more than, the sum of its unassembled collection of parts. This is an important issue to understand from products point of view.

Objectives:

To introduce the students to the system thinking challenges, considerations and deliverables. To understand the relationship of the variants... processes, people, products and parts that contribute towards the functioning of a system.

Course Content:

- Introduction to the design intervention in the human realm which add value and quality to the life.
- Identifying system comprehensible, tangible and accessible environments.
- Research of the system, components and stakeholders.
- Understanding the interrelationship and interdependency of various components of identified system.
- Analyzing and mapping the strengths and weakness of the system
- Synthesizing and prioritizing the research observations leading to design brief.
- Formulating the design brief.
- Introducing students to critical creative thinking tools.
- Ideation -- concept generation and explorations with quick explanatory models.
- Finalization of the concept with design development and detailing.
- Prototyping of 3D models.
- Evaluation of new concepts
- Hand and computer Renderings and finished model of the final design solution.

Assignments:

- System research documentation & presentation (45%)
- Analysis & formulation of design brief (15%)
- Ideation & exploration -- sketches & study models (30%)
- Final design solution -- product detailing, rendering & finished models/prototype (10%)

PD173571 PRODUCT PACKAGING DESIGN.

TEACHING SCHEME: Total contact period per week – lectures 1+ studio 4 = 5

EXAMINATION SCHEME:

Paper: Nil Oral: 50

Sessional Assessment: 50(Internal) 50(External)..

Aim: This course aims at making the students to understand that packaging has a crucial role to attract consumer, force them to choose the product and act as a brand communication vehicle. It will also help students to understand the effect on consumer's perception about products and brands through structural packaging.

Objectives:

 To introduce students to the field of packaging design and make them understand design process, structural possibilities and material used in packaging through hands on assignments.

Course Content:

- Through case studies understand relation between consumer's perceptions about attention, purchase and repurchase and packaging design.
- To understand various elements of package like size, shape, material and graphic.
- To understand and explore various structural systems, forms and material possibilities in packaging design.

Assignments:

- Case study research, documentation & presentation (30%)
- Ideation & exploration of packaging about given brand or product-- sketches & study models with validation (40%)
- Final design solution --prototype (30%)

- Package design workbook: The art and science of successful packaging by Steven DuPuis.
- Packaging Design: Successful Product Branding From Concept to Shelf by Marianne R.
 Klimchuk and Sandra A. Krasovec
- Packaging for Electronic Products by Kris Verstockt
- Unpack Me Again!: Packaging Meets Creativity by Wang Shaoqiang

PD173572 SEMINAR

TEACHING SCHEME: Total contact period per week – lectures 1 + Studio 2= 3

EXAMINATION SCHEME:

Paper:Nil Oral: Nil

Sessional Assessment: 50(Internal).

Aim: This course enables the students to study contemporary challenges, technological innovations and designers.

It helps the students to undertake research in their areas of interest.

Objectives:

To inculcate the ability of reading, researching, interviewing and experiencing design issues and design works in global context.

Course Contents:

- To give exposure to the students to contemporary challenges, innovations and brands.
- To give exposure to the students to the thought and works of the contemporary designers.

Assignments:

- Article/book/thesis reading based on theme of the course (eg: sustainability, design for bottom of the pyramid etc.)
- Conducting classroom debates.
- Submitting project report that covers, summery of reading assignments along with individual thoughts on the topic.

- Design Issues: MIT Press
- Harvard Business Review (HBR)
- Books: Cradle to Cradle_William McDonough
- Massive Change_Bruce Mau
- Design for World VictorPapanek

PD173573 DEPARTMENTAL ELECTIVE.

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 3 = 5

EXAMINATION SCHEME:

Paper: Nil Oral: 50

Sessional Assessment: 50

Aim This course exposes the students to the allied design professions and emerging technologies.

Objectives:

To inculcate the ability of reading, researching, and experiencing design.

Course Contents: This shall inculcate an ability of enquiry, search and learn collectively. **Design elective:**

• Toy design, Green design, Communication design, Universal design etc.

Emerging Technologies.

• Solar energy, Robotics, Artificial intelligence etc.

Assignments:

The course conductor will design hands on, sketching and documentation assignments to achieve aims and objectives of the course.

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INTERIOR DESIGN.
SEMISTER V.

ID173574 HISTORY III

TEACHING SCHEME: Total contact period per week - lectures 2 + studio1 = 3

EXAMINATION SCHEME:

Paper: Nil Oral: Nil

Sessional Assessment: 50

Aim: This course aims at making students understand the development of architecture in the western world, parallel to, the evolution of Christianity as a religion and the cultural context that shaped architecture and interior architecture in the west. le Europe.

Objectives

- 1. To understand the development of architectural forms ,styles,and character from early Christianity till the industrial revolution period.
- 2. To make students develop a sense of understanding of the interior spaces , belonging to different periods.
- 3. Reading and interpretation of facts, that influenced the architectural interior spaces and furniture style.

Course content

- 1. Early Christian: Birth and spread of Christianity church planning, transformation of roman empire, Byzantine period.
- 2. Early medieval period: Romansque churches, domestic architecture, craft merchant guilds.
- 3. Late medieval period: development of vaulting, late romansque churches. Political and social changes, development of gothic architecture, church plan, gothic architecture in France, Italy and England.domestic spaces, characteristics features of gothic style.
- 4. Renaissance and mannerist: idea of rebirth and revival, urban renaissance and architecture, contribution of master architects like brunellaschi, Bramante etc. Development of churches in renaissance period.
- 5. Baroque and rococo: protestantism, French revolution, monarchy and growth of nations, roman baroque churches, characteristics features of baroque style, domestic architecture and interior spaces in baroque and rococo style.
- Eighteenth century and industrial revolution: social and political changes, events leading to industrial revolution, its impact on society and lifestyles, innovations and new products, creation of new architectural style.
- 7. Neo classicism, reinventing classicism.

Assignments

- Journal writing related to topics 1,2,3,4,5,6,7.
- Journal writing emphasizing on the interior spaces and furniture study ,and designing of interior spaces etc.
- Sheet work on architectural characters of the above periods, habitable spaces and indigenous art forms.

- History of architecture by Sir Bannister Fletcher
- Design through discovery.
- History of world architecture, Llyod S & Muller H.W., Publications; Faber & Faber Ltd.
- Interior desgn by ahmed kasu.

ID173575 SOFT FURNISHING.

TEACHING SCHEME: Total contact period per week - lectures 2+ studio 2 = 4

EXAMINATION SCHEME

Paper: Nil. Oral: 50

Sessional Assessment: 50 (Internal)

Aim: This course aims towards enhancing the student's knowledge of the soft furnishings, upholstery and their implementation in interior spaces.

Objective:

- 1. To make students understand how the décor of interior can be enhanced, by the use of furnishings, fittings and related accessories.
- 2. To make students understand various types of soft flooring finishing materials, window treatments, coverings, tapestry upholstery etc.
- 3. To make students understand the various types of cushioning materials used like, foams, springs etc in the making of sofas, chairs etc.

Course outline:

- Floor coverings: types of carpets and rugs ,and other types of flooring materials like vinyl's.
 Natural and manmade fibers, handmade carpets , Persian carpets their making understanding its quality , weave etc.
- 2. Window treatments: types of curtains fabrics, different types of stitching techniques like American plates, box plates, valance, pelmets, and their related accessories like curtain rods, etc accessories and hardware's related to it like curtain tier, belts etc.
- 3. Blinds: types of blinds like roman blinds, mechanically operated blinds with tracks etc, also various materials used for the making of the blinds.
- 4. Awnings: types, fabrics uses and mechanism etc.
- 5. Soft finishing materials: upholstery fabrics and its properties for stitching, making and finishing sofas, chairs, back rest of beds. Four poster beds and its drapery.
- 6. Mattresses, foams, u foams and cushioning and cushions, their standard sizes available in market.
- 7. Other furbishing materials like table covers, table runners and other accessories.
- 8. Other fabric decoration, involved in the design of interior spaces.

Assignments:

- Market survey of various materials available and preparing a report.
- Journal writing on topics with sketches, showing understanding of the topics.
- Sample collection and documenting the same.

- 1. Window fashion by Charles Tirandall.
- 2. Interior design illustrated: Francis D K Ching.
- 3. Interior design materials and specification by: lisa godsey.

ID173576 MATERIALS AND PROCESSES III

TEACHING SCHEME: Total contact period per week - lectures 3 + studio 1 = 4

EXAMINATION SCHEME

Paper: Nil Oral: Nil.

Sessional Assessment: 50

Aim: This course aims towards acquainting students with various interior materials like polymers, plastics and acrylic. Introducing various wall finishes and furniture finishes related to and used in application of the interior space design.

Objective:

- 1. To enhance the understanding of various physical, chemical properties of polymers ,plastics and acrylic.
- 2. To introduce to the students various properties of and constituents and application of different types of paints, polishes, and varnishes, in the market.
- 3. To introduce to the students various furniture finishes as well as materials available in sheet forms, like laminates, veneers, cement, quorian sheets. Etc.
- 1. Understanding the physical and chemical properties of various polymers, plastics, and acrylic sheets. Their manufacturing, processing, molding and recycling. Its impact on our ecosystem etc.
- Understanding various wall finishes like paints, its various types like, plastic paints, distemper, acrylic, texture paints etc. its chemical composition, application including preparing the wall surfaces, various types of market practices, availability of various types of putty for the preparation of wall surfaces etc. Latest market trends and innovations in the field of paints
 - .various types of paints used for the materials surfaces like plastered wall, iron and mild steel surfaces, etc.
- 3. Understanding various polishes, varnishes and preservatives used for finishing of wood surfaces. PU finishes, melamine, glossy etc.
- 4. Understanding various materials used for finishing plywood furniture like laminates, veneers their standard sizes and application. Other materials available in sheet forms like cement sheets, acrylic etc.

Assignments

- Journal writing on all the above topics, by compiling the theoretical data of the materials mentioned above, along with the sketches.
- Documentation of manufacturing processes, and tools used for the handling of the above mentioned materials.
- Market survey of the topics and documentation of the same.

- Engineering materials by K.P.Roy and Chaudhari.
- Materials of construction by D.N.Ghose.
- Building construction by W.B.Mckay- Vol 1 to 4.
- Building materials by sushil kumar.

ID173577 CONSTRUCTION TECHNOLOGY III

TEACHING SCHEME: Total contact period per week - lectures 1+ studio 5 = 6

EXAMINATION SCHEME

Paper: Nil Oral: 50

Sessional Assessment: 50

Aim: This course aims towards acquainting students with standard and simple construction techniques and practices, which are used ,related and applied in the interior space design. This also bridges the gap between the design ideas and its execution on site practically.

Objectives:

- 1. To introduce, the students to the construction details and techniques of the basic elements of interior spaces like partitions, paneling and suspended ceiling. Using various materials.
- 2. To integrate the learning of materials their processing and construction techniques.
- 3. Reinforcement of knowledge through lectures, site and workshop visits and Market Survey. Acquainting them with the tools and machines required for its handling and processing.

Course Contents:

- 1. Introduction to the topic of partitions, using materials like aluminum, wood and its allied products like plywood, mild steel. Using filler panels of other materials like glass, fabric and metal sheets etc. Making of the framing, various joinery Involved, its strength and flexibility etc.
- 2. Introduction to the topic of paneling, on walls using various materials like wood, plywood.
- 3. Introduction to the topic of suspended ceiling, using materials like plaster of paris, gypsum, wood and its allied product. Materials involved, and the fixing, hanging and other details related to it. The role of electrical fittings in the making of the false ceiling, and integration of the various services like electrical, ducting work etc with the suspended ceiling.

Assignments:

- 1. Journal writing on all the above topics, by compiling the theoretical data of the materials mentioned above, along with the sketches.
- Documentation of manufacturing processes and tools used for the handling of the above mentioned materials.
- 3. Market survey of the topics and documentation of the same.
- 4. Manually drafted sheets on topics, showing all the relevant details.
- Woodworkers guide to furniture design.
- Building construction by W.B. Mckay.
- Building construction by Chudley.
- Building construction by S.P Arora.
- Building materials by Sushil kumar.

ID173578 BUILDING SERVICES II.

TEACHING SCHEME: Total contact period per week - lectures 2+ studio 1= 3

EXAMINATION SCHEME:

Paper: Nil Oral: 50

Sessional Assessment: 50 (Internal)

Aim: This course aims towards acquainting students with the services pertaining to lighting and electrification.

Objectives:

- 1. To introduce, the students to the theory /concept of natural lighting and artificial lighting.
- 2. To develop an understanding of market trends in electrification and interior spaces.
- **3.** To bridge the gap between theory and practicality through the site visits.

Course Contents:

A. LIGHTING.

- 1. Understanding sun as a source of natural lighting, and atmosphere as its constituent.
- 2. Lighting indoors and interior spaces since history (Natural lighting and artificial lighting).

B. NATURAL LIGHTING.

1. Daylight, day light factor, north light.

C. ARTIFICIAL LIGHTING.

- 1. Artificial lighting, systems of lighting Direct and indirect lighting (diffuse lighting).
- 2. Ways of illuminating interior spaces, Illumination, illumination levels for classroom, shops, auditorium etc.
- 3. Luminance, luminaries, light fittings and types of light fittings available in market etc.

D. ELECTRIFICATION.

- 1. Electricity, electrical meter, electricity supply, and other details associated with electrification.
- 2. Electrical wiring systems, circuits etc.
- 3. Conduits and laying of pipes.
- 4. Electrical controls and safety devices.
- 5. Materials required for electrification like, wiring and its types, switches, conduits and safety devices like ELCB, MCB.etc.

Assignments

- Proposing a electrical layout for an design problem. Understanding universal electrical symbols. Also calculating the illumination required for the specific task or function.
- Journal writing, composing and assembling notes and sketches, showing understanding of the subject.
- Market survey, to understand the market trends and documenting the same.

Recommended readings: -Interior design, by: Mohammed kasu.

- The lighting of buildings ,by:R.G.Hapkinsen.
- Lighting in Architecture design , by:Derek Philips.
- B.B.C. 83 PART VIII. Section I . lighting and ventilation.
- Environment and services , by: Peter Busberry.
- Lighting , by : Elizabeth wihide.
- Light fantastics , by:max keller
- Lighting design by Jeremy Myerson.

ID173579 DESIGN AND WORKING DRAWING III

TEACHING SCHEME: Total contact period per week - lectures 4+ studio 9= 13

EXAMINATION SCHEME

Paper: Nil. Oral: 50.

Sessional Assessment: 100 (Internal) 50 (External)

Aim: This subject aims at introducing students to the design, concept and functioning of the architectural interiors of commercial and retail spaces.

Objectives:

- 1. To enhance and encourage the creative skill of the students, to handle multiple users and public at large.
- 2. To make students understand the functioning, working and the aesthetical, aspect of the design of the commercial and retail spaces, in terms of its volume. By application of the knowledge gained through earlier course and through various subject.
- **3.** To make them understand the process, methodology to be followed for the design of retail/commercial spaces.
- **4.** Understanding importance of ergonomics, anthropometry, services and structure as an inseparable part of design process and application of this knowledge in design.

Design parameters in terms of typology: Any commodity (garment, jewelry, computers, etc) retail store, showrooms, departmental stores and banks etc. Area minimum 200 sq.m (2000 sq.ft.)

Course outline:

- 1. Introduction to the function of the interior space, understanding the utility, users.
- 2. Study of human anthropometry and ergonomics through study of products, furniture and spaces, related to the Design Program.
- 3. Study and analysis of anthropometric data related to the Design Program.
- 4. Compiling related design data and design program.
- Analytical study of typical interior layouts with respect to areas, activities, functions and needs and aesthetics (Case Studies)
 Stage II (10%)
- 6. Site Analysis
- 7. Formulation of Design brief

Stage III (10%)

Collection-20%)

Stage I

(Data

- 8. Design conceptualization and ideation Form, function and space requirements in interior space

 Stage IV (35%)
- 9. Drawings Plans, Sections and services related drawings, working drawings, Views, Details etc. Presentation of design project in the form of presentation drawings and working drawings

Stage V (25%)

Assignments and Assessment

The assessment of Design Project to be done at the given assignment stages with due weightages to each stage.

- Basic design and Anthropometry by Shirish Vasant Bapat.
- The measure of men and women human factors in design by Allvin R. Tilley and henry Dreyfuss and associates.
- Visual Dictionary of Architecture by D. K. Ching.
- Interior design by Ahmed Kasu.
- Interior design by D K Ching.
- Time savers standards of interior design
- Neuferts standards.
- Store window that sell by: Martin .M.pegler.
- Commercial space shopping mall by: Francisco Asensio Cerver.
- Showrooms by: Brigilte Fitoussi.
- Shops and Boutique 2000 by Susan Abramson and Marcie Stuchin.
- Atlas of office interiors.
- Top office spaces by Dalian University of Tech Press.

ID173580 COMPUTERS III

TEACHING SCHEME: Total contact period per week - lectures 1 + studio 2 = 3

EXAMINATION SCHEME

Paper: Nil Oral: Nil

Sessional Assessment: 50(Internal)

Aim: This course aims towards developing the soft skills of students in the third dimension.

Objective:

1. To introduce to the students the use of different computer aided tools for creating 3D views , and rendering.

2. To use computer as a tool in visual perception of interior space.

Course content:

- 1. Demonstration of the tools in 3D views and rendering with software like 3Dmax etc.
- 2. Introduction of tools to produce walk through.
- 3. Equipping students towards making rendered presentation drawing in the digital media.

Assignment

- Sessional work that is making 3D views of their design solutions.
- Rendering the same and submitting in the form of soft as well as hard copy.
- Making walk through.

Recommended readings: -

User manual of related software.

ID173581 CRAFT AND CULTURAL DOCUMENTATION.

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 2 = 4

EXAMINATION SCHEME:

Paper: NIL. Oral: 50

Sessional Assessment: 50(Internal) 50(external).

Aim: This course aims to develop an understanding and appreciation for India's rich cultural heritage and vast repertoire of craft traditions to a designer who may choose to function as a design professional in the craft sector. Indigenous crafts offer a phenomenal base for drawing inspiration and developing culturally relevant designs in a contemporary context.

Objective:

- 5. To establish an appreciation and understanding of our rich culture, heritage and vast vocabulary of craft techniques.
- 6. To expose the students to the gamut of contextually responsive space design of a community, craft activity and the role of design thereof.
- 7. To evaluate the possibility of extending the traditional material, construction techniques and craft techniques to contemporary application.
- 8. To equip the students to undertake field research using suitable research tools wherein they directly interact with communities, artisans and skilled craftsman to collect analyze and record data.

Course content:

- 3. The course primarily focuses on an in-depth study, research and documentation of a particular context, craft community and craft: keeping in view various aspects such as the evolution of the craft, communities engaged in practicing the craft, socio-cultural economic influences on the craft, traditional methods of designing and production, use of indigenous materials and use of local technology, market linkages, external influences, etc.
- 4. The students are required to spend a part of their project time on field interacting directly with practitioners of the selected craft. They collect and analyze the data using multiple tools in written and visual form. This is recorded by the students in form of a document wherein the students are also encouraged to present their individual insights, findings, and suggestions to effectively converge the traditional craft with the contemporary scenario.

Methodology:

• Field work. • Analysis and synthesis. • Discussions and feedback sessions. • Documentation.

Assignments:

• Individual Report writing & sketches about the craft community and craft identified.

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SEMISTER VI.

ID173582	HISTORY IV.(Sessional0
ID173583	HISTORY IV.(Theory)

TEACHING SCHEME: Total contact period per week - lectures 2 + studio 1 = 3

EXAMINATION SCHEME:

Paper: 100 Oral: Nil..

Sessional Assessment: 50

Aim: This course aims towards introducing the students to the origin and development of modern architecture and design in the western world.

Objectives

- 1. To introduce to the student to the concept of modernism and its impact on the realm of design.
- 2. To study the evolution of modern architecture and the primarily design from industrialization, urbanization.
- 3. Development of different materials and their craft forms resulting in various design innovation.
- 4. To encourage reading, and interpretation of the facts, that influenced the architectural interiors, furniture and their overall lifestyle.

Course outline

- 1. Beginning of modernity: neo classicism, emergence of new social systems, needs of urbanization, development of new materials.
- 2. The various movements as opposition to industrial revolution: art and craft movement in Europe and America. Art nouveau, Vienna secession, other parallel movements like art deco etc, study of architects and designers belonging to these movements Morris, Horta, Guadi, Hoffman, Olbrich etc.
- 3. Modern architecture and art: expressionism, futurism, constructivism, cubism, Bauhas work of Gropius, Meyer and Mies van der Rohe, Frank Lyod Wright, Loius Kahn, growth of international style.
- 4. Development and spread of international style: deconstructivism, study of contemporary designs.

Assignments

- Journal writing and sketching related to topics as mentioned above.
- Journal writing emphasizing on the interior spaces and furniture study, and designing of interior spaces etc.
- Sheet work on architectural characters of the above periods, habitable spaces and indigenous art forms etc.

- Indian architecture Buddhist and Indo period by Percy Brown.
- Indian Architecture (Islamic Period) by Percy Brown.

ID173584. INTERIOR LANDSCAPE.

TEACHING SCHEME: Total contact period per week - lectures 1 + studio2 = 3

EXAMINATION SCHEME:

Paper: Nil Oral: 50

Sessional Assessment: 50(Internal)

Aim: This course aims at introducing the students to the subject of interior landscape and its relevance and importance in the interior spaces in today's context as well as in history.

Objectives:

- 4. To sensitize students towards the basic principles and elements of interior landscape.
- 5. To enhance the knowledge, that will help them to develop their design skills, as well as understanding of open, semi open, and closed spaces of different scales.
- 6. To understand the horticulture, various indoor plants and their accessories.

Course Contents:

- 1. History of landscaping, various styles like- Japanese, Mughal and Italian etc. Their features and development. Relevance with the interior spaces. Various features of interior landscaping like fountains, water bodies and its impact of the interior climate. Use of sculptures and other elements for the further enhancement of interior landscape etc.
- 2. Introduction to the principles and elements of interior landscape: elements of indoor landscape hard cape and soft scapes. Plants and their classification, materials, characteristics, use and application in landscape design.
- 3. Herbarium: study of plant kingdom, cultivation, maintenance, characteristics, application in interiors.
- 4. Water as a landscaping elements, living, green walls, accessories, benches, luminaries, pots, landscape furniture etc.
- 5. Understanding terrace gardens, green spaces, ecology and ecosystem.
- 6. Understanding the basic construction techniques of planters, water bodies, living or green walls, working of water fountains and waterfalls.
- 7. Study of contemporary interior space, where indoor landscaping is an integral part of design.

Assignments:

- Exercise to develop the interior landscaping skills of a student by proposing a design solution for an courtyard, or some interior space, related to their design problem.
 Sheet work.
- Journal writing and sketching.
- Making herbarium and documenting the same. Recommended readings:
- Michael laurie an introduction to landscape architecture, Elsevier 1986.
- Plants of india.
- Landscape in history by:Philips Pregil , Nancy Volkman.
- Landscape detailing by : littlewood Michael.
- Annuals by : Ted Marston.
- Flowering trees , shrubs and climbers of India by : Rupinder Khulla

ID173585 MATERIAL AND PROCESSES IV (Sessional)

ID173586 MATERIAL AND PROCESSES IV (Theory)

TEACHING SCHEME: Total contact period per week - lectures 3 = 3

EXAMINATION SCHEME:

Paper: 100 Oral: Nil

Sessional Assessment: 50 (Internal).

Aim: This course aims towards acquainting students with advance interior materials and materials which have been used in past in the interior space design. And are the link between interior architecture and exterior architecture, their properties, processes and availability in market.

Objectives:

- 1. To enhance the understanding of soft interior materials- like leather, textile, wall papers, foam. etc .Their origin, properties, application, processing and available market form.
- 2. To encourage students to do research and do documentation of old interior materials, having historic relevance, in order to develop their knowledge for the conservation, preservation and understanding of the old techniques used for the treatment of interior spaces.eg.stuco work.etc
- 3. To provide an understanding of advance materials and their properties in the context of interior design, and as per the latest market trends.

Course Contents:

- 1. Leather, rexine and textile, their properties, availability and related application.
- 2. Wall papers. Their properties, strength, manufacturing, machining, handling. etc.
- 3. Wooden flooring. its manufacturing process, types -, etc. Its availability, sizes available in market, process of laying etc.
- 4. Stucco work, stain glass, cut glass, mirror work, wall frescos. (done in past)
- 5. Stain glass, Colour glass, Cut glass work, Mirrors and its use in present day and relevant past interiors. Understanding the process of application and materials associated with the same.
- 6. Lime and its application in the various façade treatments in interiors.
- 7. Latest market trends in material like, composite panels etc.

Assignments

- Journal writing on all the above topics, by compiling the theoretical data of the materials mentioned above, along with the sketches.
- Documentation of manufacturing processes, and tools used for the handling of the above mentioned materials.
- Market survey of the topics and documentation of the same.

- Engineering materials by K.P.Roy and Chaudhari.
- Materials of construction by D.N.Ghose.
- Building construction by W.B.Mckay- Vol 1 to 4.
- Building construction by Chudley.
- Building materials by Sushilkumar.

ID173587. CONSTRUCTION TECHNOLOGY IV

TEACHING SCHEME: Total contact period per week - lectures 2 + studio 4 = 6

EXAMINATION SCHEME:

Paper: Nil. Oral: 50.

Sessional Assessment: 50(Internal)

Aim: This course aims towards developing the understanding, of those building elements, which are integral part of interior spaces, like lifts and escalators, mezzanine floors, attics and pergolas skylight.

Objective:

- 1. To help the students to understand the mechanism and functioning of lifts and escalators and its integration with building structure and interior spaces.
- 2. To understand the simple construction details of skylight and its relevance with interior spaces.
- 3. To understand standard and simple construction practices of mezzanine floors, attics ,lofts , decks, gazebos , pergolas and sheds made up using various engineering materials like wood, ms girdles and other M.S section.

Course outline:

- 1. Basic introduction to the terminology related to lifts and escalators basic introduction to the functioning, mechanism, and execution of lifts. Understanding pits, machine room lift well, etc.
- 2. Understanding mezzanine floors and temporary structures, made using wood, bamboo, M.S sections, etc. its standard construction practices and details and the role of designers.
- 3. Understanding attics, lofts, their simple and standard construction practices, materials used and relevant details.
- 4. Skylights as a part of interior space, their role, function, construction and materials used.
- 5. Understanding gazebos, pergolas, their construction details, materials used etc.

Assignments

- Manually drafted sheets on topics
- Documentation of manufacturing processes and tools used for the handling of the above mentioned materials.
- Market survey of the topics and documentation of the same.

- Architectural metals by Zabner and I. William
- Woodworkers guide to furniture design.
- Building construction by W.B.Mckay.
- Building construction by Chudley.

ID173588 BUILDING SERVICES III.

TEACHING SCHEME: Total contact period per week - lectures 2+ studio 1= 3

EXAMINATION SCHEME

Oral: 50

Sessional Assessment: 50(Internal).

Aim: This course aims towards acquainting students with the services pertaining to Mechanical Ventilation, Air Conditioning and Fire Fighting.

Objectives:

- 1. To introduce students to the theory /concept of mechanical ventilation, air conditioning, and fire fighting.
- 2. To develop an understanding of human comfort in an indoor or interior spaces and its relevance with mechanical ventilation and air conditioning.
- 3. To develop an understanding and the importance of fire fighting and its relevance with the building interiors.
- 4. To bridge the gap between theory and practicality, through understanding latest market trends and its application and execution on site. (that is site study).

Course Content:

A. Mechanical ventilation and air conditioning.

- 1. General introduction to the overlap of climate and its constituents, thermal comfort and its relevance, factors affecting thermal comfort. Understanding conduction, convection and radiation. And the role of mechanical ventilation in today's context as well as history.
- 2. Introduction to the theory of Mechanical ventilation.
- 3. Air conditioning its history and relevance.
- 4. Types and systems of air conditioning, principles, components, and equipments.
- 5. Psychometrics.
- 6. Air cycle, refrigeration cycle, fans and their types.
- 7. Ducting, general principles of ducting and distribution of the conditioned air.
- 8. Types and systems of ducting, its materials and components etc.
- 1. Active and passive ways of fighting fire more in relevance of interiors and interior spaces. Fire extinguishers, water sprinklers' used in ceilings, fire alarms et c.
- 2. Fire resistant materials and its application in interiors.

Assignments:

- Proposing a air conditioning ducting layout for an design problem. Understanding universal symbols .Also calculating the load required for the conditioning of an interior space.
- Journal writing and sketching.
- Market survey, to understand the market trends and documenting the same.
- Exploring the standards of the same in market.
- Relevant site visit to understand the same

Recommended readings:-

- Interior design by: Mohammed kasu.
- ABC of air conditioning , by: Ernest Tricomi
- Heating and air conditioning of buildings.
- Environment science, by: smith, Philips, and sweenay.
- Mechanical and electrical equipments in building.
- Environmental sciences , by:peter busberry.
- Principles of air conditioning by: V.Paul Lang.

ID173589 ESTIMATION AND COSTING.

TEACHING SCHEME: Total contact period per week - lectures 2 + studio 1 = 3

Paper: Nil. Oral: Nil.

Sessional Assessment: 100(Internal)

Aim: This subject aims at explaining the students the need, role and importance of elements of estimation and costing along with its relevance in the execution of the interior design project and eventually in the professional practice.

Objectives:

- 1. To make them understand the relationship between design drawings and execution on site in professional practice, and the role of specification writing, estimation and costing and in bridging the gap between them.
- 2. To make them understand ,the importance of "clarity of thought " in design , through writing specifically , in order to avoid further confusion or disputes on site.
- 3. For smooth and faster execution of the interior design project.
- 4. Establishing the link between specification writing, estimation and costing.
- **A. SPECIFICATIONS.** (In reference to interior design work only.) E.g. ceiling, furniture, electrification painting, plumbing, tiling etc.

Definition of specification, importance of specification, types of specification like detailed specification. Classification of specification like open, restricted and closed. Design of specification and principles of specification writing.

- **B. ESTIMATING AND COSTING.** (In reference to interior design work only.)

 Types of estimates ... Detail estimate, approximate estimate. Preparation of detailed estimate

 As per the standard measurement form, abstract of the estimate. Important factors for detail
- C. CONTRACTS AND TENDERS. (In reference to interior design work only.)

Definition, essential requirements of a valid contract, legalities, provisions of laws in regard to form. Departmental execution and contract system. Selection of mode of execution. Forms of contract, termination and types of contract. Responsibilities of various agencies. Earnest money and security deposit. Tenders, classification of tenders, opening and scrutiny of tenders.etc.

D. ARBITRATION.

estimate.

Only Introduction.

Assignments:

- Journal writing. Writing general and standard specifications for interior design items, like flooring, ceiling, furniture work, painting, electrification, plumbing etc.
- Abstract and quantity estimating of the design program, for the interior design items like, flooring, ceiling, furniture work, painting, electrification, plumbing etc. And compilling it in a file format.
- 4. Estimation costing and valuation by rangwala.
- 5. Estimating and costing in civil engineering by : B.N. Dutta.
- 6. Professional practices by: Dr. Roshan. H. Namavati.

ID173590 DESSERTATION I.

TEACHING SCHEME: Total contact period per week - lectures 1 + studio 2 = 3

EXAMINATION SCHEME:

Paper: Nil Oral: Nil

Sessional Assessment: 50

Aim: This subject aims at inculcating the ability to undertake research and documentation through self initiated learning process.

Objective:

- 1. To introduce students to the techniques of collecting and synthesizing the data , documenting the data through research , fact findings and establishing the fact , which will ultimately lead to their graduation project.
- 2. Analysis of the data and the statistics and establishing a fact, leading to the generation of a design opportunity.

Course outline:

- 1. Selecting a subject .establishing relevance through facts, statistics of the social, cultural economic feasibility etc
- 2. Doing research by reading, collecting information and statistics, questionnaire.etc
- 3. Learning various data collection methods.
- 4. Selecting the related case studies either live or book to understand the typology.
- 5. Synthesizing and documenting the data, information, findings etc, and establishing the fact by concluding to establish the feasibility of the design proposal which ultimately leads to the generation of a design opportunity.

Assignment

1. Documentation in the form of report, sketches, drawings, photographs etc.

ID173591 DESIGN AND WORKING DRAWING IV

TEACHING SCHEME: Total contact period per week - lectures 5 + studio 8 = 13

EXAMINATION SCHEME:

Paper: Nil. Oral: 50.

Sessional Assessment: 100(Internal). 50(External).

Aim: This course aims to equip students to handle the interior space design with the complexities of multiple functionality, levels integrating it with the understanding and application of the services.

Objectives:

- 1. To make the students aware of the complexity of services oriented typologies and its influences on interior spaces.
- 2. To make them aware of interior design as a synthesis of various functions, services, socio cultural element with stress on ambience building to create experience.
- 3. Understanding importance of services and structure as inseparable part of design process.
- 4. To enable students to make their own Design Process, Design Briefs, portfolio of proposed design, working drawings, details and renders.

Design focus:

- 1. Synthesis of services like water supply and drainage.
- 2. False ceiling and related services like electrification.
- 3. Landscaping etc.

Design parameters in terms of typology: Hotels and Restaurants, café's , fast food junctions, resorts and stay away homes. Spas and gymnasium, beauty parlors and saloons, theme bases restaurants etc , ora combination of the same. Area: minimum 200 sq.m (2000 sq.ft.)

Course outline:

- 10. Introduction to the function and working of the design problem.
- 11. Study of human anthropometry and ergonomics through study of products, furniture and spaces, related to the Design Programme.

12. Study and analysis of anthropometric data related to the Design Programme.

(Data Collection-10%)

Stage I

Analytical study of typical interior layouts with respect to activities, functions and needs. (Case Studies)

14. Site Analysis
Stage III (10%)
15. Formulation of Design brief.

- 17. Drawings Plans, Sections, Views, services layout like electrical etc, furniture details etc.

 Presentation of design project in the form of presentation drawings and working drawings. ---
 Stage V (35%)

Assignments and Assessment

The assessment of Design Project to be done at the given assignment stages with due weightages to each stage.

Recommended reading:

- Basic design and Anthropometry by Shirish Vasant Bapat.
- The measure of men and women human factors in design by Allvin R. Tilley and henry Dreyfuss and associates.
- Visual Dictionary of Architecture by D. K. Ching.
- Interior design by Ahmed Kasu
- Interior design by D.K. Ching
- Time savers standards of interior design
- Neuferts standards.
- Façade restaurants and café by:Shirish Vasant Bapat.
- Hotels and Resorts in india by: published by White flag.
- Tropical Resort publisher: Cherry Chan.

ID173592. DEPARTMENTAL ELECTIVE.

TEACHING SCHEME: Total contact period per week – Lecture 1 + studio 2 = 3

EXAMINATION SCHEME

Paper: Nil Oral: 50.

Sessional Assessment: 50 (Internal)

Aim: This course aims at providing an opportunity as well as encouraging the students to self study and enhance their knowledge of different allied subjects of their interest relevant to interior design.

Objective:

- 1. To encourage students to do self study and discover the subject of their interest, but related to the profession respectively.
- 2. To enhance their research and documentation skills under the guidance of an able guide.

Course Contents: This shall inculcate an ability of enquiry, search and learn collectively. **Design elective:**

• Green design, Communication design, ceramic design, art and craft etc.

Emerging Technologies.

• Solar energy, intelligent systems etc.

Assignments;

• Documentation in the form of report, sketches, drawings, photographs etc.

Recommended readings: -

• As related to the topic.

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SD173593 HISTORY III

TEACHING SCHEME: Total Contact Period/Week = 2 Lecture + 1 Studio = 3

EXAMINATION SCHEME:

Paper: Nil Oral: Nil

Sessional Assessment: 50(Internal).

Aim: This course aims at making the students understand the history of stage design in theatre contextually and globally.

This course aims at making the students to understand the World art movements.

Objectives:

- 1. To help students understand the evolution of theatre space design over a period of time.
- 2. To equip students with an understanding of art movements.

Course content:

A. Theatre history:

- 1. 8500 BC...Primitive tribal dance and religious rituals.
- 2. 3100-600 BC... Egyptian festival and ritual dramas, Passion plays, myth and story telling
- Greek theatre in classical era...Thespis, the inventor of Greek tragedy, comedy, first
 dressing room for performers ,first stage machinery and painted scenery, Pericles builds
 theatre of Dionysus in Athens,
- 4. Greek theatre in medieval period
- 5. Roman theatre... Theatre of Dionysus remodeled in stone, wooden theatre built in Rome, first roman amphitheatre built at Pompeii, first roman permanent theatre built in stone. The Colosseum, Roman theatre consists of mimicry, mime and pantomime.
- 6. Dark age.
- 7. Religious drama outside church. Cmmediadell'arte.
- 8. Renaissance set design.
- 9. William Shakespeare ... Globe theatre.
- 10. Scene design by Bibiena family.
- 11. Beginning of Box set.
- 12. Moscow art theatre... Konstantin Stanislavsky.... Naturalism. Realism.
- 13. Gordon Craig design surreal stage set.
- 14. Constructivism...Elmer Rice, Mayer Hold.
- 15. Broadway.

B. Indian Theatre.

- 1. Classical Sanskrit theatre... Bharat Muni Natya Shastrs.
- 2. Marathi Theatre ... 843 Vishnudas Bhave.

Painted Scenery. Box Set. Experimental theatre

B. World art movements.

- 1. World art movements: renaissance, realism, expressionism, impressionism, surrealism, Modern art.
- 2. Indian Visual Arts: cave paintings, miniature paintings, tribal art, folk art, mughal art, contemporary art which communicates the styles in India with respect to time, place, expression --- elements like patterns, motifs, colours, textures etc.

Assignment

- Journal writing
- Sketching and report preparing on study visits.

Recommended readings:

- The Oxford Illustrated history of theatre, Brown, John Russell.
- Handmade in India by AditiRanjan and M.P. Ranjan.
- India art and culture 1300- 1900 by Stuart Cary Welch.
- The illustrated history of Art by Sir Lawrence Gowing.
- History of Art by H. W. Janson.
- A world history of art by Hugh HonourandJohn Fleming.

SD173594 ELEMENTS OF FORM-- III

TEACHING SCHEME: Total Contact Period/Week = 1 Lecture + 4 Studio = 5

EXAMINATION SCHEME:

Paper: Nil Oral: 50

Sessional Assessment: 50(Internal).

Aim: This course aims towards enabling students understand the process of the set design abstraction in theatre. (Non-figurative art, non-objective art, and nonrepresentational art)

Objectives:

- 7. To sensitize towards perception, appreciation and articulation of theatre space and its elements.
- **8.** To make students understand the process of abstraction while designing the set for the drama in theatrical space.

Course Contents:

- 1. To introduce the students to the theatrical space.
- 2. An introduction to abstraction in art through the works of WassilyKandinsky,J.M.WTunner,Piet Mondrian, Kazimir Malevich.
- 3. An introduction to abstract expressionism in art through the works of Jackson Pollock, David Smith, Aaron Siskind, Barnett Newman, Mark Rothko.
- 4. Understanding the abstraction within the theatrical space from set design perspective in context of script, content, characters by studying and analyzing the works of Josef Svoboda, Jordon Craige,,AdolpheAppia, Mayerhold..
- 5. Creating abstract composition in a given space.

Assignments:

- Understanding the theatrical space.
- Analysis of an abstract art work and an exercise related to it
- Analysis of a set designed with abstraction in design.
- Exercises to learn geometric abstraction, scale and proportion abstraction, manipulative abstraction, non representational abstraction.
- Abstract compositions in 3-dimensional space.

Exercises based on all above topics with special thrust on hands on explorations and models.

Recommended readings: -

- Adolpe Appia :Theatre artist by Richard Beacham.
- Wassily Kandinsky: Concerning the Spiritual in Art by Wassily Kandinsky.
- On Modern Art by Paul Klee and Herbert Read.
- No Limits, Just Edges: Jackson Pollock by David Anfam, Susan Davidson and Margaret Ellis.
- The Secret Of Theatrical Space by Josef Svoboda and J. M. Burian .
- The Scenography of Josef Svoboda by Jarka. Burian

SD173595 MATERIAL AND CONSTRUCTION -- III

TEACHING SCHEME: Total Contact Period/Week = 2 Lecture + 1 Studio = 3

EXAMINATION SCHEME

Paper: Nil Oral: Nil

Sessional Assessment: 100(Internal).

Aim: This course aims to equip the students to understand materials, their properties and processes which are used in the construction of set to create a make belief resultant.

Objectives:

- 1. To provide an understanding of materials --- construction materials --- used for different surface treatments along with the detailing.
- 2. To provide an understanding of the construction techniques and details for temporary structures.
- 3. To acquaint students with the processes and treatments of the materials to create the desired effect.

Course content:

- 1. An introduction to set units/elements ... indoor, outdoor like vertical plate, horizontal plate, openings, staircases, landscape elements (trees, fountains, furniture, water bodies etc).
- 2. An introduction to the construction materials like brick, stone etc to enable students understand the look, feel, color, form and dimensions of the same so that they can replicate it to create make belief resultant using appropriate alternative materials.
- 3. A study of materials and construction techniques with detail to create temporary structures.
- 4. An introduction to the Natural and manmade wall ,partitions and flooring materials, roofing materials ... hay, tiles, boards, sheets and types of surface finishes... interior and exterior finishes (plastering, pointing, painting, cladding, wall papers etc.) to be used in the process of set construction.
- 5. Market study the different forms, types and variants of the materials in the market.

Assignments:

- Journal writing.
- Market survey and report.
- Making scaled models on topics... walls, staircases, openings using materials to be used in the
 execution of sets.

Recommended reading:

- Architectural metals: A Guide to Selection, Specification, and Performance by L. William Zahner
- Woodwork's guide to furniture design.
- Engineering materials by K.P. Roy Chowdhari
- Engineering materials by Rangwala
- Building construction by W.B.Mackay
- Building construction by Chudley.
- Building materials by SushilKumar.

SD173596 ELEMENTS OF MEDIUM – II

TEACHING SCHEME: Total Contact Period/Week = 3 Lecture + 1 Studio = 4

EXAMINATION SCHEME

Paper: Nil Oral: 50

Sessional Assessment: 50(Internal).

Aim: This course aims to equip the students to understand the elements of the theatre as a medium of live performance.

Objective:

1. To understand the different elements contributing towards the medium of theatre.

2. To understand the different genres of the theatre.

Course content:

- 1. To experience the live performances of the theatre by watching the theatrical shows.
- 2. To understand different elements of theatre such as play writing, direction, lighting design, costume design, makeup, acting, music.
- 3. To understand and explore the language of theater like scene, blackout, scene change, entry, exit, soliloquy, metaphors, symbolism.
- 4. Understanding the concept of theatrical space and time.
- 5. To understand the theatre process from script to performance.
- 6. Appreciation of the old classics and contemporary expressions.

Assignments:

Journal/Report writing.

Recommended reading:

- My life in art by Constantine Stanislavski.
- Natyashastra by Bharat Muni.
- Natakatlichinne by Dr. Rajeev Naik.
- Khel Natkacha by Dr. Rajeev Naik.
- Empty space by Peter Brook.

SD173597 LIGHT AND CAMERA I

TEACHING SCHEME: Total Contact Period/Week = 2 Lecture + 2 Studio = 4

EXAMINATION SCHEME

Paper: Nil Oral: 50

Sessional Assessment: 50(Internal).

Aim: This course aims to equip the students to understand the language of moving images.

Objective:

To study and understand the language of moving images created by movie camera and lights from the set designers perspective.

Course content:

1. Light:

Function of lighting.
Quality of lights
Basic principles of lighting.

2. Camera:

Naked eye perception and mediated perception.

Basics of shot, sequence and scene.

Shooting angles, shot composition, camera movement and distant

scale. Introduction to film and digital format.

Types of movie camera... DSLR.

3. **Appreciation** of cinematography in cinema, television shows, short films, advertisement and documentaries

Assignments:

- Composing and making of a shot, sequence in digital format.
- Report.

Recommended reading:

- Grammar of the Shot by Christopher J. Bowen & Roy Thompson ,Publisher: Focal Press
- Film Directing Shot by Shot: Visualizing from Concept to Screen by Steven D.

<u>Katz</u> ,Publisher: Michael Wiese Productions.

- The DSLR Filmmaker's Handbook: Real-World Production Techniques, Author and Publisher: Barry Andersson, Janie L Geyen
- Motion Picture and Video Lighting by <u>Blain Brown</u> Publisher: Focal Press

SD173598 DESIGN PROJECT -- III

TEACHING SCHEME: Total Contact Period/Week = 4 Lecture + 8 Studio = 12

EXAMINATION SCHEME

Paper: Nil Oral: 50

Sessional Assessment: 100(Internal)50(External).

Aim:This course aims at making the students understand the process of Set design for drama in the theatrical space and to articulate the solution with creative ideas.

Objective:

- 1. To develop the skill of observation.
- 2. To give exposure to theatrical time and space.
- 3. To develop the skill of creative thinking... Theatrical possibilities.

Course content:

- 1. Understanding of theatre as a place for performance (Theatre & Stage)
- 2. Types of theatre and sets
- 3. Use of curtains, wings, levels
- 4. Types of stage and divisions on stage.
- 5. Identification and research of the script for design interventions.
- 6. Research of the visual inspiration.
- 7. Formulation of the design program.
- 8. Ideation -- concept generation and explorations with quick explanatory models.
- 9. Finalization of the concept with design development and detailing.
- 10. Hand Renderings and final finished model of the final design solution.

Assignments:

The assessment of Design Project to be done at the following assignment stages with due weightage to each stage

Stage I:Documentation and presentation of anresearch with design opportunity – **20% Stage II**:Research and Documentation of Case Studieswith observations, analysis and conclusion– **15%**

Stage III: Site Analysis and Design Brief - 10%

Stage IV:Design development- Ideation with exploration and study model **-25% Stage V:**i) Final Design Solutions with views ii) Technical drawing with materials and Constructiondetailsiii) Finished model **– 30%**

SD1736599 COMPUTERS -- III

TEACHING SCHEME: Total Contact Period/Week = 1 Lecture + 2 Studio = 3

EXAMINATION SCHEME

Paper: Nil Oral: Nil

Sessional Assessment: 50(Internal).

Aim: This course equips the students with computer aided skills essential for the presentation of the concepts/ideas, of the final design.

Objective:

- 1. To introduce the students to the use of different computer aided design tools for creating 3D views and renderings.
- 2. To use computer as a tool in visual perception of architectural spaces.

Course content:

- 4. Demonstrations of the advance tools in the CAD software and their applications to produce 3D drawings.
- 5. Demonstrations of the advance tools in the software and its application to produce 3d drawings with renderings to create presentation drawings.
- 6. Equipping students towards making rendered presentation drawings in the digital media.

Assignments

- 1. Assignment on each CAD tool to be covered during class.
- 2. Drafting views and rendering them.
- 3. Exercises related to Coral software, use of various tools etc.
- 4. Presentation drawings, importing CAD drawings in Coral and rendering.
- 5. Printing the drawing to Scale.

Recommended reading:

User guide for computer aided design tools.

SD173600 CRAFT AND CULTURAL DOCUMENTATION.

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 2 = 4

EXAMINATION SCHEME:

Paper: NIL. Oral: 50

Sessional Assessment: 50(Internal) 50(external).

Aim: This course aims to develop an understanding and appreciation for India's rich cultural heritage and vast repertoire of craft traditions to a designer who may choose to function as a design professional in the craft sector. Indigenous crafts offer a phenomenal base for drawing inspiration and developing culturally relevant designs in a contemporary context.

Objective:

- 9. To establish an appreciation and understanding of our rich culture, heritage and vast vocabulary of craft techniques.
- 10. To expose the students to the gamut of contextually responsive space design of a community, craft activity and the role of design thereof.
- 11. To evaluate the possibility of extending the traditional material, construction techniques and craft techniques to contemporary application.
- 12. To equip the students to undertake field research using suitable research tools wherein they directly interact with communities, artisans and skilled craftsman to collect analyze and record data.

Course content:

- 5. The course primarily focuses on an in-depth study, research and documentation of a particular context, craft community and craft: keeping in view various aspects such as the evolution of the craft, communities engaged in practicing the craft, socio-cultural economic influences on the craft, traditional methods of designing and production, use of indigenous materials and use of local technology, market linkages, external influences, etc.
- 6. The students are required to spend a part of their project time on field interacting directly with practitioners of the selected craft. They collect and analyze the data using multiple tools in written and visual form. This is recorded by the students in form of a document wherein the students are also encouraged to present their individual insights, findings, and suggestions to effectively converge the traditional craft with the contemporary scenario.

Methodology:

• Field work. • Analysis and synthesis. • Discussions and feedback sessions. • Documentation.

Assignments:

1. Individual Report writing & sketches about the craft community and craft identified.

SD173601 EXPOSURE TO LIBERAL ARTS -- III

TEACHING SCHEME: Total Contact Period/Week = 1 Lecture 1 Studio = 2

EXAMINATION SCHEME

Paper: Nil Oral: Nil

Sessional Assessment: 50(Internal).

Aim: To study liberal arts and understand the relevance of other contemporary mediums of expression.

Objectives:

To inculcate the ability of reading, appreciating and experiencing the art and artist.

Course Contents:

- 1. To give exposure to the students to the other medium of expression, communication and art forms like installation design ,multimedia design.
- 2. To give exposure to the students to the thought and works of the contemporary artists.

Assignment

• Exercise based on workshop conducted.

Recommended authors.

- John Berger Ways of Seeing.
- Documentaries by BBC How art made the world
- Documentaries by BBC Power of Art.
- Anil Avchat --- Chhandanvishayi.
- PrabhakarBarve --- Kora Canvas.
- VasantPotdar --- Kumar and Bhimsen.

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THIRD YEAR BACHELOR OF DESIGN.
SET DESIGN.
SEMISTER VI.

SD173602 HISTORY – IV Sessional SD173603 HISTORY – IV Theory

TEACHING SCHEME: Total Contact Period/Week = 2Lecture + 1 Studio = 3

EXAMINATION SCHEME

Paper: 100 Oral: Nil

Sessional Assessment: 50(Internal).

Aim: This course aims to equip the students with the understanding of the history of cinema India and rest of the world.

Objectives:

- 3. To make the students aware about how cinema came into existence.
- 4. To equip students with an understanding of evolution of cinema over a period.

Course content:

- 1. Painting to still photograph, photograph to moving image, silent era to talky.
- 2. Technical evolution and milestone films.

Assignment:

1. Journal writing

Recommended readings:

- 1. Adhunik Ugacha vishwakarma.. Nitin Desai by
- 2. Preety pictures.. production design and history of films. By C.S. Tashiro

SD173604 ELEMENTS OF DESIGN I

TEACHING SCHEME: Total Contact Period/Week = 1 Lecture + 4 Studio = 5

EXAMINATION SCHEME:

Paper: Nil Oral: 50

Sessional Assessment: 50(Internal).

Aim: This course aims to equip the students to understand Color as an important element in the communication design of the medium of cinema.

Objectives:

- 9. To sensitize towards perception and appreciation of the element color in cinema.
- 10. To understand color system... additive and subtractive.
- 11. To derive experientially the color palette that communicates context culture communities.
- 12. To understand the use of color when used intentionally to create the feel and look of the cinema.

Course Contents:

- 8. Introduction to color as an element used creatively for communication of content, context, culture ,community and emotions.
- 9. Color systems... additive and subtractive.
- 10. Exploring color in different contexts... local, regional, continental and global.
- 11. Color semantics.

Assignments

Exercises based on all above topics with special thrust on hands on explorations and models.

Recommended readings:

- Principles of color design: designing with electronic color by Wucius Wong.
- Color by Paul Zelanski and Mary Pat Fisher.
- John Berger: Understanding a Photograph by John Berger
- If It's Purple, Someone's Gonna Die: The Power of Color in Visual Storytelling by Patti Bellantoni
- Cinema and Colour: The Saturated Image by Paul Coates...
- Colour (Cinema Aesthetics) by Steven Peacock.

SD173605 ELEMENTS OF MEDIUM – III

TEACHING SCHEME: Total Contact Period/Week = 3 Lecture + 1 Studio = 4

EXAMINATION SCHEME

Paper: Nil Oral: 50

Sessional Assessment: 50(Internal).

Aim: This course aims to equip the students to understand the elements of Cinema as a medium of mass communication.

Objective:

3. To understand the different elements contributing towards the medium of Cinema.

4. To understand the different genres of the Cinema.

Course content:

- 7. Introduction to the process of film making.
- 8. To understand the significance of the different elements of the films ... Direction, screen play and dialogue, costume, choreography, editing, sound design and background score.
- 9. Understanding the cinematic space and time.
- 10. Introduction to narrative, structure, theme characterization in films.
- 11. Introduction to phases, waves, trends in Indian and world cinema.
- 12. Understanding the different genres of the Cinema.
- 13. Study of a director style.

Recommended reading:

- How to read a film by James Monaco.
- Film Art : an introduction by David Bordwell.
- The language of film by Robert Edgar.

SD173606	MATERIAL AND CONSTRUCTION – IV Sessional
SD173607	MATERIAL AND CONSTRUCTION – IV Theory

TEACHING SCHEME: Total Contact Period/Week = 2 Lecture 1 Studio = 3

EXAMINATION SCHEME:

Paper: 100 Oral: Nil

Sessional Assessment: 50(Internal).

Aim: This course aims to equip the students to understand materials, their properties and processes which are used in the construction of set to create a make belief resultant.

Objectives:

- 1. To provide an understanding of advanced new materials and their properties in the context of set design.
- **2.** To provide an understanding of the construction techniques with detailing using above mentioned materials.
- 3. To acquaint students with the tools and machinery required for its handling and processing.
- 4. To provide an understanding of services like electrification and fire fighting.

Course content:

- 6. Market study the different forms, types and variants of the advance materials in the market.
- 7. Making students aware regarding the processes possible on those materials
- 8. The construction details for the above specified materials.
- 9. The finishes and their processes possible on the above mentioned materials.
- 10. An introduction to electrification and the basic safety related to it.
- 11. An introduction to types and causes of fire on set.
- 12. A study to understand the methods and techniques of fire detection and suppression.
- 13. Identification of safety needs and measures based on the actual location like crowded streets, blasting sites etc.

Assignments

- 1. Journal writings for all above topics.
- 2. Market Survey Report.

Recommended reading:

- Engineering materials by Rangwala
- Elements of workshop technology: Volume I by S.K.HajraChoudhary, A.K.HajraChoudhary, Nirjhar Roy.
- Elements of workshop technology: Volume II by S.K.HajraChoudhary, A.K.HajraChoudhary, Nirjhar Roy.

SD173608 LIGHT AND CAMERA II

TEACHING SCHEME: Total Contact Period/Week = 2 Lecture + 2 Studio = 4

EXAMINATION SCHEME

Paper: Nil Oral: 50

Sessional Assessment: 50(Internal).

Aim: To understand the dynamics created by light and camera from the set designer's perspective.

Objective: To understand the significance of techniques and equipments used in the creative creation of the cinematic expression.

Course content:

Light:

- 1. Appreciation and analysis of the creative lighting design in cinema for the cinematic expression.
- 2. Lighting equipments and accessories.
- 3. Lighting techniques.
- 1. Visualization tools and techniques.
- 2. Visual design and concept of director of photography in cinema.
- 3. Equipments and accessories for camera work.
- 4. Advanced to shot composition
- 5. Introduction to non linear editing.

Assignments:

- 1. Composing and making of a shot, sequence in digital format.
- 2. Short film making.. Duration 5 to 20 minutes.

Recommended reading:

- <u>Cinematography: Theory and Practice: Image Making for Cinematographers and Directors by Blain Brown</u> Publisher: Focal Press
- The Filmmaker's Eye: Learning (and Breaking) the Rules of Cinematic Composition by <u>Gustavo Mercado</u> Publisher: Focal Press
- Set Lighting Technician's Handbook: Film Lighting Equipment, Practice, and Electrical Distribution by <u>Harry Box</u> Publisher: Focal Press
- Motion Picture and Video Lighting by Blain Brown Publisher: Focal Press
- The Five C's of Cinematography: Motion Picture Filming Techniques by Joseph V.

Mascelli Publisher: Silman-James Press

- Film Directing Shot by Shot: Visualizing from Concept to Screen by Steven D. Katz
- The Visual Story: Creating the Visual Structure of Film, TV and Digital Media by <u>Bruce Block</u> Publisher: Focal Press

SD173609 DISSERTATION I

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 1 = 3

EXAMINATION SCHEME:

Paper: Nil Oral: NIL

Sessional Assessment: 50(Internal).

Aim: The dissertation provides a forum for discussion on application possibilities and genre of mediums.

Objectives:

- 1. To strengthen the students' ability to undertake self-initiated research or acquire particular competence.
- **2.** To explore and reflect the students' perception and understanding of the chosen area through precedent, references and literature.

Course Content:

- 1. Students have to select any topics relating to application possibilities and genre of the medium after consultation with the guide/course teacher.
- 2 The students shall identify potential areas of application as set designers based on the research and understanding which they shall acquire through the study of precedent, references and literature.

Assignments:

Report writing.

SD173610 DESIGN PROJECT -- IV

TEACHING SCHEME: Total Contact Period/Week = 4 Lecture + 9 Studio = 13

EXAMINATION SCHEME

Paper: Nil Oral: 50

Sessional Assessment: 100(Internal).50(External).

Aim: This course aims at making students understand the process of Set design for Cinema and to articulate the solution with creative ideas.

Objective:

1. To give exposure to cinematic space and time.

2. To develop the skill of creative use of visual elements to create the expected look and feel.

Course content:

- 11. Introduction to the role and responsibilities in the art department...production designer, art director, set designer and others.
- 12. Analysis of a film from set designer's perspective focusing on the constructed sets and locations.
- 13. Working on film script with the mapping of opportunities for location, properties and set construction.
- 14. Formulation of design program.
- 15. Creation of word, mood and inspiration boards.
- 16. Identification of the properties for location.
- 17. Ideation -- concept generation and explorations for location and properties with quick explanatory model
- 18. Finalization of the concept with design development and detailing.
- 19. Hand Renderings and final finished model of the final design solution.

Assignments and Assessment:

The assessment of Design Project to be done at the following assignment stages with due weightage to each stage

Stage I: Analysis of a film from set designer's perspective....25%

Stage III: Research of application area and Design program -25%

Stage IV: Design development- Ideation with exploration and study model -25%

Stage V:i) Final Design Solutions with views ii) Technical drawing with materials and construction details iii) Finished model **–25**%

Recommended readings:

SD173611 SEMINAR

TEACHING SCHEME: Total contact period per week – lectures 1 Studio 1= 2

EXAMINATION SCHEME:

Paper:Nil Oral: Nil

Sessional Assessment: 50(Internal).

Aim: This course enables the students to study contemporary art directors, set designers or production designer.

It helps the students to undertake research in area of interest.

Objectives:

To inculcate the ability of reading, researching, interviewing and experiencing the works of contemporary art directors, set designers or production designer.

Course Contents:

- 3. To give exposure to the students to contemporary works through film festivals and location visits.
- 4. To give exposure to the students to the thought and works of the contemporary designers.

Assignments:

- 1. Report preparation based on festivals attended or location visirs undertaken.
- 2. Conducting classroom presentations.

Recommended readings:

SD173612 DEPARTMENTAL ELECTIVE.

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 1 = 3

EXAMINATION SCHEME:

Paper: Nil Oral: 50

Sessional Assessment: 50

Aim This course exposes the students to the allied design professions, materials and emerging technologies relevant to the mediums.

Objectives:

To inculcate the ability of reading, researching, and experiencing design.

Course Contents: This shall inculcate an ability of enquiry, search and learn collectively. **Design elective:**

 Costume design, Landscape design, Exhibition design, communication design, Light design for theatre etc.

Material elective:

• Textiles, Paints, Paper etc.

Assignments:

The course conductor will design hands on, sketching and documentation assignments to achieve aims and objectives of the course.

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THIRD YEAR BACHELOR OF DESIGN.
FURNITURE DESIGN DESIGN.
SEMISTER V.

FD173613 HISTORY III

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 1 = 3

EXAMINATION SCHEME:

Paper: Nil. Oral: Nil

Sessional Assessment: 50(Internal).

Aim:This course aims to equips the students to develop an understanding of design, its origins and its evolutions as an organized modern profession.

Objectives: To acquaint students with a broad framework of design history, this recognizes Design as material embodiment of social, cultural and economic values.

Course Contents:

- 4. An introduction to the history of design from 1945 to contemporary times.
- 5. Design development in Europe, America, Russia and rest of the world.
- 6. Influences on Indian design and Indian design history:
 - Company school.
 - Bengal School and Bombay School.
 - Swadeshi Movement.
 - Progressive art movement
 - Charles Eames report and formation of National School of Design, Ahmedabad.

Assignments:

• Journal writing supported with sketches of the above relevant topics.

Recommended reading:

- Design source book Penny Sparke.
- Thinking Design ByS.Balaram.
- Art History of India ByParulDhar.
- Design Since 1945 ... World of art series.
- Design Directory -- World Of art Series.
- Design as Future making by Yelavich Susan.
- The Industrialization of Design by Gantz Carroll.
- World History of Design Vol I by Margolin Victor.
- World History of Design Vol II by Margolin Victor.
- Star product designers by Alegre Irene.

FD173614 ELEMENTS OF FORM III

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 6 = 8.

EXAMINATION SCHEME:

Paper: Nil Oral: 50

Sessional Assessment: 50(Internal).

Aim: This course aims to equips the students to understand relationship between movement and form.

Objectives:

- 3. To study forms in nature to understand the what, why and hownature articulates it.
- **4.** To understand the rational logic of the form in response to the function.

Course Contents:

- 4. Analysis of natural form in order to understand the inter-relationship between form, movement (time and space) and structure in response to the process of evolution in natural environment.
- 5. Creation of a three-dimensional abstract form.
- 6. Transformation of derived form into a furniture.

Assignment:

- Study of the natural form through drawings, sketches to understand form and structure.
- This understanding shall be communicated through physical models.
- Abstraction of the natural form with models at each stage of the process.
- Transformation of derived form into a product with prototype.

Recommended reading:

- Biomimicry: Innovation Inspired by Nature by Janine M. Benyus
- The Secret Language of Animals: A Guide to Remarkable Behavior by Janine M. Benyus and Juan Carlos Barberis
- Biomimicry: Nature as Designer byMr. Benjamin R. Krueger.
- Nature Form & Spirit: The Life and Legacy of George Nakashima by Mira Nakashima
- Art Forms in Nature (Dover Pictorial Archive) by Ernst Haeckel

FD173615 ERGONOMICS III

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 1 = 3

EXAMINATION SCHEME:

Paper: Nil. Oral: Nil

Sessional Assessment: 50(Internal).

Aim: This course aims at making students understand product semantics.

Objectives: To equips the students to understand the importance of cognitive ergonomics and semantics.

Course Contents:

- 6. Advance cognitive ergonomics.
- 7. Introduction to stereotypes, mental models.
- 8. Introduction to methods of mapping mental models of the users.
- 9. Introduction to semantics and its implication in the process of design.
- 10. Introduction to signifier and signified.

Assignments:

• Journal writing and exercises related to all the above topics.

Recommended reading: -

- Perception; The basic process in cognitive development, Ronald H. Forgus; USA, McGraw-Hill 1996
- Visual Intelligence: Perception, Image, and Manipulation in Visual Communication, Ann Marie Barry; State University of New York Press, 1999
- Thinking Design by S. Blaram.
- Research Papers by Prof. UdayAthavankar.
- Semantic Turn by Kripendroff.

FD173616 MATERIAL AND PROCESSES III

TEACHING SCHEME: Total contact period per week – lectures2 + studio 1 = 3

EXAMINATION SCHEME:

Paper: NIL. Oral: NIL

Sessional Assessment: 50(Internal).

Aim: This course equips the students to understand the right material and the manufacturing processes best suitable for the product from the view point of cost and benefits.

Objective:

- **3.** To provide an in-depth understanding of materials with the major emphasis on plastics and rubber, glass and ceramics and other advance materials.
- **4.** To equip the students with the methods of selecting materials and related processes based on cost, product safety, form, function, etc.

Course content:

- **5.** Analysis of plastics and rubber and related manufacturing processes utilized in production of mass-produced products.
- **6.** Advance studies in mass production processes and their influence on design and development of products.
- **7.** Emphasis on material search and process selection in relation to cost, product safety, function, human factors, form, finishes and joining methods.
- **8.** To conduct industry /workshop visits to observe and understand processes.

Assignments:

- Documentation of manufacturing processes of materials mentioned above & journal writing.
- Minimum 5 industrial visits for materials understanding.

Recommended readings:-

- Design and Technology, Garratt J Cambridge University Press, UK, 20004
- Manufacturing processes for design professionals, Thompson R.: Thames & Hudson, London 2007
- Materials and Design: The Art and Science of Material Selection in Product Design, Ashby, Michael; Johnson, Kara; Publisher: Butterworth-Heinemann; 2002
- Architectural Metals by Zanier and L. William
- Basic product design II Material thoughts by David Bramston.
- Industrial design: Materials and manufacturing guide by Jim Lesko

FD173617 SOFT FURNISHING.

TEACHING SCHEME: Total contact period per week - lectures 2+ studio 1 = 3

EXAMINATION SCHEME

Paper: Nil. Oral: 50

Sessional Assessment: 50 (Internal)

Aim: This course aims towards enhancing the student's knowledge of the soft furnishings, upholstery and their implementation in interior spaces and furniture.

Objective:

- 1. To make students understand how the décor of interior can be enhanced, by the use of furnishings, fittings and related accessories.
- 2. To make students understand various types of soft flooring finishing materials, window treatments, coverings, tapestry upholstery etc.
- 3. To make students understand the various types of cushioning materials used like, foams, springs etc in the making of sofas, chairs etc.

Course outline:

- 1. Soft finishing materials: upholstery fabrics and its properties for stitching, making and finishing sofas, chairs, back rest of beds. Four poster beds and its drapery.
- 2. Mattresses, foams, u foams and cushioning and cushions, their standard sizes available in market.
- 3. Other furbishing materials like table covers, table runners and other accessories.
- 4. Other fabric decoration, involved in the design of interior spaces.

Assignments:

- Market survey of various materials available and preparing a report.
- Journal writing on topics with sketches, showing understanding of the topics.
- Sample collection and documenting the same.

Recommended readings:

- 1. Window fashion by Charles Tirandall .
- 2. Interior design illustrated: Francis D K Ching.
- 3. Interior design materials and specification by: lisa godsey.

FD173618 DESIGN PROJECT III

TEACHING SCHEME: Total contact period per week – lectures 4 + studio 9 = 13

EXAMINATION SCHEME:

Paper: Nil. Oral: 50.

Sessional Assessment: 100(Internal) 50(External).

Aim: This course equipsthestudents to understand the process of Furniture design with multi functionality and to find solutions to the need.

Objectives:

3. To introduce the students to the design challenges, considerations and deliverables.

4. The focus is on being able to identify and analyze the need, articulate it and generate solution with an understanding of how things work.

Course Content:

- 17. Introduction to the design intervention in the human realm which add value and quality to the life of people.
- 18. Identifying design opportunity in accessible environments where multi-functional furniture is needed.
- 19. Literature survey to collect relevant data on the product.
- 20. Activity recording and task analysis.
- 21. Questionnaire and interview techniques for enlisting and elaborating the different problem areas.
- 22. Study on the existing solutions: it's working principle, mechanisms its advantages and disadvantages.
- 23. Study to understand mechanisms in the context of identified need.
- 24. Conduct market research.
- 25. Study on materials and manufacturing processes.
- 26. Formulation of the design brief.
- 27. Introducing students to critical creative thinking tools.
- 28. Ideation -- concept generation and explorations with quick explanatory models.
- 29. Evaluation and validation of new concepts.
- 30. Finalization of the concept with design development and detailing.
- 31. Prototyping of 3D models.
- 32. Hand and computer Renderings and finished model of the final design solution.

Assignments:

- 5. Research, documentation & presentation (30%)
- 6. Analysis & formulation of design brief (15%)
- 7. Ideation & exploration -- sketches & study models (35%)
- 8. Final design solution -- product detailing, rendering& finished models/prototype(20%)

FD173619 COMPUTERS III.

TEACHING SCHEME: Total contact period per week – lectures 1 + studio 2 = 3

EXAMINATION SCHEME:

Paper: Nil. Oral: Nil.

Sessional Assessment: 50(Internal).

Aim: This course equips the students with the computer aided design skills essential for understanding, visualizing and presentation of design.

Objectives:

2. To introduce the students to the use of advance computer aided design tools in Designing and 3D visualization of products through parametric software modeling like solid works, UniGraphics or ProE

Course Contents:

- 5. Introduction to the advanced principles of parametric solid modeling.
- 6. Information about parts and assemblies.
- 7. Export of files for photorealistic renderings in 3rd party software.
- 8. Creation of technical drawing required for industrial production purpose.

Assignments:

• Minimum 5 products to be modelled.

Recommended readings:-

User manual of related software.

FD173620 CRAFT AND CULTURAL DOCUMENTATION.

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 2 = 4

EXAMINATION SCHEME:

Paper: NIL. Oral: 50

Sessional Assessment: 50(Internal) 50(external).

Aim: This course aims to develop an understanding and appreciation for India's rich cultural heritage and vast repertoire of craft traditions to a designer who may choose to function as a design professional in the craft sector. Indigenous crafts offer a phenomenal base for drawing inspiration and developing culturally relevant designs in a contemporary context.

Objective:

- 13. To establish an appreciation and understanding of our rich culture, heritage and vast vocabulary of craft techniques.
- 14. To expose the students to the gamut of contextually responsive space design of a community, craft activity and the role of design thereof.
- 15. To evaluate the possibility of extending the traditional material, construction techniques and craft techniques to contemporary application.
- 16. To equip the students to undertake field research using suitable research tools wherein they directly interact with communities, artisans and skilled craftsman to collect analyze and record data.

Course content:

- 7. The course primarily focuses on an in-depth study, research and documentation of a particular context, craft community and craft: keeping in view various aspects such as the evolution of the craft, communities engaged in practicing the craft, socio-culturaleconomic influences on the craft, traditional methods of designing and production, use of indigenous materials and use of local technology, market linkages, external influences, etc.
- 8. The students are required to spend a part of their project time on field interacting directly with practitioners of the selected craft. They collect and analyze the data using multiple tools in written and visual form. This is recorded by the students in form of a document wherein the students are also encouraged to present their individual insights, findings, and suggestions to effectively converge the traditional craft with the contemporary scenario.

Methodology:

• Field work. • Analysis and synthesis. • Discussions and feedback sessions. • Documentation.

Assignments:

Individual Report writing & sketches about the craft community and craft identified.

REVISED SYLLABUS .. 2017-18.
THIRD YEAR BACHELOR OF DESIGN.
FURNITURE DESIGN DESIGN.
SEMISTER VI.

FD173621 ELEMENTS OF FORM IV

TEACHING SCHEME: Total contact period per week – lectures 2+ studio 6= 8

EXAMINATION SCHEME:

Paper: Nil Oral: 50

Sessional Assessment: 50(Internal).

Aim: This course aims at making the students understand the furniture styling.

Objectives:

Taking the learning of form studies that is platonic forms, natural forms, colors, materials and finishes; students shall advance in the form studies towards furniture styling.

Course Content:

- 1. To understand the meaning of the form (metaphor, attributes and emotions) through stylized furniture from different domains.
- 2. To understand the role of light in surface transitions with color and finishes.
- 3. To understand the resultant of the articulation with finishes.

Assignments:

- Study of attributes of stylized products/furniture.
- This understanding shall be communicated through sketches and physical models.
- Stylizing a product based on the course learning.
- Making a scaled model of the final expression with desired material color and finishes supported with digital renders.

Recommended reading: -

- Emotional Design: Why We Love (or Hate) Everyday Things by Don Norman
- The Psychology Of Everyday Things by Don Norman
- The Semantic Turn: A New Foundation for Design by Klaus Krippendorff.

FD173622 DISSERTATION I

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 1 = 3

EXAMINATION SCHEME:

Paper: Nil Oral: NIL

Sessional Assessment: 50(Internal).

Aim: The dissertation provides a forum for discussion of issues relating to design concerns , design philosophy, design need or any other design related areas.

Objectives:

- 3. To strengthen the students' ability to undertake self-initiated research or acquire particular competence.
- **4.** To explore and reflect the students' perception and understanding of the chosen area through facts, case study, field research.

Course Content:

- 2. Students have to select any topics relating to design concerns, design philosophy or any other after consultation with the guide/course teacher.
- 2 The students shall identify potential areas of intervention for design and present the case with facts, figures, statistical data, field data or data by the reputed source. The subject of enquiry shall be considered valid only if provided with needful supporting data.

Assignments:

· Report writing.

FD173623	MATERIALS AND PROCESSES IV. (Sessional)
FD173624	MATERIALS AND PROCESSES IV. (Theory)

TEACHING SCHEME: Total contact period per week – lectures 2 + studio 1= 3

EXAMINATION SCHEME:

Paper: 100 Oral: NIL

Sessional Assessment: 50(Internal).

Aim: This course equips the students to understand the right material and the manufacturing processes best suitable for the product from the view point of cost and benefits.

Objective:

- **5.** To provide an in-depth understanding of materials with the major emphasis on advanced new materials and finishes.
- **6.** An introduction to sustainable and eco friendly materials and processes.
- **7.** To equip the students with the methods of selecting materials and related processes based on cost, product safety, form, function, etc.

Course Content:

- 9. Introduction to new materials and processes.
- 10. Introduction to environment friendly materials and the processes. (Including traditionally used materials in our context and culture.)
- **11.** Advance studies in mass production processes and their influence on design and development of products.
- **12.** Emphasis on material search and process selection in relation to cost, product safety, function, human factors, form, finishes and joining methods.
- **13.** To conduct industry /workshop visits to observe and understand processes.

Assignments:

- Documentation of manufacturing processes of materials mentioned above & journal writing.
- Minimum 5 industrial visits for materials understanding.

Recommended reading: -

- Cradle to cradle by William Macdoungh.
- Industrial design: Materials and manufacturing guide by Jim Lesko.
- Sustainable Materials, Processes and Production (The Manufacturing Guides) by Rob Thompson.
- Modern Materials and Manufacturing Processes (3rd Edition) by R. Gregg Bruce and William K. Dalton

FD173625 DESIGN PROJECT IV

TEACHING SCHEME: Total contact period per week – lectures4 + studio 9 = 13

EXAMINATION SCHEME:

Paper: Nil. Oral: 50.

Sessional Assessment: 100(Internal)50(External).

Aim: This course aims at making students understand

1. The process of system thinking... Modular furniture design.

2.A system is an arrangement (pattern, design) of parts, which interact with each other within the system's boundaries (form, structure, organization) to function as a whole. The nature (purpose, operation) of the whole is always different from, and more than, the sum of its unassembled collection of parts. This is an important issue to understand from products point of view.

Objectives:

To introduce the students to the system thinking challenges, considerations and deliverables.

To understand the relationship of the variants... processes, people, products and parts that contributes towards the functioning of a system.

Course Content:

- 1. Introduction to the design intervention in the human realm which add value and quality to the life.
- 2. Identifying modular application in system comprehensible, tangible and accessible environments.
- 3. Research of the system, components and stakeholders.
- 4. Understanding modularity from materials, processes and execution perspective.
- 5. Analyzing and mapping the strengths and weakness of the modular system
- 6. Synthesizing and prioritizing the research observations leading to design brief.
- 7. Formulating the design brief.
- 8. Introducing students to critical creative thinking tools.
- 9. Ideation -- concept generation and explorations with quick explanatory models.
- 10. Finalization of the concept with design development and detailing.
- 11. Prototyping of 3D models.
- 12. Evaluation of new concepts
- 13. Hand and computer Renderings and finished model of the final design solution.

Assignments:

- System research documentation & presentation (45%)
- Analysis & formulation of design brief (15%)
- Ideation & exploration -- sketches & study models (30%)
- Final design solution -- product detailing, rendering & finished models/prototype (10%)

FD173626 EXHIBITION DESIGN.

TEACHING SCHEME: Total contact period per week – lectures 1+ studio 4 = 5

EXAMINATION SCHEME:

Paper: Nil Oral: 50

Sessional Assessment: 50(Internal)50(External)...

Aim:This course aims at making the students understand that exhibition design has a crucial role in creating temporary space and furniture and act as a brand communication vehicle. It will also help students to understand the influences on design Cost, duration, material, execution process.

Objectives:

- **1.** To introduce students to the need of temporary space.
- **2.** To introduce students to the field of exhibition design and make them understand design considerations, structural possibilities and material used in the process.

Course Content:

- **1.** Through case studies understand relation between consumer's needs and exhibition design.
- To understand various elements of process like space, function, materials, detailing anderection.
- 3. To understand and explore various structural systems, forms and material possibilities in Exhibition design.

Assignments:

- Case study research, documentation & presentation (30%)
- Ideation & exploration of packaging about given brand or product-- sketches & study models with validation (40%)
- Final design solution --prototype (30%)

Recommended reading: -

- Exhibition Design by <u>David Dernie</u>
- Exhibitions: Concept, Planning and Design by <u>Tom Klobe</u>
- Exhibition Design: An Introduction Philip Hughes

FD173627 SEMINAR

TEACHING SCHEME: Total contact period per week – lectures 1 + Studio 2= 3

EXAMINATION SCHEME:

Paper:Nil Oral: Nil

Sessional Assessment: 50(Internal).

Aim: This course enables the students to study contemporary challenges, technological innovations and designers.

It helps the students to undertake research in their areas of interest.

Objectives:

To inculcate the ability of reading, researching, interviewing and experiencing design issues and design works in global context.

Course Contents:

- 5. To give exposure to the students to contemporary challenges, innovations and brands.
- 6. To give exposure to the students to the thought and works of the contemporary designers.

Assignments:

- Article/book/thesis reading based on theme of the course (eg: sustainability, design for bottom of the pyramid etc.)
- Conducting classroom debates.
- Submitting project report that covers, summery of reading assignments along with individual thoughts on the topic.

Recommended readings:

- Design Issues: MIT Press
- Harvard Business Review (HBR)
- Books: Cradle to Cradle_William McDonough
- Massive Change_Bruce Mau
- Design for World_VictorPapanek

FD173628 DEPARTMENTAL ELECTIVE.

TEACHING SCHEME: Total contact period per week – lectures2 + studio 3 = 5

EXAMINATION SCHEME:

Paper: Nil Oral: 50

Sessional Assessment: 50

AimThis course exposes the students to the allieddesign professions and emerging technologies.

Objectives:

To inculcate the ability of reading, researching, and experiencing design.

Course Contents:This shall inculcate an ability of enquiry, search and learn collectively. **Design elective:**

Toy design, Green design, Communication design, Universal design etc.

Emerging Technologies.

• Solar energy, Robotics, Artificial intelligence, Bio technology etc.

Assignments:

The course conductor will design hands on, sketching and documentation assignments to achieve aims and objectives of the course.