



**SRI KANYAKA PARAMESWARI**  
**ARTS & SCIENCE COLLEGE FOR WOMEN**  
Managed by SKPD & Charities  
Affiliated to University of Madras  
Chennai - 600 001.



## **DEPARTMENT OF HOME SCIENCE - INTERIOR DESIGN AND DÉCOR**

### **PROGRAMME OUTCOME**

- PO1 :** Implement the knowledge and communicative skills in training the aspirants and apply training methodologies to inculcate professionalism among students.
- PO2 :** Hypothesize and correlate research problems to generate new concepts and solutions.
- PO3:** Design and construct 2D and 3D plan for modern furniture and interiors.
- PO4 :** Criticize and judge the new techniques in interiors applied worldwide.
- PO5:** Analyze and identify the global trends in design and art.
- PO6:** Research based design approach ensures the understanding of clients.
- PO7:** Formulate and develop new theories & hypothesis using research and summarize the concepts for future generation.

### **PROGRAMME SPECIFIC OUTCOME**

- PSO1:** Understand the concept of architecture and interiors based on history, culture, tradition and planning
- PSO2:** Criticize the techniques involved in lighting, colour, landscape and green interiors.
- PSO3:** Apply art and ergonomic principles in the field of design.
- PSO4:** Distinguish the methods and techniques applied in residential and commercial interiors.
- PSO5:** Evaluate the statistical parameters in research and formulate solution for the research problem.
- PSO6:** Design and create 2D and 3D plans through drafting technique and applying Revit, AutoCAD software.

# SYLLABUS

**Subject: History of Interior Design**  
**Sub Code: MED1A**

**Year : I**  
**Semester: I**

**Unit – I:** Introduction and purpose of study of history, relationship between Architecture and interior decoration.

**Unit – II:** Study in historical development of art and architecture in the world With respect to: religions, cultural and social conditions, technological Development, import of foreign ideas, forms in art and architecture.

**Unit – III:** General orientation of history of Indian architecture and art, stressing Adaptation of art forms in different periods, analytical studies enquiring into development of art and design in various periods of Indian history From vedic times of mughal period.

**Unit – IV:** Different styles in Interior design - Art, Art Deco. , modernism, Post, Eclecticism, High tech & Hard edge style.

**Unit – V:** Contemporary interiors - expression of material - purpose - house plan –Standards, Prehistoric and primitive construction methods.

## References

1. Hinchman, Mark. History of Furniture: A Global View: New York: Fairchild Books, Inc., 2009.(ISBN: 978-1-56367-544-7)
2. Irelan, Jeannie. History of Interior Design. New York: Fairchild Books, Inc., 2009. (ISBN: 978-1-56367-462-4)
3. Wim Pauwels (2012), Contemporary Architecture & Interiors.

## COURSE OUTCOME

**CO1:** Understand the history in Architecture and Interior decoration.

**CO2:** Analyze the art and architecture with respect to religious, cultural and social conditions.

**CO3:** Examine the evolution of art and architecture from Vedic times to Mughal period.

**CO4:** Explain the styles in Interior Design.

**CO5:** Discuss the contemporary interiors with prehistoric and primitive construction methods.

**Unit I : Lighting requirements**

- Definition – objectives – functions and Importance of lighting
- Measurements of lighting – Units and Ideal light requirements, foot candle, luminance, day light, factor, reflection factor
- Principles of Home Lighting.
- Glare-types and causes of glare.

**Unit II: Classification of Lighting**

- Types of lighting – General lighting, Task or local lighting, Architectural lighting - Valance, Cove, cornice, bracket, recessed, semi-recessed, spot, skylights, soffit, track, panel. Methods of lighting- direct, semi-direct, In-direct, semi-indirect, diffused lighting.
- Forms of lighting - indoor lighting and outdoor lighting.
- Lighting fixtures – Structural lighting, Free-standing or portable - Table lamp fixtures, Floor lamp, standard lamp fixtures, and office task light luminaries.

**Unit III: Lighting arrangement for Home Interior**

- Light requirements for different rooms - Entrance hall, verandah, living, dining, bed room, study room, children's room, stairway, kitchen, store room bathroom and lavatory
- Minimum recommended light for various activities
- Suggestions for improving daylight illumination
- Reflectance of light in interior.

**Unit IV: Electrical Installations**

- Plan a layout for lighting the rooms
- Lighting Accessories - Selection of lamps and lampshades, Principles of wiring, Basic concepts, symbols used-types of wiring and accessories

**Unit V: Recent trends in lighting home interior**

- Modern features in lighting design and fixtures
- Latest materials and methods of lighting
- Exterior lighting, commercial lighting – offices, galleries, museums, stage lighting theaters, personal professional space etc

**References:**

1. Newton,D.&Hayes, K. (2006) Kitchen and bath drawing. Hackettstown, New Jersey: The National Kitchen & Bath Association.
2. Olson, C. (2006). Candice Olson on design. Des Moines, Iowa:Meredith Books
3. Park, J. E., Park,K. 2004, Text Book of Preventive and Social Medicine, Banarsidas Bhanot, Jabalpur.
4. Stepat, D.D. 1991, Introduction to Home Furnishings, the Macmillan Company, New York.

## **COURSE OUTCOME**

**CO1:** Understand the Importance, Principles of Home lighting and its function.

**CO2:** Discuss the types and forms of lighting fixtures.

**CO3:** Apply lighting arrangements for interiors with aesthetic sense.

**CO4:** Explain the basic concept, selection of lamps and lampshades and create layout of lighting.

**CO5:** Apply Modern features and latest materials for efficient lighting in interiors and exteriors.

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**Subject: Space Planning in Interiors (Practical)**  
**Sub Code: MED1C**

**Year : I**  
**Semester: I**

**Unit I:** Types of plan, principles of planning, house plan – plan for Low income, Middle Income, High Income groups.

**Unit II:** Plan for furniture arrangement for different rooms using furniture cutout and applying art principles among different Income Group.

**Unit III:** Furnishing different types of rooms in the interior using application of art principles – living room, bed room, study room and dressing room.

**Unit IV:** Creation of Art objects –Glass painting, tile painting, fabric painting and pot painting.

**Unit V:** Furnishing different types of rooms to achieve various moods – formal, informal, traditional, country life style, exotic, romantic, masculine, feminine and impersonal.

### **References**

1. Chaudhari, S.N., (2006), interior design. Aavishkar publisher, Jaipur.
2. Faulkner, R and Faulkner, S (1990), Inside Today's Home, Holt Rine Heart and Winston, London
3. Joseph De Chiara, Julius Panero, Martin Zelnik, (1992), Time Saver standards for interior design a space planning, Mc Graw Hill, New York.
4. Prabhakar, L.V. (1998), Vasthu – The User's manual, The Avenue Press, Chennai.
5. Rao, C.H.G. (1995), Plants for small houses, Jai Ganesh offset Printers, Chennai.

### **COURSE OUTCOME**

- CO1:** Describe the needs and requirements of housing for various income groups.  
**CO2:** Illustrate residential layouts for different income groups.  
**CO3:** Analyze the various ways of arranging furniture in different rooms.  
**CO4:** Design of art objects to decorate the interiors of buildings.  
**CO5:** Apply various art principles to furnish a room thereby creating specific mood.

**Subject: Traditional Interiors**  
**Sub Code: MED1D**

**Year : I**  
**Semester: I**

**Unit I:** Provincial Style, - Factors responsible for the development of provincial style of Gujarat and Rajasthan.

Different house decoration, Furniture styles and accessories

**Unit II:** Dravidian style – Different style of housing in India.

**Unit III:** Vernacular Interiors Folk arts and crafts in reference to Indian interiors, Murals- Wall decoration used in interiors.

Related experience: Visit to weaving centers, glass blowing and traditional art places

**Unit IV:** Traditional Philosophies Fengshui, Vaastu – principles, elements.

Traditional Folk Arts and Craft in interior decoration.

Related experience: Baskets weaving, Pot painting, block printing, peepful leaf painting, palm leaf craft.

**Unit V:** Indian colonialism in Interiors, Colonialism & its impact on Indian Interiors, Early British Neo classical style and its example.

Related experience: Work shop on arts and craft.

### **References**

1. Levine M (1998), Living rooms, Rockport publishers, USA.
2. Mullick.P, (2000), Textbook of Home science, Kalyani publishers, New Delhi.
3. Wilhide, E and Cope stick, I. (2000) contemporary decorating, conron octopus Ltd., London.

### **COURSE OUTCOME**

**CO1:** Understand Furniture styles and accessories during provincial styles.

**CO2:** Identify housing in India during Dravidian style.

**CO3:** Discuss the folk arts and crafts in reference to vernacular Indian interiors.

**CO4:** Understand the Principles, elements of traditional philosophies, Feng Shui and Vaastu

**CO5:** Describe Colonialism and its impact on Indian interiors.

**Unit I:** Colour Terminology: Definition, Qualities/properties of dimensions of colour, Hue, Value, Intensity. The colour wheel/systems - Prang colour system, Munsell colour system, Psychologist colour chart and physicist colour chart. Psychological effects of colour, Effects of light on colour.

Related experience – Painting colour charts.

**Unit II:** Art principles in colour: Harmony, proportion, balance, rhythm and emphasis. Colour Vs daylight and artificial light, Colour temperature, Light reflection / absorption and colour, Colour as an important décor element. Colour schemes related to colour harmony and complementary colour harmony.

Related experience – painting different rooms with various colour harmony

**Unit III:** Windows and window treatment: Types of Windows – Dormer, cathedral, Ranch, Picture, Window wall, Double hung, Sliding, Casement, Awnings, Tilt and Turn, Hopper, Bay and Bow, French door, Arch window. Window treatment – Hard – Blinds, Shades, shutters, Lamberquin, Panel track, Shoji Screens etc. curtains and draperies - soft – one way draw, two way draw, tie back, criss cross, tier, café, double hung draw, casement curtain and glass etc. Decorative curtain head – Swag and cascade, valence, etc. Accessories for window treatment.

Related experience – designing Curtains

**Unit IV:** Surface enrichment of fabrics - Hand printing and dyeing - Block, Stenciling, tie and dye and batik - Equipment required preparing the fabric and developing design.

Related experience – Application of art principles related to home furnishing

**Unit V:** Soft floor covering - Selection factors for carpets and rugs – types (woven and non – woven) materials used, care and maintenance. Household linen – types, selection, use and care.

Related experience – visit to handloom centers

### **References**

1. Chaudhari, S.N. 2006, Interior Design, Aavishkar Publishers, Jaipur, India.
2. Choudhury, A.K.R. 2000, Modern Concepts of Colour and Appearance, Oxford and IBH publishing Co. Pvt. Ltd., New Delhi.
3. Hillard, E. 2000, Brilliant Colour at Home, Kyle Cathie Ltd., London.
4. Kasu, A.A. 2005, Interior Design, Ashish Book Centre, Delhi.

## **COURSE OUTCOME**

- CO1:** Understand the colour concepts, dimensions, qualities and properties.
- CO2:** Apply art principles in colour and analyze the relationship of light and colour.
- CO3:** Evaluate the types of windows and window treatments and judge its applications in interiors.
- CO4:** Apply and create the printing techniques on fabric.
- CO5:** Distinguish the kinds of floor covering materials in interiors.

SKBPC



**Subject: History of Architecture and Furniture Design**  
**Sub Code: MED2A**

**Year : I**  
**Semester: II**

**Unit I:** History of architectural styles 17th century - Baroque style, Century style furniture and English style. 18th century – Rococo style, neo classical style and empire style. 19th century- Art Nouveau style and Italianate Style. 20th century – Modern school in Chicago

**Unit II:** Indian Architecture – Indus valley civilization, post maha janapadas period, Dravidian Architecture, chalukya architecture, Hoysala architecture, Islamic influence and mughals era and Colonial architecture

**Unit III:** Western architecture - Neolithic period, ancient Egyptian architecture, Greek architecture, Roman architecture, byzantine architecture, Renaissance

**Unit IV:** Types classified by materials – wooden furniture, bamboo furniture, wicker or rattan furniture, metal furniture, plastic furniture, glass furniture and concrete furniture

**Unit V:** Elements of style in Furniture. Chippendale, hepplewhite, Jacobean furniture, Queen Anne period, William and mary period, adam furniture, Sheraton furniture, American provincial furniture, early American style, Duncan phyfe furniture, contemporary furniture. Selection of Furniture.

### **References**

1. A history of interior design – 2nd edn – 2005 – John Wiley & sons.Inc
2. Jeannie Ireland (2009), History of Interior Design, air child publications, illustrated ed.,
3. Jim Postell, Furniture Design , Wiley publishers, 2007.
4. Robbie.G. Blakemore, (2005), History of Interior Design and Furniture. From Ancient Egypt to Nineteenth – Century Europe, Wiley Publishers,

### **COURSE OUTCOME**

- CO1:** Describe the evolution of various styles in Architecture throughout the century.
- CO2:** Evaluate the different styles of Architecture that has been evolved in India.
- CO3:** Analyze the Architectural features in the western countries.
- CO4:** Explain the various materials used for creating furniture and their features.
- CO5:** Understand the features of various styles that have been implemented in Furniture Design.

**Subject: Furniture Design**  
**Sub Code: MED2B**

**Year: I**  
**Semester: II**

**Unit I:** Furniture categories, exploration of the idea of furniture, Design approaches in furniture design. Measured drawing of a piece of furniture - plan, elevation and drawings on full scale Measuring and drawing to scale – scales and construction of scales, simple objects, furniture, rooms, doors and windows etc. in plan, elevation and section etc. reduction and enlargement of drawings

**Unit II:** An introduction of various manufacturing processes most frequently adopted in furniture design such as Injection Molding, investment casting, sheet metal work, die casting, blow- molding, vacuum – forming

**Unit III:** Seating Design: Different types of seating with a focus on the following - · Functionality · Aesthetic · Style · Human factors and ergonomics The other component to be considered is the cost of the designed furniture piece

**Unit IV:** Storage systems: Functional analysis of storage systems and thereby deriving types of cabinets needed for interior spaces - kitchen cabinets, wardrobes closets, book cases, show cases display systems etc.

**Unit V:** Carpentry, workshop metal workshop painting & polishing workshop.

### **References**

1. Bradley Quinn, Mid-Century Modern: Interiors, Furniture, Design Details, Conran Octopus Interiors, 2006.
2. Jim Postell, Furniture Design, Wiley Publishers, 2007. · John.F.Pile, Interior Design, 2nd edition, illustrated, H.N.Abrams, 1995.
3. Robbie. G. Blakemore, History of Interior Design and Furniture: From Ancient Egypt to Nineteenth Century Europe, Wiley publishers, 2005.

### **COURSE OUTCOME**

- CO1:** Summarize Anthropometric studies and Ergonomics in designing furniture.  
**CO2:** Design of movable furniture for various purposes using standard measurements.  
**CO3:** Explain the manufacturing process for the better understanding of design.  
**CO4:** Design of Built in furniture such as closets, cupboards and wall units.  
**CO5:** Criticize the various ways of arranging furniture in interiors.

**Unit I:** Purpose and relevance of surface application on exteriors and interiors, its uses in various fields

**Unit II:** Walls – brick wall, wooden wall, stone wall, pavestone wall, Partition wall, movable partitions, boundary wall, shared walls, portable walls and wall coverings – painting, Cork and cork veneer, fabric backed vinyl, paper backed vinyl, metalised foil wall covering, relief wall covering, acoustical wall covering, fabric wall covering, wallpaper, painting, kinds of wall paper, selection of wall paper, advantages and disadvantages of wallpaper, care and maintenance.

**Unit III:** Floors, Types of floors –Hard - Durable but noisy, Fire Retardant, Easily cleaned. Marble Sand stone, Granite , Concrete, Vitreous Tile, Glazed Tile, Mosaic, Resin, Wooden flooring Semi Hard flooring – Cork, Cork tiles with PVC, Rubber, Plastic flooring – Tiles rubber, cork, flexible vinyl Soft flooring - carpet, rugs

**Unit IV:** Ceilings, Treatment of ceilings and False Ceiling: Plaster of Paris, other innovative materials, construction terminology and details.

**Unit V:** Physical and behavioural properties, application in the construction of floors, walls, ceilings, doors, windows, staircase, built in furniture, partitions and other interior design components.

### **References**

1. Francis D.Ching, Design Drawing, Wiley publishers
2. John.F.Pile, Interior Design, 2nd edition, illustrated, H.N.Abrams, 1995.
3. Maureen Mitton, Interior Design Visual Presentation: A Guide to graphics, models and presentation techniques, 3rd edition, wiley publishers, 2007,

### **COURSE OUTCOME**

- CO1:** Understand Purpose and relevance of surface application on exteriors and interiors.  
**CO2:** Identify Selection, types, care and maintenance of walls and wall coverings.  
**CO3:** Analyze Hard, semi – hard and soft floorings for interiors.  
**CO4:** Understand the Types and treatments of ceilings.  
**CO5:** Discuss the application of physical properties and behavioral components in construction of Interior Design.

**Unit I:** Introduction to pencil exercises – Knowledge about usage of different points of pencils, handling of pencils, practicing lines and tone building exercises. Related Experience: Pencil sketching, shading

**Unit II:** Exercises of object drawings – natural geometric forms with emphasis on depth and dimension, detail & texture, sunlight & shadow. Related Experience: Exercises in drafting - lines, dimensioning, lettering, borders, title panels, tracing in pencil, ink, use of tracing cloth.

**Unit III:** Drawing – Drawing sheet sizes, composition, fixing. Simple exercises in drafting, point and line, line types, line weights, straight and curvilinear lines, dimensioning, lettering, borders, title panels, tracing in pencil, ink, use of tracing cloth. Portfolio preparation. Related Experience: Posters, Calligraphy and Object sketching

**Unit IV:** Interiors and furniture sketching – Interior still life, perspectives, lighting & composition, textures and details, individual pieces of furniture, elevations & plans etc. using different media. Related Experience: furniture sketching

**Unit V:** Building Geometry – Study of points, lines and planes leading to simple and complex solid geometrical forms. Use of geometry in buildings - isometric, axonometric, and oblique views. Working with models to facilitate visualization. Related Experience: Model making.

## **References**

1. Bhatt, N.D. and Panchal V.M.Engineering Drawing: Plane and Solid Geometry, 42nd ed. Charotar Pub., Anand, 2000.
2. Bies, D.John. Architectural Drafting: Structure and Environment Bobbs – Merril Educational Pub., Indianapolis.
3. Francis D. Ching – Architectural Graphics , Wiley publishers, 2002
4. Francis D.Ching, Design Drawing, Wiley publishers
5. Maureen Mitton, Interior Design Visual Presentation: A Guide to graphics, models and presentation techniques, 3rd edition, wiley publishers, 2007
6. Mogali Delgade Yanes and Ernest Redondo Dominquez, Freehand drawing for Architects and Interior Designers, ww.Norton & co., 2005
7. Shah, M.G., Kale, C.M. and Patki, S.Y. Building Drawing: with an integrated approach to built environment, 7th ed. Tata Mc Graw Hill Pub., Delhi, 2000.
8. Thoms, E.French. Graphics Science and Design, New York: MC Graw Hill

## **COURSE OUTCOME**

- CO1:** Understand the aspects of Graphic design from basic drawing, tone exercises and sketching.
- CO2:** Describe natural and geometric forms in object drawing and drafting methods.
- CO3:** Illustrate and apply types of lines, line exercises, dimensions, borders, title panels and tracing methods in drafting.
- CO4:** Design a room or furniture by applying the kinds of perspectives.
- CO5:** Criticize Isometric and orthographic views in interiors.

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**Unit I:** Approaches to Understanding Organisations: Key Organisational Designs - Procedures - Differentiation & Integration - Basic Design - Dimensions Determination of Structure - Forces Reshaping Organisation – Life Cycles in Organisation

**Unit II:** Organisational culture – Key Role of Organisational Culture - Functions & Effects of Organisational Culture - Leaders role in shaping and reinforcing culture, Developing a Global Organisational Culture.

**Unit III:** Work Groups & Teams - Preparing for the world of work Group Behaviour Emerging issues of Work Organisation and Quality of Working life – Career stage model – Moving up the career ladder

**Unit IV:** Stress and Well Being at Work: Four approaches to stress - Sources of stress at work, consequences of stress - Prevalent Stress Management - Managerial implications

**Unit V:** Organisational Development and Change: Organisational Development Alternative Interventions - Change Agents : Skills - Resistance to change- Managerial the resistance - Levin's change model - Organisational reality

### **References**

1. Anderson, D., Organization Development: the Process of Leading Organizational Change, Sage Publication 2009.
2. Brown, D. and Harvey, D., An Experiential Approach to Organization Development, 7th Edition, Pearson, 2006.
3. Cheung-Judge, M. and Holbeche, L., Organization Development: A Practitioner's Guide for OD and HR, Kogan Page, 2011.
4. Cummings, T., Theory of Organization Development and Change, 9th Edition, South-Western, 2011.
5. French, W., Bell, C. and Vohra, Organization Development: Behavioral Science Interventions for Organization Improvement, 6th Edition, Pearson Higher Education, 2006.
6. Ramanarayan, S. and Rao, T.V., Organization Development: Accelerating Learning and Transformation, 2nd Edition, Sage India, 2011

## **COURSE OUTCOME**

- CO1:** Apply various Approaches to understanding organization strategies
- CO2:** Explain Functions and effects of organization culture
- CO3:** Analyse the world of work group behaviour
- CO4:** Identify Source of stress at work, consequence of stress
- CO5:** Describe Organizational development and change

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**Unit I:** Definition, meaning and concept of accessories. Types of accessories – Functional and decorative. Selection and arrangement of accessories. Related experience - Collecting pictures of accessories

**Unit II:** Design with a focus on functionality, ergonomics, aesthetics, multiple usages. Design aspects of accessories. Selection of pictures, Types of pictures, framing and hanging law of margin in picture framing, sculpture, antiques. Related experience – designing pictures for framing as accessories.

**Unit III:** Moods- definition, types of moods- cheer, joy, romance, excitement, reading. Placement of accessories in different rooms of an interior and its impact on the moods of an interior – bedroom, study room, living room, dining room, children's room and entertainment room. Related experience - Arrangement of accessories according to the moods

**Unit IV:** Flower Arrangement - Definition, importance of flower arrangement, Names of flowers, Selection of materials, flower vessels – Standing vases – flower baskets – bamboo vases – hooked vases – suspended vases – flower fasteners – choice of flower vessels - water in vases- stones and rocks – flower trays and stands. Flowers – its colours, textures and its visual perception in various indoor spaces and science of flower arrangement. Types of arrangements - traditional, modern, hanging, dried, floating, fruit and foliage. Japanese styles - Ikebana, Moribana, Nagarie, Shikibana, Morimono, Rikka, Ukibana. Related experience - Flower arrangement practical

**Unit V:** Flowers for Various Occasion- Position of flowers in rooms, Arrangement of flowers, Preservation of flowers, Flowers for the five festivals, flowers for wedding Ceremonies. Related experience - Visit to nursery garden.



## References

1. Chaudhari, S.N. 2006, Interior Design, Aavishkar Publishers, Jaipur, India.
2. Choudhury, A.K.R. 2000, Modern Concepts of Colour and Appearance, Oxford and IBH Pubhsning Co. Pvt. Ltd., New Delhi.
3. Hilliard, E. 2000, Brilliant Colour at Home, Kyle Cathie Ltd., London. · International Design Year Book, 1995: Furniture, Lighting, Tableware, Textiles and Products, Books Nippan, 1996.
4. Laura Slack, What is product Design? Roto Vision Publishers, 2006. · Pile F 1997 Colour in Interior Design, Mc Graw hill, New York.
5. Treens Crochet and David Vleck, Designers's Guide to Decorative Accessories, Prentice Hall, Ist Edition, 2008.
6. Wyszecski, G and Stiles, W.S. 2000, Colour Science - Concepts and Methods, Quantitative Data and Formulae, John Wiley and Sons Inc., New York.

## COURSE OUTCOME

- CO1:** Understand the Concept, selection and apply them in arrangement of accessories with relation to background.
- CO2:** Apply design aspects of accessories with focus on pictures.
- CO3:** Understand the Placement of accessories in different room and its impact on moods.
- CO4:** Analyze the Scope of various styles of flower arrangements.
- CO5:** Explain the importance of flower arrangement and apply them in various occasions.

**Unit I:** Introduction Command Line, Status Toggles, Drawing Controls, Units, Workspace, Line, Polyline, Circle, Arc Rectangle, Ellipse, Spline, Polygon, Construction Line, Hatching, Gradient, Inquiry, Measure, Select All, Modify, Move, Copy, Rotate, Mirror, Fillet, Trim, Extend, Erase, Offset, Explode, Array, Bring to front/Send to back, Stretch, Break, Polyline Edit, Spline Edit, Hatch Edit, Scale.

**Unit II:** Layers Creating layers, managing layers, Changing Layers, Line Type, Line Weights, Annotation, Dimensions, Text, Dimension, Text, Dimension Style, Text Style, Leaders, Properties, Colours, Line Weights, and Line Types.

**Unit III:** Block, Insert, View, Plot Create, Insert, Edit, Explode, Export, Insert, Attach, Navigate, View, Windows, Model Space, Layouts/Workspaces, View ports, Layout scaling, Paper setup, Plot scale, Offset.

**Unit IV:** Introduction to 3D Co – ordinate Systems for 3D, Creating Model, Creating meshes, Concept of elevation and thickness, Surface Modeling, 3D mesh, Solid Models, Controlling UCS.

**Unit V:** Orientation towards 3D 2D to 3D conversion, perspective view, Walk through the layout. Types of 3D models, viewing 3 D models, 3D face, Revolve.

### **References**

1. Teyapoovan. T., Engineering Drawing with Auto CAD 2000. Vikas Pub House Pvt Ltd., New Delhi, 2000.
2. Georgeomura, Auto CAD, Release 2000.
3. Omura, G. (2005). Mastering Auto CAD BPB Publications, New Delhi.
4. Saxena, S. (2003), A first course in computers, Vikas Publishing house, New Delhi

### **COURSE OUTCOME**

**CO1:** Examine various tools available for 2D drafting.

**CO2:** Create 2D house plans using AutoCAD software.

**CO3:** Summarize the need of 3D models over 2D drafting.

**CO4:** Design building 3D models from simple objects to building modules.

**CO5:** Analyze Material and lighting options to produce realistic views.

**Subject: Commercial Interiors**  
**Sub Code: MED3C**

**Year : II**  
**Semester:III**

**Unit I:** Introduction to commercial interior space design- types of commercial interior spaces – factors influencing designing of commercial interior spaces – materials used in designing commercial interior spaces · Related Experience - Collection of materials used for designing interior space.

**Unit II:** Art in commercial space designing and planning space for various commercial purposes – restaurants and hotels, public utility services – Airport, Educational Institution, Hospitals Shopping Complex, Exhibition, Schools, Malls, Universities and trade Fairs

**Unit III:** Commercial display and techniques – interior display, general arrangement, types of lighting arrangement in Commercial buildings · Related Experience – visit to commercial interior places.

**Unit IV:** Window display – meaning and concept, basic principles and techniques, types of window display, window arrangement · Related Experience- compilation of photo in window display

**Unit V:** New trends in commercial architecture, design in commercial building. Basic concepts of commercial building. · Related Experience – model making of commercial building.

### **References**

1. Gupta, C.B., Dr. Nair, Rajan 2003, Marketing Management, Sultan Chand & Son, New Delhi.
2. Joseph, D.C., Julies, P. and Martiv, Z. 1992, Time Saver Standars for Interior Design and Space Planning, New York.
3. Nair, R. 2002, Marketing, Sultan Chnd and Sons publisher, New Delhi.
4. Pattanchetti, C.C. Reddy, P.N. 1995, Marketing, Rainbow Publishers, Coimbatore.

### **COURSE OUTCOME**

- CO1:** Analyze Commercial interior space design using different materials.
- CO2:** Develop art in commercial space designing and planning based on various purposes.
- CO3:** Identify the role of lighting in commercial displays and techniques involved.
- CO4:** Understand the Concept of window display and window arrangement.
- CO5:** Discuss the Recent trends in commercial architecture.

**Unit I:** Meaning and definition of research, characteristics of good research. Types of research. Research Design – Steps in the Research Process, hypothesis and types of hypothesis. Types of variables.

**Unit II:** Sample and sampling techniques: Sample, importance of sampling, Methods of sampling- probability and non- probability. Data - types of data, tools for data collection.

**Unit III:** Editing, Coding and Presentation: Coding, Needs and types of Editing, Types of Reports, steps in report writing, Diagrammatic and Graphic representation, Bibliography and foot notes

**Unit IV:** Measures of central tendency – mean, median, mode, standard deviation, standard error, coefficient of variation, kurtosis, skewness.

**Unit V:** Correlation and Regression and its interpretation – Linear regression and correlation coefficient – Regression and prediction – Rank correlation, Tests of significance Chi square test and its interpretation – Analysis of Variance and its interpretation.

### **References**

1. Gupta, S.(2001)"Research Methodology and Statistical Techniques", Deep and Deep, New Delhi
2. John W. Best and James V. Kahn, "Research in education" (2000), seventh edition, Prentice Hall of India Pvt Ltd, New Delhi.
3. Kothari, C.R. (2000):"Research Methodology: Methods and Techniques",Wishwa Prakashan, New Delhi. · Lokesh Koul (1998), "Methodology of educational research", 3rd edition, Vikas Publishing house pvt ltd, New Delhi.
4. Rajammal P.Devadas (1983), "A handbook on Methodology of research", Latest edition, Sri Ramakrishna Mission.

### **COURSE OUTCOME**

**C01:** Understand Concept, character and types of research which helps in identifying appropriate research topic.

**C02:** Understand sampling technique ensures tools for data collection.

**C03:** Analyse the research process.

**C04:** Evaluate the result obtained from the survey.

**C05:** Illustrate diagrammatic representation of the research work.

**C06:** Discuss and interpret Correlation regression and other parametric test from the research.

**Subject: Landscape Design**  
**Sub Code: MEDAB**

**Year: II**  
**Semester: III**

**Unit I:** Landscape – meaning and importance, types of garden, garden components, garden design – formal and informal, principles of landscape gardening.

**Unit II:** Introduction to landscape architecture and role of landscaping design in the built environment. Types of natural elements – stones, rocks, pebbles, plants and vegetation. Elements of interior landscape. Types of indoor plants, care and maintenance of plants.

**Unit III:** Landscape design parameters for various types of built forms – indoor and outdoor linkage to spaces. Landscaping of courtyards- residential and commercial forms.

**Unit IV:** Pot culture – meaning, selection of pots, plants suitable for indoor, hanging baskets, display and placement, care of indoor plants

**Unit V:** Indoor plant – Definition, importance and types of plants. Care and maintenance of indoor plants, environmental factors - Light: intensity, duration, source, effects, modifications, temperature, humidity, air movement and quality. Bonsai – meaning, plants suitable for bonsai culture, techniques and styles. Artificial indoor plant.

### **References**

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2. Choudhury, A.K.R. 2000, Modern Concepts of Colour and Appearance, Oxford and IBH Pubhsning Co. Pvt. Ltd., New Delhi.
3. Hilliard, E. 2000, Brilliant Colour at Home, Kyle Cathie Ltd., London.
4. Laura Slack, What is product Design? Roto Vision Publishers, 2006. · Pile F 1997 Colour in Interior Design, Mc Graw hill, New York.
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6. Wyszecski, G and Stiles, W.S. 2000, Colour Science - Concepts and Methods, Quantitative Data and Formulae, John Wiley and Sons Inc., New York.

### **COURSE OUTCOME**

- CO1:** Define landscape and to understand the principles of landscape design  
**CO2:** Design landscape architectural forms using natural elements.  
**CO3:** Develop design parameters in the landscape forms.  
**CO4:** Analyze the kinds of pots and choose the appropriate pot for pot culture.  
**CO5:** Combine the features of Indoor plants in relation to environmental factors.

**Unit I:** Introduction: the Entrepreneur – Definition – Characteristics of Successful entrepreneur. Entrepreneurial scene in India: Analysis of entrepreneurial growth in different communities – Case histories of successful entrepreneurs. Similarities and Distinguish between Entrepreneur and Intrapreneur.

**Unit II:** Innovation in Business: Types of Innovation – Creating and Identifying Opportunities for Innovation – the Technological Innovation Process – Creating New Technological Innovation and Intrapreneurship – Licensing – Patent Rights – Innovation in Indian Firms.

**Unit III:** New Venture Creation: Identifying Opportunities for New Venture Creation: Environment Scanning – Generation of New Ideas for Products and Services. Creating, Shaping, Recognition, Seizing and Screening of Opportunities. Feasibility Analysis: Technical Feasibility of Products and Services - Marketing Feasibility: Marketing Methods – Pricing Policy and Distribution Channels

**Unit IV:** Business Plan Preparation: Benefits of a Business Plan – Elements of the Business Plan – Developing a Business Plan – Guidelines for preparing a Business Plan – Format and Presentation

**Unit V:** Financing the New Venture: Capital structure and working capital Management: Financial appraisal of new project, Role of Banks – Credit appraisal by banks. Institutional Finance to Small Industries – Incentives – Institutional Arrangement and Encouragement of Entrepreneurship

### **References**

1. Barringer, B., Entrepreneurship: Successfully Launching New Ventures, 3rd Edition, Pearson, 2011.
2. Bessant, J., and Tidd, J., Innovation and Entrepreneurship, 2nd Edition, John Wiley & Sons, 2011.
3. Desai, V., Small Scale Industries and Entrepreneurship, Himalaya Publishing House, 2011.
4. Drucker, P., Innovation and Entrepreneurship, 4th Edition, Harper Collins, 2006.
5. Hirsch, R.D., Peters, M. and Shepherd, D., Entrepreneurship, 6th Edition, Tata McGraw-Hill Education Pvt. Ltd., 2006.
6. Kaplan, J.M., Patterns of Entrepreneurship, Wiley, 2007.
7. Morris, M., and Kuratko, D., Entrepreneurship and Innovation in Corporations, Cengage Learning, 2008.
8. Morse, E., and Mitchell, R., Cases in Entrepreneurship: the Venture Creation Process, Sage South Asia, 2008. 29
9. Nagendra and Manjunath, V.S., Entrepreneurship and Management, Pearson, 2010.
10. Reddy, N., Entrepreneurship: Text and Cases, Cengage Learning, 2010.
11. Roy, R., Entrepreneurship, 2nd Edition, Oxford University Press, 2011.
12. Stokes, D., and Wilson, N., Small Business Management and Entrepreneurship, 6th Edition, Cengage Learning, 2010.

## **COURSE OUTCOME**

**CO1:** Illustrate Concept and role of Entrepreneur

**CO2:** Classify new technological innovation and intrapreneurship and innovation in Indian firms

**CO3:** Describe New venture creation and feasibility analysis

**CO4:** Analyse Format and presentation benefits elements of business plan preparation

**CO5:** Explain Financing new venture, institutional arrangement and encouragement of entrepreneurship

SKBPC

**Unit I:** Building Materials: Types and its uses of Wood, Glass, Metal, Plastics, Stone, Clay products. Related experience: Collection and compiling of building materials.

**Unit II:** Components of building: Arches, Lintels, Stair case – Function, technical terms and types, Doors – function, different types of materials – timber, steel, partition walls. Related experience: Picture compilation.

**Unit III:** Acoustics and sound insulation: Definition, behaviour of sound in interiors, Acoustical defects, Echo, reverberation, time, Noise control within a space auditorium acoustics, Acoustical materials.

**Unit IV:** Air conditioning system: Definition, Need for Air conditioning, selection of Air conditioning, principles of Air conditioning, classification of Air conditioning, individual system, packaged system, and central system, Application in buildings like apartment, guest room, library, museum and hospitals.

**Unit V:** Plumbing system: Water supply within buildings, drainage system for residences Different types of trap, sanitary apparatus. Related experience: layout plan for plumbing system.

### **References**

1. McKays's, (1995). Building construction, Volume one, Longmans, Latest Ed.,
2. Punmia B.C. (2008), Building construction, Laxmi publication, New Delhi.
3. Rangwala , (2010), Building Construction, Charotor Publisher, Guujarat, India.
4. Rangwala , (2010), Engineering materials, Charotor Publisher, Guujarat, India

### **COURSE OUTCOME**

- CO1:** Understand the properties and uses of various innovative building materials.
- CO2:** Apply various techniques involved in the construction of buildings.
- CO3:** Identify the behavior of sound in enclosed spaces and identifying sound defects
- CO4:** Explain the need and types of air conditioning system for indoor spaces.
- CO5:** Discuss the importance of portable water and removal of waste water from buildings.



**Unit I:** Ergonomics - definition, concept and scope. Concept of work, work place – designing work areas based on ergonomic principles and worker. Seating and posture - Orthopaedic aspects of seating - set design - anthropometric consideration in furniture designing.

**Unit II:** Work environment Spatial requirement - anthropometric dimension of workers at work and rest, normal, maximum vertical and horizontal reaches, elbow room, clearance space for operating equipment, circulation space in rooms, corridors, floor space and work heights when seated and standing. Temperature - air movements, humidity, exchange of heat between human body and surroundings, comfort and discomfort, factors affecting comfortable temperature, ventilation, and requirement of air movement.

**Unit III:** Lighting and Noise - Adequacy of lighting at work place, physiological requirement, psychological effect of lighting and the work efficiency of the worker. Flooring - thermal properties of flooring and their effects of physical condition at work, accident and safety. Noise - Definition, sources of noise, indoor and outdoor noise level, effects of noise on psychological and intellectual activities, measurement of noise.

**Unit IV:** Stress and stress Management - Meaning, causes, types, symptoms, stress related problems, stress coping techniques, diet, exercise, meditation, relaxation techniques and social activities, biological environmental factors – temperature, lighting, ventilation and acoustics.

**Unit V:** Work Simplification - Work simplification - definition, technique, Mundels classes of change. Assessment of space allowance for selected activities and equipment. Determining the relationship of anthropometric dimensions of workers with space requirements of selected activities.

## **References**

- Aaras, A., HArgen, G., Bjorset, HS.Rao and Walsoe, H., (2001) Musculoskeletal, Visual and Psychological Stress in VDU operators before & after multidisciplinary ergonomic Intervention.
- Barner, R.M. (1980), Motion and time study, Design and measurement of work. New York, John Wiley.
- Bullock, (1990). Ergonomics – The physiotherapist in the work place, Churchill Livingstone Publishers, United Status.
- Jhamb, (1991). Work study and Ergonomics At work, John Wiley

## **COURSE OUTCOME**

**CO1:** Describe the basic ergonomic factors and related problems in a workplace.

**CO2:** Evaluate the factors affecting human beings in relation to light, sound, noise, climate and vibrations.

**CO3:** Apply relevant ergonomic principles and factors to the solutions of given workplaces.

**CO4:** Analyse and reflect on the results of ergonomic analysis of product and draw conclusions and give recommendations for product improvement.

SKBPC

**Subject: Green Interiors**  
**Sub Code: MEDAD**

**Year: II**  
**Semester: IV**

**Unit I:** Green building technology – Meaning, concept, impact of green building on human health and natural environment, need, importance and benefits of green buildings.

**Unit II:** Materials and finishes used in green buildings – Bamboo, straw, wood, dimension stone, Recycled stone, non-toxic metals, Earth blocks-compressed, rammed, baked; vermiculture, flax, linen, sisal, wood fibres, cork, coconut ,polyurethane block.

**Unit III:** Green building practices and technologies. Roof, walls, floors – electrical, plumbing, windows, and doors, heating, ventilation and air conditioning (HVAC), insulation, Interior finishes, landscaping.

**Unit IV:** Renewable energy resources Solar Energy – meaning and importance, advantages, principles and functions of solar devices – solar room heater, solar lights, solar water heater, solar air conditioner

**Unit V:** Water conservation technologies Rain water harvesting-importance, requirements of rain water harvesting structure, types of rain water harvesting systems, advantages.

### **References**

1. Diesendorf, Mark (2007). Greenhouse Solutions with Sustainable Energy.
2. Faulkner, R., and Faulkner. S, (1987) Inside Today's Home, Rinehart publishing House, New York
3. Rai G.D (1996), Solar Energy Utilization, Khanna Publihsers, Delhi.
4. Riggs, J.R. (1992) Materials and components of Interior Design, Regents Hall, New Jersey.
5. Roa, M.P. (1998), Interior design, principles and practice, standard publishers, Delhi.

### **COURSE OUTCOME**

**CO1:** Understand the concept of green building technology.

**CO2:** Classify various materials and finishes used in green buildings.

**CO3:** Analyze the technologies used in Green building practices.

**CO4:** Judge the suitable Renewable energy source for interiors.

**CO5:** Design and create Awareness and execution of water conservation technologies in interiors.

**Subject: Free Hand Sketching**  
**Sub Code: MEDAE**

**Year : II**  
**Semester: IV**

**Unit I:** Introduction to model making: Need, role of scale models in design, Ceramic designs, stained glass design, grill design. Related experience: Develop a motif suitable for foot mat, window grill, table mat and furnishing materials

**Unit II:** Design, Design Process, Visual Thinking, Sketching. Related experience: sketching designs.

**Unit III:** Standards & Conventions, Construction Lines, Proportions Drawing types - Diagramming, Geometric Modeling. Related experience: 3-D Solid Modeling

**Unit IV:** Principles of design in handicrafts and textiles. Related Experience: Apply design concepts in developing greeting card, saree border and floor decorations – flower carpet and rangoli.

**Unit V:** Art principles in arrangement of: Living room, drawing room, pooja room, bedroom, adolescent boys or girls room, children's room and birthday party. Related experience: Application of art principles in arrangement of: Living room, drawing room, pooja room, bedroom, adolescent boys or girls room, children's room and birthday party

### **References**

1. Maria Dolors Ros Frijoa, The Art and Craft of ceramics: Techniques, projects, Inspiration, Lark books, 2006.
2. Maureen Mitton, Interior Design Visual Presentation: A Guide to graphics, models and presentation techniques, 3rd edition, wiley publishers, 2007
3. Mogali Delgade Yanes and Ernest Redondo Dominquez, Freehand drawing for Architects and Interior Designers, ww.Norton & co., 2005
4. Shah, M.G., Kale, C.M. and Patki, S.Y. Building Drawing: with an integrated approach to built environment, 7th ed. Tata Mc Graw Hill Pub., Delhi, 2000.
5. Susan Bruce, (2000). The Art of hand built ceramics, Crowood Press

### **COURSE OUTCOME**

- CO1:** Understand the Role and scope of scale models in design.  
**CO2:** Design process, sketching and visual thinking.  
**CO3:** Develop Standards and conventions in drawing.  
**CO4:** Understand the principles of design in handicrafts and textiles.  
**CO5:** Implement art principles in arrangement of various rooms.