BHARATHIDASAN UNIVERSITY
TIRUCHIRAPPALLI- 620 024

B.Sc Interior Design

(For the candidates admitted from the academic year 2014 -15 onwards offered through Centre for Distance Education)

Course Duration: 3 Years – (Non-Semester System)

Eligibility: Passed in Higher Secondary (+2)

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<tr>
<th>Year</th>
<th>Paper</th>
<th>Title of the Paper</th>
<th>Exam Hours</th>
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<td>I</td>
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<td>Principles of Interior Design</td>
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<td>Fine Arts – Drawing and Painting</td>
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<td>Building materials and components</td>
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<td>Principles of Commerce</td>
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<td>Major Paper –V</td>
<td>Mechanical services in interior design</td>
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<td>Major Paper –VI (Practical II)</td>
<td>Draftsmanship</td>
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<td>Major Paper VII</td>
<td>Ergonomics in Kitchen Design</td>
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<td>Second Allied Paper</td>
<td>Marketing</td>
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<td>Furnishing the Interior</td>
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<td>Floriculture and landscaping</td>
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<td>Major Paper –X</td>
<td>Commercial design and Auto Cad</td>
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<td>Green building technology</td>
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<td>Major Paper –XII</td>
<td>Professional practice and Entrepreneurial development</td>
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Total 1800

Note 1: FOR ALL THEORY and PRACTICAL PAPERS passing minimum is 40 %.
2. Compulsory Record should be submitted at the time of practical examination.
3: Environmental Studies UGC paper is compulsory to study in 1st year.
Objectives:
1. Develop Knowledge and understand the principles of art.
2. Help learn skills in using the principles and methods of creating beautiful interiors.
3. Apply the theoretical knowledge to practical situation.
4. Be conscious of aesthetics.

Unit I
Development of interior design concepts - a historic review. Place of interior in the modern era-changing trends and salient features, objectives of aesthetic planning - Beauty, expressiveness, functionalism, economy Role of good taste – meaning and importance. Need for developing skill in aesthetics.

UNIT-II
Design –Definition, meaning, purpose, Types - Structural and decorative, characteristics, classification of decorative design - Naturalistic, conventional, geometric, abstract, historic, biomorphic - Elements of design - Line and direction, form and shape, size, colour, light, pattern, texture and space - application of elements to form designs.

UNIT-III
Principles of design –Balance, rhythm, emphasis, harmony, proportion - meaning and application of design concepts in the interior and exterior houses and other commercial buildings. Development of design from motifs and application.

UNIT- IV
Colour in the home –concept, qualities – Hue, value, intensity classification of colors, Prang color system, color harmonies – Related and contrasting color harmonies, psychology of color. Application of colour in interiors. Lighting in interiors – importance, classification based on sources, uses, illumination, factors to be considered in lighting for different areas of house.

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

Related Experience
- Draw different types of design using principles of design – Structural and decorative design develop design by using motifs applying the principles of design.
- 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.
- Collection of related pictures and photographs and maintain an album.

REFERENCES:
2. Caroline cliften et. al., The complete Home Decorator, Portland House New York.
3. Seetharaman, P and Pannu, P. Interior Design and Decoration, CBS publishers and Distributors, New Delhi
Paper II
FINE ARTS – DRAWING AND PAINTING

Objectives:
1. Explore a variety of drawing media and techniques
2. Develop skill in drawing using different tools.

Unit I
Developing design on various supports - Canvas, boards, panels and papers using different brushes for water colour and oil painting.

Unit II
Drawing using different tools - pencils, charcoal, pastels, crayons, pen and ink, markers and fibre tip pens.

Unit III
Painting media- Developing wall hangers - using water colour, tempera and acrylics, oils, paints with binders, diluents and mediums.

Unit IV
Developing greeting cards using different techniques - line, dots, template, shading, spraying texturing.

Unit V
Colour and composition – Colour language, tonal value, mixing, colour expression and colour contrast.

Related Experience
- Composition – creating focal points.
- Evaluating three famous artists work
- Submission of record.

REFERENCES:
2. Rangawala, S.C, Building construction, Charter publishing house, Anand 1963
Objectives:
1. Become aware of the existing building materials and finishes.
2. Develop aesthetic concept of using finishes in building

Unit I
Building materials and finishes - Types and uses of stone, brick, timber, cement, mortar, concrete, plastics, glass, wood based materials, metals - ferrous and nonferrous, wall, floor and ceiling finishes.

Unit II

Unit III
Details of doors, windows, cupboards, partitions and joineries.

Unit IV
Plumbing and sanitary services - water supply within buildings, drainage system for residence, sanitary apparatus and symbols used.

Unit V
Electrical services – Electrical system, symbols used, three phase and single phase system, simple electrical layouts. Lighting and Illumination - Principles of illumination, types of lighting fixtures, lighting design in residences, offices and stores.

Reference:
FIRST ALLIED PAPER - PRINCIPLES OF COMMERCE

Unit I

Unit II

Unit III

Unit IV

Unit V

Reference:
1. OR Kishnasamy – Essentials of Commerce
2. Bhushan – Business Organization
3. Kathiresan and Radha – Business Organization
Paper IV
Planning Residential Space

Objectives
- Understand the concept of life space and principles of planning
- Identify Institutional support for housing
- Learn to draw house plans.

Unit I
Space for living – Concept of life space- Meaning of Macro, Micro and Meso environment, proxemics and personal space, territoriality, claustrophobia and agoraphobia crowding, planning objectives of life space. Need for space occupancy. Ownership style- advantages and disadvantages of owning versus renting, individual houses- flats and row houses.

Unit II
Significance of housing – Functions of house. Selection of site, types of house plan- site plan, floor plan, elevation, cross sectional plan and perspective view. Factors determining housing

Unit III
Principles of house plan- Aspect, prospect, orientation, privacy, grouping roominess, flexibility, circulation, furniture requirements, sanitation and practical consideration. Need for standardization in housing, types of standards, role of BIS.

Unit IV
Allocation of space for various activities-Social spaces, work spaces, private space. Drafting house plan for various income groups.

Unit V
Housing problems in India- Causes and remedial measures. Legal restrictions in housing-plot, easement rights, zoning law, building bye laws. Finance and institutional support for housing – NEERI , NBO, LIC, Banks, HDFC, and HUDCO.

References:
Paper V
Mechanical Services in Interior Design

Objectives:
- Educate the students on basic principles of electrical equipments.
- Acquire knowledge on environment and its impact on the interiors.

Unit - I
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 materials, qualities for good acoustical design.

Unit – II
Air conditioning – Meaning, need for air conditioning, principles of air conditioning system, Types of air conditioning – Central and packaged, its application in houses, apartments, guest rooms, libraries, museums, hospitals, hostels, restaurants and offices.

Unit – III
Heating- Need for room heating, types of heating system- central, radiant, forced air and solar system. Active solar system and passive solar system. Ventilation – definition, importance, types of ventilation- natural and mechanical, guidelines for natural ventilation.

Unit – IV
Illumination – Principles, types of lighting fixtures, planning lighting for residences ,offices and stores. Electrical services - Electrical system, symbols used, three phase and single phase system, simple electrical layouts.

Unit – V
Environmental control – meaning of environment, importance of environmental control, advantages, elements to be controlled in the interiors- temperature, air quality, sound, sanitation and light.

References
Paper VI
Draftsmanship – I (Practical II)

Objectives:
• Understand the basics of residential drawing.
• Develop skill in 2D and 3D manual drawings
• Train to draw 3D view of furniture

Unit -I
Introduction to Draftmanship – Relationship between two dimensional and three dimensional diagrams.

Unit – II
Drafting tools and Techniques- Drawing table and boards, introduction to handling paper and pencil. Types of scales, tools for curves and irregular forms, drawing aids. Drafting medium-tracing paper, tracing cloth, water colour paper, sketch paper and polyester film.

Unit –III
Lines- types of lines, thickness of lines, hatching of lines. Lettering- requirements of good lettering, size of letters and numerals, space between letters, recommended height of letters and lettering technique.

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

Unit – V
Geometrical constructions- Technical sketching, introduction and importance of free hand sketching and principles of free hand sketching.

References:
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 different activities, Mundel’s classes of change.

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

References:
Second Allied Paper – MARKETING

Unit I:
Definition and meaning of marketing – Modern concept of Marketing – Marketing and selling – Marketing functions – buying transportation – warehousing – standardization – Grading – Packaging

Unit II:

Unit III:
Pricing methods and strategies – physical Distribution – wholesaler and retailer – Services rendered by them.

Unit IV:
Promotional methods – Advertising – Publicity – Personal selling – Sales Promotion

Unit V:
Marketing Research – importance in Marketing decisions – Interactive marketing – Use of Internet – Online auction – Recent.

Text Book Recommended:

1. Marketing by Rajan Nair – Sultan Chand Company (or)
2. Marketing management by Sherlekar
Paper VIII
Furnishing the Interiors

Objectives:
- Gain knowledge in selection, use and care of furnishings.
- Know about the various fibres, weaves and finishes.
- Develop skill in estimating the cost of furnishing

Unit I
Furniture – Meaning and Definition, factors influencing selection, materials used. Styles in furniture – traditional, contemporary and modern designs. Furniture for different purpose, rooms, family needs, preference and financial limit.

Unit II
Construction features of furniture – Case goods and upholstered furniture – shaping, carving, turning, fluting, reeding. Different types of joints. Upholstering - Techniques and designs. Familiar furniture materials – different types of wood, metals, plastics, leathers. Care and maintenance – wood finishes and furniture polishes, care of upholstered and wooden furniture.

Unit III
Soft furnishings- Meaning and importance. Types of furnishings- Carpets, rugs, cushion cover, slip cover, bed linen, table linen and bath linen. Window treatments – Curtains, draperies, blinds, shades, valences and pelmets. Care and maintenance- stain removal and storage of furnishings.

Unit IV
Furniture arrangement – Factors to be considered while arranging furniture in different rooms – living rooms, dining room, bed room and kitchen. Furniture cut outs. Wise buymanship of furniture.

Unit V
Accessories- meaning, definition, need and types of accessories- functional, decorative both functional and decorative. Flower arrangement- importance, basic shapes, types- line, mass, line and mass, miniature, floating and hanging, Styles- traditional, modern and oriental. Ikabana- style of flower arrangement.

References
Objectives:
- Acquire skill in identifying ornamental plants
- Understand the methods of cultivation aspect of economic flowers
- Develop skills in making floral design and marketing

Unit – I
Floriculture- Meaning, concept and importance. Ornamental plants- classifications- Annuals, Biennials and perennials, annuals for summer, winter and rainy seasons. Flowering and foliage shrubs and trees, climbers and creepers, cacti and succulents, ferns, palms, hardy bulbs and tender bulbs.

Unit – II
Propagation Methods- Sexual and asexual methods of propagation- division, cutting, layering, grafting, budding and tissue culture.

Unit - III

Unit – IV
Landscaping- Meaning and importance, Types of garden, garden components, Garden design- formal and informal, principles of landscape gardening. Lawn- importance, preparation, methods of cultivation, use, maintenance, type of lawn, indoor plants- potting and repotting techniques.

Unit – V
Modern trends in gardening – Terrace garden, Rock garden, Bonsai culture, - Roof garden, Hanging garden.

References
Objectives
To enable the students to
1. Develop skill in drawing using computer
2. Develop skill in presenting CAD drawing

Unit I
Basic shapes – Line, Arc, Circle, Rectangle, Polygon, Ellipse - Drafting settings, limits, units, zoon.

Unit II
Editing the Plan – Modifications, Move, Copy, Rotate, Mirror, Trim, Offset, Array, Scale- Extend, Stretch, Lengthen, Fillet, Champer.

Unit III
Apply Texture – Object properties, Colour, Line type, line weight, layers, Text, M Text - Bhatch, Pline, ID, List, Dist, Area

Unit IV
Add measurements for the Drawing - Dimensioning, Linear, Aligned, Radius, Diameter, Angular, Qleader, Baseline, Continue, Tolerance

Unit V
Project Submission – Create complete plan for a building with all details – rendering, dimension- elevation, plan and perspective view.

References:
1. Autocad 2006 – CADD Centre
2. Autocad 2007 – Sham Tickoo
3. Autocad 2007 – Autodesk Inc
4. Autocad 2005 - Engineers India
5. Autocad 2007 – CAD TRAINING
6. Autocad 2007 – CAD FORUM
7. Autocad 2007 – Design news
Paper XI
Green Building Technology

Objectives:
- Educate the students on basic principles and history of alternate energy sources
- Understand the importance of green buildings.
- Acquire knowledge on different types of green building materials.

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 fibers, cork, coconut, polyurethane block

Unit-III
Green building practices and technologies. Roof, walls, floor- electrical, plumbing, windows and doors, heating, ventilation and air condition (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
Paper XII
Professional Practice and Entrepreneurship Development

Objectives:
To enable the students to:
- Understand the nature of entrepreneurial activities
- Know the schemes and programmes in relation to entrepreneurship development
- Seek self employment ventures

Unit I

Unit II

Unit III

Unit IV
Project and Profitability Appraisal – Concept, methods, Methods of minimizing risks, Components of fixed and working capital and requirements of fixed and working capital. Calculating fixed capital, working capital and operational costs. (Concept of capitalization and trading, marketing functions). Leasing and leasing arrangements.

Unit V
Limitations in Entrepreneurship – Problems in project formulation, implementation and co-ordination. (Limitations for women entrepreneurs – Physical economic, social and psychological. Suggestions for overcoming). 6

References:
ABSTRACT. The genus Euclea (Lepidoptera: Limacoididae) is newly recorded from South India by using DNA barcoding analysis.