## BHARATHIAR UNIVERSITY, COIMBATORE B.Sc. INTERIOR DESIGN DEGREE COURSE SCHEME OF EXAMINATION - CBCS PATTERN For the students admitted during the academic year 2014 – 2015 batch onwards

				Examination		ns		
Part	Study Components	Course title	Ins. hrs/ week	Dur.Hrs.	CIA	Marks	Total Marks	Credit
	Semester I							
Ι	Language – I			3	25	75	100	4
II	English – I			3	25	75	100	4
III	Core Paper I - Fundamentals of design			3	25	75	100	4
	Core Paper II - Colour and lighting		5	3	20	55	75	3
	Allied Subject I - Furniture in Interiors		6	3	20	55	75	3
IV	Environmental Studies #		2	3	-	50	50	2
	Semester II							
Ι	Language – II		6	3	25	75	100	4
Π	English – II		6	3	25	75	100	4
III	Core Paper III - Planning the life space		5	3	25	75	100	4
	Core Practical I Design concepts		2	3	40	60	100	4
	Allied Subject II - Soft Furnishings		7	3	20	55	75	3
	Allied Practica	llied Practical I - Furniture and Furnishings		3	20	30	50	2
IV	Value Education – Human Rights #		2	3	-	50	50	2
	Semester III							
Ι	Language – II	[	6	3	25	75	100	4
II	English – III		6	3	25	75	100	4
III	Core Paper IV	- Draftsmanship - I	4	3	25	75	100	4
	Core Paper Materials	V Building Components and	5	3	20	55	75	3
	Allied Subject	III - Floriculture	4	3	20	55	75	3
IV	U U	Subject 1 - Two dimensional	3	3	20	55	75	3
	Non-major ele	vanced Tamil# (OR) ctive - I (Yoga for Human Women's Rights#/Constitution	2	3	50 50		50	2

	Semester IV						
Ι	Language – IV	6	3	25	75	100	4
II	English – IV		3	25	75	100	4
III	Core Paper VI Draftsmanship - II	5	3	25	75	100	4
	Core Practical – II Draftsmanship	2	3	40	60	100	4
	Allied Subject IV - Landscaping	4	3	20	55	75	3
	Allied Practical II – Floriculture and Landscaping	2	3	20	30	50	2
IV	Skill based Subject 2 - Two dimensional drafting - II	3	3	20	55	75	3
	Tamil @ /Advanced Tamil # (OR)Non-major elective -II (General Awareness #)		3	50		50	2
	Semester V						
III	Core Paper VII – Applied Arts	5	3	25	75	100	4
	Core Paper VIII – Basics in Architecture	6	3	25	75	100	4
	Core Paper IX-House keeping and Management I	5	3	20	55	75	3
	Core Paper X - Computer Fundamentals	6	3	20	55	75	3
	Elective I	5	3	25	75	100	5
IV	Skill based subject 3 – Three dimensional modeling.	3	3	20	55	75	3
	Semester VI						
III	Core Paper XI–House keeping and Management II	5	3	20	55	75	3
	Core Paper XII- Interior and Exterior Treatments	6	3	20	55	75	3
	Core Practical III Applied Arts	3	3	40	60	100	4
	Core Practical IV House keeping and management	3	3	40	60	100	4
	Elective II	5	3	25	75	100	4
	Elective III	5	3	25	75	100	4
IV	Skill based subject 4 - Computer Aided Design practical	3	3	30	45	75	3
V	Extension activities @	-	-	50	-	50	2
	Total					3500	140

@ No University Examinations. Only Continuous Internal Assessment (CIA)# No Continuous Internal Assessment (CIA). Only University Examinations.

List of Elective papers (Colleges can choose any one of the paper as electives)					
Elective – I	А	Introduction to textiles and clothing			
	В	Kitchen Design			
	С	Professional Practice			
Elective – II	А	Merchandising and Display			
	В	Ergonomics			
	С	Environment Control in interiors			
Elective - III	А	Entrepreneurial Development			
	В	Fashion Designing			
	С	Green Building Technology			

## **SEMESTER - I**

### CORE PAPER I FUNDAMENTALS OF DESIGN

### NUMBER OF CREDIT HOURS: 5

#### **SUBJECT DESCRIPTION:**

This course presents the development of Interior Design concepts, explaining the elements of design and principles of design and their application in the interiors.

#### **GOALS:**

To enable the students to understand the elements and principles of design.

#### **OBJECTIVES:**

On successful completion of the course the students should have

Developed design for application – innovation in design.

Learnt the importance of art elements in the creation of new design.

Learnt to apply the principles of design in creating beautiful interiors and in displaying the art objects.

### UNIT I

Concept of Interior Design-Meaning of Interior Design and Interior Decoration. Historic review of Interior Decoration in India. Place of Interior Decoration in the modern era. Good Taste-Meaning, importance and how to develop a good taste .Objectives of Aesthetic Planning-Beauty, Expressiveness, Functionalism.

### UNIT II

Design – Definition, Meaning, Purpose. Types of design – Structural and Decorative – Requirements of good structural and good decorative designs. Classification of decorative designs – naturalistic, conventional, historic, geometric, biomorphic, abstract.

### UNIT III

Elements of design – Meaning and Importance. Line and direction, form and shape, size, colour, light, ornamentation, texture and space – Application of elements to form designs.

### UNIT IV

Principles of design – Balance, rhythm, emphasis, harmony, proportion - Meaning and application of design concepts in the interior and exterior houses and other commercial buildings.

### UNIT V

Development of design from motives and application.

Man as a consumer of design, qualities and role of a good interior designer, interior design – career options. Application of design in interior decoration.

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## REFERENCES

- 1. Levine, M (1988) Living rooms, Rockport publishers, USA
- 2. Steapat, D.D., (1971), Introduction to Home Furnishing, The Mac millon Co, New york.
- 3. Pratap R.M (1988) Interior design principles and practice, Standard publishers distribution, Delhi
- 4. Faulkner, S., and Faulkner. R, (1987), Inside Today's Home, Rinehart publishing company, New york..
- 5. Anna.H.Rutt (1961); Home furnishing, John Wiley Eastern Pvt Ltd, Newyork.

## **RELATED EXPERIENCES**

- 1. Developing designs for application innovations in design
- 2. Developing artistic ability in drawing
- 3. Display of art object using principles of design
- 4. Arranging different areas in a house
- 5. Project work.

## MAGAZINES

Inside outside Women's era Architecture and design

# CORE PAPER II COLOUR AND LIGHTING

## NUMBER OF CREDIT HOURS: 5

### **SUBJECT DESCRIPTION:**

This course contains the concept of colour, emphasizing the usage of colour in interiors, explaining the importance of lighting.

### **GOALS:**

To enable the students to learn the concept of colour systems and lighting.

### **OBJECTIVES:**

On successful completion of the course the students should have understood the concept of colour and preparing a colour wheel.

Learnt the application of colour harmonies in the interiors and exteriors.

### UNIT I

Concept of colour. Significance of colour in the interiors and exteriors. Dimensions of colour – Hue, value and intensity, Effects of Hue, value and intensity. Colour therapy

### UNIT II

Colour systems – Prang, Munsell and Ostwald. Colour harmonies-Mechanical- related and contrasting. Non mechanical-readymade and nature based. Factors considered in selecting colour harmonies.

## UNIT III

Application of colour harmonies in the interiors and exteriors – Effect of light on colour – illusion of colour, psychology of colour.

## UNIT IV

Importance of lighting. Artificial lighting – Light sources, Types – based on material, reflection, uses. Specific factors in lighting – measurement of lighting, location and direction, size and shape and colour. Economy in lighting. Psychological aspects of lighting. Glare- its types, causes and prevention.

## UNIT V

Accessories-Meaning, Types-functional, decorative, both functional and decorative. Lighting accessories- fixtures, Lighting for areas and specific activities.

# REFERENCES

- 1. Faulkner, R. and Faulkner, S.(1987), Inside Today's Home, Rinehart publishing company, New York..
- 2. Judy.M,(1994),Color-How to see, how to paint it, Harpen calling publishers, London.
- 3. John.F.P, (1997), Color in Interior Design, Mc Graw Hill company, New York.
- 4. Jan orcharchd (1993) Lighting for a beautiful home, Dune style publishing Ltd., USA.

5. Stawart and Sally.W, (1997), The complete home decorator, Annes publishers ltd, New York.

# MAGAZINES

Inside Outside Design and Interiors Society interiors

## **RELATED EXPERIENCES**

- 1. Preparing a colour wheel
- 2. Visit to different houses and public places to see the use of colors and lighting.
- 3. Visiting lighting shops
- 4. Collecting various types of lighting fixtures, lamps, etc., and making an album

## ALLIED SUBJECT I – FURNITURE IN INTERIORS.

### NUMBER OF CREDIT HOURS: 6

#### **SUBJECT DESCRIPTION :**

This course presents styles of furniture, selection and arrangements, and furniture construction.

## **OBJECTIVES:**

To enable the students to learn about the types and importance of furniture, know about the selection, care and arrangement of furniture.

#### UNIT I

Styles of furniture – traditional, contemporary and modern design.

Furniture for different purpose – meaning need, factors influencing – climatic condition, family needs and preferences, availability, principles of design and financial limit.

### UNIT II

Familiar furniture materials – Wood – teak, rose wood, walnut, cedar, mahogany, pine, birch, sal, ply wood, bamboo, cane, metals, plastics, leathers, PVC.

### UNIT III

Selection and arrangement – Furniture for various rooms – Living room, dining room, bedroom, kitchen, study room, office. Furniture Dimensions

### UNIT IV

Construction features of furniture – shaping, carving, turning, fluting, reeding, joining and finishes, upholstering – techniques and designs.

### UNIT V

Care and maintenance – wooden furniture, wicker and cane, metal furniture, plastic, PVC, upholstered furniture, wood finishes and furniture polishes.

### **REFERENCES**:

- 1. Stepat, D.D, (1971), Introduction to Home furnishings, The Mac Millan Co, New York.
- 2. Wilhide, E and Cope stick, I. (2000) contemporary decorating, conron octopus Ltd., London.
- 3. Levine M (1998), Living rooms, Rockport publishers, USA.
- 4. Faulkner. R and Faulkner. S, (1987), Inside today's home, Rinehart Winston, New York.
- 5. Mullick.P, (2000), Textbook of Home science, Kalyani publishers, New Delhi.

### **RELATED EXPERIENCES**

- 1. Developing furniture design and evaluating them
- 2. Practicing care and maintenance of furniture

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- 3. Field trips to furniture mart and well furnished houses.
- 4. Compile an album on furniture arrangements in various rooms.

#### MAGAZINES

Society Interiors Design and Interiors Inside Outside

#### SEMESTER II

#### CORE PAPER III PLANNING THE LIFE SPACE

### NUMBER OF CREDIT HOURS : 5

#### **SUBJECT DESCRIPTION:**

This course presents the concept of life space, importance, principles of planning a house and division of space.

#### **GOALS:**

To understand the significance of house.

#### **OBJECTIVES:**

Developed skill in house plan for different income groups.

Acquired knowledge in recent building materials and raising fund from various agencies to construct a house.

#### UNIT I

Space for living – Concept of space – factors influencing living space, Location and Orientation, Planning objectives- utility, economy, beauty and character. Requirements, need for space, space occupancy. Merits and demerits of owned and rented house.

#### **UNIT II**

Significance of housing – functions of house, selection of site, Types of house plans-site plan, floor plan, open and closed plans, elevation, cross-sectional plan, perspective plan and landscape plan. Principles of planning a house to suit the basic requirements.

#### **UNIT III**

Components attributed to livability in life space – comfort, convenience, safety, workability, maintenance, lighting. Satisfaction in individual houses, multi- storied flats, row houses. split level houses and one room apartments.

#### **UNIT IV**

Division of space – Private-bedroom, bathroom. Public-living, dining and lounge. Work and traffic – kitchen-types and work triangle.

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## UNIT V

Standardization- Need for standardization in housing. Types of standards, Role of BIS. Legal restriction- Meaning-Plot, Easement, Zoning law, Building law.

Finance for housing - Funding agencies – Private-HDFC, HUDCO. Government – SBI, LIC. Research institutions-NBO, CBRI, SERC

## **REFERENCES:**

- 1. Prabhakar, L.V. (1998) Vasthu The user's manual, The Avenue Press, Chennai
- 2. Conran.T (2000), The Essential House book, conran octopus limited, London.
- 3. Riggs, R. (1992) Materials and components OF Interior Design, Prentice Hall of India Pvt Ltd., New Delhi.
- 4. Rao, C.H.G (1995) Plans for small houses, Jai Ganesh offset printers, Chennai.
- 5. Despande, R.S, (1974) Build your own home, United book corporation, Poona.

## **RELATED EXPERIENCES**

- 1. Developing house plans for different income groups.
- 2. Market survey to acquire Knowledge in recent building materials
- 3. Visiting different houses and public places to see the different methods of construction and styles.
- 4. Visit to funding agencies

## MAGAZINES

Inside outside Family housing Indian Design & Interiors

# **CORE PRACTICAL - I - DESIGN CONCEPTS**

## NUMBER OF CREDIT HOURS: 2

### **SUBJECT DESCRIPTION:**

This practical paper contains the design development, motif development, display of art objects, arranging different areas of an interior.

### **OBJECTIVES:**

To draw different types of design, develop design by using motifs.

Acquire skill in arranging different areas of a house by using principles of design.

### **CONTENTS:**

- 1. Draw structural/ decorative design and comment on its features.
- 2. Draw a decorative design of your own interest by showing the method of application in greeting card/ art objects.
- 3. Evaluate the given art objects.
- 4. Develop a motif suitable for foot mat/ window grill/table mat/furnishing materials.
- 5. Display art objects showing the principle of design.

- 6. Arrange a living room/ drawing room/ pooja room/bedroom/Adolescent boy/girl's room/ children's room showing any colour harmony and principles of design.
- 7. Arrange a birthday party for a preschool child.
- 8. Arrange an area for multipurpose activities.

# ALLIED SUBJECT II – SOFT FURNISHINGS

### NUMBER OF CREDIT HOURS: 7

#### **SUBJECT DESCRIPTION :**

This course presents the meaning and importance of soft furnishings, types of window treatments and care of soft furnishings.

### **OBJECTIVES :**

To enable the students to learn about types of windows and window treatments. Develop skills in construction of curtains.

### UNIT I

Soft furnishings – Meaning, Importance – relationship of furnishings with space, selection and use of furnishings – functional and decorative.

Textile fibre- Meaning, Classification-Filament and Staple. Properties of fibre- wool, cotton, silk. Basic weaves used in furnishings- plain, twill, satin.

#### UNIT II

Window Treatments – Types of windows, curtains, draperies, hanging curtains-types of pleats, pelmets and valances, accessories, blinds, shades.

### **UNIT III**

Cushion, cushion covers, slip covers, bed linen, table linen ,kitchen linen, bath linen.

### UNIT IV

Fabric finishes –Mercerizing, Acid finishes, Sizing, Calendering and Tentering. Carpets –Meaning, Importance, Types – woven and non-woven, selection and laying. Rugs –Meaning, Types –room size, area, scattered, accent.

#### UNIT V

Care and maintenance of soft furnishings – stain removal, mending and darning, laundering, storage of furnishings.

### **REFERENCES**:

- 1. Philips B, (2000), Hamlyn book of decorating, octopus publishing Ltd, London.
- 2. Clifton.c. etal (1991), The complete Home decorator conran octopus Ltd, London.
- 3. Luke. H., (1996), soft furnishings, New Holland publishers Ltd, Singapore.
- 4. Stepat, D.D, (1971), Introduction to Home furnishings, The Mac Millan Co, New York.
- 5. Wilhide, E and Copestick, I. (2000) contemporary decorating, conron octopus Ltd., London.
- 6. Levine M (1998), Living rooms, Rockport publishers, USA.

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## **RELATED EXPERIENCES**

- 1. Construction of furnishing materials curtains, draperies, napkins, towels, cushion cover
- 2. Construction of curtains different types of pleat
- 3. Visiting furnishing shops and well furnished houses

#### MAGAZINES

Colourage Society interiors Inside outside

## ALLIED PRACTICAL I – FURNITURE AND FURNISHINGS

### NUMBER OF CREDIT HOURS : 2

#### **SUBJECT DESCRIPTION**

This practical paper contains the designing of furniture for various purposes and construction of curtains and draperies.

#### **OBJECTIVES:**

To enable the students to draw different types of furniture and evaluating them. Develop skill in construction of soft furnishings and types of pleats.

### CONTENTS

- 1. Draw different types of furniture with regard to activity
- 2. Evaluate the given furniture in terms of materials, construction details, uses care and maintenance, age group, hours of use, durability, budget.
- 3. Construct curtains, cushions pillow covers with different types of pleats.
- 4. Drawing of furniture templates.
- 5. Placement of furniture in various rooms living room, bed room, dining room
- 6. Types of stitches
- 7. Preparation of records collection of furniture for different activities, different materials, market survey of furniture, making cutouts of furniture.

#### **SEMESTER-III**

## **CORE PAPER IV – DRAFTSMANSHIP – I**

#### **NUMBER OF CREDIT HOURS: 4**

#### **SUBJECT DESCRIPTION :**

This course presents the duties of draftsman, drafting tools, drafting medium and different types of drawings.

## **OBJECTIVES**:

Enable the students to understand the importance of draftsmanship-develop skill in using different drafting tools.

Learnt to use various lines, to develop a drawing, understand the importance of free hand sketching.

## UNIT I

Introduction to draftsmanship. Drawing office organization, layout of drawing studio. Need for training, Duties. Determining needs and wishes of the client. Relationship between two dimensional and three dimensional diagrams.

## UNIT II

Drafting Tools and Techniques – Drawing tools and their uses. Techniques adopted to handle the tools, Types of scales. Drafting mediums - Tracing paper, tracing cloth, water color paper, sketch paper, vellum, polyester film.

## UNIT III

Layout of drawing sheets and title block

Lines – types of lines, thickness of lines, hatching of section.

Lettering – Types, Requirements of good lettering, size of letters and numerals, space between letters, recommended height of letters, lettering technique.

## UNIT IV

Dimensioning – general principles, precaution in dimensioning, method of placing dimensions, unit of dimensioning, method of executing dimension, arrow heads.

## UNIT V

Geometrical constructions

Technical sketching – introduction – importance of freehand sketching, principles of free hand sketching

### **REFERENCES**:

- 1. Pratap. R.M (1988), Interior Design, Principles and Practice, Standard Publishers distribution, Delhi.
- 2. Natrarajan.K.V (1994), A Text book of Engineering drawing self publication, Chennai.
- 3. Birdie. G.S and Birdie.J.S (2003), Civil Draughtsmanship, Theory and Practice. Dhanpat Rai publishing company (P) Ltd., New Delhi.
- 4. Venugopal.K. (2004) Engineering Graphics, 5<sup>th</sup> edition, New Age International Publishers, New Delhi.

### MAGAZINES

Architectural Digest Inside Outside Society interiors House Layouts

## CORE PAPER V - BUILDING COMPONENTS AND MATERIALS

#### NUMBER OF CREDIT HOURS : 5

#### **SUBJECT DESCRIPTION** :

This course presents the components of buildings , various building materials and methods of construction.

#### **OBJECTIVES:**

Enable the students to

- 1.Become aware of the existing building materials and components.
- 2. Develop aesthetic concept of using building materials.

#### UNIT - I

Components of building - Foundation-Meaning, Functions, Types –Shallow – stepped, inverted arch, raft, grillage, cantilever. Deep – pile, pier, well.

Masonry units – Meaning, Components and functions – Walls, Floors, Roofs.

#### UNIT - II

Beams, Columns, Lintels, Arch, Staircase ,Lift and Escalators – Meaning, Technical terms and Types.

#### UNIT - III

Building Materials – Stone, Brick, Cement, Sand, Timber, Steel, Plastic and Concrete – Classification, Qualities and Uses.

### UNIT - IV

Masonry – Plastering, Mortar, Stone masonry – rubble and ashlar. Brick masonry – Header, Stretcher, English and Flemish.

### UNIT - V

Methods of construction – Framed structure and Load bearing walls, Prefabrication, cast – in site. Recent advances in building materials.

#### **REFERENCES**:

- 1. Ostrow.J. (2001), Painting rooms, Rockport publishers, USA.
- 2. Clifton.c.etal, (1995), The Complete Home Decorator, Conran octopus Ltd, London.
- 3. Spancer, H. and Churchill, (1990), Classic English Interiors, Anaya Publishers Ltd, London.
- 4. Innes, J. (1990), Exterior Detail, Collins and Brown Ltd, London.
- 5. Love.G. (2000), Insideout, Conron octopus Ltd, London.

### **RELATED EXPERIENCES**

- 1. Market survey
- 2. Field visits-houses, commercial centers, hotels.
- 3. Submission of reports on field visits.

## ALLIED SUBJECT III – FLORICULTURE

## NUMBER OF CREDIT HOURS: 4

### **SUBJECT DESCRIPTION:**

This course presents the importance of plants in landscaping, classification, propagation and protection of plants used in landscape designs.

### **OBJECTIVES:**

To understand the importance of plants in landscape gardening. To gain knowledge on propagation methods. To prepare pot mixture, potting, repotting.

## UNIT I

Floriculture – Meaning, concept and importance, ornamental plants – classifications - annuals and perennials, annuals for summer, winter and rainy seasons.

## UNIT II

Shrubs and Trees – flowering and foliage shrubs, Trees-Avenue and shade trees, climbers and creepers, cacti and succulents, ferns, palms, hardy bulbs and tender bulbs, roses.

## UNIT III

Propagation methods – sexual and asexual methods of propagation, division, cutting, layering, grafting, budding and tissue culture.

### UNIT IV

Cultivation methods for ornamental plants in general – Procurement of plant material, preparation of soil, plant propagation, planting, watering and manuring.

### UNIT V

Ornamental plant protection methods- plant after care, plant protection – cultural, chemical and mechanical, pest and diseases.

### **REFERENCES:**

- 1. Ross, R. (1999), colorful gardening Climbers, Ryland peters and small, London.
- 2. Ross, R. (1999), colorful gardening Bulbs, Ryland peters and small, London.
- 3. Scott-James, A. (1995), perfect plant perfect garden, conran octopus limited, London.
- 4. Toogood, A. (1995), Designing with house plants, Grange Books publishers, London.
- 5. Ross, R. (1999), Colourful gardening Roses, Ryland peters and Small, London.

### **RELATED EXPERIENCES**

- 1. Visit to Nurseries to identify different flowering and ornamental plants.
- 2. Demonstration on plant propagation methods.
- 3. Preparation of pot mixture, potting and repotting, growing plants in boxes and pots.

## MAGAZINES

Design Interiors. Inside Outside.

## SKILL BASED SUBJECT 1 - TWO DIMENSIONAL DRAFTING - I

### NUMBER OF CREDIT HOURS: 3

#### **SUBJECT DESCRIPTION:**

This course presents the theory of two dimensional drafting using certain commands.

#### **OBJECTIVES:**

On successful completion of the course the students should have learnt to draw simple floor plan, which will be further developed to make a 3 - D model.

#### UNIT I

Introduction to Auto CAD – Auto CAD system requirements, Auto CAD GUI – Title bar, Menu bar, Standard tool bar, Object properties tool bar, Draw tool bar, Modify tool bar, UCS, Layout tab, command Entry, status bar, Task bar, General Commands-New, open, save, save as, close, Exit.

### UNIT II

Point mixing methods – line using absolute Co-ordinate system, relative rectangular Co-ordinate system and relative polar Co-ordinate system, circle, arc, ellipse, rectangle, Polygon.

#### **UNIT III**

Modification tools- Erase, copy, move, scale, rotate, trim, Extend, Array, offset, mirror, break, stretch.

### UNIT IV

Drafting settings, function keys, Text, text style, text edit, Multitext, color, line type, line weight.

### UNIT V

Advanced tools – zoom, pan, view, solid, Donut, fillet, chamfer, layering concept.

#### **REFERENCES:**

- 1. Teach yourself Auto CAD, GIBBS, BPE publications, New Delhi.
- 2. Inside AutoCAD.
- 3. Omura.G , (2005), Mastering Auto CAD 2005 and Auto CAD LT 2005, BPB publications New Delhi.
- 4. Saxena.S, (2003), A first course in computers, Vikas publishing house, New Delhi.

## SEMESTER – IV

### CORE PAPER VI DRAFTSMANSHIP – II

#### NUMBER OF CREDIT HOURS: 5

#### **SUBJECT DESCRIPTION:**

This course presents the theory of orthographic, isometric and perspective projection.

#### GOALS :

To enable the students to understand the theory of various projections.

#### **OBJECTIVES :**

On successful completion of the course the students should have developed knowledge on theory of projection.

Learnt the different views of an object.

Developed skill to make various projections.

#### UNIT I

Symbols –Importance, Architectural symbols, structural symbols, door symbols, window symbols.

### UNIT II

Water supply – In residential building, multi-storied buildings. Sanitation –traps, waste water disposal-inspection chamber, septic tank and ventilation systems, sanitary fixtures and fittings, plumbing systems.

Plumbing practice – plumbing operations, plumbing symbols and drainage plan.

House Wiring- electrical symbols, residence wiring diagram, planning of electrical installation of a building.

#### **UNIT III**

Orthographic projection – theory of orthographic projection, multi view orthographic projection, method of drawing section.

### UNIT IV

Isometric projection - need for study, pictorial drawings, isometric projection definition, principles, characteristics, isometric view and isometric projection.

### UNIT V

Perspective view - theory of perspective projection, technical terms in relation with perspective, classification of perspective, methods – one point perspective and two point perspective.

Rendering Techniques \_ Tools used in rendering- pencil, eraser, short-bristled stipple brush, mechanical lines. Different textures, materials used in buildings, floor finishes, shadows.

### **REFERENCES**:

- 1. Pratap. R.M (1988), Interior Design, Principles and Practice, Standard Publishers distribution, Delhi.
- 2. Natrarajan.K.V (1994), A Text book of Engineering drawing self publication, Chennai.
- 3. Birdie. G.S and Birdie.J.S (2003), Civil Draughtsmanship, Theory and Practice. Dhanpat Rai publishing company (P) Ltd., New Delhi.
- 4. Venugopal.K. (2004) Engineering Graphics, 5<sup>th</sup> edition, New Age International Publishers, New Delhi.

## MAGAZINES

Architectural Digest Inside Outside Society interiors House Layouts

# **CORE PRACTICAL II – DRAFTSMANSHIP**

## NUMBER OF CREDIT HOURS: 2

## **SUBJECT DESCRIPTION:**

This course deals with the effective use of drafting tools to draw pictorial and perspective drawing.

### **OBJECTIVES:**

To enable the students to make use of drafting tools. To draw pictorial and perspective drawing.

### CONTENTS

- 1. Architectural lettering.
- 2. Pictorial drawing orthographic, isometric drawings Geometrical constructions table, chair, staircase, rooms.
- 3. Perspective drawings Visual ray method, Vanishing point method one point perspective and two point perspective.
- 4. Kitchen drawings Types and three dimensional view (isometric view).
- 5. Rendering and presentation Blue prints and ammonia prints.
- 6. Submission of record.

## **ALLIED SUBJECT IV - LANDSCAPING**

## NUMBER OF CREDIT HOURS: 4

### **SUBJECT DESCRIPTION:**

This course presents the meaning and importance of landscape gardening.

## **OBJECTIVES:**

To enable the students to learn the principles to be followed in landscape gardening. Have practical knowledge in making home gardens and indoor plants.

To impart knowledge on types of lawns, maintenance, method of preparation. Acquire skill in making flower arrangements.

## UNIT I

Landscaping – Meaning and importance, Types of gardens, garden components, garden design– formal and informal, principles of landscape gardening.

## UNIT II

Lawn - importance, preparation, methods of cultivation, use, maintenance, Types of lawn.

## UNIT III

Indoor plants – potting and repotting techniques, pot culture – potted plants, principles of growing, display and placement, upkeep and maintenance.

## UNIT IV

Use of flowers and containers for Interior Decoration – Importance, basic shapes, styles in flower arranging – traditional, oriental, modern, free expression, dried and pressed flowers, fundamentals of Ikebana and styles of Ikebana.

## UNIT V

Modern trends in gardening – Terrace garden, Rock garden, water garden, Bonsai culture, terrarium, developing ornamental plants in Home garden for flats – roof garden, hanging garden, Kitchen garden.

### REFERENCES

- 1. Carter, G. (1997), Gardening with containers, Ryland peters and small, London.
- 2. Bird, R, (1998), Creating boundaries and Screens, Ryland peters and small, London.
- 3. Kingsburry.N. (2000), Grasses and Bamboos, Ryland peter and small, London.
- 4. Dey, S.C. (2001), BONSAI The Art of growing miniature trees, Agrobios (India) publishers, Jodhpur.
- 5. Conder, S, (1993), House plant style, Michael o' mara Books limited, London.
- 6. Lawrence, M. (1994), Dried flower Arranging, Anaya publishers, London.

## **RELATED EXPERIENCES**

- 1. Visit to Landscape gardens.
- 2. Maintaining a model landscape area and making estimates.

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## MAGAZINES

Inside Outside, The Indian Design Magazine. Design Interiors

# ALLIED PRACTICAL II - FLORICULTURE AND LANDSCAPING

## NUMBER OF CREDIT HOURS : 2

### **SUBJECT DESCRIPTION:**

This course presents the identification of plants, propagation methods, making different styles of flower arrangements and drawing landscape gardens.

### **OBJECTIVES:**

To enable the students to gain knowledge on raising flower gardens. To understand the methods of cultivation aspects of flowers. To acquire skill in identifying the different ornamental flowers, shrubs, trees.

## CONTENTS

- 1. Identification of important flowering plants, shrubs and other ornamental plants.
- 2. Preparation of cutting, layering, budding and grafting.
- 3. Making different styles of flower arrangement.
- 4. Drawing different landscape plans
- 5. Submission of record

## SKILL BASED SUBJECT 2 – TWO DIMENSIONAL DRAFTING – II

## NUMBER OF CREDIT HOURS: 3

### **SUBJECT DESCRIPTION:**

This course presents the theory of two dimensional drafting using certain command and lay out management.

### **OBJECTIVES:**

On successful completion, the students learnt to draw floor plan with settings, layers, Dimensions to a given scale.

### UNIT I

Inquiry tools- I D, DIST, AREA, LIST, Hatching, poly line, poly line edit, Spline, Spline edit, multi line, multi line edit.

### UNIT II

Dimensions - linear, Align, Angular, radius, diameter, baseline, continue, leader.

# UNIT III

Dimension edit, dimension styles – lines and arrows tab, text tab, fit tab, primary units, alternate units, Tolerances.

## UNIT IV

Productivity tools – Block-Nesting blocks, defining blocks, inserting blocks, Insert W block.

## UNIT V

Print – Printer Manager style, style manager, plot, layout management – model space and paper space over view, working in model space.

## **REFERENCES:**

- 1. Teach yourself AutoCAD, GIBBS, BPE publications, New Delhi.
- 2. Inside AutoCAD.
- 3. Omura.G , (2005), Mastering Auto CAD 2005 and Auto CAD LT 2005, BPB publications New Delhi.
- 4. Saxena.S, (2003), A first course in computers, Vikas publishing house, New Delhi.

# SEMESTER – V

# **CORE PAPER VII - APPLIED ARTS**

## NUMBER OF CREDIT HOURS: 5

## **SUBJECT DESCRIPTION:**

This course presents the importance of art objects, creating art pieces using different materials, tools used in making drawing and painting.

### **OBJECTIVES:**

To enable the students to Understand the techniques of art To apply the principles in creating art objects for home decoration.

### UNIT I

Meaning and significance of art in the home- Factors affecting art forms-geography, community, materials, individuality and appearance, Developing skills for appreciation of art,

## UNIT II

Shaping and Enrichment of different materials. Wood-Methods of shaping and decorating- Printing, Varnish, shellac, lacquer. Woodwork- cutting, turning, carving.

Metals and Alloys — Enrichment of metals- aluminium, bronze, brass, silver, copper and gold.

Ceramics- Definition, ornamentation on ceramics — earthenware, stoneware, china, porcelain and terracotta.

Glass- enrichment of glass-etching, engraving, cutting, enameling, painting, use of glass in home.

## UNIT III

Sculpture- Meaning, Modeling and molding, use of sculpture at home, care, use and maintenance.

Drawing-Meaning, tools and Techniques of drawing

Painting- tools, canons of painting, types, use ,care and maintenance.

### UNIT IV

Dyeing and Printing – Dyeing – Definition and classification.

Printing –Hand, Block, Batik, Tie and Dye, Screen. Machine-Discharge, Resist, Stencil, Roller.

Fabric Painting-Tools and Techniques.

## UNIT V

Crafts- Macrame, Decoupage, Mosaic, Glass painting, Oil painting, Collage and Papier-mache.

## **RELATED EXPERIENCES**

- 1. Drawing different designs with different tools Pencil, Pen, crayon, charcoal, ink, and chalk.
- 2. Painting using different media water, oil, fabric, stenciling.
- 3. Taking photographs and developing prints.
- 4. Visit to pottery units, metal industry, tie and dye units, and Batik centers.
- 5. Making ten varieties of art objects.

### **REFERENCES:**

- 1. Evans. A (1973) Man the Designer, The Macmillan Company, New York.
- 2. Faulkner. R (1986) Art Today- zorg field and Hill, New York..
- 3. Holmes. O (1982) A Grammar of Arts, The Macmillan company, New York.
- 4. French. B (1969) Principles of collage Mills and Bean, London.
- 5. Reader's Digest (1991) Crafts and Hobbler.

## MAGAZINES

Women's era. Design Interiors.

## CORE PAPER - VIII BASICS IN ARCHITECTURE

#### NUMBER OF CREDIT HOURS: 6

#### **SUBJECT DESCRIPTION:**

This course presents the history of architecture, greek, roman, gothic, Indian architecture and modern architecture.

#### **OBJECTIVES:**

Enable the students to

Learn the form of construction in architecture.

Gain knowledge on western architecture and Indian architecture.

Learn the features of modern architectures and the influence of vaasthu sastra in building construction.

#### UNIT I

Introduction to architecture- Definition and meaning, importance, principles of architecture. Development of Historic architecture.

#### UNIT II

Elementary forms of construction - arch, post, lintel, cantilever roofing techniques - truss, vaults and domes.

Egyptian and Mesapatomian architecture - Formation and development, characteristic features, typical examples.

#### UNIT III

Architectural masterpieces of other countries

Greek - Acropolis and Parthenon; their contribution to the development of post and lintel system-doric, ionic and Corinthian orders.

Roman- Forum, Pantheon and colosseum ; their contribution to the development of arches and domes.

Gothic- Chartres cathedral; their contribution to the development of vaults.

#### UNIT IV

Indian Architecture-Buddhist-characteristic features-Stambha, Stupa-Sanchi stupa, Viharas and chaityas.

North - Sun temple, Lingaraja temple, Ajantha and Ellora Caves, Tajmahal, Lotus Temple-its architectural features.

South – Brihadeshwar temple, Meenakshi Amman Temple, Rock cut Temples – Mahabalipuram – its architectural features.

Islamic architecture – characteristic features.

#### UNIT V

Modern architecture- modern materials and new techniques, Great Architects of modern age- Le Corbusier, Mies Vander Rohe, Frank Lloyd Wright-and their outstanding buildings.

Influence of vasthu sastra in modern construction, Organic architecture.

Annexure No. 41 A SCAA Dt. 06.02.2014

### **REFERENCES:**

- 1. Satyamurthy (1991), Handbook of Indian Architecture, Ashish publishing house, New Delhi.
- 2. Rai,M. and Jaisingh, M.P (1986), Advances in building materials and construction, Roorkhee Central Building Research Institute.
- 3. Prabhakar, L.U (1998), Vastu- The User's Manual, The Avenue Press, Chennai.
- 4. Indian Temples (1995), Oxford University Press, London.
- 5. Foster.M (1989), The Principles of Architecture: styles, structure and design, New Burlington, London.

# **RELATED EXPERIENCE:**

- 1. Drawing pictures of post and lintel system, arches and vaults.
- 2. Illustrate the three orders- Doric, Ionic and Corinthian
- 3. Compile an album on architecture belonging to various periods and countries.
- 4. Visit to places of architectural significance Churches, temples, mosques, palaces, commercial centers and houses.

## MAGAZINES

Building construction Architectural digest- The International Magazine on Interior and Architecture Architectural design

# CORE PAPER IX - HOUSEKEEPING AND MANAGEMENT - I

### **NUMBER OF CREDIT HOURS: 5**

### **SUBJECT DESCRIPTION:**

This course deals with objectives, importance, Housekeeping in different institution and functions, concept of resource management.

### **OBJECTIVES:**

- To enable the students
- To know the organizational structure of a Housekeeping department.
- To understand the management of resources applicable to residence course.
- To improve skills in organization of work and prepare for housekeeping jobs.
- To understand the importance and wise use of resources for achieving goals.

### UNIT I

Introduction to House keeping Department- Objectives, Organization, Structure of Housekeeping department (small, medium, large), duties of Housekeeping personnel, Housekeeping as a Profession.

## UNIT II

Housekeeping in different Institutions- commercial sector and welfare sectors. Departments that housekeeping Co-ordinates with—reception, catering, Interior Decoration and other related departments.

#### UNIT III

Functions of Housekeeping department- Desk control, records and registers, key types and control of keys, service pantry-location and essential features, lost and found, fire, emergency and first aid.

### UNIT IV

Concept of Management-systems approach-process-planning, implementation, feedback, Significance of decision making, goal setting, standard setting.

#### UNIT V

Resource Management-Time management, energy management and money management.

#### **REFERENCES:**

- 1. Gross l.H. Crandall E.W., Knoll H.M., (1973) Management for modern families, Prentice Hall, New Jersey.
- 2. Binnie.R and Boxal D.J (1972), House craft principles and practice, Pitman publishing, London.
- 3. Branson.D and Lannex M. (1972), Hotel, Hostel & Hospital House keeping Arnold publishers, USA.
- 4. Deacon.R and Firebugh, FM (1981), Family Resource Management Principles and Application, Allen and sacon,U.S.A.
- 5. Varghese.M.A. etal., (1994), Home Management, Wiley Eastern Ltd, New Delhi.

### **CORE PAPER X - COMPUTER FUNDAMENTALS**

#### NUMBER OF CREDIT HOURS : 6

### **SUBJECT DESCRIPTION:**

This course intends to develop knowledge on fundamentals of computer.

#### **OBJECTIVES :**

Enable the students to Understand the basics of computer. Learnt about window basics – MS Excel, MS Power Point.

## UNIT I

Computer Appreciation – Introduction, Characteristics, history, computer architecture, computer peripherals, output devices, system software and hardware languages, operating system – DOS, file, directories – creating, changing and renaming files, other dos commands.

## UNIT II

Windows basics – working with windows Accessories – windows explorer, note pad, calculator, word pad, files & folders, using menu bar, taskbar & display properties. Word basics – creating simple documents, formatting & Printing. Using tool bar, menu commands and keyboard shortcuts – using auto text, editing, spell check & creating tables.

## UNIT III

MS excel – Entering data, selecting ranges. Entering and formatting entries – simple calculations. Naming cells and ranges – data display – printing worksheets & creating graphs.

MS Access basics - creating a table, entering and adding records, applications.

## UNIT IV

MS Power point basics – Editing text – adding subordinate points – deleting slides, working in outline view – Using a design template – merging presentations in slides sorter view, applying template – adding graphs – running an electronic slide how adding special effects.

## UNIT V

Introduction to Internet – Definition – services – advantages, Browsing – Introduction to world wide wed – uses – Multimedia capabilities of www – commercial uses – features of internet – E Mail basics.

### **REFERENCES**:

- 1. Office 2000 Complete reference by Stephen. L. Nelson, BPB Publications.
- 2. PC software for windows made simple by R.K. Taxali Tata Mc Graw hill pvt publications.
- 3. Internet in a nutshell by Alexis Leon & Mathews Leon, Leon press, Chennai.

## **RELATED EXPERIENCES :**

- 1. Ms Word Type a paragraph and perform bold, underline, font change, color BG, GF, spell check, line spacing, center heading.
- 2. Designing an invitation card, a logo of your design, using picture from standard libraries & making corners.
- 3. Perform mail merge.
- 4. Draw graphs and learn to prepare and modify worksheets.
- 5. Create database for maintaining address of your classmates & sort it.
- 6. Design presentation slides of your choice and if possible add voice.

## SKILL BASED SUBJECT 3 – THREE DIMENSIONAL MODELING

### NUMBER OF CREDIT HOURS: 3

#### **SUBJECT DESCRIPTION:**

This course presents the theory of three dimensional modeling using standard primitive tools, Boolean operations.

#### **OBJECTIVES:**

On successful completion the students, learnt to make a simple working drawing of plan, elevations, cross sectional view of building.

#### UNIT I

Introduction to 3D modeling – point fixing method – Absolute, Co ordinate systems, relative cylindrical and relative spherical Co-ordinate systems. Types of model – wire frame model, surface model and solid models.

### UNIT II

Standard primitive tools – Box, cone, wedge, torus, cylinder, sphere.

### **UNIT III**

Boolean operations – Union, subtract, Intersect, Interference.

### UNIT IV

2D to 3D conversion – Extrude, Revolve. Lighting – types of light – point light, Spot light Direct light camera.

### UNIT V

Rendering and special effects – Materials, Rendering still images, rendering animations, changing background colour and adding background images. Data exchange – Import and export of models.

#### **REFERENCES:**

- 1. Teach yourself AutoCAD, GIBBS, BPE publications, New Delhi.
- 2. Inside AutoCAD.
- Omura.G , (2005), Mastering Auto CAD 2005 and Auto CAD LT 2005, BPB publications New Delhi. Saxena.S, (2003), A first course in computers, Vikas publishing house, New Delhi.

#### SEMESTER – VI CORE PAPER XI - HOUSEKEEPING AND MANAGEMENT - II

#### **SUBJECT DESCRIPTION:**

This course deals with interior designing in hotels, explaining planning trends of guest rooms, styles of table setting in food service.

#### **OBJECTIVES:**

To enable the students

To understand the importance of interior design in creating beautiful interior in hotels.

To learn different styles of table setting.

To understand the layout and functions of front office in hospitality management.

#### UNIT I

Interior designing in hotels, motels and other types of restaurant-coffee shop, continental restaurant, specialty restaurant, pubs, night clubs, snacks and milk bar.

#### UNIT II

Planning trends of guest rooms-bedroom, bathroom, suite, lounge, cloak room. Selection and arrangement of furniture, carpet, lighting, flower arrangement and potted plants suitable for the rooms and areas.

### UNIT-III

Table setting-Formal and informal, Indian and Western styles, setting for different occasions. Operating equipment- Classification of crockery, cutlery, glassware, hollowware and flatware-upkeep and maintenance of equipment and table linen.

### UNIT IV

General maintenance - Cleanliness of all rooms-furniture, furnishings and accessories. Bed and bedding size, care and cleaning of beds, bed linen, blankets, bedspreads and mattress, cover and pillow mattresses.

#### UNIT V

Introduction to front office, layout of front office and different front office equipment, importance of hospitality industry, duties and responsibility, ideal qualities of a front office staff and job description of a front office assistance.

#### REFERENCES

- 1. Branson, J.C. & Lennox, M (1992), Hotel, Hostel and Hospital Housekeeping, Arnold Heinnaman, U.S.A.
- 2. Lillicrap, D.R and Cousins, J.A (1994), Food and beverage service, London
- 3. Faulkner, R. and Faulkner, S. (1997), Inside Today's Home, Rinehart Publishing company, New York.
- 4. Binnie, R and Boxal, D.J, (1972), Housecraft Principles and Practice, Pitman Publishing, London.
- 5. Andrews, S, (1985), Hotel Housekeeping Training Manual, Tata McGraw Hill Publishing company Ltd, New Delhi.

### **CORE PAPER XII - INTERIOR AND EXTERIOR TREATMENTS**

#### NUMBER OF CREDIT HOURS : 6

#### **SUBJECT DESCRIPTION:**

This course presents the fundamentals for interior and exterior treatments to make the structure strong.

#### **OBJECTIVES:**

To understand the special care needed for floors, walls, ceilings, joineries.

To gain knowledge on different materials available in the market to increase the strength of a building.

#### UNIT I

Fundamentals for interior and exterior treatments

Termite proofing, waterproofing, acoustics, thermal comfort, Fire protection..

Factors influencing choice of treatments – climate, cost, age, type/style of house, location.

#### **UNIT II**

Treatment of Walls- Plastering and Curing.

Interior Wall- Wood, glass, paints, ceramic tiles, terracotta, plaster of paris, marble wash, metals, stone finishes- marble, granite, white wash, color wash, wall paper. Selection, laying, cost estimation, care and maintenance.

Exterior Walls- Stones, rubble, tiles ,fresco, murals, glass and metals, paints. Selection, laying, cost estimation, care and maintenance

### UNIT III

Treatment of floors.

Interior floors- Hard floor finishes-mud, cement, red oxide, terrazzo, wood, metals, marble, granite, terracotta. Resilient –asphalt tile, linoleum, cork, rubber. Soft-carpets and rugs. Selection, laying, cost estimation, care and maintenance.

Exterior floors - Concrete slabs, tiles, mosaic, terrazzo and terracotta.

Selection, specialty and characteristics of exterior floor finishes, laying, care and maintenance.

#### **UNIT IV**

Roofs/Ceiling. - Types, Treatment-plastering, embossing, fresco, plaster of Paris, plastic, Kerala tiles, PVC, wooden paneling, glass, false ceilings.

Selection, laying, cost estimation, care and maintenance.

#### UNIT V

Windows, Doors -types, materials used, types of joints, care and maintenance- polishing, waxing, varnishing.

Ventilators - importance and types. Introduction to green building concepts. Recent trends in finishes.

### **REFERENCES**:

- 6. Ostrow.J. (2001), Painting rooms, Rockport publishers, USA.
- 7. Clifton.c.etal, (1995), The Complete Home Decorator, Conran octopus Ltd, London.
- 8. Spancer, H. and Churchill, (1990), Classic English Interiors, Anaya Publishers Ltd, London.
- 9. Innes, J. (1990), Exterior Detail, Collins and Brown Ltd, London.
- 10. Love.G. (2000), Insideout, Conron octopus Ltd, London.

## **RELATED EXPERIENCES**

- 4. Market survey
- 5. Field visits-houses, commercial centers, hotels.
- 6. Submission of reports on field visits

# CORE PRACTICAL - III APPLIED ARTS

## NUMBER OF CREDIT HOURS: 3

### **SUBJECT DESCRIPTION:**

This course aims at making the students to appreciate art, explaining the tools and techniques used in creating art objects.

### **OBJECTIVES:**

To enable the students to Develop skills in various art processes. Appreciate the aesthetic elements used in art process. Acquire skill in making varieties of art objects.

### CONTENTS

- 1. Drawing different designs with different tools pencil, pen, crayon, charcoal, ink, and chalk.
- 2. Painting using different media water, oil, fabric, stencils.
- 3. Making ten varieties of art objects & display.
- 4. Record.

# CORE PRACTICAL IV - HOUSEKEEPING AND MANAGEMENT

## NUMBER OF CREDIT HOURS: 3

#### **SUBJECT DESCRIPTION:**

This course presents the layout of housekeeping departments, emphasizing cleanliness in hotels, explaining flower arrangement and vegetable carving, imparting first aid techniques.

### **OBJECTIVES:**

To enable the students

To understand the layout and function of housekeeping department.

To acquire skill in applying design principles in decorating the hotels.

To understand the cleaning procedures and maintenance of equipment in House Keeping department.

### CONTENTS

- 1. Layout of the housekeeping department.
- 2. Application of principles of design and color in room setting- reception, lobby, bedroom.
- 3. Cleaning procedure for the following:
  - a. Wall
  - b. Ceiling
  - c. Furniture (wood)
  - d. Floor
  - e. Carpet
  - f. Upholstery
  - g. Telephone/TV
  - h. Bathroom
- 4. Stain removal
- 5. Flower arrangement/vegetable carving
- 6. Table setting for Indian and Western style.
- 7. Simple first aid techniques.
- 8. Internship in the housekeeping department in any one of the reputed hotels or in the firms of Civil engineers/Architects/ Interior designers and prepare a project report.

#### FIELD VISIT

Visiting hotels, resort, motels and restaurant to study the cleaning procedure, bed making and other services, house keeping department, linen and laundry.

## SKILL BASED SUBJECT 4 - COMPUTER AIDED DESIGN PRACTICAL

### NUMBER OF CREDIT HOURS: 3

#### SUBJECT DESCRIPTION

This paper presents the drawing of two dimensional diagrams – residential building using computer.

## **OBJECTIVES:**

Enable the students to draw floor plan, elevation, cross – sectional view using Auto CAD commands and create 3D modeling from 2D drawings.

### CONTENTS

- 1. Creating line using point fixing methods.
- 2. Drawing circle, arc, ellipse, rectangle, polygon using different methods.
- 3. Creating a plan and use of modification tools such as erase, copy, move, scale, rotate, trim, extend, array, offset, mirror, break and stretch.
- 4. Creating text using text style, text edit, line type and weight.
- 5. Use of zoom, pan, view command in a drawing.
- 6. Drawing a floor plan with settings, layers and dimensions, and to scale.
- 7. Drawing elevation, cross sectional view for the floor plan.
- 8. Creating polyline and editing of polyline. Creating spline and editing of spline.
- 9. Marking dimensions in a drawing by using Dimension edit, dimension styles.
- 10. Creating 3D model using point fixing methods.
- 11. Drawing of Box, cone wedge, torus, cylinder and sphere.
- 12. Use of Boolean operations in 3D drawing.
- 13. Converting of 2D drafting into 3D modeling using extrude, revolve.
- 14. Creating furniture, applying materials. fixing of lights, rendering in the existing plan

## **ELECTIVE SUBJECTS**

#### ELECTIVE I – A: INTRODUCTION TO TEXTILES AND CLOTHING

#### NUMBER OF CREDIT HOURS : 5

#### **SUBJECT DESCRIPTION:**

This course deals with textile fibers, weave and finishes, printing techniques, drafting and stitching.

### **OBJECTIVES:**

To enable the students to Know about the various textile fiber, weave and finishes. Learn the basic sewing operation Gain knowledge on different dyeing, and printing methods.

#### UNIT I

Introduction to textiles-fiber-definition, classification, uses, Yarn-definition, classification, spinning-definition and importance, Fabric-definition, classification, Basic weaves-plain, rib, basket, twill, satin and sateen, Weaving-definition.

#### **UNIT II**

Knitting- Definition, types, difference between weaving and knitting, Textile processingsingeing, desizing, scouring, bleaching, mercerizing, stiffening and softening. Dyeing-Definition of dyes, classification, suitability.

#### **UNIT III**

Printing - definition, various styles- block, tie and dye, batik, stencil, screen-printing. Introduction to clothing, basic sewing operations- major parts and their functions. Tools needed for sewing.

#### **UNIT IV**

Seams, plackets, sleeves, collars, fasteners. Definition, types, preparation of samples.

### UNIT V

Body measurements-fitting principles, drafting of a line frock, drafting-definition, principles and pattern drafting. Drafting of adult's bodice pattern and sleeve.

#### REFERENCES

- 1. Mullick.P (2000), Textbook of Home science, Kalyani Publishers, Delhi.
- 2. Corbman.P.B (1983), Textile- Fiber to fabric, McGraw Hill International editions, New York.
- 3. Zarapkar, Zarapkar system of cutting, Navneet Publications, Gujarat.
- 4. Mathews, (1991) Marry practical constructions-I & II

## **RELATED EXPERIENCES**

- 1. Visit to textile dyeing, printing and processing unit.
- 2. Learning basic sewing operations.
- 3. Stitching samples of sleeves, plackets, seams, etc.

### **MAGAZINES:**

Colourage Clothesline The Indian Textile Journal.

# **ELECTIVE I-B: KITCHEN DESIGN**

## NUMBER OF CREDIT HOURS: 5

## **SUBJECT DESCRIPTION:**

This course provides practical experience in actual designing and fabrication of various models of kitchen.

## **GOALS**:

To enable the students to understand the factors influencing kitchen design, imparting the need for essential services and storage in a kitchen.

## **OBJECTIVES :**

On successful completion of the course the student should have gained knowledge of different materials used for various surfaces in kitchen. Developed skill in planning different layouts.

### UNIT I

Kitchen planning – Functions performed in a kitchen, types of kitchen, principles of planning kitchen – orientation and location, ventilation, storage needs, work triangle, colour, light and safety.

### UNIT II

Kitchen geometry – work heights and space dimension of different work areas and storage areas, anthropometric measurements of an individual worker and its application to kitchen layout designing.

### UNIT III

Materials and finishes – Various materials and finishes used in kitchen – floor, walls, sink, ceiling, platforms, storage and their characteristics,

### UNIT IV

Essential services needed in a kitchen. Water supply – hot and cold, taping, water purifiers. - Electricity services – electric current, exhaust fans, electrical equipment and their locations. - Drainage services – Waste water drainage system, waste disposal.

## UNIT V

Kitchen storage – principles of kitchen storage, storage areas in kitchen and its dimensions, hand operated tools and their location. Care and maintenance of storage.

#### REFERENCES

- 1. Alexander, N.J (1972), Designing Interior Environment, Havanouich Inc.,
- 2. Faulkner, R., and Faulkner. S, (1987), Inside Today's Home, Rinehart publishing company, New york..
- 3. Riggs, R. (1992) Materials and components of Interior Design, Prentice Hall of India Pvt Ltd., New Delhi.
- 4. Allen dizik (1988), A concise encyclopedia of Interior Design, 2<sup>nd</sup> edition, van nos -trend reinbold, Newyork.
- 5. Varghese.M.A. etal., (1994), Ergonomics in Kitchen design, Bombay

## **ELECTIVE I-C: PROFESSIONAL PRACTICE**

### NUMBER OF CREDIT HOURS: 5

#### **SUBJECT DESCRIPTION:**

This course contains the planning of interiors of residential and commercial building, estimating, specification and professional practices.

### **OBJECTIVES :**

To enable the students to plan residential interiors and commercial interiors Gain knowledge in estimating and costing understand the preparation of quotation and tenders.

#### UNIT I

Residential Interiors – Space planning for residential interiors Life space-macro, micro and meso- living room, dining room, kitchen, bedroom.

#### UNIT II

Commercial interiors – Meaning, Designing and planning space for various commercial purpose- Restaurant and Hotels. Space planning for office interiors – Benefits of space planning, cabinets, work stations, partition and cabinets, conference rooms, office systems-open and closed.

## UNIT III

Estimating – Definition of estimates, types, unit and mode of measurement, quantity surveying –systems adopted, analysis of rates, schedule of items, schedule of rates, schedule of quantities.

## UNIT IV

Specifications – definition, uses, importance, types, requirements, points to be included in the specifications.

## UNIT V

Tenders and quotations – Tenders – meaning types, preparation of tenders, quotations, contracts.

Indian Institute of Interior Designers- Rules and Regulations, Code of conduct.

## REFERENCES

- 1. Deshpande, R.S. (1995); Modern ideal Homes for India, Deshpande Publication, Poona
- 2. Tessie, A., (1986), The House, its plan and use, J.B. Lippincett, New York.
- 3. Day P.G. (1982), A guide to professional architectural and industrial scale model building, Eagle wood clifts, N.J. Prentice Hall.
- 4. Indian Standards Institutions (1983), National building code of India ISI rol. 1 New Delhi, Marak Bhavan.
- 5. Arulmanickam A.P. and T.K. Palaniappan (1993), Estimating and costing, Pratheeba Publishers, Coimbatore

# ELECTIVE II-A : MERCHANDISING AND DISPLAY

# NUMBER OF CREDIT HOURS: 5

## **SUBJECT DESCRIPTION:**

This course deals with concept of commercial art, Merchandising, Advertising, emphasizing the role of display in sales promotion.

## **OBJECTIVES:**

To help students

To learn about the need and use of commercial art.

To encourage the student to apply theoretical knowledge in arranging the interior and window of a store.

To know the current trends in commercial art.

## UNIT I

Concept of commercial art and merchandising- Meaning, classification, development-recent trends- art, architecture and display.

## UNIT II

Consumer and Merchandising - Meaning, significance and classification of consumer, Consumer rights and responsibilities, classification of consumer goods, elements involved in merchandising- grading, branding, labeling, packaging and standardization. Merchandising and distribution- Importance, selection of channels, channels of distribution of goods, techniques of merchandising- selling methods.

## UNIT III

Salesmanship-concept - definition, types and qualities of salesman-techniques of salesmanship.

## UNIT IV

Advertisement- Definition, importance, classification, features of good advertisement, preparation and techniques, advertisement media- selection, classification and types, poster-importance, characteristics- steps and techniques in poster making.

## UNIT V

Merchandise Display-Interior display- principles and requirements- types of merchandise display- window display- meaning, principles and factors and rules. Window arrangement-art and psychology, principles - techniques in window display.

## REFERENCES

- 1. Pattanchetti, C.C., Reddy.P.N., (1995), Marketing, Rainbow publishers, Coimbatore.
- 2. Nair, R (1994), Marketing, Sultan chand and sons educational publishers, New Delhi.
- 3. Nisra, M.N (1994), Sales promotion and advertising management, Himalaya publishing house, Bombay.
- 4. Sherlekar, S.A (1997), Marketing management, Himalaya publishing House, Bombay.
- 5. Chunnawalla.S.A. Sethia .K.C (1995) Foundations of advertising Theory and practice, Himalaya publishing House, New Delhi.
- 6. Thakur, D. (1990) Marketing and Sales Management, Deep and Deep publications, New Delhi.

## **RELATED EXPERIENCES:**

- 1. Preparing advertisement on consumer goods.
- 2. Evaluating different media used for advertisement.
- 3. Preparing ideal posters on recent issues.
- 4. Collect and make an album of various advertisements.
- 5. Visit to merchandise shops and observe the techniques of selling, interior and window display.

## **ELECTIVE II-B : ERGONOMICS**

#### NUMBER OF CREDIT HOURS: 5

#### **SUBJECT DESCRIPTION:**

This course deals with concept of ergonomics, work environment and their impact on health and work efficiency.

#### **OBJECTIVES:**

To enable the students to gain knowledge on importance of ergonomics in work effectiveness. Design work areas using ergonomic principles.

#### UNIT I

Concept of ergonomics – Meaning, importance, factors involved – worker, work place, tools and equipment, environment, climate.

#### UNIT II

Work environment – Location, space, indoor and outdoor climate, furniture, lighting and ventilation, flooring, noise, storage facilities, kitchen layouts.

#### **UNIT III**

Anthropometry – Anthropometric dimension of workers at work and at rest, normal and maximum vertical and horizontal reaches, work heights when seated and standing, worker in relationship with workspace and activities.

#### **UNIT IV**

Improving work efficiency- Concept of efficiency, principles and work and implication technique, effective use of body mechanics, posture involved in difference activities, Mundel's classes of change.

### UNIT V

Design of work place – Activity analysis – Designing work areas based on ergonomics principles.

#### REFERENCES

- 1. Barner, R.M., (1980), Motion and Time Study, Design and Measurement of work, John Wiley, New York,
- 2. Borgert, E. (1982) Housecraft Principles and Practices, Issac Pitman, London.
- 3. Chaffin, D.B. and Andersson, G.B.J. (1984) Occupational Biomechanics, John Wiley, New York
- 4. Cromwell, L. Weibell, F.J. and Pfeirffer, E.A. (1991) Biomedical Instrumentation and Measurements, Prentice Hall, New Delhi.

## **ELECTIVE II-C : ENVIRONMENT CONTROL IN INTERIORS**

### NUMBER OF CREDIT HOURS : 5 SUBJECT DESCRIPTION:

This course contains heating, ventilation, air conditioning and noise control in the interior spaces.

#### **OBJECTIVES:**

To enable the students to

understand the importance of environment control in the interiors. Acquire knowledge on the different types of heating and cooling systems.

#### UNIT I

Environment control – meaning of environment, importance of environment control, advantages, elements to be controlled in the interiors – Temperature, air quality, sound, sanitation, light.

### UNIT II

HVAC - Meaning

Ventilation – Definition, importance, Types of ventilation – Natural and mechanical Guidelines for natural ventilation.

## UNIT III

Heating – Need for room heating, types of heating system – central, radiant, forced air; solar system – Active solar system and passive solar system.

### UNIT IV

Air conditioning – Meaning, Principles, Need for conditioning, Air conditioning applications, Humidity control, Classification of air conditioning system – Comfort air conditioning – summer, winter and year round. Window air conditioning- window, split system.

### UNIT V

Acoustics – Definition, requirements of good acoustics, properties of sound – sound waves wave length, frequency, velocity, resonance, sound levels, loudness, noise, sound reflection, echoes, reverberation; Sound absorption – sound absorbent materials, qualities of acoustic material, guidelines for good acoustical design.

### REFERENCES

- 1. Pratap R.M (1988) Interior design principles and practice, Standard publishers distribution, Delhi
- 2. Faulkner, S., and Faulkner. R, (1987), Inside Today's Home, Rinehart publishing company, New york..
- 3. www.wixipedia.orga. Air conditioning
- 4. Park, K (1995), Text Book of preventive and social medicine, Banaridas Bhanot Publishers, Jabalpur.
- 5. Punnia, B.C (1995), A. Text book of building construction, Lakshmi Publication Pvt.Ltd., New Delhi.

## ELECTIVE III-A : ENTREPRENEURIAL DEVELOPMENT

## NUMBER OF CREDIT HOURS: 5 SUBJECT DESCRIPTION:

This course intends to develop entrepreneurship skills in students by understanding the process and procedure of setting up small enterprises and managing them effectively.

### **OBJECTIVES:**

To enable the students to Develop entrepreneurial skills. Analyze the environment related to small scale industry and business. Understand the process and procedures of setting up small enterprises. Develop Management skills for entrepreneurship development.

## UNIT I

Entrepreneurship - Entrepreneur, Enterprise and Entrepreneurship - meaning, need, transition from income generation to self employment and Entrepreneurship, qualities of a good entrepreneur, problems of entrepreneurs.

#### UNIT II

Factors influencing entrepreneurial development - Economic, Legal, Socioeconomic, Psychological and Environmental factors.

#### UNIT III

Agencies supporting entrepreneurial development programme - SIDCO, DIC, TIIC, SIPCOT, KVIC. Institutional Finance to Entrepreneurs – IDBI, ICICI, RBI, LIC.

### UNIT IV

Project identification and classification - Meaning of Projects, Project identification, Project Classification, internal and external constraints, Project objectives.

### UNIT V

Project formulation – Concept, need, elements. Project selection, appraisal format, check list for feasibility report, planning commission guidelines.

## **RELATED EXPERIENCE:**

- 1. Visit to SIDCO, DIC and TIIC.
- 2. Case study of an enterprise and two entrepreneurs.
- 3. Preparation of a project proposal for funding.

### **REFERENCES:**

- 1. Gupta C.B, and Srinivasan N.P, Entrepreneurship development in India, Sultan Chand & Sons, New Delhi, 2004.
- 2. Chunawalla S.A, Sales Management, Himalayan Publishing House, New Delhi, 1991.
- 3. Vasant Desai, Project Management and entrepreneurship, Himalaya Publishing House, New Delhi, (2000).
- 4. David H.Moll, Entrepreneurship, Prentice Hall of India, New Delhi, 1999. Frank Jerkins, Advertising, Prentice Hall of India, New India, 2000.

## **ELECTIVE III-B : FASHION DESIGNING**

#### NUMBER OF CREDIT HOURS : 5

#### **SUBJECT DESCRIPTION:**

This course consists of the terms related to fashion industry and explaining the different dress designs for unusual figures.

#### **OBJECTIVES:**

To enable the students to Familiarize with fashion designing Acquaint with the steps involved in the dress designing Gain knowledge in wardrobe planning

#### UNIT I

Terms related to the fashion industry – fashion, style, fad, classic and collection, chic custom made, mannequin, fashion, show, trend, forecasting, high fashion, haute, couture, fashion director, fashion editor, line, knock-off, avant garde, apparel, fashion merchandising, sample.

#### UNIT II

Design – definition and types – structural and decorative design, requirements of a good structural and decorative design. Elements of design – line, shape or form, colour, size and texture. Application of structural and decorative design in dress selection and application of trimmings and decorations. Fashion accessories – shoes, handbags, hats, ties – different types.

#### **UNIT III**

Principles of design – Balance – formal and informal, Rhythm – through repetition, radiation and gradation, Emphasis, Harmony, Proportion - Application of principles of design in a dress, Colour – colour harmonies and applications of colour in dress design.

#### **UNIT IV**

Designing dresses for unusual figures – becoming and unbecoming – for the following figure types – Stout figure, slender figure, narrow shoulders, broad shoulders, round shoulders, large bust, flat chest, large hip, large abdomen, round face, large face, small face, prominent chin and jaw, prominent forehead.

#### UNIT V

Wardrobe planning for different age groups, factors influencing wardrobe selection, Fashion and season, designing dresses for different occasions – business meetings, parties, leisure hours, marriage functions, sports, uniforms for civil services, airhostess, hoteliers, schools – girls and boys.

#### REFERENCES

- 1. Fashion Sketch Book Bina Abling, Fair Child Publications, New York
- 2. Strategies for Women Judith Rasband, Delmar publishers London.

- 3. Fundamentals of Textiles and their care Susheela Dantyagi, 5<sup>th</sup> edition, orient Longman Ltd., New Delhi.
- 4. Inside the Fashion Business Heannette A Jarnow et-al, Macmillan publishing Company, New York.
- 5. Art and Fashion in Clothing Selection Mc Jimsey and Harriet, Iowa State University press, Jowa.

# **ELECTIVE III-C : GREEN BUILDING TECHNOLOGY**

### NUMBER OF CREDIT HOURS : 5

#### **SUBJECT DESCRIPTION:**

This course contains the concept of green building technology, imparting the benefits of it, explaining the materials, emphasizing the use of renewable energy resources and water conservation.

#### GOALS

To enable the students to.

Learn the concept of green building technology and gain knowledge in green building materials.

#### **OBJECTIVES:**

On successful completion of the course the students should have understood the importance of green building technology.

Acquired knowledge in recent green building materials and to trap rain water

### 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 building – Bamboo, straw, wood, dimension stone, Recycled stone, non-toxic metals, Earth blocks-compressed, rammed, baked; vermiculites, 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 – meaning and importance, solar energy – advantages, principles and functions of solar devices – solar room heater, solar lights, solar water heater, solar air conditioners.

# UNIT V

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

## REFERENCES

- 1. Rai G.D (1996), Solar Energy Utilization, Khanna Publichsers, Delhi.
- 2. Riggs, J.R. (1992) Materials and components of Interior Design, Regents Hall, New Jersey
- 3. Faulkner, R., and Faulkner. S, (1987) Inside Today's Home, Rinehart publishing House, New york..
- 4. Roa, M.P. (1998), Interior design, principles and practice, standard publishers, Delhi.
- 5. Despande, R.S, (1974) Build your own home, United book corporation, Poona