திருவள்ளுவர் பல்கலைக்கழகம் THIRUVALLUVAR UNIVERSITY SERKKADU, VELLORE - 632 115

MASTER OF SCIENCE M.Sc., INTERIOR DESIGN AND DECOR DEGREE COURSE CBCS PATTERN (With effect from 2022-2023)



SYLLABUS FOR AFFILIATED COLLEGES OF THIRUVALLUVAR UNIVERSITY

THIRUVALLUVAR UNIVERSITY, VELLORE – 632 115

M.Sc., Interior Design and Decor – 2022-2023 onwards

Programme Objectives:

The M.Sc., Interior Design and Decor programme

- 1. Engages the students to explore novel ideas and issues concerning the different aspect of interior design and decoration.
- 2. Helps to gain not only theoretical knowledge of the subject but also learn its practical applications in the real world.
- 3. Allows the students to become a competent and competitive professional on today's challenging market.
- 4. Provides the platform to develop creative skills of students and acquire in depth knowledge of interior designing and decorating.
- Incorporates theory, practical, research, and making work that explores the
 creativity of students in numerous fields, extending from small residential to large
 commercial space designing.

Programme Educational Objectives:

The programme is expected to enable the students to

- 1. Identify, define and describe relevant aspects of a design problem.
- **2.** Express ideas effectively through the use of drawings, design software and presentations.
- **3.** Deduce the information on application of building materials and finishes for decoration of interiors.
- **4.** Integrate ergonomics knowledge in designing the Residential & Commercial Projects for client's contentment.
- **5.** Provide a good grounding in the best practice of gathering and communicating information.

Programme Specific Outcomes:

- 1. Learn to visualize and show interior design concepts and plans.
- 2. Apply lateral thinking with techno fervor and act as proactive agents of change.
- 3. Infuse the professionalism and entrepreneurial mind in the students.

- 4. Buttress theoretical knowledge and technological linkages for professional development
- 5. Understand the utilization of eco-friendly materials and finishes in building construction.
- 6. Develop a competitive edge in career option and be a responsible consumer and able designer.
- 7. Extend technological linkages for professional development.
- 8. Generalize the interior design skill in setting up of an event.
- 9. Explore research interest with creativity, advanced technology and sensitivity towards sustainable environment practices.
- 10. Comprehend advanced knowledge in the core and specialization subjects with relevant practical inputs.

Programme Outcomes:

At the end of this program, students will be able to

- 1. Understand the market trends, client needs, project potentials and work with an inter disciplinary team.
- 2. Develop professional competency and ethical responsibility through mini project, summer internship, major project, field trip/ industrial visit and workshops.
- 3. Gain confidence and enhance drawing skills and Interior illustrations.
- 4. Develop an understanding of various tools, techniques and Computer Aided Design and 3d max software to create presentations in two or three dimensions.
- 5. Understand building and safety codes, principles and practices for environmental and sustainable interior design.
- 6. Develop problem solving, decision making and communication skills
- 7. Exhibit attitude, skills, knowledge of a well groomed personality and aware of general issues prevailing in the society.
- 8. Get practice in collection of drawings and preparing portfolio.
- 9. Apply critical and contextual approaches across wide variety of subject matter.
- 10. Start their own business in the interior design field or can become a partner with other related business

Internal Assessment Methods: (The following items may be brought under test, seminar and assignment framework)

- a. Book review and research paper review, syllabus and curriculum review.
- b. Data collection and paper writing practices: books level, field study level. Using the course study for society and nature development exercise
- c. Workshops, preparing technical term dictionaries from text books and reference books.
- d. Preparing question paper by the candidates: objective type, descriptive type, training can be given by the teacher
- e. Forming digital library: collecting text and reference books, course material.
- f. Villages, institutions, various people groups may be adopted by the departments of the colleges for practicing their theoretical study. Innovative methods may be implemented in the practices and report can be written for documentation, further discussion and research.
- g. Extracurricular and cultural activities may be framed through the syllabus content.
- h. Grouping students for self discussion, self learning process.
- i. Following institution and intellectual and writing reports in the course field.
- j. Bloom Taxonomy may be introduced for teaching, learning and evaluation process within the framework of question setting pattern and internal assessment pattern.
- k. For application oriented study: Villages, Institutions, various people groups may be adopted by the departments of the colleges for practicing their theoretical study. Innovative methods may be implemented in the practices and report can be written for documentation, further discussion and research.
- 1. Extracurricular activities may be framed through their syllabus content.
- m. Bring the industries to the campus. Bring the students to the industry.
- n. Ph.D. Research Methodology is applicable to write project report and any kind of research reports like assignment, seminar papers, case study reports, etc.

THIRUVALLUVAR UNIVERSITY MASTER OF SCIENCE

M.Sc. INTERIOR DESIGN AND DECOR DEGREE COURSE CBCS PATTERN

(With effect from 2022-2023)

The Course of Study and the Scheme of Examinations

S. No.	Study Con	nponents	Ins. Hrs/	Credit	Title of the Paper	Max	imum M	orke				
S. 1NU.	Course	Title	week	Credit	Title of the Paper	Max	annum M	arks				
			SEMESTER I		CIA	Uni. Exam	Total					
1	CORE	Paper-1	5	4	Design Techniques	25	75	100				
2	CORE	Paper- 2	6	4	Principles of Resource Management	25	75	100				
3	CORE	Paper- 3	6	4	Advanced landscape design	25	75	100				
4	CORE PRACTICAL	Practical-1	3	0	Advanced landscape design	0	0	0				
5	CORE ELECTIVE I	Paper-1	5	3	A. Traditional InteriorsB. Renewable Energy ResourcesC. Art in Commercial Space	25	75	100				
6	OPEN Paper-1		5	3	A. Housekeeping and Front Office Management B. Floriculture and floral art C. Interior Decoration	25	75	100				
	Sem. Total		30	18		125	375	500				
		SEME	ESTER I	I	CIA	Uni. Exam	Total					
7	CORE	Paper-4	5	4	Research Methodology and Statistics	25	75	100				
8	CORE	Paper-5	4	4	Space Planning in Interiors	25	75	100				
9	CORE	Paper-6	4	4	Interior Decoration Perspectives	25	75	100				
10	CORE PRACTICAL	Practical- 1	3	3	Advanced landscape design	25	75	100				
11	CORE PRACTICAL	Practical- 2	3	3	Advanced CAD in Interior Design	25	75	100				
12	CORE ELECTIVE II	CORE Page 2		3	A. Furniture Design B. Advanced Graphic Design C. Innovation and Entrepreneurship	25	75	100				
13	OPEN ELECTIVE II Paper - 2		4	3	A. Landscape Design B. Entrepreneurship Development C. Art in Interiors	25	75	100				
14	Compulsory Paper		2	2	Human Rights and Duties	25	75	100				
	Sem. Total		30	26		300	600	800				

			SEMES	STER I	П	CIA	Uni. Exam	Total
15	CORE	Paper- 7	5	5	Ergonomics in Interior Design	25	75	100
16	CORE	Paper- 8	5	4	Household Equipment	25	75	100
17	CORE	Paper- 9	4	4	Building materials and finishes	25	75	100
18	CORE	Paper- 10	4	4	Basics of Architecture	25	75	100
19	CORE Practical-3 PRACTICAL		3	0	3 ds max in Interiors	0	0	0
20	CORE ELECTIVE III	Paper-3	5	3	A. Event Management B. Interior Environment and Services C. Organizational Behaviour	25	75	100
21	OPEN ELECTIVE III	Paper- 3	4	3	A. Accessories in InteriorsB. Commercial InteriorsC. Basics of Furniture Design	25	75	100
22	FIELD STUDY	D STUDY -		2	FIELD STUDY	100	-	100
23	MOOC COURSE	-	-	2	-	-	-	100
	Sem. Total		30	27		250	450	800
			SEME	STER	IV	CIA	Uni. Exam	Total
24	CORE	Paper-11	5	5	Professional Practice and Estimation	25	75	100
25	CORE PRACTICAL	Practical -3	3	3	3ds max in Interiors	25	75	100
26	CORE	Project / Dissertation	12	7	Project with viva voce		project viva)	100
27	CORE ELECTIVE IV	Paper- 4	5	3	A. Sustainable interiors B. Advanced Resource Management C. Green Consumerism	25	75	100
28	OPEN Paper- 4 ELECTIVE IV			3	A. Home FurnishingsB. Green InteriorsC. Alternative Sources of Energy	25	75	100
	Sem. Total		30	21		200	300	500
	Course Total			92		775	1725	2600

Paper type: Core Paper code:

Name of the Paper: Paper - Paper-1 DESIGN TECHNIQUES

Credit: 4

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

1. Study the history and its influences on social and cultural aspects on interior design.

- 2. Understand the elements of design and their application in creating designs.
- 3. To analyze various art forms and understand their application in interior.
- 4. Recognise the principles of design and its use in art form.
- 5. Learn various styles of Interior design and Art movements during different periods.

Course Outcome:

- 1. After completion of the Course, the student will be able to comprehend significance of design concepts as an integral component of man's living styles from bygone days.
- 2. After completion of the Course, the student will be able to distinguish designs of functional value from those of aesthetic value.
- 3. After completion of the Course, the student will be able to apply the various colour scheme in producing aesthetic interior.
- 4. After completion of the Course, the student will be able to using the elements and principles knowledge to interiors.
- 5. After completion of the Course, the student will be able to identify the emergence of different styles in interior design.

Matching Table

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	No
2	Yes	Yes	No	Yes	Yes	Yes
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 14

History of Interior design - Introduction. Conceptual meaning of interior design and interior decoration, History of buildings, Importance of learning the history of interior design.

History, growth and development of Interior decoration in India. Characteristics of Indian Interior Design-cultural and ethnic influences. Qualities and Role of an Interior Designer. Rise of the Interior Decorator.

UNIT 2 Teaching Hours: 16

Basics of design - Aesthetics, Basic design and Creativity, their significance in design development. Functions of Design - Information - Persuasion - Decoration - Magic.

Design –Definition and Purpose of designing. Classification of design - structural and decorative, Natural and Man-made, vernacular and technological, requirements of good structural and decorative design. Classification of decorative design- naturalistic, conventional, geometric, abstract, historic and biomorphic. Types of design decisions-functional and visual or aesthetic designs.

UNIT 3 Teaching Hours: 16

Design elements - Meaning, importance and use in visual and graphic arts, Point or mark. Line-types-actual, implied, psychic, Line and direction-vertical, horizontal, diagonal, curved, zigzag; characteristics of line. Shape –two dimensional; categories: geometric and organic or free forms, Forms-three dimensional; categories: rectilinear and curvilinear, Space – positive and negative, Size, Texture – classification, Colour – dimensions of colour, Prang colour system and role of colour in interiors, Pattern and ornamentation – use in interior décor.

UNIT 4 Teaching Hours: 10

Principles of design: meaning and the basic five design Principles - Balance, Rhythm, Harmony, Proportion and Emphasis - meaning, types and methods of achieving, Use of design principles in art and interior design. Evaluation of design-criteria for evaluation.

UNIT 5 Teaching Hours: 19

Different styles in Interior Design – Features - Traditional, Contemporary, Modern, Minimalist, Bohemian, Rustic, Greek Revival, Gothic Revival, Victorian Style, Vernacular House styles, Characteristics of different Art Movement- Art Deco, Art Nouveau, abstract art and surrealism. Eclecticism, High tech and hard edge style.

Emergence of Modernism - F.L.Wright, De Stijl. International Style - Walter Gropius/Bauhaus, MiesVan Der Rohe, Le Corbusier. Industrial Style. Post war Modernism, Contemporary Design - 1990-present.

References:

- 1. Pat Kirkham, Susan Weber, History of Design Decorative Arts and Material Culture, 1400-2000, Bard Center (2013).
- 2. Jeannie Ireland, History of Interior Design, Fairchild Books (2008)
- 3. Judith Gura, John Pile, A History of Interior Design, Laurence King Publishing; 4th Revised edition (2013).
- 4.Kenneth Frampton, Modern Architecture: A Critical History, Fourth Edition, Thames and Hudson, ISBN: 13978-0500203958

- 5. .Kumar Raj (Ed) Essays on Indian Art and Architecture. Discovery pub., New Delhi, 2003.
- 6. Faulkner, S. and Faulkner, R, (1987), Inside Today's Home, Rinehart Publishing company, New York.
- 7. Carolinecliftenet. al., The Complete Home Decorator, Portland House New York.
- 8. Seetharaman, P and Pannu, P. Interior Design and Decoration, CBS Publishers and Distributors, New Delhi.
- 9. Pratap R.M (1988), Interior Design Principles and Practice, Standard Publishers Distribution, Delhi.
- 10.Goldstein, Art in Everyday life, Oxford and IBH Publishing House.

E Materials:

- 1. https://study.com/academy/lesson/what-are-the-seven-elements-of-art-definition-examples.html
- 2. https://thevirtualinstructor.com/artfundamentals.html
- 3. http://ecoursesonline.iasri.res.in/mod/page/view.php?id=120889
- 4. https://www.slideshare.net/KKIIMMII/aesthetics-13339798
- 5. https://www.curbed.com/2016/7/21/12228858/interior-design-decorating-principles
- 6. https://justdecorate.wordpress.com/2014/06/19/the-most-popular-interior-design-motifs-and-their-symbolic-meaning/

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	M	S	M			M	S	M	
CO2		M	S	S				S	S	M
CO3			S	S				M		M
CO4	S		S		S		M		S	
CO5	S		M		S		L	S	M	

PO – Programme Outcome, CO – Course outcome

Paper type: Core Paper Code:

Name of the Paper: Paper - 2 PRINCIPLES OF RESOURCE MANAGEMENT

Credits: 4

Total Hours per Week: 6 Lecture Hours: 90 Tutorial Hours: 90 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

1. Understand the basic concepts of management.

- 2. Learn the significance of values, goals and standards in management.
- 3. Know the role of decision making process in management
- 4. Identify the resources available for management and principles of management.
- 5. Study the management of resources to achieve goals.

Course Outcome:

- 1. After completion of the course the student will be able to understand the need for management
- 2. After completion of the course the student will be able to learn the role of values, goals and standards in management.
- 3. After completion of the course the student will be able to comprehend the characteristics of decision making for successful manager.
- 4. After completion of the course the student will be able to overview of resources available and it's management
- 5. After completion of the course the student will be able to gain information on management principles.

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	Yes	No	Yes	No
2	Yes	Yes	No	Yes	No	No
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

Management - Definition, nature and need for management in the changing world, obstacles for efficient management, Concept of Home Management - Systems approach to management. Process of Home Management - planning, implementing, evaluating. Management in different stages of family life cycle.

UNIT 2 Teaching Hours: 16

Values: need and relevance of values in management, characteristics, types-terminal and instrumental, importance, sources.

Goals: definition, types-outcome goals, process goals and performance goals, importance.

Standards-Concepts, Classification and significance in Management.

UNIT 3 Teaching Hours:18

Decision Making: Definition, characteristics of decision making, -rational thinking, process, selective, Purposive, Positive, commitment, evaluation, types of Decisions-programmed and non-programmed, operational and strategic, organizational and personal, individual and group, steps in decision making Process, Factors affecting decision making.

UNIT 4 Teaching Hours: 18

Resources: Definition, importance, types of resources- Human, natural resources, project resources, financial management, facility management, public asset management, inventory management, benefits-resource utilization, an overview, transparency, foreseeing and avoiding problems, taking control.

UNIT 5 Teaching Hours: 20

Management of Resources: Time Management-tools, steps in planning, factors considered in time planning.

Energy Management- efforts involved, body mechanics, Mundel's classes of change, fatigue and ways to overcome fatigue, work simplification techniques

Money Management- types of income, steps in money management, need and avenues for saving and investment, role of credit in family finance

References:

- 1. Naidu.N.V.R and Krishna Rao.T,(2008), Management and Entrepreneurship, I K International Publishing House pvt Ltd.
- 2. Reddy.P.N, Tripathi.P.C, Appannaiah.H.R, (2003), Essentials of Management, Himalaya Publishing House.
- 3. Shivalingam.T, (2005), Fundamentals of Management, Vrinda Publications Ltd, New Delhi
- 4. OmvirChaudhry and Prakash Singh, (2011), Principles of Management, New age International publishers.

E – Materials:

- 1. https://en.wikiversity.org/wiki/Principles_of_Management
- 2. https://www.economicsdiscussion.net/management/types-of-decision-making/32202
- 3. https://simplicable.com/new/resource-management
- 4. http://www.brainkart.com/article/Home-management---Decision-making_2143/
- 5. https://www.yourarticlelibrary.com/home-management/resources-of-home-management-5-characteristics/47784
- 6. http://www.brainkart.com/article/Money-Management_33515/

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S			M	S	S		S	S
CO2	M	S			S	S			S	M
СОЗ	S	M			S	S	S		M	
CO4	S	S			S	S	M		M	
CO5	S	M			M	S	S		S	S

PO – Programme Outcome, CO – Course outcome

Paper type: Core Theory Paper code:

Name of the Paper: Paper - 3 ADVANCED LANDSCAPE DESIGN

Credits: 4

Total Hours per Week: 6 Lecture Hours: 90 Tutorial Hours: 90 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

- 1. To enable the students to learn the principles to be followed in landscape designing.
- 2. To gain knowledge regarding indoor plants and outdoor plants.
- 3. To apply the elements and Principles of design in Landscaping.
- 4. To expose the students to various ways to Elements of landscaping.
- 5. To develop the understanding of requirements of landscape designing.

Course Outcome:

- **1.** After completion of the Course, the student will be able to broaden knowledge on landscaping principles.
- **2.** After completion of the Course, the student will be able to understand the types of plants suitable for indoors.
- **3.** After completion of the Course, the student will be able to inculcate techniques of bringing nature to interiors.
- **4.** After completion of the Course, the student will be able to apply information gathered through floriculture.
- **5.** After completion of the Course, the student will be able to aware of value addition and modern trends in landscaping.

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	Yes
2	Yes	Yes	No	Yes	Yes	Yes
3	Yes	Yes	Yes	Yes	Yes	No
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

Landscaping – Meaning and importance, History and styles of gardens, Home gardens and garden structures, Enrichment items and garden structures, Types of layouts, components of landscape design, principles of landscape gardening. Right Lighting, soil, water and energy conservation through landscaping.

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

UNIT 2 Teaching Hours: 18

Interior landscape - Definition, Scope, Function and Advantages. Elements of interior landscape - soft and hardscape. Indoor plants-types of indoor plants, physical requirements - light, temperature, planting medium, weight of plants, acclimatization, drainage, maintenance, architectural uses of indoor plants, Design guidelines-plant texture, colour, height plant spacing.

UNIT 3 Teaching Hours:18

Planning for Interior Landscape -Seven principles of design - simplicity, variety, balance, emphasis, sequence, scale and unity. Types of interior landscape – interior landscape – Interior vertical garden, living wall – Loose media, mat media and structure media, stone scape, holy scape, green garden, Indoor horticulture, floating indoor landscaping, Interior waterscapes –pool, reflecting pool, fountain water wall/ cascading wall.

UNIT 4 Teaching Hours: 20

Floriculture - Meaning concept and importance, ornamental plants - classifications - annuals and perennials, annuals for summer, winter and rainy reasons. Shrubs and Trees - flowering and foliage shrubs, and trees, climbers and creepers, cacti and succulents, ferns, palms, hardy bulbs and tender bulbs. Protected Floriculture - prospects, types of protected structures - green houses, poly houses, shade houses, rain shelter. Environment control - management and manipulation.

UNIT 5 Teaching Hours: 16

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.

Value Addition – prospects, types – loose flowers, floral decoration, flower arrangement, Dry flowers – identification and selection, techniques of drying-bleaching, dyeing, embedding, pressing, packing and storing.

References:

- 1. Time saver standards for landscape architecture.
- 2. Planting design by Theodore D. Walker, VNR Publications New York.
- 3. Landscaping Principles and Practices by Jack E. Ingels, Delmar Publishers.
- 4. Satish Chandra Aggrawala, Nishant Chandra Aggrawala Interior Decoration, Dhanpat Rai& Co.
- 5. Rao Pratap .M –Landscape Design –Theory and practice, 2011 Standard publishers.

- 6. Carter, G. (1997), Gardening with containers, Ryland peters and small, London.
- 7. Bird, R, (1998), Creating boundaries and Screens, Ryland peters and small, London.
- 8. Kingsburry.N. (2000), Grasses and Bamboos, Ryland peter and small, London.
- 9. Dey, S.C. (2001), BONSAI The Art of growing miniature trees, Agrobios (India) publishers, Jodhpur.
- 10. Conder, S, (1993), House plant style, Michael o' mara Books limited, London.

E – Materials:

- 1. http://agritech.tnau.ac.in/horticulture/horti_Landscaping_types%20of%20garden.html
- 2. https://en.wikipedia.org/wiki/Gardening
- 3. https://dengarden.com/gardening/Garden-Components-Used-to-Create-Style
- 4. http://agritech.tnau.ac.in/horticulture/horti_Landscaping_garden%20features.html
- 5. https://schultesgreenhouse.com/Benefits.html
- 6. https://richardstbs.com/8-basic-principles-of-landscape-design/
- 7. https://www.thespruce.com/garden-design-principles-1403012
- 8. http://agritech.tnau.ac.in/horticulture/horti_Landscaping_bonsai.html
- 9. https://en.wikipedia.org/wiki/Terrarium

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	M	M	S			S		M
CO2	M	S							M	
CO3	M	M	M			M	S	M	S	
CO4	M	S					S	M	M	
CO5	S	M	M	S				M	M	

PO – Programme Outcome, CO – Course outcome

Paper type: Core practical Paper Code:

Name of the Paper: Practical - 1 ADVANCED LANDSCAPE DESIGN

Credits: 3 Hours of teaching: 3

Total Hours per Week: 3 Lecture Hours: Nil Tutorial Hours: Nil Practical Hours: 45

.....

Course Objectives:

To enable the students to

1. Learn the principles to be followed in landscape designing.

- 2. Apply the elements and Principles of design in Landscape plans.
- 3. Expose the students to various ways to elements of landscaping.
- 4. Develop the understanding of requirements of landscape designing.
- 5. Prepare landscape plan for various public spaces.

Course Outcome:

- 1. After completion of the Course, the student will be able to broaden knowledge on landscaping principles.
- 2. After completion of the Course, the student will be able to understand the types of plants suitable for indoors.
- 3. After completion of the Course, the student will be able to inculcate techniques of bringing nature to interiors.
- 4. After completion of the Course, the student will be able to apply information gathered through floriculture.
- 5. After completion of the Course, the student will be able to get awareness of value addition and modern trends in landscaping.

PRACTICALS

- 1. Identification of plants used in indoor and outdoor gardens.
- 2. Draw the elements of garden
- 3. Developing garden plans of different types and styles.
- 4. Illustrate different indoor waterscapes.
- 5. Illustrate a) Floating indoor landscape b) Stone scape
- 6. Plan and design Interior landscape for a living room and indoor courtyard / for commercial space front office using various aspects of design guidelines.
- 7. Drawing landscape plans for public places school, industrial areas, places of worship, shopping malls, corporate buildings.
- 8. Preparation of organic manure.
- 9. Visit to landscape garden and report writing.
- 10. Preparation of sheets and preparation of portfolios.
- 11. Submission of Record.

References:

- 1. Time saver standards for landscape architecture.
- 2. Planting design by Theodore D.Walker, VNR Publications New York.
- 3. Landscaping Principles and Practices by Jack E.Ingels, Delmar Publishers.
- 4. Satish Chandra Aggrawala, Nishant Chandra Aggrawala Interior Decoration, DhanpatRai& Co.
- 5. RaoPratap .M –Landscape Design –Theory and practice, 2011 Standard publishers.
- 6. Carter, G. (1997), Gardening with containers, Ryland peters and small, London.
- 7. Bird, R, (1998), Creating boundaries and Screens, Ryland peters and small, London.
- 8. Kingsburry.N. (2000), Grasses and Bamboos, Ryland peter and small, London.
- 9. Dey, S.C. (2001), BONSAI The Art of growing miniature trees, Agrobios (India) publishers, Jodhpur.
- 10. Conder, S, (1993), House plant style, Michael o' mara Books limited, London.

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	M	M	S			S		M
CO2	M	S							M	
CO3	M	M	M			M	S	M	S	
CO4	M	S					S	M	M	
CO5	S	M	M	S				M	M	

PO – Programme Outcome, CO – Course outcome

Paper type: Core Elective Paper code:

Name of the Paper: Paper - 1 A. TRADITIONAL INTERIORS

Credits: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

- 1. Understand the components, principles of Gujarat and Rajasthani style of art.
- 2. Recognize and appreciate beauty of Dravidian style of architecture.
- 3. Acquire knowledge on vernacular folk arts in India.
- 4. Adaptation of traditional crafts for interior decoration.
- 5. Study Colonial Architecture.

Course Outcome:

After completion of the Course, the student will be able to

- 1. After completion of the Course, the student will be able to understand furniture styles and accessories during provincial styles.
- 2. After completion of the Course, the student will be able to identify housing in india during dravidian style.
- 3. After completion of the Course, the student will be able to discuss the folk arts and crafts in reference to vernacular indian interiors.
- 4. After completion of the Course, the student will be able to understand the principles, elements of traditional philosophies, feng shui and vaastu
- 5. After completion of the Course, the student will be able to describe colonialism and its impact on Indian interiors.

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	No
2	Yes	Yes	No	Yes	Yes	No
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

Provincial Style - Factors responsible for the development of provincial style of Gujarat and Rajasthan. Architecture of Gujarat and Rajasthan. Historical back ground of Rajasthani miniature painting. Regional classification – Mewar school, Marwar school, Hadoti school, Dhundar school. Different house decoration, Salient features of furniture and accessories of provincial style.

UNIT 2 Teaching Hours:16

Dravidian Architecture Styles - Features of Dravidian architecture. Subdivision of Dravidian architecture- Pallava style, chola style, Pandian Style, Vijayanagara style and late pandya style.

Temple Architecture in south India. Influence from different periods -Sangam period, Pallavas, Badami, Chalukyas, Rashtrakutas, Western Chalukyas. Different style of housing in South India- Tamil nadu, Andhra Pradesh, Kerala and Karnataka.

UNIT 3 Teaching Hours: 12

Folk and Tribal Art in India - Vernacular Interiors, Folk arts and crafts - <u>Meaning</u>. <u>History of Folk Art</u>, <u>Characteristics</u>. <u>Types of Folk Art</u>- <u>architecture</u>, <u>painting</u>, <u>sculpture</u>, <u>printmaking</u>. Floor and Wall decoration used in interiors. Use of mural painting.

UNIT 4 Teaching Hours:16

Traditional Philosophies. Fengshui – principles and elements. Vaastu–, <u>Mandala types and properties</u>. <u>Modern adaptations and usage</u>. <u>Vaastu and superstition</u>.

Regional Crafts from Different Parts of India. Decorative House Painting in India. Indian Textiles and Stonework as Art Forms. Mughal-Era Wall Hanging, Punjabi Brass and Copper Utensil Making. Baskets weaving, Pot painting, Peepal leaf painting, Palm leaf craft.

UNIT 5 Teaching Hours:16

European Colonial Architecture. <u>Indo-Saracenic</u>, <u>Neoclassical</u>, <u>Art Deco</u>. Indian colonialism in Interiors, Colonialism and its impact on Indian Interiors, Early British Neo classical style and its example. Bombay University, 'Chepauk Palace, Madras High Court', 'Chennai Central Station' and the 'Victoria Public Hall', Mysore Palace', the 'Victoria Memorial' in Calcutta.

References:

- 1. Dana J. Hepler Drafting and Design for Architecture and Construction, Donald. Delmar Cengage Learning. United States.
- 2. Dr. YalalaShivanandh (2019).Unique Features of Dravidian Architecutre in India..Research Journal of Humanities and social sciences .Vol 10
- 3. Indian Folklife and Indian Folklore Research Journal India's National Folklore Support Centre. M.D. Muthukumaraswamy , Tamil Nadu. Chennai.
- 4. Folk Art and Tribal Art- The Manifestation of Cultural Paradigm AditiDeka& Dr. AparnaLaad *MFA Second Semester, Department of Painting, Department of Fine

- Arts, Narmada College of Fine Arts, Bhopal, (M.P.) **Director, Narmada College of Fine Arts, Bhopal, (M.P.). Vol 4, 2018
- 5. AbhishekGoel, (2014)The Journey of VastuShastra Kindle Edition
- 6. Karla J. Nielson, (2007), Interior Textiles: Fabrics, Application, and Historic Style John Wiley & sons Publications.
- 7. Levine M (1998), Living rooms, Rockport publishers, USA.
- 8. Wilhide, E and Cope stick, I. (2000) contemporary decorating, conron octopus Ltd., London.
- 9. Manjulal R. Majmudar, (1965) "Cultural History of Gujarat", Popular Prakashan, Bombay.
- 10. Upadhye. A.N. "JAINISM" (1975), A Cultural History of India, Ciarendron Press London.
- 11. Dhaky A. M and Shah U.P. "Aspects of Jain Art& Architecture"

E - Materials:

- 1. http://en.wikipedia.org/wiki/Arts_and_Crafts_movement.
- 2.http://en.wikipedia.org/wiki/Dravidian_architecture
- 3. http://gracie-senseandsimplicity.blogspot.in/2011/03/11-elements-of-british-colonial-decor.html
- 4. http://vastudirection.com/five-elements-of-nature/
- 5. http://www.ehow.com/info_12072392_french-provincial-home-decorating.html
- $6.\ https://shodhganga.inflibnet.ac.in/bitstream/10603/192490/8/08_chapter \% 204.pdf$

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S		S	M				S		M
CO2	S	S	M		M	S			M	
СОЗ	S	S	M		M	S			M	
CO4	S	M	M	S				S	M	M
CO5		M			M	M	M	M	S	

PO – Programme Outcome, CO – Course outcome

Paper type: Core Elective Paper code:

Name of the Paper: Paper - 1 B. RENEWABLE ENERGY RESOURCES

Credits: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

1. Perceive the various forms of renewable energy

- 2. Understand the Indian and Global energy need and consumption scenario.
- 3. Identify the types of non-Conventional energy sources.
- 4. Recognize the modern techniques involved in renewable energy harnessing technologies and its challenges.
- 5. Acquire skills in extracting and handling the renewable energy.

Course Outcome:

- 1. After completion of the Course, the student will be able to figure out the theory of energy and the present scenario of renewable energy.
- 2. After completion of the Course, the student will be able to appraise the new technological innovation and the efficiency of solar energy applications and its working principles.
- 3. After completion of the Course, the student will be able to describe the significance of switching wastes into energy.
- 4. After completion of the Course, the student will be able to analyse the new venture of wind energy technologies and its applications
- 5. After completion of the Course, the student will be able to acquire the knowledge of other forms of renewable energy, wave power, tidal power and geothermal principles and applications.

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	No
2	Yes	Yes	No	Yes	Yes	No
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	No	No	Yes	No

Energy Scenario – Introduction, Meaning. Renewable Energy Sources – Need, Importance, Properties and Uses of Renewable Energy Resources – Classification of Energy Sources – Renewable and Non-Renewable Energy Sources. Overview of Present Indian and Global Energy Need and Consumption Scenario in Renewable Energy. Future Prospects for Renewable Energy – Environmental Impacts of Energy Sources.

UNIT 2 Teaching Hours:14

Solar Energy - Sun as a Source Energy - Solar Photovoltaic Technology and Principles - Solar Applications and Working Principles - Solar Water Heater - Solar Dryer - Solar Distillation (Still) - Solar Pumping Systems - Solar Air Conditioning and Refrigeration - Solar Cooker - Solar Green House.

UNIT 3 Teaching Hours:16

Bio-Energy: Introduction to Biomass – Biomass Resources - Conversion Technologies – Thermal Conversion – Chemical Conversion – Biochemical Conversion – Background of Biogas – Source and Composition – Types of Biogas Plants – Batch Type – Continuous Type – Comparison of Types of Biogas Plants – Operational Factors of Biogas Plant – Extraction of Energy from Wastes

UNIT 4 Teaching Hours: 15

Wind Energy - Fundamentals of Wind Energy Conversion System (WECS) - Basic Components of Wind Power System - Types of Wind Turbines - Modes of Wind Power Generation - Stand Alone Mode - Back Up Mode - Grid-connected mode. Environmental Aspects of Wind Energy - Applications of Wind Energy - Wind Energy Prospects in India

UNIT 5 Teaching Hours: 14

Other Renewable Energy Sources - Geothermal Energy - Basic Concepts - Geothermal Resources - Benefits and Challenges - Applications of Geothermal Energy Tidal and Wave Energy - Theory and Working Principles of Power Generation - Tidal and Wave Power Technologies - Turbines - Environmental Aspects - Prospects and constraints of Tidal and Wave Energy.

Text Book:

- 1. Ristinen, R.A. & Kraushaar, J.J. (2006). Energy and the Environment, 2nd edition, John Willey & Sons, USA.
- 2. Banerjee, B.P, (2005). Handbook of Energy and Environment in India, Oxford University Press, India.
- 3. Yogi Goswami, S. & Frank Kreith, (2016), II Edition, Energy Efficiency and Renewable Energy Handbook, CRC Press, Florida.
- 4. Thiyagarajan, V, (2013). Renewable Energy Sources, Lakshmi Publications, India
- 5. Thipse, S.S, (2014). Non-Conventional and Renewable Energy Sources, Narosa Publishing House PVT Ltd, India.

References:

- 1. Twidell, J., and Weir, T., Renewable Energy Resources, 2nd Edition, Taylor & Francis, 2006, USA.
- 2. Twidell, J., and Weir, T., Renewable Energy Resources, 3rd Edition, Routledge, 2015, New York.
- 3. Goswami D.Y., and Kreith F., Kreider J.F., Principles of Solar Engineering, Taylor & Francis, 1999, USA
- 4. Tiwari G.N., Solar Energy, Fundamentals design, modeling and Applications, Narosa Publishing House PVT Ltd, 2002, India.
- 5. Duffie J.A., and Beckman W.A., Solar Engineering of Thermal Processes, John Wiley, 2006, NJ.
- 6. Kishore V.V.N., Renewable Energy Engineering and Technologies, TERI, 2009, India.
- 7. Mital K.M., Biogas Systems, Principle and Applications, New Age International Ltd, 1996, India.
- 8. Rai G.D., Non-conventional Energy Sources, Khanna Publication, 2001, India.
- 9. Ravindranath N.H., and Hall D.O., Biomass, Energy and Environment, A Developing Country Perspective from India. Oxford University Press, 1995, Oxford.

E- Materials:

- 1.https://beeindia.gov.in/sites/default/files/1Ch1.pdf
- 2.https://www.researchgate.net/publication/278698489_A_Review_and_Future_Prospects_of_Renewable_Energy_in_the_Global_Energy_System
- 3. https://www.volker-quaschning.de/articles/fundamentals1/index.php
- 4. https://en.wikipedia.org/wiki/Greenhouse
- 5.http://164.100.133.129:81/econtent/Uploads/14ind%20Turbines%20%5BCompatibility%2 0Mode%5D.pdf
- 6.https://www.geni.org/globalenergy/research/ocean-energy technologies/Ocean%20Energy%20Technologies.pdf

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M			S						
CO2	M	M		M			S		M	M
CO3		M			M				S	M
CO4	S	M			S				M	M
CO5	S	S			M				M	

PO – Programme Outcome, CO – Course outcome

Paper type: Core Elective Paper code:

Name of the Paper: Paper 1 C. ART IN COMMERCIAL SPACE

Credits: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

1. Understand the principles involved in the components of commercial art.

- 2. Obtain a broad understanding of displays and making of timely and attractive displays in retail stores.
- 3. Learn the techniques used in retail industry to attract customers.
- 4. Acquire knowledge on store management procedure.
- 5. Realize the role of Non- store Merchandising.

Course Outcome:

- 1. After completion of the Course, the students will be able to identify the types of retail stores and elements needed for appropriate displays.
- 2. After completion of the Course, the students will be able to locate possible techniques of visual merchandising.
- 3. After completion of the Course, the students will be able to understand the types of stores and store layouts.
- 4. After completion of the Course, the students will be able to know the importance of various merchandise display in retail stores.
- 5. After completion of the Course, the students will be able to learn about emergence of non-store merchandising

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	No
2	Yes	Yes	Yes	Yes	Yes	Yes
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

Concept of Retailing – Retailing - Definition and scope, evolution of retailing, types of retail and retail locations, trends in retailing, benefits, retailing types in India, Emerging sectors in retailing. The art of selling - displays/products/marketing, design of display units, design of boutiques, showrooms. Concepts in modern day retail interiors – materials and finishes – colour, texture and pattern, Retail purchasing and pricing, Components of Retail Promotion Mix, Retail Advertising Media, Architectural designs in commercial buildings - basic concepts, features of retail store architecture.

UNIT 2 Teaching Hours: 14

Visual Merchandising - Introduction, Objectives, Techniques, Visual Merchandising at different stores- Apparel store, Furniture store, Gift store. Store exteriors - store signs, façade, banners, planters, signage and awnings. Elements of display. Product display – hierarchy of product display, Exhibition spaces – display for exhibition. Lighting design for commercial spaces task/display/atmospheric/focal lighting; Colour in commercial space.

UNIT 3 Teaching Hours: 16

Store Management in Merchandising - Introduction, Objectives, Types of stores, Location of a store, Types of retail locations, Planning a store Layout, Point of purchase display; Types of store Layouts- Grid layout, Forced-path layout, Free-form layout, Boutique layout, Combined layout, Store layout-- general arrangement, principles and factors; Store Space Allocation, Heads of space allocation in a store, Managing customer navigation in a store, General rules of Customer Traffic in a store.

UNIT 4 Teaching Hours: 16

Display Techniques - Window Display: Meaning and definition, Concept and objectives of window design, significance of display; windows, highpoints, focal points, nesting tables, staircase landings, step raisers, lift area, pennants/danglers, cash counters, space on hire like pillars and entrances; Purpose and importance of display, Rules of display planning, Display settings, Store design, Merchandising: Types of merchandise, merchandise display - exterior and interior, Merchandise presentation strategies, Seasonal displays, other techniques of merchandise placement, Colour blocking, physical materials used to support the display, components of display, Useful display fixtures - Shelves, Gondolas, Round racks, Four ways, Saccades and fixation.

UNIT 5 Teaching Hours:13

Non- store Merchandising - Introduction, objectives of non-store retail merchandising, Television retailing/home shopping, Internet retailing/online shopping, Catalogue management, Product presentation in Non- store retail merchandising, Graphic representations – Visual composition and Abstraction- Exercises involving Logo design, collage, calligraphy and printing.

References:

1. Wells, W. D, Moriarty, S and Burnett,J(2005), "Advertising: Principles and Practice" (7th Edition), Prentice Hall Publishers

- 2. Kazmi, S. H. H and Batra, S. K (2008), "Advertising and Sales Promotion", New Delhi : Excel Books, India.
- 3. Nair, R. "Marketing", Sultan Chand and Sons Publishers, New Delhi, 2002.
- 4. Morgan, T. (2010) "Window Display: New Visual Merchandising", Laurence King Publishing.
- 5. Fernie, J, Fernie, S, Moore, C and Fernie, A. "Principles of Retailing", Routledge, (Taylor and Francis Group).
- 6. Uffelen, V. C., (2008) "Malls & Department Stores", (2 edition), Braun Publish,
- 7. Gormann, G. M., (1996) "Visual Merchandising and Store Design Workbook", St Books; Workbook edition
- 8. Kubba, S., (2003) "Space Planning for Commercial and Residential Interiors", McGraw-Hill Professional; 1 edition.
- 9. Ebster, C. and Garus, M, (2011), "Store Design and Visual Merchandising: Creating Store Space That Encourages Buying", Business Expert Press.

E materials:

- 1. https://www.smartsheet.com/retail-store-operations
- 2. https://www.managementstudyguide.com/types-of-retail-outlets.htm
- 3. https://en.wikipedia.org/wiki/Retail
- 4. https://www.feedough.com/what-is-retail-retailing-types-functions-characteristics/
- 5. http://www.materialsmanagement.info/stores/stores-types-and-layout.htm
- 6. https://www.smartsheet.com/store-layout
- 7. https://www.business.qld.gov.au/industries/manufacturing-retail/retail-wholesale/retail-design/effective-displays/customer-traffic
- 8. https://en.wikipedia.org/wiki/Visual merchandising
- 9. https://blog.compliantia.com/2018/04/25/7-visual-merchandising-techniques-to-increase-sales/
- $10.\ https://www.shareyouressays.com/knowledge/what-do-you-mean-by-non-store-based-retailers-with-8-examples/112808$
- 11. https://www.nibusinessinfo.co.uk/content/advantages-and-disadvantages-online-retailing.

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S			M				M	M
CO2	M	M		M	M	M	S		M	M
CO3	S	M		M	S	M	S		S	S
CO4	S	S		S	M	M	,		S	M
CO5	S	S		M	S	M			M	M

PO – Programme Outcome, CO – Course outcome

Paper type: Open Elective Paper code:

Name of the Paper: Paper – 1 A. HOUSEKEEPING AND FRONT OFFICE MANAGEMENT

Credits: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

- 1. Understand the concepts of Housekeeping and organizational structure of a Housekeeping department
- 2. Develop skills in Housekeeping services
- 3. Gain knowledge on housekeeping equipment and supplies
- 4. Improve skills in organization of work and prepare for housekeeping jobs.
- 5. Comprehend the function of front office in Hospitality.

Course Outcome:

After completion of the Course, the students will be able to

- 1. After completion of the Course, the students will be able to appraise the role of housekeeping in various buildings.
- 2. After completion of the Course, the students will be able to identify the housekeeping areas in a building.
- 3. After completion of the Course, the students will be able to develop personal abilities in housekeeping to work in commercial establishments.
- 4. After completion of the Course, the students will be able to practice personal grooming and etiquette.
- 5. After completion of the Course, the students will be able to adopt good waste management practices as an efficient housekeeping method.

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	No	Yes	No	No
2	Yes	Yes	No	Yes	Yes	No
3	Yes	Yes	Yes	Yes	Yes	No
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	No	No	No

Housekeeping Department in a hotel – Introduction, Objectives, Lay out, Organizational hierarchy of Housekeeping department (small, medium, large), Duties of Housekeeping personnel, Functions of housekeeping department.

UNIT 2 Teaching Hours:20

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

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

UNIT 3 Teaching Hours: 16

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 4 Teaching Hours:18

Role of Interior Decoration in Housekeeping - Lighting and lighting systems in a hotel, Furniture and furnishing in hotels -selection and arrangement, grouping of furniture according to their purpose, functionality, their form and construction, technology, modular furniture.

Soft coverings - Classification, types and importance of linen used in hotel interiors, Selection of linen for rooms.

Accessories - Pictures, flower arrangement; floor decoration and indoor plants. Fruits and vegetables for carving, leaf and floral garnish designs for plating arrangements.

UNIT 5 Teaching Hours:09

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

Text Books:

- 1. Seetharaman, P and Pannu, P. Interior Design and Decoration, CBS Publishers and Distributors, New Delhi.
- 2. Pratap R.M (1988), Interior Design Principles and Practice, Standard Publishers Distribution, Delhi.
- 3. Goldstein, Art in Everyday life, Oxford and IBH Publishing Hous.
- 4. Andrews.S, (1985), Hotel Housekeeping Training Manual, Tata McGraw Hill Publishing company Ltd, New Delhi.
- 5. Park, K., (2003), "Preventive and social medicine", Jabalpur: M/s Banarsidas Bhanot Publication.

- 6. Aggarwal, D.K., (2006), "House Keeping and Management", Delhi: NCT Printers and Publishers, India.
- 7. Andrews (2007), "Text Book of Hotel Housekeeping", Chennai: Tata McGraw-Hill Education publication, India.
- 8. Andrews (2007), "Textbook of Front Office Mgmt& Operation", Chennai: Tata McGraw-Hill Education Publication, India.
- 9. Matt A. Casado, (2011), "Housekeeping Management", Pennsylvania State University -Wiley Publication.
- 10. Raghubalan (2009), "Hotel Housekeeping: Operations and Management", Edition 2, Reprint, India: Oxford University Press.
- 11. G. Raghubalan and R. Smritee, (2015), "Hotel Housekeeping: Operations and Management", Edition 3, India: Oxford University Press.

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. Jeannie Ireland, History of Interior Design, Fairchild Books (2008)
- 6. Judith Gura, John Pile, A History of Interior Design, Laurence King Publishing; 4th Revised edition (2013).
- 7. Kenneth Frampton, Modern Architecture: A Critical History, Fourth Edition, Thames and Hudson, ISBN: 13978-0500203958
- 8. Kumar Raj (Ed) Essays on Indian Art and Architecture. Discovery pub., New Delhi, 2003.
- 9. Faulkner, S. and Faulkner, R, (1987), Inside Today's Home, Rinehart Publishing company, New York.
- 10. Carolinecliftenet. al., The Complete Home Decorator, Portland House New York.

E – Materials:

- 1. https://www.linkedin.com/pulse/role-housekeeping-hospitality-industry-cassandra-roberts
- 2. https://hmhub.me/layout-of-the-housekeeping-department-organisation-chart-of-the-hk-department/
- $3. \ https://aih.edu.in/blogs/2018/06/14/importance-of-housekeeping-in-the-hotel-industry/$
- 4. https://www.tutorialspoint.com/front_office_management/front_office_management_introduction.htm
- 5. https://www.tutorialspoint.com/hotel_housekeeping/coordination_and_work_records.htm

- 6. https://crownlinen.com/blog/hotel-bed-making-tips/
- 7. https://www.tutorialspoint.com/hotel_housekeeping/hotel_housekeeping_cleaning_equipment.htm

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S			M	S	M		S	S
CO2	S	S			M	S	M		M	S
CO3	S	M			M	M	M		M	
CO4							S		S	M
CO5	M	S					M			

PO – Programme Outcome, CO – Course outcome

Name of the course/subject: M.Sc. Interior Design and Decor	Semester: I
Paper type: Open Elective	Paper code:
Name of the Paper: Paper – 1 B. FLORICULTURE AND FLORA Credits: 3	AL ART
Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75	Practical Hours: Nil

Course Objectives:

To enable the students to:

- 1. Acquire skills in identifying ornamental plants.
- 2. Understand the methods of cultivation of economic flowers.
- 3. Develop talent and acumen in making floral designs and marketing skills.
- 4. Learn the parameters influencing growth and maintenance of indoor plants.
- 5. Study business opportunities in retail flower market.

Course Outcome:

- 1. After completion of the Course, the students will be able to do floral arrangements based on principles and elements of design.
- 2. After completion of the Course, the students will be able to classify flowering and ornamental plants.
- 3. After completion of the Course, the students will be able to follow the steps in storing and handling of flowers to retain freshness
- 4. After completion of the Course, the students will be able to make different types of floral arrangements.
- 5. After completion of the Course, the students will be able to explore possibilities of a career in the retail flower business

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	No	No	No	No
2	Yes	Yes	No	Yes	Yes	Yes
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

Floriculture – Introduction, meaning and importance of floriculture. Flower and foliage - classification; conditioning and storing of cut flowers and greens Ornamental plants-annuals, biennials, herbaceous perennials, Shrubs-foliage and flowering, Climbers and creepers, Cacti and succulent technique, Bulbous plants, Palms and ferns, Orchids, Arboriculture-foliage trees, flowering trees, avenue trees.

UNIT 2 Teaching Hours: 14

Mechanics and application of Principles of design in floral art - Design Principles, Design Elements, Mechanics and Supplies used in floral design - flowers and containers, stem holders, floral foam, wire mesh, sand and clay. Landscape design parameters for various types of built forms – indoor and outdoor linkage to spaces.

UNIT 3 Teaching Hours: 16

Flower arrangement – importance, steps, components of flower arrangement, flowers and containers, basic principles, basic shapes, styles Ikebana - materials required, general rules and basic styles of Ikebana. Dry arrangement – preservation of plant materials-foliage and flowers, prolonging the vase life of flowers, garland and other floral ornament-flower carpet, floral bouquets.

UNIT 4 Teaching Hours: 16

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.

UNIT 5 Teaching Hours: 13

Retail flower business and Types of flower shops; job opportunities in the retail flower shop, training for a job in the retail flower shop, pricing strategies. Selling in the shop – characteristics and delivering system. Displays in the shop – purpose, categories of display – theme and product displays; designing display arrangement.

Text Books:

- 1. Singh, A.K and Sisodia, A, (2017), Textbook of Floriculture and Landscaping, New Delhi: New India Publishing Agency, India.
- 2. Griner, C, (2011), Floriculture Designing and Merchandising, New Delhi: Oxford & IBH Publishing Company, India.
- 3. Kumar, N, (2010) Introduction to Horticulture, Nagarkoil: Rajalakshmi Publications, India
- 4. Bose et al, (2011). Floriculture and Landscaping. Calcutta: Allied Publishers, India.
- 5. Randhawa, G.S. and Mukhopadhy, A, (2000). Floriculture in India. Chennai: Allied Publishers Limited, India.
- 6. Larson, A, (2013), Introduction to floriculture, New York: Academic Press Publishers, London.

References:

- 1. Randhawa,G.S. and Mukhopadhyay,A (2000),Floriculture in India,Chennai: Allied Publishers Limited.
- 2. Alpekar, A.and Sharma K., (2010) Green House Effect and Climate Change Management, NewDelhi: Jnananda Prakasam (P&D). ●
- 3. Swarup, V. (1997), Ornamental Horticulture, Chennai: Macmillan India Limited
- 4. Hamlyn Gardening Book-The Essential Guide to Gardening,(1998),London: Octopus Publishing Group Limited.
- 5. West, R.B. (1999), Practical Gardening in India, New Delhi: Discovery Publishing House.

E Materials:

- 1. http://www.indiamart.com/handi-exports/flower-vessels-stands.html
- 2. http://www.theflowerexpert.com/content/growingflowers/flowers-and-seasons
- 3. http://www.talktalk.co.uk/home-garden/garden-advice/orchids-care.html
- 4. http://www.houzz.com/ideabooks/271411/list/5-Ways-to-Decorate-Around-a-Flat-Screen-TV
- 5. http://www.wvu.edu/~agexten/hortcult/flowers/preservi.htm:
- 6. https://www.streetdirectory.com/travel_guide/193894/entrepreneurship/the_types_of_flower_businesses.html

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		M				M			M	M
CO2						M				
CO3		M	M			S		M		M
CO4		M			M				S	S
CO5		MM			M				S	S

PO – Programme Outcome, CO – Course outcome

Paper type: Open Elective Paper code:

Name of the Paper: Paper – 1 C. INTERIOR DECORATION

Credits: 3 Hours of teaching: 5

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

1. Gain basic knowledge on design classification.

- 2. Acquire the knowledge on Elements of art.
- 3. Apply the principles of design in interior products.
- 4. Design colour concepts and to apply them in the interiors.
- 5. Apply principles in arranging furniture and furnishings in interiors.

Course Outcome:

- 1. After completion of the Course, the student will be able to classify design types like structural and decorative design.
- 2. After completion of the Course, the student will be able to examine the different elements of design in creating design objects.
- 3. After completion of the Course, the student will be able to apply color harmonies in various rooms.
- 4. After completion of the Course, the student will be able to applying principles in arranging room.
- 5. After completion of the Course, the student will be able to understand material choice and finishes of furniture and furnishings.

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	No
2	Yes	Yes	No	Yes	Yes	No
3	Yes	Yes	Yes	Yes	Yes	No
4	Yes	Yes	Yes	Yes	Yes	No
5	Yes	Yes	Yes	Yes	Yes	No

Design - Definition - Types of design- structural and decorative design, Classification of decorative design- Naturalistic, Stylized, Abstract and Geometrical Design.

UNIT 2 Teaching Hours: 16

Elements of design – Line and its types – horizontal, vertical, diagonal, curved and zigzag; Direction; Shape; Form – two dimensional and three dimensional, Size, Texture - tactic and visual; Space - positive and negative and Colour - warm and cool.

UNIT 3 Teaching Hours: 16

Colour - Definition. Hue, Value, Intensity. Tints and Shades. The colour wheel/systems - Prang colour system. Harmonies of related colors - Monochromatic, Analogous, Accented and Neutral; Harmonies of contrasting colours – Direct, double, split and triad.

UNIT 4 Teaching Hours: 16

Principles of Design – Harmony – harmony of line, shape, size, texture, Balance – symmetrical, asymmetrical and radial; Proportion – proportional relationships, greek oblong, Emphasis – emphasis through grouping of objects, use of contrast color, Rhythm – radiation and gradation.

UNIT 5 Teaching Hours: 15

Lighting - Importance of lighting, Sources - Natural and Artificial lighting, Types - based on material, reflection, architectural elements and uses. Economy in lighting, Psychological aspects of light.

Aesthetics of Furniture and Furnishings - Curtains and draperies, carpets and rugs.

Text Books:

- 1. Premavathy Seetharaman and Parveen Pannu, (2009). Interior Design and Decoration. CBS Publishers and Distributors Pvt Ltd. New Delhi.
- 2. Andal. A and Parimalam.P, (2008). A Text Book of Interior Decoration. Satish Serial Publishing House.

References:

- 1. Chaudhari, S.N. 2006, Interior Design. Aavishkar Publishers, Jaipur.
- 2. Goldstein, (1976). Art in Every Day Life. Oxford and IBH Publishing House.
- 3. Kasu, A.A. 2005, Interior Design, Ashish Book centre Delhi.
- 4. Jan Dul and Bernard Weerdmeester, (2008). Ergonomics for Beginners A quick reference guide, CRC Press, New York.
- 5. Tayyari. F and Smith J.L, (1997). Occupational Ergonomics Principles and Applications, Chapman and Hall, Tokyo.

E- Materials:

- 1. https://www.google.co.in/?gfe_rd=cr&ei=oJE8VvucFMOl8wfe0ZnICw#tbm=vid&q=principles+of+design+in+interior+design
- 2. http://www.docstoc.com/docs/108663367/The-Munsell-and-Prang-Color-Systems
- 3. https://www.decorilla.com/online-decorating/transitional-interior-design/
- 4. https://www.apartmenttherapy.com/modern-vs-contemporary-vs-minimalist-design-261783

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1			S	S						
CO2		S	M		S					9
CO3			S	M				S	M	
CO4	M		S	M				S	M	
CO5	S	M			M		M		M	

PO – Programme Outcome, CO – Course outcome

Paper type: Core Paper code:

Name of the Paper: Paper - 4 RESEARCH METHODOLOGY AND STATISTICS

Credit: 4

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

- 1. Understand the significance of research Methodology in Resource Management.
- 2. Gain knowledge on sampling and data collection procedure.
- 3. Prepare for scientific methods of presenting the data.
- 4. Learn the various statistical tools applied to the data.
- 5. Develop analysis and interpretation of the research outcome.

Course Outcomes:

- 1. After studied unit-1, the student will be able to learn the purpose of research and to frame hypothesis.
- 2. After studied unit-2, the student will be able to choose appropriate methods of sampling and tools in data collection.
- 3. After studied unit-3, the student will be able to inculcate concise and precise scientific writing skills.
- 4. After studied unit-4, the student will be able to represent the data graphically.
- 5. After studied unit-5, the student will be able to apply correct statistical methods for the interpretation of research data.

Matching Table

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	Yes	Yes	No	Yes
2	Yes	Yes	Yes	Yes	Yes	No
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 12

Introduction to research: Meaning, definition, characteristics and purpose of research, Ethics in Research, qualities of a research worker, types of research. Identification of Research problem, definition, need structure, Classification and formulation of research design,

characteristics and formulation of research design. Variables – Meaning, Types – Independent, Dependent, control and intervening Variables. Hypothesis – meaning. Importance and types.

UNIT 2 Teaching Hours: 12

Sampling Techniques: Meaning of sample, terms and concepts used in sample and sampling design, Population versus Sample, methods of sampling – probability and non-probability, merits and demerits of sampling techniques.

Data Collection: Primary and secondary data, Measurements and scaling techniques, Methods and tools in data collection, Reliability and validity of data collection instruments, Pilot study.

UNIT 3 Teaching Hours: 11

Scientific Writing: Characteristics of scientific writing, Preparation of research proposal, presentation of synopsis, guidelines for writing research report. Parts of dissertation – introduction, review, methodology, results and discussion, summary and conclusion, references, recommendations. Benefits of scientific writing.

UNIT 4 Teaching Hours: 20

Statistics: Definition, scope, limitation and function, classification of data – meaning and objectives, types, formation of discrete and continuous frequency, distribution, tabulation of data. Diagrammatic and Graphic representation: Significance and difference between diagram and graph, general rules for constructing diagram, types of diagram, graphs, types, graphs of frequency distribution- histogram, frequency polygon, Ogives.

UNIT 5 Teaching Hours: 20

Measures of Central Tendency: Objectives of average, requisites of a good average, and types of average- mean, median and mode, merit and limitation. Measures of variation – definition, significance, properties and methods of studying variation – range, quartile deviation, mean and standard deviation, co-efficient of variation- merits and demerit.

Analysis and Interpretation of Data: Analysis of data, characteristics of data, Data preparation-data editing, data coding. Interpretation of data-forms of Interpretation, essential and perquisites and precautions of interpretation.

Text books:

- 1. Devadas.iCP. AHandbookonmethodologyof Research,Sri RamakrishnaVidyalaya,Coimbatore,2000
- 2. Gupta.S.P.StatisticalMethods,SultanChand&Sons,NewDelhi,2002
- 3. Kothari.C.R.ResearchMethodology,MethodsandTechniques,WileyEasternLimit ed,NewDelhi,2004
- 4. Gosh.B.N.ScientificMethodsandSocialResearchSterlingPublishersPvt.Ltd.NewYork
- 5. Saravanavel, 2004, Research Methodology, KitabMahal, Allahabad.

- Kulbir Singh Sidhu, Methodologyof Researchin EducationSterlingPublishersPvt. Ltd.,NewDelhi,2006
- 2. Srivastava.A.B.L and Sharma. K.K., Elementary Statistics in Psychology and Education, Sterling Publishers Pvt. Ltd, 2000.
- 3. Bandarkar.P.L and Wilkinson.T.S, 2000, Methodology and Techniques of Social Research, Himalaya Publishing House, Munbai.
- 4. Swain.A.K.P, 2008, A Text book of research methodology, Kalyani Publisher's, Ludhiana.
- 5. Krishnaswamy.O.R, 1999, Methodology of Research in Social Sciences, Himalaya Publishing House, Nagpur.

E – Materials:

- 1. https://www.intechopen.com/online-first/research-design-and-methodology.
- 2. https://www.questionpro.com/blog/types-of-sampling-for-social-research/
- 3. https://www.jotform.com/data-collection-methods/
- 4. https://theinvestorsbook.com/scaling-techniques.html
- 5. https://www.formpl.us/blog/data-collection-method
- 6. https://www.toppr.com/guides/business-mathematics-and-statistics/statistical-description-of-data/diagrammatic-representation-of-data/
- 7. https://byjus.com/commerce/meaning-and-objectives-of-classification-of-data/
- 8. https://statisticsbyjim.com/basics/measures-central-tendency-mean-median-mode/
- 9. https://statisticsbyjim.com/basics/variability-range-interquartile-variance-standard-deviation/
- 10. https://www.datapine.com/blog/data-interpretation-methods-benefits-problems/

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M	S			S	S	M		S	M
CO2	S	S	M	M	S	S	S		S	
CO3	M	S	S		M	S		S	S	
CO4	S	S	S	S		M	S	S	S	M
CO5	S	S	S	M		S	M	M	S	

PO – Programme Outcome, CO – Course outcome

S - Strong, M - Medium, L - Low (may be avoided)

Paper type: Core Paper code:

Name of the Paper: Paper - 5 SPACE PLANNING IN INTERIORS

Credit: 4

Total Hours per Week: 4 Lecture Hours: 60 Tutorial Hours: 60 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

- 1. Understand the basic principles of application oriented concepts of life space.
- 2. Learn the basic skills of designing and drafting the house plan.
- 3. Incorporate the housing principles to develop a functional design.
- 4. Explore the field designing the house plan for different income groups.
- 5. Understand the significance of following building laws.

Course Outcomes:

- 1. After studied unit-1, the student will be able to examine the importance of various factors comprising concept of life space and their role in planning buildings.
- 2. After studied unit-2, the student will be able to create floor plan for different income groups and evaluate them.
- 3. After studied unit-3, the student will be able to know the different methods of construction, their merits and demerits.
- 4. After studied unit-4, the student will be able to allocate space for social, functional and work area with design standards.
- 5. After studied unit-5, the student will be able to know the role of financial institutions and legal restrictions in housing.

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	YES	YES	YES YES		NO	NO
2	YES	YES	YES	YES	YES	YES
3	YES	YES	NO	YES	YES	NO
4	YES	YES	YES	YES	NO	YES
5	YES	YES	YES	YES	NO	NO

UNIT 1 Teaching Hours: 12

Designing Interior Space - Concept, importance and qualities of space planning

Factors determining space planning in interiors, trendsetting from spacious to compact interiors; Functioning and zoning of space planning; Objectives, Principles of house planning.

UNIT 2 Teaching Hours: 12

Planning Space - Selection of site, schematic diagram, Types of plans - reading house plans, application of space saving techniques. Developing various house plans, evaluating an existing plan, remodeling plans. Drafting house plans for different income groups.

UNIT 3 Teaching Hours: 12

Methods of construction - Types of construction - meaning, basic knowledge in types of construction - load bearing and non-load bearing or framed structure. Cast in Site and Prefabrication - advantages and limitations. Division of space - private, public, work and traffic - definition, utility, determinants. Utility space - laundry facilities.

UNIT 4 Teaching Hours: 12

Workspace design - Elements and principles of design, space design and layout for functional areas, design standards- principles. Allocation of space for social, functional and work area.

Light and lighting fixtures in working spaces; Interior design standards and 2 D and 3 D house plans and architecture elements for various income groups.

UNIT 5 Teaching Hours: 12

Institutions supporting housing - Housing schemes and Financial institutions- HDFC, HUDCO, Research Institutions, Nationalized banks and LIC; Need for standardization in housing, Types of standards- BIS. Legal restrictions in housing – plot, easement, zoning law, Building Bye-laws – Meaning, need, and purpose..

Text Books:

- 1. Oei, 1 and Kegel, D. E., (2002), The Elements of design; Rediscovering Colours, Textures, Forms and Shapes, London: Thames and Hudson
- 2. **Pi**orrowski, C. M., (2008), Professional practice for Interior designers, New Jersey, USA: John Wiley and Sons, INC
- 3. Pile, J., (2003), Interior Design, 3rd Ed, New Jersey, USA: Pearson
- 4. Rangawala, S.C, Building construction, Charter publishing house, Anand 1963.

References:

1. Piotrowski, C., (2004), Becoming an Interior Designer, New Jersey, USA: John Wiley & Sons

- 2. Shah, M. G., Kale, C. M and Patki, S. Y., (2002), Building drawing: with an integrated approach to built environment, New Delhi: Tata McGraw Hilll education; ISBN: 0074638769, 9780074638767
- 3. Gifford, R.,(2014). Environmental Psychology: Principles and Practice (5th Ed.). Colville, WA: Optimal Books
- 4. Riggs, R. (1992), Materials and Components of Interior Design, Prentice Hall of India Pvt.Ltd, New Delhi.
- 5. Faulkner, S and Faulkner, R (1987), Inside Today's Home, Rinehart Publishing Company, New york.
- 6. John Han Cock Callender, 'Time Saver Standards for Architectural design data'. McGrawn Hill Co. Singapore 1963.

E – Materials:

- 1. https://interiordesignstudent.com/study-notes/space-planning/
- 2. https://www.yourarticlelibrary.com/home-management/planning-a-residential-house-9-principles/47825
- 3. https://www.cadcrowd.com/blog/7-types-of-architectural-plans-for-your-next-design/
- 4. https://www.builderpeople.com/blog/types-of-floor-plans
- 5. https://theconstructor.org/construction/modern-methods-of-construction/17487/
- 6. https://en.wikipedia.org/wiki/Prefabrication
- 7. https://hosting.iar.unicamp.br/lab/luz/ld/Arquitetural/Handbooks/lighting in the workplace.pdf
- 8. https://en.wikipedia.org/wiki/Housing_and_Urban_Development_Corporation
- 9. https://www.99acres.com/articles/what-are-building-bye-laws.html
- 10. https://en.wikipedia.org/wiki/Building code

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	M	M	S		S	M	S	M
CO2	S	S	S	S	M		S	S	S	S
CO3	S	S	S		S		M	S	M	S
CO4	S	M	S	M	S	S	S		S	
CO5	S		M		S	M	S	M	S	M

PO – Programme Outcome, CO – Course outcome

S – Strong, M – Medium, L – Low (may be avoided)

Paper type: Core Paper code:

Name of the Paper: Paper - 6 INTERIOR DECORATION PERSPECTIVES

Credit: 4

Total Hours per Week: 4 Lecture Hours: 60 Tutorial Hours: 60 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

1. Understand and interpret the principles of art in interior design

- 2. Acquire skills in using the elements and principles to create beautiful designs and interior spaces.
- 3. Differentiate the ideologies interior design versus interior decoration
- 4. Gain knowledge in different styles of furniture and soft furnishings.
- 5. Learn the current trends in use of colour and lights in residential and commercial buildings.

Course Outcomes:

- 1. After studied unit-1, the student will be able to apply various colour harmonies in interior decoration.
- 2. After studied unit-2, the student will be able to know the types of lightings and their functions in different areas of buildings.
- 3. After studied unit-3, the student will be able to understand the styles of furniture and comprehend the significance of dimensions in furniture design.
- 4. After studied unit-4, the student will be able to gain knowledge in soft furnishings.
- 5. After studied unit-5, the student will be able to classify accessories and antiques and to optimize their use in decorating interiors.

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	YES YES		YES	NO	YES	YES
2	YES	YES	NO	YES	YES	NO
3	YES	YES	NO	YES	NO	YES
4	YES	YES	YES	YES	NO	NO
5	YES	YES	YES	YES	YES	YES

UNIT 1

Teaching Hours: 12

Colour in Interiors – Sources of colour , The Color Spectrum, Physiology of vision. Qualities of colour, Colour system – Prang colour and Munsell colour system. Classification of colour and colour harmonies - related and contrasting colour schemes. Choice of colours for different areas.

Psychological effects of colour, Role of colour as an element in Interior designing.

Modern features in use of color in residential and commercial spaces.

UNIT 2 Teaching Hours: 12

Lighting – Definition - Importance of lighting, Sources of lighting – Natural and artificial, Artificial lighting sources – Incandescent and fluorescent – merits and demerits, Types of lighting – general, task and accent lighting; Requirements of good lighting; Methods of artificial lighting – Direct, indirect, semi direct, semi indirect, diffused, cove, panel, spot lighting, concealed lighting, Requirements of lighting for various rooms/activities. Measurements of lighting. Glare - types and causes of glare. Trendy materials in lighting and lighting fixtures. Recent trends in use of light in residential and commercial spaces.

UNIT 3 Teaching Hours: 14

Styles of furniture – Salient features of traditional, contemporary, modern style and modular furniture. Traditional furniture - Queen Anne, Chippendale, English Sheraton, Hepplewhite and Adam Period; American Colonial - American, Colonial and Federal. Furniture selection – factors to be considered, arrangement of furniture using principles of design, Factors to be considered in different room arrangements – living, bed, dining and children. Dimensions of furniture used in residential interiors.

UNIT 4 Teaching Hours: 10

Soft furnishings: meaning and importance. Types – curtains and draperies, blinds, shades, slip covers, bed linen, bath linen, table linen, kitchen linen. Floor covering – rugs and carpets.

Factors to be considered in selecting soft furnishings.

UNIT 5 Teaching Hours: 12

Accessories - Definition and importance of accessories as art form. Classification, Selection of accessories, - Location and back ground for accessories, Pictures - types of picture, selection of pictures, mounting, framing and hanging.

Flower arrangements - Types, materials used and points to be considered in flower arrangement.

Art work suitable for specific areas: Kitchen, office/educational institutions, commercial centers – hotel, hospital.

Text Books:

- 1. Seetharaman P, Pannu P (2009) Interior design and Decoration, New Delhi and distributors Pvt Ltd, NewDelhi
- 2. GandotraV,Shukul M and Jaiswal N, (2011). Introduction Interior Design and Decoration, NewDelhi: Dominantpublishers, India.
- 3. Premavathy.S, (2005) Interior Design and Decoration, New Delhi: CBS Publishers and

- Distributors, India.
- 4. Stuart.L,(2013) Furniture Design: An Introduction to Development, Materials and Manufacturing, Laurence King Publishing, London
- 5. Chaudhari, S.N. (2005), "Interior Design", Jaipur: Aavishkar Publishers, India.
- 6. Kasu, A.A. (2005), "Interior Design", Delhi: Ashish Book Centre.
- 7. Shaw, R.B. (2003), "Interiors by Design", London, New York: Ruland Peters and Small Pile, J., (2003), "Interior Design", 3rdEd, New Jersey, USA:Pearson
- 8. Piotrowski, C, (2004), "Becoming an Interior Designer", New Jersey, USA: John Wiley &Sons.

- 1. Asher, F.M. (2003), "Art of India Prehistory to the Present", Encyclopedia Britannica Inc
- 2. Yang, J, (2003), "Art Deco 1910-39", Craft Arts International, 2003, Issue 59, PP.84-87.
- 3. Meggs, P. B, (1983), "A history of graphic design", New York: Van NostrandReinhold.
- 4. Frank, I, (2000), "The Theory of Decorative Art: An Anthology of European and American Writings", 1750–1940. New Haven: Yale UniversityPress.
- 5. Campbell, G. (2006), "The Grove Encyclopedia of Decorative Arts", New York: Oxford UniversityPress.
- 6. Thornton, P. (2000), "Authentic Decor: Domestic Interior", 1620–1920. London: Seven Dials.
- 7. Faulkner,R.andFaulkner,S,(1987).InsideToday'shome,NewYork:RinebartWinston,India.
- 8. Mendelson, C. (2005). Home Comforts the Artand Science of keepinghouse, New York: Scribes Company, London.
- 9. Stepat, D.Van,(1991).Introductionto HomeFurnishings.NewYork: The MacmillanCompany,London.

E - Materials:

- 1. http://www.indiamart.com/handi-exports/flower-vessels-stands.html ·
- 2. http://www.theflowerexpert.com/content/growingflowers/flowers-and-seasons ·
- 3. http://www.talktalk.co.uk/home-garden/garden-advice/orchids-care.html ·
- 4. http://www.houzz.com/ideabooks/271411/list/5-Ways-to-Decorate-Around-a-Flat-Screen-TV
- 5. http://emuonline.emu.edu.tr/inar328/pdf/part10_11.pdf ·
- 6. http://www.britannica.com/EBchecked/topic/222627/furniture/73726/England#toc73727
- 7. http://www.culturalindia.net/indian-architecture/index.html ·
- 8. http://en.wikipedia.org/wiki/Architecture_of_India
- 9. https://www.goodreads.com/shelf/show/applied-arts
- 10. https://www.ideelart.com/magazine/art-for-interior-designers
- 11. https://libguides.unm.edu/reference/arts

- 12. https://unm.on.worldcat.org/oclc/36446818
- 13. https://unm.on.worldcat.org/oclc/318415671
- 14. http://josiah.brown.edu/record=b6257197~S7

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	M	S			M	M	S	M	S
CO2	S	M			M		M		S	S
CO3	S	S	S	S	M				M	S
CO4	S	S	S	M	S	S	M	S		S
CO5	S	S		M	S	S	M		M	S

PO – Programme Outcome, CO – Course outcome

S-Strong , M-Medium, L-Low (may be avoided)

Paper Type : Core Practical Paper code:

Name of the Paper: Practical - 2. ADVANCED CAD IN INTERIOR DESIGN

Credit: 3

Total Hours per Week: 3 Lecture Hours: Nil Tutorial Hours: Nil Practical Hours: 45

.....

Course Objectives:

To enable the students to

- 1. Review designing and drafting concepts
- 2. Do advanced computer aided designing and drafting using AutoCAD 3D tools
- 3. Be capable of creating, editing, presenting and plotting 3D drawings.
- 4. Create objects like furniture, accessories and others.
- 5. Apply materials, lighting and rendering in a room interior.

Course Outcomes:

- 1. After studied unit-1, the student will be able to draw ground floor, first floor plan, elevation and cross section using AutoCAD
- 2. After studied unit-2, the student will be able to Create and explain detailed drawings of interiors in 2D.
- 3. After studied unit-3, the student will be able to create and edit 3D models.
- 4. After studied unit-4, the student will be able apply materials, colours and lights in building interiors and exteriors using 3Ds Max.
- 5. After studied unit-5, the student will be able to visualize a room interior with furniture and a few accessories by editing and presenting the image using photoshop.

Matching Table

Unit	i. Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	YES	YES YES		YES YES		YES
2	YES	YES	YES	YES	YES	YES
3	YES	YES	YES	YES	YES	YES
4	YES	YES	YES	YES	YES	YES
5	YES	YES	YES	YES	YES	YES

PRACTICALS

1. Basics of building drawings and components (Manual drawings)

Review of drawings (Orthogonal, Orthographic, isometric and perspective drawing) and drafting tools

Building and interior dimensions – basement, steps, walls, ceilings, parapet, staircase, lintel, sunshade, doors, windows, Kitchen units, and others Drawing exercises for all

Teaching Hours: 9

2. Introduction to CADD

Review of 2D drawings and creating a 2D house plan

Introduction to 3D, Screen structure, setting view port, unit, limit, zoom, and others

Using coordinate systems and converting from 2D to 3D.

3D navigation – view cube, steering wheel, orbit

Drawing curves like spiral, spline and others

Drawing isometric view of furniture – table, chair, cupboard

Teaching Hours: 9

3. Creation and modification

Drawing of solids like box, sphere, pyramid, cylinder, cone, and others

Types of 3D model – wireframe, hidden, surface and solid

Creating models (for Example- a table) from 2D profile – extrude, revolve, sweep, loft, and others

Creating composite solids – addition, subtraction, intersection

Editing solid models – filleting, chamfering, slicing and others

3D modification – align, move, rotate, mirror and others

Creating objects like furniture, accessories and others

Teaching Hours: 9

4. Finishes

Material, lighting and rendering; classroom exercises and home work combining all the three

Teaching Hours: 9

5. Visualization

Creating 3D view of a residential building with one bed room, kitchen, hall, and others Visualizing a room interior with furniture and a few accessories

Teaching Hours: 9

7. Submission of Record

Software Required: AutoCAD, 3ds Max, Photoshop

Text Books:

- 1. Hussain S.K, T.B of water supply and sanitary engineering, 3rd ed, Oxford and IBH pub. Ltd., New Delhi, 1994
- 2. Kshirsagar, S. R, Water supply engineering, 6th ed, Roorkee publications, 1980.
- 3. Rangwala, S.C. water supply and Sanitary Engineering: Environmental Engineering, 19th ed, Charotar pub house, Anand, 2004.
- 4. Electrical wiring and contracting (vol. 1 to vol.4), London. The New era publishing Company
- 5. Dr Frith Abnwos and others, Electrical Engineering hand book.
- 6. William. J. Guinness, Mechanical and Electrical Systems for Buildings, New York: McGraw Hill.
- 7. Faber, Oscar and Kell, J.R. Heating and Air conditioning of Building. Architectural Press, surrey, 1945.
- 8. Prasad Manohar, Refrigeration and air-conditioning. 5th ed, New Age Intl. pub, New Delhi, 1996. 53.

- 1. Bielefeld, B. 2007, BirkhauserVerlag AG, Boston.
- 2. AutoCAD 2005, Engineers in India
- 3. AutoCAD 2007 Design News
- 4. Malhotra and Malhotra, 2001, Drawing techniques, Blue Bird Books, New Delhi
- 5. Verma, B.F., 2003, Civil Engineering Drawing and House planning, Khanna Publishers, New Delhi.
- 6. 9. Derek Clements-Croome, Derek J. Croome, Intelligent buildings: Design, Management and Operation, Thomas Telford Books, London, 2004.
- 7. 10. Albert Ting-pat So, WaiLok Chan, Intelligent Building Systems, Kluwer Academic Publishers, 1999.

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	S	S	S	S	S	S	S	S
CO2	S	S	S	S	S	S	S		S	M
CO3	S	S	S	S	S	S	S	S	S	S
CO4	S	S	S	S	M		M	M	M	S
CO5		S	S	S		M		S		S

PO – Programme Outcome, CO – Course outcome

S - Strong, M - Medium, L - Low (may be avoided)

Paper type: Core Elective Paper code:

Name of the Paper: Paper – 2 A. FURNITURE DESIGN

Credit: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

1. Understand and develop the art and skill of designing furniture for various purposes in home interiors.

- 2. Gain knowledge on selection and arrangement of furniture.
- 3. Differentiate types and styles in furniture use and process in furniture construction, joints.
- 4. Know the new furniture materials.
- 5. Realize the need for care and maintenance of furniture.

Course Outcomes:

- 1. After studied unit-1, the student will be able to Identify and select furniture for different areas of a residence
- 2. After studied unit-2, the student will be able to differentiate or interpret the styles in furniture.
- 3. After studied unit-3, the student will be able to analyse the furniture for the process involved, joints, joineries used and finishes applied in furniture construction.
- 4. After studied unit-4, the student will be able acquire knowledge on the modern furniture materials and trends in furniture usage.
- 5. After studied unit-5, the student will be able to take care and maintain furniture made of different materials.

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	YES	YES	YES	YES	NO	YES
2	YES	YES	NO	YES	YES	NO
3	YES	YES	YES	YES	NO	YES
4	YES	YES	NO	YES	NO	YES
5	YES	YES	YES	YES	NO	YES

UNIT 1 Teaching Hours: 15

Meaning and Significance of furniture. Classification - Furniture for comfort, rest and relaxation, work and storage, built-in and portable. Factors influencing furniture decisions – family needs, preferences, availability, principles of design and financial limit. Factors to be considered in furniture selection and tips to buy furniture. Traffic pattern and furniture layouts — room plans, arranging furniture using cut outs for different rooms.

UNIT 2 Teaching Hours: 15

Furniture Styles. Importance of furniture in relation to interiors, Traditional, contemporary, modern style - salient features. Traditional furniture - Queen Anne, Chippendale, Sheraton, Hepplewhite and Adam Period; American Colonial - American, Colonial and Federal. Contemporary - 20thcentury furniture, Modern - features of modern furniture, modular furniture, office furniture, molded furniture, Case goods and upholstered furniture.

UNIT 3 Teaching Hours: 15

Furniture Construction Techniques and Materials — hard and soft woods, Cane, Metal, Plastic and Glass Construction details of wooden furniture- joints, finishes - coats of oil, wax, lacquer or paint , Construction of upholstered furniture - frame, seating systems, cushions and back cushions, Dimensions of furniture used in residential interiors , Care and maintenance of furniture.

UNIT 4 Teaching Hours: 15

Materials used in furniture construction-wooden furniture, bamboo furniture, wicker or rattan furniture, metal furniture, plastic furniture, glass furniture and concrete furniture, fabrics, modern materials – MDF, fiber glass, ply woods, veneers . Steps involved in furniture construction – shaping, carving, turning, fluting, reeding and joining. Types of joints. Upholstered furniture – Techniques and materials used.

UNIT 5 Teaching Hours: 15

Use of furniture in interiors - Arrangement of furniture using principles of design, general guiding concepts in arranging furniture, planning furniture for selected activities

Care of different types of furniture – wood, metals, plastic, and cane. Furniture polishes – types, natural and synthetic varnishes. Other types of furniture finishes.

Text Books:

- 1. A history of interior design 2nd edn 2005 John Wiley &sons.Inc · Jeannie Ireland (2009), History of Interior Design, air child publications, illustrated ed.,
- 2. Jim Postell, FurnituteDesign, Wiley publishers, 2007.
- 3. Robbie.G. Blakemore, (2005), History of Interior Design and Furniture. From Ancient Egypt to Nineteenth Century Europe, Wiley Publishers,
- 4. Gandotra V, Shukul M and JaiswalN, (2011). Introduction to Interior Design and

- Decoration, New Delhi: Dominant Publishers, India.
- 5. <u>Premavathy .S</u>, (2005) Interior Design and Decoration, New Delhi: CBS Publishers and Distributors, India.
- 6. Stuart. L, (2013) Furniture Design: An Introduction to Development, Materials and Manufacturing, Laurence King Publishing, London.
- 9. SeetharamanP, PannuP (2009) Interior design and Decoration, New Delhi and distributorsPvtLtd,NewDelhi
- 10. Chaudhari, S.N. (2005), "Interior Design", Jaipur: Aavishkar Publishers, India.
- 11. Kasu, A.A. (2005), "Interior Design", Delhi: AshishBookCentre

- 1. Faulkner, R. and Faulkner, S, (1987). Inside Today's home, New York: Rinebart Winston, India.
- 2. Mendelson, C. (2005). Home Comforts the Art and Science of keeping house, New York: Scriber Company, London.
- 3. Stepat, D.Van, (1991). Introduction to Home Furnishings. New York: The Macmillan Company, London.
- 4. A history of interior design 2nd edn 2005 John Wiley &sons.Inc
- 5. Jeannie Ireland (2009), History of Interior Design, air child publications, illustrated ed.,
- 6. Jim Postell, Furniture Design, Wiley publishers, 2007.
- 7. Shaw, R.B., (2003), "Interiors by Design", London, New York: RulandPeters and Small Pile, J., (2003), "Interior Design", 3rdEd, New Jersey, USA:Pearson
- 8. Piotrowski, C, (2004), "Becoming an Interior Designer", New Jersey, USA: John Wiley &Sons.

E - Materials:

- 1. http://emuonline.emu.edu.tr/inar328/pdf/part10_11.pdf ·
- 2. http://www.britannica.com/EBchecked/topic/222627/furniture/73726/England#toc7372 7.
- 3. http://www.culturalindia.net/indian-architecture/index.html ·
- 4. http://en.wikipedia.org/wiki/Architecture_of_India
- 5. http://www.life123.com/arts-culture/architecture-2/colonial-architecture/colonialarchitecture.shtml · 5.
- 6. http://en.wikipedia.org/wiki/American_colonial_architecture
- 7. http://www.indiamart.com/handi-exports/flower-vessels-stands.html ·
- 8. http://www.theflowerexpert.com/content/growingflowers/flowers-and-seasons ·
- 9. http://www.talktalk.co.uk/home-garden/garden-advice/orchids-care.html ·
- $10. \ \underline{\text{http://www.houzz.com/ideabooks/271411/list/5-Ways-to-Decorate-Around-a-Flat-Screen-TV}$
- 11. http://emuonline.emu.edu.tr/inar328/pdf/part10_11.pdf ·

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S			M		S	S	M	S
CO2	S	M	S		M	M		M	S	S
CO3	S	S			S	M			S	S
CO4	S	S			M		S	M	S	S
CO5	S	S				M	S		M	S

PO – Programme Outcome, CO – Course outcome

S-Strong , $M-Medium,\, L-Low$ (may be avoided)

Paper type: Core Elective Paper Code:

Name of the Paper: Paper- 2 B. ADVANCED GRAPHIC DESIGN

Credits: 3

Total Hours per Week: 5 Lecture Hours:75 Tutorial Hours:75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

1. Understand the basics of free hand techniques.

- 2. Learn about Different types of drawing tools and their uses
- 3. Acquire skill in writing letters and dimensions in drawings.
- 4. Know the difference between 2D and 3D drawings.
- 5. Acquire knowledge on different types of art media.

Course Outcomes:

- 1. After studied unit-1, the student will be able to acquire knowledge in freehand drawing tools and techniques.
- 2. After studied unit-2, the student will be able to different types of mechanical drafting tools and their uses.
- 3. After studied unit-3, the student will be able to learn the principles of lettering and dimensioning.
- 4. After studied unit-4, the student will be able to understand the importance and theory of orthographic and isometric projections.
- 5. After studied unit-5, the student will be able to know the type of perspective drawing and rendering techniques.

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	YES	YES	YES	NO	NO	YES
2	YES	YES	NO	YES	NO	YES
3	YES	YES	YES	YES	NO	NO
4	YES	YES	NO	YES	NO	YES
5	YES	YES	YES	YES	YES	NO

UNIT 1 Teaching Hours: 15

Freehand Drawing – Meaning, importance of freehand sketching, sketching tools, Different grades of pencil and their use, usage of different points of pencils, handling of pencils,

practicing lines and tones. Basics of free hand techniques – outline or contours and proportion, positive space and negative space, light, texture, shadow, tone, perspective.

UNIT 2 Teaching Hours :15

Mechanical Drafting Tools and Techniques – Different types of 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 3Teaching Hours:15

Exercises in drafting - Layout of drawing sheets and title block, Lines - types of lines, thickness of lines. Lettering - Types, Requirements of good lettering, lettering technique.

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

UNIT 4 Teaching Hours: 15

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

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

UNIT 5 Teaching Hours :15

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

Rendering in visual art – Meaning of rendering, Tools used in rendering, Manual Rendering Techniques - Shading techniques - hatching, cross hatching, stippling, blending, smudging.

Prospects and constraints of different art medium – pencil (graphite), coloured pencil, marker, water colour, oil pastels, acrylic paint, chalk, charcoal, tempera, Indian ink, ink pen.

Text books:

- 1. Pratap. R.M (1988), Interior Design, Principles and Practice, Standard Publishers distribution, Delhi.
- 2. Natarajan.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.DhanpatRai publishing company (P) Ltd., New Delhi.
- 4. Venugopal.K. (2004) Engineering Graphics, 5th edition, New Age International Publishers, New Delhi.
- 5. Kasu. A. A. An Introduction to Art, Craft, Technique, Science And Profession of Interior Design, Publisher Ashish Book Center, Mumbai, India.6.
- 6. Joseph, D.C., Julies, P. and Martiv, Z. (1992), Time Saver Standards for Interior Design and Space Planning, New York.

- 7. M.G. Shah, G.M. Kal and S.T. Payki (2002), Building Drawing with an Integrated Approach & Built Environment, Tata McGraw Hill Publishing company Ltd., New Delhi.
- 8. Ching, F. D. K. (2011). A Visual Dictionary of Architecture. 2nd Ed. John Wiley & Sons.
- 9. Zell, Mo. (2008). The Architectural Drawing Course. 1st Ed. Thames and Hudson
- 10. Bhatt, N. D. (2003). Engineering Drawing. Anand: Charotar Publishing House.

- 1. Robert, W. G. (2006). Perspective. From Basic to Creative. lst Ed. London: Thames and Hudson AutoCAD 2007 Design News
- 2. Malhotra and Malhotra, 2001, Drawing techniques, Blue Bird Books, New Delhi
- 3. Verma, B.F., 2003, Civil Engineering Drawing and House planning, Khanna Publishers, New Delhi.
- 4. S. Ching, F. D. K. (2011). A Visual Dictionary of Architecture. 2nd Ed. Hoboken: John Wiley & Dons.
- 5. Ching, F. D. K. (2009). Architectural Graphics. 5th Ed. Hoboken: John Wiley & Sons

E – Materials:

- 1. http://www.artgraphica.net/free-art-lessons/freehand-drawing/freehand-drawing.html
- 2. https://www.peachpit.com/articles/article.aspx?p=2873372&seqNum=2
- 3. http://www.artgraphica.net/free-art-lessons/freehand-drawing/freehand-drawing.html
- 4. https://sielearning.tafensw.edu.au/MPR/3204/3204a_30_producing_drawings/3204a_33_freehand_sketching.htm
- 5. http://www.cs.kent.edu/~farrell/cg02/lectures/lighting/index.html
- 6. https://en.wikipedia.org/wiki/Drawing
- 7. https://zbart.weebly.com/uploads/1/0/5/1/105144317/art_mediums_pros_and_cons_.p df
- 8. http://www.ijetch.org/vol8/874-A0128.pdf
- 9. https://thevirtualinstructor.com/blog/10-essential-drawing-materials-and-tools-for-beginners.
- 10. https://static.sdcpublications.com/multimedia/9781630570521-sample/ege/ortho/ortho_page6.htm
- 11. https://www.theengineerspost.com/isometric-projection/
- 12. https://civilseek.com/isometric-drawing-projection/

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	-	M	S	L	-	M	S	S	M	M
CO2	-	M	S	S	_	M	M	S	M	S
CO3	M	-	S	S	-	M	M	S	M	M
CO4	-	M	S	S	S	M	M	S	M	S
CO5	-	M	S	M	S	M	M	S	M	S

 $PO-Programme\ Outcome,\ CO-Course\ outcome$

S-Strong , M-Medium, L-Low (may be avoided)

Paper type: Core Elective Paper Code:

Name of the Paper: Paper - 2 C. INNOVATION AND ENTREPRENEURSHIP

Credits: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical hours: Nil

.....

Course Objectives:

To enable the students to

1. Promote Entrepreneurial skills and encourage startups.

- 2. To sow the seed of entrepreneurship in fertile minds.
- 3. Prepare business plan and encourage them to start enterprise.
- 4. Know about various agencies supporting entrepreneurship.
- 5. Understand the importance of feasibility study.

Course Outcomes:

- 1. After studied unit-1, the student will be able to understand the role and types of entrepreneurs
- 2. After studied unit-2, the student will be able to identify the innovation in business.
- 3. After studied unit-3, the student will be able to identify the funding agencies supporting entrepreneurs in India.
- 4. After studied unit-4, the student will be able to classify projects and phases of project life cycle.
- 5. After studied unit-5, the student will be able to learn the concept of project formulation.

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	YES	YES	NO	YES	YES	NO
2	YES	YES	YES	YES	YES	YES
3	YES	YES	NO	NO	NO	NO
4	YES	YES	NO	YES	NO	NO
5	YES	YES	YES	YES	YES	YES

UNIT 1 Teaching Hours: 15

Entrepreneurship - Entrepreneur, Enterprise and Entrepreneurship - meaning, Need for Entrepreneurship. Entrepreneurial challenges, Opportunities.

Types of Entrepreneur – innovative, imitative or adoptive, fabian, drone. Characteristics of successful entrepreneur. Problems of entrepreneurs. Factors influencing entrepreneurial

development – Economic factor , Legal factors, Socio – cultural factors, Economic factors, Psychological factors, Political factors, Technological factors - internet and automated process, and Environmental factors – climate change, pollution, availability of natural resources and waste disposal.

UNIT 2 Teaching Hours: 15

Innovation in Business: Types of Innovation – Creating and Identifying Opportunities for Innovation, The role of knowledge in innovation, Difference between Innovation and Invention, Technological Innovation Process – Creating New Technological Innovation; Intrapreneurship – Licensing – Patent Rights – Innovation in Indian Firms. Dimensions of Innovation and Challenges of Innovation Strategy.

UNIT 3 Teaching Hours: 15

Financing the New Venture: Role of Banks – Credit appraisal by banks. Institutional Finance to Small Industries – Incentives – Problems of small scale industries. Subsidies and incentives.

Agencies supporting entrepreneurial Development Programme - Small Industries Development Corporation (SIDCO), District Industries center (DIC), The Tamil Nadu Industrial Investment Corporation Limited (*TIIC*), Entrepreneurship Development Institute of India (EDII), State Industries Promotion Corporation of Tamil Nadu Ltd (SIPCOT).

UNIT 4 Teaching Hours: 15

Project identification and classification - Meaning of Projects, Project identification - definition, Project Classification - Quantifiable and non-quantifiable projects, sectoral projects, techno-economic projects, and service projects. Internal and External constraints in project identification, Project objectives, Project life cycle - <u>Initiation phase</u>, <u>Planning phase</u>, <u>Execution phase</u>, <u>Controlling and monitoring phase</u>, <u>Project closure</u>.

UNIT 5 Teaching Hours: 15

Project formulation – Meaning, Concept, Need, Elements. Stages of Project formulation – Feasibility Analysis, Techno-Economic Analysis, Project Design and Network Analysis, Input Analysis, Financial Analysis, Cost-Benefit Analysis, Pre-Investment Analysis. Project selection, Appraisal format, Check list for feasibility report, Planning commission guidelines, Project Report – meaning .Writing a project report – content of a Detailed Project Report.

Text Books:

- 1. Bolton, B. & Thompson, J (2001). Entrepreneurs: Talent, Temperament, Technique, Replika Press Private Ltd, Delhi, 110 040, India.
- 2. Taneja, S. & Gupta, S.L. (1992). Entrepreneurship Development, New Venture Creation, Galgotia Publishing Company, New Delhi.
- 3. Hisrich, R.D. & Peters, M.P. (1995). Entrepreneurship: Starting, Developing and Managing a New Enterprise, Richard, D. USA, Irwin, INC.
- 4. Desai, V. (1991, 97, 99, Vol I & II,) Entrepreneurial Development, Himalaya Publishing House. Mumbai.

- 5. Vasant Desai, (2006), Small-Scale Industries and Entrepreneurship, Himalaya publishing house. Mumbai.
- 6. S.S.Khanka, S. Chand, (2001), Entrepreneurial Development, New Delhi.
- 7. Botswana, (1992) Arable Lands Development Project, 076-BT% R076BTBE, Interim Evaluation.
- 8. Roy, R., Entrepreneurship, 2nd Edition, Oxford University Press, 2011.
- 9. Stokes, D., and Wilson, N., Small Business Management and Entrepreneurship, 6th Edition, Cengage Learning, 2010.
- 10. Zimmerer, T.W., Wilson, D. and Scarborough, N.M., Essentials of Entrepreneurship and Small Business Management, Prentice-Hall, 5th Edition, 2009.

- 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.

E- Materials:

- 1.https://www.google.co.in/?gfe_rd=cr&ei=xpQ8VoC7MsSl8wfb9bD4CA#q=entrepreneursh ip+meaning
- 2.http://www.b-u.ac.in/download/careertools/Entrepreneurship.pdf
- 3.http://www.morldtechgossips.com/2013/02/entrepreneurial-development.html
- 4.https://www.google.co.in/search?q=entrepreneurship+development+programme+notes&biw=1366&bih=667&tbm=isch&tbo=u&source=univ&sa=X&ved=0CDwQsARqFQoTCOq_sjh-8gCFUUVlAodtLQP6g&dpr=1
- 5.http://www.ifad.org/evaluation/public_html/eksyst/doc/lle/pf/l124suse.htm
- 6.http://www.adirondackdailyenterprise.com/page/blogs.detail/display/1428/Incentives-versus-Subsidies.html.
- 7.https://digitalleadership.com/blog/the-innovation-entrepreneurship-relationship/
- 8. https://techblog.constantcontact.com

- 9. https://prezi.com/3o_z_4vl_9m0/role-of-financial-institutes-in-entrepreneur-development/
- 10. https://www.udemy.com/course/finance-for-entrepreneurs-and-small-business-owners/
- 11. https://www.fool.com/the-ascent/small-business/project-management/articles/project-proposal/

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		M				S	S		M	S
CO2	S	S			M	S	S		S	S
CO3	S	S			M	S	M		M	S
CO4	S	S			M	S	S		S	S
CO5		S				S	S		S	S

PO – Programme Outcome, CO – Course outcome

S - Strong, M - Medium, L - Low (may be avoided)

Paper type: Open Elective Paper Code:

Name of the Paper: Paper - 2A. LANDSCAPE DESIGN

Credits: 3

Total Hours per Week: 4 Lecture Hours: 60 Tutorial Hours: 60 Practical hours: Nil

.....

Course Objectives:

To enable the students to

- 1. Familiarize with the concept and history of landscape garden.
- 2. Gain knowledge on raising gardens.
- 3. Understand principles to be followed in raising various types of garden.
- 4. Develop a conceptual understanding of design parameters for various built forms.
- 5. Develop Skills in integrating landscape design with built environments.

Course Outcomes:

- 1. After studied unit-1, the student will be able to explore and analyze planting solutions for different types of garden
- 2. After studied unit-2, the student will be able to know the functions of different elements of interior landscape.
- 3. After studied unit-3, the student will be able to create landscape garden, establish nurseries and become entrepreneur.
- 4. After studied unit-4, the student will be able to make lawns with suitable grass and plants,
- 5. After studied unit-5, the student will be able to address issues related to care of plants and understand the role of garden tools in efficient landscaping.

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	YES	YES	NO	YES	YES	NO
2	YES	YES	NO	YES	YES	NO
3	YES	YES	YES	YES	YES	YES
4	YES	YES	YES	NO	YES	NO
5	YES	YES	NO	YES	NO	NO

UNIT 1 Teaching Hours: 12

Landscape garden—meaning and importance, types of garden, garden components, Types of garden - rose garden, rock garden, terrace garden, sunken garden, water garden, roof garden and hydroponic garden. Garden styles-formal and informal: Formal square garden, informal rectangular garden and L-shape garden; split level garden, low maintenance garden, Moghul garden and Japanese garden

UNIT 2 Teaching Hours: 12

Introduction to landscape architecture and role of landscaping in the built environment. Elements of interior landscape. Construction: surfaces, boundaries, edging, patios, ponds, rock garden, arches, pergolas, outdoor living. Hard areas - drives, paths, steps and slopes. Materials: natural stones, brick and blocks, tiles. Laying and paving: crazy paving, gravel, mortar, concrete cobbles, bark deckling, drainage.

UNIT 3 Teaching Hours: 12

Designing garden in residential and commercial areas. Basic principles in landscaping – simplicity, balance, focalisation, rhythm, and line, scale and proportion. Garden components – Trees, climbers and creepers, edge and hedges ,topiary and trophy, lawn, sunken garden, green house and garden adornments.

UNIT 4 Teaching Hours: 12

Soft areas: lawn, garden plants, carpet bedding, furniture. Lawn Importance of lawn and preparation of land for raising lawn Methods of lawn making, Plants suitable for lawn, Maintenance and protection of lawn grass.

Pot culture – meaning, selection of pots, plants suitable for indoor, hanging baskets, display and placement.

UNIT 5 Teaching Hours: 12

Indoor plant – Definition, importance and types of plants. Care and maintenance of indoor plants, environmental factors – Light - intensity, duration, source, effects, and modifications; temperature, humidity, air movement and quality.

Garden tools and implements- Meaning and importance, Digging and pruning tools, sprayers and dusters, Tools for intercultural operations. Appliances for watering and general garden equipment.

Text books:

- 1. Bose et al, (1999), "Floriculture and Landscaping": Calcutta, NayaPrakash,India.
- 2. Singh,A. and Sisodia,A, (2017), "Floriculture and Landscaping:, New Delhi: New India PublishingAgency,India.
- 3. Bruce, S, (2016), "Thinking about Landscape Architecture: Principles of a Design Profession for the 21st century": New York, Routledge Taylor and Francis group, London.
- 4. Kumar, N, (1999), "Introduction to Horticulture", Nagarkoil: Rajalakshmi Publications, "ICAR Publications",India.

- 5. Randhawa, G.S, and Mukhopadhy, A, (2000) "Floriculture in India", Chennai: Allied Publishers, India.
- 6. Reed Sue, (2010), "Energy-Wise Landscape Design: A New Approach for Your Home and Garden":, Canada, New Society publishers, NorthAmerica
- 7. Ashraf, S.M.,(2010),A Handbook of Landscape Gardening and Environment: Jodhpur
- 8. West, LB.(1999), Practical Gardening in India, New Delhi: Discovery Publishing House.
- 9. Singh, A.K., and Sisodia, A.,(2017)Text book of Floriculture and landscaping A Paperback Division of New India Publishing Agency.
- 10. The Hamlyn Gardening Book-The Essential Guide to Gardening,(1998),London: Octopus Publishing Group Limited.

- 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.
- 4. Laura Slack, What is product Design? Roto Vision Publishers, 2006.
- 5. Pile F 1997 Colour in Interior Design, McGraw hill, New York.
- 6. Treens Crochet and David Vleck, Designers's Guide to Decorative Accessories, Prentice Hall, Ist Edition, 2008.
- 7. Wyszecki, G and Stiles, W.S. 2000, Colour Science Concepts and Methods, Quantitative Data and Formulae, John Wiley and Sons Inc., New York.
- 8. Cantrell, B and Michaels W., (2010) Digital Drawing for Landscape Architecture: Contemporary Techniques and Tools for Digital Representation in Site Design, New York: John Wiley Publications
- 9. Randhawa,G.S. and Mukhopadhyay,A (2000),Floriculture in India,Chennai: Allied Publishers Limited.
- 10. Salpekar A.and Sharma K., (2010) Green House Effect and Climate Change Management, New Delhi:Jnananda Prakasam (P&D).

E – Materials:

- 1. http://www.indiamart.com/handi-exports/flower-vessels-stands.html
- 2. http://www.theflowerexpert.com/content/growingflowers/flowers-and-seasons
- 3. http://www.talktalk.co.uk/home-garden/garden-advice/orchids-care.html
- 4. http://www.houzz.com/ideabooks/271411/list/5-Ways-to-Decorate-Around-a-Flat-Screen-TV
- 5. http://www.wvu.edu/~agexten/hortcult/flowers/preservi.htm
- 6. https://sist.sathyabama.ac.in/sist_coursematerial/uploads/SAR1401.pdf
- 7. http://unaab.edu.ng/wp-ontent/uploads/2009/12/482_HRT%20202%20LECTURE%201%20n%202.pdf

- 8. http://unaab.edu.ng > uploads > 2009/12.
- 9. https://cpwd.gov.in > Publication > Landscape Book.
- 10. https://www.gardeningknowhow.com/special/spaces/specialty-gardens-filling-the-needs-of-all-gardeners.htm

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	S	M	S	M	M	S	M	
CO2	M	S	M		S	S		M	S	S
CO3	S		S	S	S	S	S	S	M	
CO4	S	S	M		S	M				S
CO5	S	S	S		M		S		S	M

PO – Programme Outcome, CO – Course outcome

S - Strong, M - Medium, L - Low (may be avoided)

Paper type: Open Elective Paper Code:

Name of the Paper: Paper - 2 B. ENTREPRENEURSHIP DEVELOPMENT

Credits: 3

Total Hours per Week:4 LectureHours:60 Tutorial Hours:60 Practical hours: Nil

Course Objectives:

To enable the students to

- 1. Develop entrepreneurial skills.
- 2. Analyze the environment related to small scale industry and business.
- 3. Understand the process and procedures of setting up small enterprises.
- 4. Develop Management skills for entrepreneurship development.
- 5. Understand the constraints in identifying suitable projects.

Course Outcomes:

- 1. After studied unit-1, the student will be able to understand the concept of entrepreneurship development, enterprise and its types.
- 2. After studied unit-2, the student will be able to identify the factors affecting entrepreneurship development.
- 3. After studied unit-3, the student will be able to learn various agencies supporting entrepreneurship development.
- 4. After studied unit-4, the student will be able to understand the phases in project life cycle.
- 5. After studied unit-5, the student will be able to do feasibility analysis and write a project report.

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi.Creating
1	YES	YES	NO	YES	NO	NO
2	YES	YES	NO	YES	YES	NO
3	YES	YES	NO	YES	YES	NO
4	YES	YES	NO	YES	YES	NO
5	YES	YES	YES	YES	YES	YES

UNIT 1 Teaching Hours: 12

Entrepreneurship - Entrepreneur, Enterprise and Entrepreneurship - meaning, Types of Entrepreneur - innovative, imitative or adoptive, Fabian, drone. Need for Entrepreneurship, transition from income generation to self employment and Entrepreneurship, qualities of a good entrepreneur, problems of entrepreneurs - traditional society, lack of infrastructure facility, lack of favourable environment, socio-cultural factors, monopoly, resource related obstacles, lack of technology, corruption.

UNIT 2 Teaching Hours: 12

Factors influencing entrepreneurial development – Economic factor – capital, labour, raw materials, market and infrastructure, Legal factors - , Socio – caste, family background, education, attitude of society and cultural value, Economic factors - wages, interest rates, governmental policies, tax rates, and inflation, Psychological – need achievement, motives, withdrawal of status respect, Political – Government policy, corruption, political stability and employment laws, Technological factors- internet and automated process, Environmental factors – climate change, pollution, availability of natural resources and waste disposal.

UNIT 3 Teaching Hours: 12

Agencies supporting entrepreneurial Development Programme - Small Industries Development Corporation (SIDCO), District Industries center (DIC), The Tamil Nadu Industrial Investment Corporation Limited (*TIIC*), Entrepreneurship Development Institute of India (EDII), State Industries Promotion Corporation of Tamil Nadu Ltd (SIPCOT), Khadi and Village Industries Commission (KVIC), Small Industries Development Organization (SIDO). Institutional Finance to Entrepreneurs – IDBI, ICICI, RBI, LIC, ITCOT.

UNIT 4 Teaching Hours: 12

Project identification and classification - Meaning of Projects, Project identification - definition, Project Classification - Quantifiable and non-quantifiable projects, sectoral projects, techno-economic projects, and service projects. Internal and External constraints in project identification, Project objectives, Project life cycle - <u>Initiation phase</u>, <u>Planning</u> phase, Execution phase, Controlling and monitoring phase, Project closure.

UNIT 5 Teaching Hours: 12

Project formulation – Meaning, Concept, Need, Elements. Stages of Project formulation – Feasibility Analysis, Techno-Economic Analysis, Project Design and Network Analysis, Input Analysis, Financial Analysis, Cost-Benefit Analysis, Pre-Investment Analysis. Project selection, Appraisal format, Check list for feasibility report, Planning commission guidelines, Project Report – meaning. Writing a project report – content of a Detailed Project Report.

Text Books:

- 1. Bolton, B. & Thompson, J (2001). Entrepreneurs: Talent, Temperament, Technique, Replika Press Private Ltd, Delhi, 110 040, India.
- 2. Taneja, S. & Gupta, S.L. (1992). Entrepreneurship Development, New Venture Creation, Galgotia Publishing Company, New Delhi.

- 3. Hisrich, R.D. & Peters, M.P. (1995). Entrepreneurship: Starting, Developing and Managing a New Enterprise, Richard, D. USA, Irwin, INC.
- 4. Desai, V. (1991, 97, 99, Vol I & II,) Entrepreneurial Development, Himalaya Publishing House. Mumbai.
- 5. Vasant Desai, (2006), Small-Scale Industries and Entrepreneurship, Himalaya Publishing House, Mumbai.
- 6. S.S.Khanka, S. Chand, (2001), Entrepreneurial Development, New Delhi.
- 7. Botswana, (1992) Arable Lands Development Project, 076-BT% R076BTBE, Interim Evaluation.
- 8. Roy, R., Entrepreneurship, 2nd Edition, Oxford University Press, 2011.
- 9. Stokes, D., and Wilson, N., Small Business Management and Entrepreneurship, 6th Edition, Cengage Learning, 2010.
- 10. Zimmerer, T.W., Wilson, D. and Scarborough, N.M., Essentials of Entrepreneurship and Small Business Management, Prentice-Hall, 5th Edition, 2009.

- 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.

E- Materials:

- 1. https://www.google.co.in/?gfe_rd=cr&ei=xpQ8VoC7MsSl8wfb9bD4CA#q=entrepreneurship+ meaning
- 2. http://www.b-u.ac.in/download/careertools/Entrepreneurship.pdf
- 3. http://www.morldtechgossips.com/2013/02/entrepreneurial-development.html
- 4. https://www.google.co.in/search?q=entrepreneurship+development+programme+notes &

- $biw=1366\&bih=667\&tbm=isch\&tbo=u\&source=univ\&sa=X\&ved=0CDwQsARqFQoTCOq_sjh-8gCFUUVlAodtLQP6g\&dpr=1$
- 5. http://www.ifad.org/evaluation/public_html/eksyst/doc/lle/pf/l124suse.htm
- 6. http://www.adirondackdailyenterprise.com/page/blogs.detail/display/1428/Incentivesversus-Subsidies.html.
- 7. https://digitalleadership.com/blog/the-innovation-entrepreneurship-relationship/
- 8. https://techblog.constantcontact.com
- 9. https://prezi.com/30_z_4vl_9m0/role-of-financial-institutes-in-entrepreneur-development/
- 10. https://www.udemy.com/course/finance-for-entrepreneurs-and-small-business-owners/
- 11. https://www.fool.com/the-ascent/small-business/project-management/articles/project-proposal/

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		M				S	S		M	S
CO2	S	S			M	S	S		S	S
CO3	S	S			M	S	M		M	S
CO4	S	S			M	S	S		S	S
CO5		S				S	S		S	S

PO – Programme Outcome, CO – Course outcome

S - Strong, M - Medium, L - Low (may be avoided)

Paper type: Open Elective Paper Code:

Name of the Paper: Paper - 2 C. ART IN INTERIORS

Credits: 3

Total Hours per Week: 4 LectureHours: 60 Tutorial Hours: 60 Practical hours: Nil

.....

Course Objectives:

To enable the students to

1. Develop awareness and appreciation of arts and aesthetics.

- 2. Learn the various materials used for making art objects.
- 3. Create varieties of art objects for home decoration.
- 4. Understand the types and techniques in sculpture making.
- 5. Understand and appreciate the major work of artists.

Course Outcomes:

- 1. After studied unit-1, the student will be able to understand the significance of art, develop good taste and evaluate art objects.
- 2. After studied unit-2, the student will be able to decorate different materials by applying appropriate techniques.
- 3. After studied unit-3, the student will be able make varieties of art objects for home decoration.
- 4. After studied unit-4, the student will be able to make clay models.
- 5. After studied unit-5, the student will be able to analyse the masterpieces of renowned artists for their aesthetic and functional values.

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	YES	YES	NO	YES	YES	YES
2	YES	YES	YES	YES	NO	YES
3	YES	YES	YES	YES	NO	YES
4	YES	YES	YES	NO	NO	YES
5	YES	YES	NO	YES	YES	NO

UNIT 1 Teaching Hours: 12

Art in the Home .Meaning of Art and significance of art in the home, Factors affecting art forms – Geography, community, materials, individuality and appearance, Developing skills for appreciation of art, Evaluation of art objects – Basic guidelines in evaluating art objects.

UNIT 2 Teaching Hours: 12

Shaping and Enrichment of different materials. Wood – methods of shaping and decorating – printing, varnish, shellac, lacquer. Wood work – cutting, turning, carving, Inlay.

Ceramics – Definition, ornamentation on ceramics – earthenware, stoneware, chinaware, porcelain and terracotta

Glass – Enrichment of glass – etching, engraving, cutting, enameling, painting, use of glass in home.

UNIT 3 Teaching Hours: 12

Accessories – Meaning, importance, Types – functional and decorative.

Mosaic – creating art pieces with mosaics, Papiermache – origin and papiermache process, Basket weaving – meaning, types of basketry. Craft – Macrame, Decoupage, Fabric painting, Glass painting, Oil painting and Collage.

UNIT 4 Teaching Hours: 12

Sculpture and Graphics. Sculpture – meaning, types – relief, free standing Process in sculpture – subtractive, additive and replacement; sustainability of methods of different materials; use in the home. Clay modeling – techniques of modeling. Graphics – Meaning, types – hand process and mechanical process- relief, intaglio, planography.

UNIT 5 Teaching Hours: 12

Polymer clay techniques - Figure fundamentals, Fundamental tools, Modeling of face, body, hands, legs and costumes using polymers, Millefiory technique. Wall mountable sculpture – Masks using various materials- Paper Mache and metal.

Study of Major Work of foreign artists – Michelangelo, Leonardo Da Vinci, Raphael Sanzio, Pablo Picasso, Vincent Vangogh.Indian artists – Raja Ravivarma, R.K.Laxman, M.F.Hussain.

Text books:

- 1. Faulkner, R., and Faulkner, S., (1986) Inside Today's Home.NewYork:Rinehart publishing Co.
- 2. Malhotra, S. and Malhotra, R., (2001), Drawing Techniques, An artist's hand book on drawing and printing, New Delhi: Sachdwa Publications.
- 3. Seymour, P., (2003) The artist's hand book A complete professional guide to materials and techniques.London:Arctarus Publishing limited.

Fundamentals of Architecture (Fundamentals (Ava)) (Paperback) by Lorraine Farrelly (Author)

- 4. Francis D.K.Ching Architecture Form Space and Order Van Nostrand Reinhold Co.,
- 5. Design Methods (Architecture) (Paperback), by John Chris Jones (Author).

- 6. How Designers Think, Fourth Edition: The Design Process Demystified (Paperback) by Bryan Lawson.
- 7. Basics Design Ideas (Paperback) by Bert Bielefeld (Author), Sebastian El khouli (Author).
- 8. John W.Mills The Technique of Sculpture, B.T.Batsford Limited, New York Reinhold Publishing Corporation, London, 1966.
- 9. C.Lawrence Bunchy Acrylic for Sculpture and Design, 450, West 33rd Street, New York, N.Y.10001, 1972.
- 10. The Elements of Graphic Design: Space, Unity, Page Architecture, and Type (Paperback) by Alexander W. White.
- 11. Margaret Shepherd (2001), Learn Calligraphy The Complete Book of Lettering and Design, Broadway Books, New York

- 1. Malhotra, S. and Malhotra, R., (2001), Fine arts drawing, New Delhi: Sachdwa Publications.
- 2. Sudhir, A, (2002) Food and Beverage Service, Training Manual, New Delhi: Tata McGraw Hill Publishing Company Limited.
- 3. Faulkner, R., (1956) Art Today an introduction to the fine and functional arts, New Delhi: Rinchart and Winston.
- 4. Sumner Mck, (1959) Art-through the ages, London: G.Bell and Sons, Ltd.
- 5. Graphic Thinking for Architects, Paul Laseau.
- 6. Foundations of Art and Design (Paperback) by Alan Pipes
- 7. Geometry of Design: Studies in Proportion and Composition, Kimberly Elam.David Gibson.
- 8. Geoffroy, A and Migdal, M (2011) World Famous Caricatures Collection & Drawing Techniques, Mad Artist Publishing
- 9. Zeegan, L and Crush (2006) The Fundamentals of Illustration, Fairchild Books AVA
- 10. Oei, L and Kegel, D. E (2002), The Elements Of Design: Rediscovering Colors,

Textures, Forms, And Shapes, Thames and Hudson

- 11. Krause, I (2004) Design Basics Iniiex; HOW Books
- 12. Antonelli, P (2005), Humble Masterpieces: Everyday Marvels of Design; Harper Design.

E – Materials:

- 1. https://www.goodreads.com/shelf/show/applied-arts
- 2. https://www.ideelart.com/magazine/art-for-interior-designers
- 3. https://libguides.unm.edu/reference/arts
- 4. https://unm.on.worldcat.org/oclc/36446818
- 5. https://unm.on.worldcat.org/oclc/318415671
- 6. http://josiah.brown.edu/record=b6257197~S7

- 7. https://www.jagranjosh.com/general-knowledge/mural-painting-history-styles-of-art-and-its-characteristics-1532613789-1
- 8. https://medium.com/@alyakhemji/types-of-mural-art-c01442fef0cd
- 9. http://www.walkthroughindia.com/lifestyle/9-types-of-indian-rangoli-design-and-patterns/
- 10. http://www2.ca.uky.edu/hes/fcs/FACTSHTS/HF-LRA.159.PDF
- 11. https://www.jagranjosh.com/general-knowledge/mural-painting-history-styles-of-art-and-its-characteristics-1532613789-1
- 12. https://medium.com/@alyakhemji/types-of-mural-art-c01442fef0cd
- 13. http://www.walkthroughindia.com/lifestyle/9-types-of-indian-rangoli-design-and-patterns/ http://www2.ca.uky.edu/hes/fcs/FACTSHTS/HF-LRA.159.PDF

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	S	M	M	M	M	S	M	S
CO2	M	S	S	-	S	S	M	S	-	S
CO3	M	S	S	-	S	M	M	S	-	S
CO4	-	S	S	S	M	-	M	S	-	S
CO5	_	M	S	M	_	M	_	_	S	-

PO – Programme Outcome, CO – Course outcome

S - Strong, M - Medium, L - Low (may be avoided)

Semester: III
Paper code:
ESIGN
5 Practical Hours: Ni

.

Course Objectives:

To enable the students to

- 1. Become aware of the ergonomic principles for improving work efficiency.
- 2. Learn work simplification principles and techniques
- 3. Analyze role of work, worker and work place in management of human resources
- 4. Understand environmental comfort and discomfort in the work place.
- 5. Gain knowledge in designing work space considering physical and personal space.

Course Outcomes:

- 1. After studied unit-1, the student will be able to use the concept of ergonomics design
- 2. After studied unit-2, the student will be able to applying proper posture to avoid health issues.
- 3. After studied unit-3, the student will be able to perform work space design considering physical space and inter personal space.
- 4. After studied unit-4, the student will be able to design or Redesign Workstation using Ergonomically Knowledge.
- 5. After studied unit-5, the student will be able to design work space considering physical space and inter personal space.

Matching Table

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	Yes	No	Yes	No
2	Yes	Yes	No	Yes	No	No
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 15

Ergonomics – Concept, Definition, Human Factors, Principles of Ergonomics, Occupational factors affecting the worker. Human body structure and function. Work Station Design – Workplace and work space, Ergonomic Chair, Visual Display Terminal (VDT) - Ergonomic

design of the office computer workstation. Work place design problems, General principles for workstation and workplace design.

UNIT 2 Teaching Hours: 15

Posture – Definition, Postures and job related postures adopted for different activities. Sitting, Standing, Lying down, Change of posture, Movement – Lifting, Pulling and Pushing, Problems of Posture – Kyphosis, Lordosis, Scoliosis and squatting. Exercises for Postural problems. Musculoskeletal Disorder (MSD) – Tendinitis, Joints, Ligaments. Arthritis, Carpel Tunnel Syndrome, Back, Neck – Structure, problem and its prevention.

UNIT 3 Teaching Hours: 10

Anthropometry - Definition, anthropometric dimension of workers at work and rest, normal, maximum vertical and horizontal reaches, Types of data – Static dimensions and Dynamic dimensions, Definition and Applicability of Stature - Eye height, Elbow height, Sitting height, Shoulder and Elbow breadth, Thigh clearance and Popliteal height, Maximum and Minimum Vertical and Horizontal reach.

UNIT 4 Teaching Hours: 20

Work environment spatial requirement - anthropometric dimension of workers at work and rest, 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 5 Teaching Hours: 15

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.

Text books:

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

References:

- 1. Julius Panero and Martin Zelnik, (1979). Human Dimension and Interior Space. Watson Guptill Publications, New York.
- 2. Khan M.I., (2014). Industrial Ergonomics. PHI Learning Private Limited, New Delhi.
- 3. Umesh Prasad, (2011). Essential of Ergonomics. Sonali Publications, New Delhi.
- 4. Martin Helander, (2006). A Guide to Human Factors and Ergonomics. Taylor and Francis.
- 5. ManjitKaurChauhan, (2015). Ergonomics Practical Manual for Beginners. Authorspress, New Delhi.
- 6. Jan Dul and Bernard Weerdmeester, (2008). Ergonomics for Beginners A quick reference guide, CRC Press, New York.
- 7. Tayyari. F and Smith J.L, (1997). Occupational Ergonomics Principles and Applications, Chapman and Hall, Tokyo.

E – Materials:

- 1. https://www.medicalnewstoday.com/articles/324071.php#summary
- 2. https://www.healthyworkstations.com/resources/ergo/TakingMeasurements.pdf
- 3. https://biologydictionary.net/anthropometry/
- 4. https://www.ergonomics.com.au/what-is-ergonomics/
- 5. http://www.ifad.org/evaluation/public_html/eksyst/doc/lle/pf/1124suse.htm
- **6.** http://www.adirondackdailyenterprise.com/page/blogs.detail/display/1428/Incentives-versus-Subsidies.html
- 7. https://www.oktra.co.uk/insights/office-design-problems-and-how-to-solve-them/

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	S	M	M	M	M	S	M	S
CO2	M	S	S	-	S	S	M	S	-	S
CO3	M	S	S	-	S	M	M	S	-	S
CO4	-	S	S	S	M	-	M	S	-	S
CO5	-	M	S	M	-	M	-	-	S	-

PO – Programme Outcome, CO – Course outcome

S - Strong, M - Medium, L - Low (may be avoided)

Name of the course/subject: M.Sc. Interior Design and Decor Semester: III

Paper type: Core Paper code:

Name of the Paper: Paper – 8 HOUSEHOLD EQUIPMENT

Credit: 4

Total Hours per Week: 4 Lecture Hours: 60 Tutorial Hours: 60 Practical Hours: Nil

Course Objectives:

To enable the students to

- 1. Learn the uses and maintenance of labour saving devices and equipment in the home.
- 2. Gain expertise in technologies of energy production and efficient utilization.
- 3. Comprehend the working principles, use and care of labour appliances.
- 4. Understand the concept of various forms of renewable energy.
- 5. Trace trends in equipment available in the market.

Course Outcomes:

- 1. After studied unit-1, the student will be able identify factors influencing the choice of consumer durables.
- 2. After studied unit-2, the student will be able to design base materials used in the construction of utensils and major equipment and finishes applied.
- 3. After studied unit-3, the student will be able to manage small electrical appliances for food preparation.
- 4. After studied unit-4, the student will be able to operate the major equipment with proper usage.
- 5. After studied unit-5, the student will be able to apply the knowledge of using Renewable energy equipments.

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	No
2	Yes	Yes	No	Yes	Yes	No
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 8

Growth and development in household equipment technology. Trends in equipment - kinds of equipment, Design and construction. Influence of household equipment in modern family life. Factors influencing the choice of consumer durables - general and specific factors, Material and construction, saving time and energy, cost, ease of cleaning, safety, warranty and guarantee.

UNIT 2 Teaching Hours: 15

Definition of Equipment. Classification of equipment: Major/ minor, Electrical/Non electrical, motorized / electronics, low voltage appliances, heating appliances and white and brown goods, Base materials used in household equipment – types, classification, merits and demerits, Finishing materials: types, process of application, merits and demerits, Insulation materials — types, form, usage, merits and demerits. Trends in household equipment available in the market.

UNIT 3 Teaching Hours: 12

Equipments used for preparation: Mixer and grinder, food processor, egg beater, coffee maker, blender.

Cooking: induction stove, gas stove and microwave oven.

Cleaning: vacuum cleaner, electric chimney, dishwasher.r

Heating: Geyser, immersion water heater, iron box.

Storage: Refrigerator, Comforts: Air conditioner, air cooler.

Minor Equipment: toaster, roti maker.

Role of embedded systems in household equipment design and functional compatability.

Factors affecting selection and use of equipment in the home.

UNIT 4 Teaching Hours: 10

Laundering and Cleaning Equipment – Washing Machines – Parts, types, principle, use and care. Iron – Types, use and care. Floor care equipment – Vacuum cleaner, types, selection, use, care and maintenance. Climate control equipment – Air conditioner, Air purifier.

UNIT 5 Teaching Hours: 15

Equipment using Renewable source of energy – Energy crisis, factors leading to energy conservation techniques, Application of alternate source of energy, Solar energy – merits and limitation – solar cooker, solar dryer, solar water heater, Bio gas plant – Types, principles and strength and limitation.

Garden Tools and Equipment – Plough, Plank, Cultivator, Pruning knife, Pruning shear, Hedge shear, grass shear, spade, Garden rake, Garden Hoe, sprayer, watering can, Gloves and cutters.

Text books:

- 1. Senthi M. (2004). Institutional Food Management (2004). New Age International Publishers, NewDelhi.
- 2. Wilson P. (1996). Household Equipment and Management, Selection and Management, Houghton Miffin, London.
- 3. ShashiBhushanSinha, (2017). Handbook of Repair and maintenance of Domestic Electronics Appliances, BPB Publications.
- 4. Paul R. Wonning, (2016). Gardeners Guide to Gardening Tools. Print Edition.

5. KhurmiR.S.and Gupta J.K (2006). Textbook of Refrigeration and Air-conditioning Chand Publications.

E – Materials:

- 1. https://files.eric.ed.gov/fulltext/ED318920.pdf
- 2. http://navttc.org/wp-content/uploads/2019/07/Curriculum-for-EHA.pdf
- 3. https://www.voorburggroup.org/Documents/2013%20Tokyo/Papers/1006.pdf
- 4. http://ncert.nic.in/vocational/pdf/kegr104.pdf
- 5. https://www.slideshare.net/hongvu5855/washing-machine-54220492

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	S	M	S	M	M	S	M	-
CO2	M	S	M	-	S	S	-	S	S	S
CO3	S	M	S	S	S	S	S	S	M	S
CO4	S	S	M	-	S	M	M	M	-	S
CO5	S	S	S	-	M	M	S	-	S	M

PO – Programme Outcome, CO – Course outcome

S - Strong, M - Medium, L - Low (may be avoided)

Paper type: Core Paper code:

Name of the Paper: Paper – 9 BUILDING MATERIALS AND FINISHES

Credit: 4

Total Hours per Week: 4 Lecture Hours: 60 Tutorial Hours: 60 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

- 1. Gain knowledge on concepts, types and use of building materials and selection tactics.
- 2. Learn use of materials at different levels or stages of a building construction and aesthetic concepts of using finishes in buildings.
- 3. Differentiate ideologies: traditional Vs recent building materials and their usage.
- 4. Comprehend knowledge of properties of various building materials
- 5. Interpret construction materials Vs finishes and interior Vs exterior materials.

Course Outcomes:

- 1. After studied unit-1, the student will be able to identify and select proper construction materials and finishes for building construction.
- 2. After studied unit-2, the student will be able to demonstrate knowledge of properties of various building materials.
- 3. After studied unit-3, the student will be able to describe usage and characteristics of building materials and finishes for strength, durability and aesthetics.
- 4. After studied unit-4, the student will be able to explain the components of a building and analyse the availability of materials for building construction.
- 5. After studied unit-5, the student will be able to interpret construction materials Vs finishes and interior Vs exterior materials.

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	Yes
2	Yes	Yes	No	Yes	Yes	Yes
3	Yes	Yes	Yes	Yes	Yes	No
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 15

Building materials – Meaning, Concept of building materials, Classification of building materials. Components of a building – Sub structure and superstructure and use of specific building materials. Purpose and relevance of surface application on exteriors and interiors.

UNIT 2 Teaching Hours: 15

Materials used at various levels of building – foundation, basement, plinth, wall, roof, ceiling, flooring, beams and columns, etc., Use, types, characteristics, advantages and disadvantages of -brick, stone, sand, cement, wood, metals, glass and plastic.

UNIT 3 Teaching Hours: 10

Finishing materials. Wall finishes – plastering, white washing, paint, wood paneling, metal wall covers, tiles - use, selection, merits and demerits. Wall paper - kinds of wall paper, selection of wall paper, advantages and disadvantages of wall paper, care and maintenance.

Floor finishes – Hard finishes - cement, mosaic, marble, tiles, wood. Resilient materials - asphalt tiles, vinyl, cork, rubber, asbestos, linoleum - use, selection, merits and demerits.

UNIT 4 Teaching Hours: 10

Ceilings - Treatment of ceilings - False Ceiling: plaster of paris, metal, glass, wood, acoustical ceiling materials, light ceiling - thermocol; use, selection, merits and demerits. Other innovative materials. Roof - wood, metal, slate, tile, asphalt shingles, glass fibre shingles.

UNIT 5 Teaching Hours: 10

Recent advances in building materials and finishes. Construction materials, interior finishes and exterior finishes, partition materials. Approximate cost of building materials and finishes. Concept of green building materials. Physical and behavioural properties, application in the construction of floors, walls, ceilings, doors, windows, staircase, built in furniture, partitions and other interior design components.

Text books:

- 1. Arora, S.P and Binddra, S.P., (2013) A Text book of building Construction. New Delhi: DhanpatRaiPublications,India.
- 2. Rangwala, S.C., (2008). Engineering Materials. Gujarat: Charotar Publishing House,India.
- 3. Rangwala, S.C, (2009). Building Construction. Gujarat: Charotar Publishing House, India.
- 4. Francis D.Ching, Design Drawing, Wiley publishers · John.F.Pile, Interior Design, 2nd edition, illustrated.
- 5. H.N.Abrams, 1995. · Maureen Mitton, Interior Design Visual Presentation: A Guide to graphics, models and presentation techniques, 3rd edition, wiley publishers, 2007.
- 6. Francis D.Ching, Design Drawing, Wiley publishers.

References:

- 1. Stewart and Walton, S (2000). Paint Recipes for surfaces. New York: Anness Publishing Ltd., London.
- 2. Verma, B.P., (2003). Civil Engineering Drawing. Drawing and House Planning; New Delhi: Khanna Publishers, India.
- 3. Projects and Repairs using Concrete, Brick, Block and Stone (2000). Creative Publishing International.
- 4. John.F.Pile, Interior Design, 2nd edition, illustrated, H.N.Abrams, 1995.
- 5. Maureen Mitton, Interior Design Visual Presentation: A Guide to graphics, models and presentation techniques, 3rd edition, wiley publishers, 2007

E – Materials:

- 1. http://www.ca.uky.edu/agc/pubs/fcs4/fcs4402/fcs4402.pdf ·
- 2. http://en.wikipedia.org/wiki/Flooring \cdot
- 3. http://www.ehow.com/list_7595438_types-floors-floor-coverings.html ·
- 4. http://www.diyadvice.com/diy/painting/interior/

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	S	M	S	M	M	S	M	
CO2	M	S	M		S	S		S	S	S
CO3	S		S	S	S	S	S	S	M	S
CO4	S	M	M		S	M		M		S
CO5	S	S	S		M		S		S	

PO – Programme Outcome, CO – Course outcome

S - Strong, M - Medium, L - Low (may be avoided)

Paper type: Core Paper code:

Name of the Paper: Paper - 10 BASICS OF ARCHITECTURE

Credit: 4

Total Hours per Week: 4 Lecture Hours: 60 Tutorial Hours: 60 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

1. Understand the scope and development of architecture

- 2. Identify architectural features of period styles
- 3. Comprehend the elements and components of architecture
- 4. Gain knowledge on influential factors in architecture
- 5. Appraise modern constructions and their uniqueness

Course Outcomes:

- 1. After studied unit-1, the student will be able to locate the influence of man's desire for comfort and convenience over and above functionality.
- 2. After studied unit-2, the student will be able to learn the features of temple architecture of India.
- 3. After studied unit-3, the student will be able to understand trends created in capitalizing the advancements in science and technology in use of materials and methods used for construction.
- 4. After studied unit-4, the student will be able to visualize futuristic concepts in the field of architecture and building construction.
- 5. After studied unit-5, the student will be able to envisage challenges for modern day architects and civil engineers

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	Yes	Yes	Yes	No	Yes	No
2	Yes	Yes	No	Yes	No	No
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 15

Development of architecture (Prehistoric) - Definition and conceptual meaning, Prehistoric Architecture - Mesolithic, Neolithic through Mesopotamia and Egypt - An overview

General influences on architecture, Elementary forms of construction, architectural elements – free forms, toroids, domes, coves, vaults, space frames

Classification of permanent architecture: based on structure - in antis and prostyle; based on use – domestic, religious and secular with examples

Supporting elements: classical orders, pillars, piers, cofferdams, cantilever, pendentives and squinches.

Supported elements: architrave, entablature, roofing types, ceilings, domes, vaults, truss

Innovativeness or functional forms of structural systems: flying buttress, scaffolding and centering, lintels, pyramids, aqueducts, vaults and domes.

UNIT 2 Teaching Hours: 10

Overview of architecture - Precedents in architecture, their historic contributions and salient features – an overview of masterpieces in Egypt, Greek- Acropolis, Propylaea, Parthenon, Agora and Erechtheum, Roman-Forum of Trajan, Colosseum, Baths of Trajan, Pantheon, Aqueducts and Apartment houses, Gothic-Chartres Cathedral, Indian, Buddhist and Islamic. Concepts of Organic architecture

Components of building; Methods of construction – Framed Vs Load bearing walls. Levels of construction.

UNIT 3 Teaching Hours: 10

The towers of Bhuvaneswar-Lingaraja temple, Sun temple at Konark,

Khajuraho-Kandariya, Mahadeva temple; New architecture

Use of sandstone by Hoysalas, Temples of Deccan-Belur and Halebid;

Vijayanagara period, Srirangam temple, Madurai - Understanding the importance of Kudu, Kutas, Salas and Bodigaye

Secular architecture – Bahai temples, Lotus temple, Domestic architecture – Islamic contributions in India – Master pieces – tombs, mosque, domestic buildings, Tajmahal.

UNIT 4 Teaching Hours: 15

Modern trends in architecture - Interactive architecture: concept, meaning, and examples

Responsive architecture: concept, meaning, and examples: Blur building

Kinetic architecture: concept, meaning, and examples: Millennium stadium, Burke Brisesoleil, revolving house, sliding house, Arup's bridge, Pamban bridge, tower bridge (London).

UNIT 5 Teaching Hours: 10

 $\label{eq:modernism} \begin{tabular}{ll} Modernism and future trends in architecture - Influence of corporate culture and multi nationalism - malls, new ways of entertainment \\ \end{tabular}$

Future trends in architecture – influence of technology, materials (eco friendly and technical textiles), methods, personal environments, creating tangible and virtual products, 3D printing

Building automation – trends and acceptance by consumers.

Text Books:

1. Hiraskar, G.K. 2017, The Great Ages of World Architecture, Dhanbat Rai Publications Pvt Ltd, New Delhi.

References:

- 1. Asher, F.M. 2003, Art in India Prehistory to the Present, Encyclopaedia Britannica, Inc.
- 2. Michell, G. 2000, Architecture and Art of Southern India. In: The New Cambridge History of India, Replika Press Pvt. Ltd., Delhi.
- 3. Parikh, A., Robertson, D., Lane, T., Hilliard, E. and Paine, M. 2000, The Ultimate Home Design Source book, Conran Octopus ltd., London.
- 4. Sharma, G. and Khanna, G, Advance Interior Designing incorporating Vaastu and Feng-shui, India Publishers, Delhi.

E – Materials:

- 1. https://azulevgrupo.com/en/blog/architecture-trends-2019-2020
- 2. https://en.m.wikipedia.org/wiki/Architecture_of_India
- 3. https://medium.com/studiotmd/emerging-trends-that-will-shape-the-future-of-architecture-356ba3e7f910

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		M				S	S		M	S
CO2	S	S			M	S	S		S	S
CO3	S	S			M	S	M		M	S
CO4	S	S			M	S	S		S	S
CO5		S				S	S		S	S

PO – Programme Outcome, CO – Course outcome

S - Strong, M - Medium, L - Low (may be avoided)

Paper type: Core Practical Paper code:

Name of the Paper: Practical – 3. 3ds Max IN INTERIORS

Credit: 3

Total Hours per Week: 3 Lecture Hours: Nil Tutorial Hours: Nil Practical Hours: 45

.....

Course Objectives:

To enable the students to

1. To expose the students to 3ds max software.

- 2. To introduce 2D modifier for generating objects.
- 3. To apply materials for realistic texture to the objects.
- 4. To illuminate the scenes in the project.
- 5. To set viewports to display the camera's point of view.

Course Outcomes:

- 1. After studied unit-1, the student will be able to become familiar with the 3ds max window interface.
- 2. After studied unit-2, the student will be able to generate objects/ interiors with precise measurements.
- 3. After studied unit-3, the student will be able to produce realistic texture to any given surface.
- 4. After studied unit-4, the student will be able to enhance the clarity and three-dimensionality of a scene.
- 5. After studied unit-5, the student will be able to create stimulation of still images and animation of the finished project.

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	No
2	Yes	Yes	No	Yes	Yes	Yes
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 7

Introduction to 3ds max: Understanding the 3d max interface elements - Navigate the 3DS Max User Interface and Workspace, Command Panel, Time Slider and Track Bar, File

Management. Customizing View port, navigation and configuration, Object creation, defining object, name and colour, transforms (move, rotate and scale with short-cut keys) and all the tools.

Exercise - To comprehend the use of 3ds max interface.

UNIT 2 Teaching Hours: 10

2D Modifiers - edit spline modifier, lathe, extrude, bevel, bevel profile, sweep, and fillet/chamfer, normalize spline, compound objects- Boolean, AEC extended objects - foliage, railing, wall, staircase, doors and windows. Copying objects- clone, instance, reference, array, space tool, normal align, align view and align camera, working with shape Boolean, edit - spline, compound object - loft, deforming loft objects - scale, twist, teeter, bevel, fit - modifying objects. Sub object selections, extrude, bevel, inset and connect modeling using loftmulti/sub object materials.

Exercise - Generate different views of the plan used in design studio.

UNIT 3 Teaching Hours: 10

Introduction to the Materials: Principles of materials and surfaces, Introduction to material editor interface, Tools in Material editor, different types of material – compact and slate material editor, Physical, Compound, Matte/Shadow, Ink and paint, Morpher material, Shell material for texture baking, XRef material.

Exercise - Using 2D maps, Introduction to UVW a mapping. Editing UVW map coordinates,

UNIT 4 Teaching Hours: 10

Introduction to Lighting: Interior Lighting, Three-Point Lighting, 3DS Max Lights, Lighting the Still Life in the Interior Space, Selecting a Shadow Type, Atmospheres and Effects, Light Lister.

Standard lights - Omni target spot and free spot target direct, free direct, sky light, place highlight photometric light - target point, free point, target linear, free linear, target area, free area.

Exercise - Apply appropriate lighting to the project generated

UNIT 5 Teaching Hours: 8

Cameras and Rendering: Creating Camera Object & a Camera View - Camera Viewport Controls & Setting Camera Parameters, Physical cameras, Target and free cameras parameters.

Rendering: Output image sizes, exports as jpeg, file handling- save, save as, save copy as, save selected, archive, summary info, view image file, hold, fetch, and undo/redo. Render scenes dialog, Scene states and batch render.

Exercise - Create different views through camera positioning, Render the project with animation and save the file.

VI. Submission of record

References:

- 1. Hussain S.K, T.B of water supply and sanitary engineering, 3rd ed, Oxford and IBH pub. Ltd., New Delhi, 1994
- 2. Kshirsagar, S. R, Water supply engineering, 6th ed, Roorkee publications, 1980.
- 3. Rangwala, S.C. water supply and Sanitary Engineering: Environmental Engineering, 19th ed, Charotar pub house, Anand, 2004.
- 4. Electrical wiring and contracting (vol. 1 to vol.4), London. The New era publishing Company.
- 5. Dr.FrithAbnwos and others, Electrical Engineering hand book.
- 6. William. J. Guinness, Mechanical and Electrical Systems for Buildings, New York: McGraw Hill.
- 7. Faber, Oscar and Kell, J.R. Heating and Air conditioning of Building. Architectural Press, surrey, 1945.
- 8. Prasad Manohar, Refrigeration and air-conditioning. 5th ed, New Age Intl. pub, New Delhi, 1996. 53
- 9. Derek Clements-Croome, Derek J. Croome, Intelligent buildings: Design, Management and Operation, Thomas Telford Books, London, 2004.
- 10. Albert Ting-pat So, WaiLok Chan, Intelligent Building Systems, Kluwer Academic Publishers, 1999.

E – Materials:

- 1. https://www.youtube.com/watch?v=2d0qODBRAVA
- 2. https://www.youtube.com/watch?v=933LIbNhcWM
- 3. https://3dtotal.com/tutorials/t/know-the-basics-3ds-max-part-3-material-editor-paul-hatton-tutorial-basics.

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	S	M	M	M	M	S	M	S
CO2	M	S	S		S	S	M	S		S
CO3	M	S	S		S	M	M	S		S
CO4		S	S	S	M		M	S		S
CO5		M	S	M		M			S	

PO – Programme Outcome, CO – Course outcome

S - Strong, M - Medium, L - Low (may be avoided)

Paper Type: Core Elective Paper code:

Name of the Paper: Paper – 3: A. EVENT MANAGEMENT

Credit: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

Course Objectives:

To enable the students to

1. Understand the importance of Event Management.

- 2. Acquire knowledge in recent event concept and designing.
- 3. Learn principles and protocols of Event Management.
- 4. Develop the art of enterprise
- 5. Enhance the skill in designing events.

Course Outcomes:

- 1. After studied unit-1, the student will be able to understand the principles of event management.
- 2. After studied unit-2, the student will be able to learn to prepare event proposal
- 3. After studied unit-3, the student will be able to know about event logistics and sponsorship
- 4. After studied unit-4, the student will be able to learn to enhance the skill in designing event
- 5. After studied unit-5, the student will be able to identify the types of events and use of resources

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	Yes
2	Yes	Yes	No	Yes	Yes	Yes
3	Yes	Yes	Yes	Yes	Yes	No
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 15

Principles of Event Management - Historical Perspective, Introduction to event Management, Size and type of event, Event Team, Code of ethics, Principles of event Management, concept

and designing, Analysis of concept, Logistics of concept, Feasibility, Keys to success, SWOT Analysis.

UNIT 2 Teaching Hours: 15

Event Planning and Team Management - Aim of event, Develop a mission, Establish Objectives, Preparing event proposal, Use of planning tools, Protocols, Dress codes, staging, staffing, Leadership, Traits and characteristics.

UNIT 3 Teaching Hours: 15

Event Logistics, Production and Sponsorship - Logistic policy, procedures, performance standards, functional areas, motivation and leadership of logistics. Concept, theme, Fabrication, light and sound, handling vendors, proposal, event flow, team delegation, Sponsorship principles, terms and condition, branding and coordination.

UNIT 4 Teaching Hours: 10

Event Concept and Designing - Developing the concept, analysis of concept, Types and categories, Designing the event, logistics of concept, case studies.

UNIT 5 Teaching Hours: 20

Event management as an enterprise - objectives and types, Planning and arrangement of various functions-award ceremonies, product launch, theme parties, wedding and institutional events, Identifying resources for conduct of events and their proper use, estimating resource requirements. Event at commercial centres - trade fairs, exhibitions expositions and festivals.

References:

- 1. Walters, Raj & Rashid, (2009) Event management, an integrated & practical approach, SAGE publication.
- 2. Chaturvedi,(2009) Event management, a professional and development approach, Global India publication.
- 3. LynnVanDerWagen&BrendaRCarlos (2005), Event Management, Pearson.
- 4. Anton Shone & Bryn Parry, (2010) Successful Event Management, Cengage Learning EMEA publications.

E – Materials:

- 1. http://brandhights.com/event-management/
- 2. https://en.m.wikipedia.org/wiki/Event_management
- 3. https://www.slideshare.net/mobile/123rokea/principles-of-event-management
- 4. https://institute-of-event-management.com/what-is-event-planning
- 5. https://www.visitmonmouthshire.com/events-management/concept.aspx
- 6. https://www.eventplanner.net/news/9382_how-to-design-a-creative-event-concept.html

7. https://www.slideshare.net/mobile/johnpadua/events-management-chapter-2-event-concepts.

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		M				S	S		M	S
CO2	S	S			M	S	S		S	S
СОЗ	S	S			M	S	M		M	S
CO4	S	S			M	S	S		S	S
CO5		S				S	S		S	S

PO – Programme Outcome, CO – Course outcome

S-Strong, M-Medium, L-Low (may be avoided)

Paper type: Core Elective Paper code:

Name of the Paper: Paper – 3: B. INTERIOR ENVIRONMENT AND SERVICES

Credit: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

1. Understand the basic principles of drainage and water supply in buildings

- 2. Learn calculations and connections for water supply and sanitation
- 3. Identify the need for fire protection equipments in buildings
- 4. Understand the importance of conveyance systems
- 5. Imbibe the implications of energy in building design.

Course Outcomes:

- 1. After studied unit-1, the student will be able to understand the importance of human comfort and environment control.
- 2. After studied unit-2, the student will be able to analyse the role of heating and ventilation in interiors
- 3. After studied unit-3, the student will be able to examine the types and uses of air conditioning
- 4. After studied unit-4, the student will be able to understand the different types of plumbing systems in buildings.
- 5. After studied unit-5, the student will be able to learn the fire protection and access systems in buildings.

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	Yes	Yes	Yes	Yes	No	Yes
2	Yes	Yes	Yes	Yes	Yes	No
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 15

Interior environment – meaning. Environment control–importance of environment control, advantages, Elements to be controlled in the interiors – Temperature, Humidity and moisture, Wind, air movement and quality,

Day lighting and illumination – daylight factor, recommended daylight factors for interiors, importance of natural and artificial lighting in interior; Use of eco lighting. Sound and Acoustics, sanitation, movement and accessibility

UNIT 2 Teaching Hours: 15

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

Ventilation—Definition, importance, Types of ventilation—Natural and mechanical, Guidelines for natural ventilation, types of natural ventilation and its application, Calculation of openings for natural ventilation and its benefits. Mechanical ventilation - ventilation with fans, ventilation with ducts, recommended fresh air supply.

UNIT 3 Teaching Hours: 15

Air conditioning – Meaning, Atmospheric conditions for human comfort, Principles of air conditioning, Need for air conditioning, Air conditioning applications, Humidity control, Duct table system along with its types and application, , process of air conditioning, types of air conditioning system and window units, packaged air conditioner, vertical air cooled packaged unit, horizontal package unit, central plant systems, ducts grills and diffusers

UNIT 4 Teaching Hours: 15

Water supply systems – Introduction to water supply, types of water supply systems, calculation of water supply requirements and storage of water. Quality and distribution of water supply in multi storey building – application and its benefits, hot water supply and retaining rain water.

Sanitation - types of sanitation, introduction to drainage system, types of drainage system, traps - different types used. Septic tank. Two types of plumbing systems - ventilation systems, inspection chambers/manholes.

UNIT 5 Teaching Hours: 15

Fire protection,-causes of fire and preventive measures. Fire resistant construction, responsibility of designer towards fire resistance specification and requirements.

Access and movement systems - Elevators and escalators - Types and applications, Estimating the load, and size requirements, special and custom elevators - domestic elevators, chair lifts. Ramps and accessibility, Recommended ramp slopes for accessibility in interiors.

References:

- 1. Pratap R.M (1988) Interior design principles and practice, Standard publishers distribution, Delhi,
- 2. Corky Binggeli, Building Systems for Interior Designers, Wiley; 2 edition (2009)
- 2. Lisa M. Tucker, Sustainable Building Systems and Construction for Designers, Fairchild Books; 2 edition (2014)

- 3. Faulkner, S., and Faulkner. R, (1987), Inside Today"s Home, Rinehart publishing company, New York
- 4. Corky Binggeli, Building Systems for Interior Designers, Wiley; 3rd edition (28 October 2015).
- 5. Ch'ing, Francis D.K., Binggeli, Cork, "Interior Design Illustrated", Willey Publications, New Jersey, 2004
- 6. Hall, Fred, Greeno, Roger, "Building Services Handbook", Butterworth Heinemann, UK, 2001
- 7. Purnima, B.C., 'Environmental Engineering-I-Water Supply Engineering', Laxmi Publications (P) Ltd, New Delhi, 2005
- 8. Rangwala, S.C., "Water Supply and Sanitary Engineering", Charotar Publishing House, Guiarat, 1988
- 9. Singh, Gurcharan, "Water Supply and Sanitation Engineering (Environmental Engineering)", Standard Publishers Distributors, 2007

E – Materials:

- 1. https://medium.com/@ECONYL/5-principles-of-sustainable-interior-design-b390503a5176
- 2. https://www.sepco-solarlighting.com/blog/bid/145611/the-advantages-of-led-lights-for-the-environment
- 3. https://maintenx.com/natural-light-vs-artificial-light-pros-cons/
- 4. https://www.thespruce.com/types-of-home-heating-systems-1824772
- 5. https://en.wikipedia.org/wiki/Fire_safety
- 6. https://www.elevators.com/types-elevators-used/
- 7. https://en.wikipedia.org/wiki/Air_conditioning
- 8. https://gharpedia.com/blog/different-types-traps/

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	S	M	S	M	M	S	M	-
CO2	M	S	M	-	S	S	-	S	S	S
CO3	S	M	S	S	S	S	S	S	M	S
CO4	S	S	M	-	S	M	M	M	-	S
CO5	S	S	S	-	M	M	S	-	S	M

PO – Programme Outcome, CO – Course outcome

S - Strong, M - Medium, L - Low (may be avoided)

Name of the course/subject: M.Sc. Interior Design and Décor Semester: III

Paper type: Core Elective Paper code:

Name of the Paper: Paper – 3: C. ORGANIZATIONAL BEHAVIOUR

Credit: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

Course Objectives:

To enable the students to

- 1. Learn Organizational psychology and personality of people working in a firm.
- 2. Understand about belief, values and human motivation, idea generation for problem solving and innovation.
- 3. Understand job satisfaction measurement, nourishing employee talent, scope and expansion in a job.
- 4. Know the importance of group, conflict identification and resolution.
- 5. Develop knowledge various leadership styles and counselling methods.

Course Outcomes:

- 1. After studied unit-1, the student will be able to analyze the individual and group behavior; and understand the implications of organizational behaviour on the process of management.
- 2. After studied unit-2, the student will be able to identify various theories of motivation from the past the and evaluate motivational strategies used in a variety of organizational settings
- 3. After studied unit-3, the student will be able to enhance productivity of the organization by ensuring required job satisfaction and employee attitude.
- 4. After studied unit-4, the student will be able to understand the supervisory effects on performance and to train supervisors by understanding different supervision styles.
- 5. After studied unit-5, the student will be able to evaluate the appropriateness of various leadership styles and counseling methods.

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	No
2	Yes	Yes	No	Yes	Yes	No
3	Yes	Yes	Yes	Yes	Yes	No

4	Yes	Yes	Yes	Yes	Yes	No
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 10

Organizational Behaviour – Definition, Scope and Application in Management. Organizational structure and design: strategy and goals of organizations; basic attributes of organizations, organizing and co-coordinating work, - different types of organizational design based on nature of business. Forces reshaping organization, Life cycles in organization.

UNIT 2 Teaching Hours: 20

Personality - Meaning - Determinants of Personality - Biological factors - Cultural factors - Family and Social Factors - Situational factors - Personality attributes influencing organizational behaviour, Interactive Behaviour and Interpersonal Conflict.

Perception - Meaning - Need - Perceptual Process - Perceptual Mechanism - Factors influencing perception.

Attitude - Meaning of Attitude - Characteristics of Attitude - Components of Attitude - Attitude and Behaviour - Attitude formation, change in attitude and barriers to attitude.

Motivation - Financial and non-financial motivation - techniques of motivation - Transactional Analysis - Brain storming.

UNIT 3 Teaching Hours: 10

Group dynamics and teamwork - Meaning, types of groups in organizations, stages of group, foundations of group performance, decision making in groups.

Teams and teamwork, team building, improving team processes, teams in the high performance workplace.

UNIT 4 Teaching Hours: 15

Leadership – Types, theories and practice - trait, behavioral, Fiedler's contingency theories. Transformational leadership. Power and politics: power and influence, power - formal authority and obedience empowerment, organizational politics – political behavior in organization.

Counseling - meaning - Importance of counselor - types of counseling - merits of counseling.

UNIT 5 Teaching Hours: 20

Organizational culture - understanding organizational cultures, managing organizational culture.

Organizational Change: Meaning - Nature of work change - Pressure for change - Change process - Types of change - Factors influencing change - Resistance to change - Overcoming resistance.

Organizational Development –Meaning and different types of organizational development interventions.

Text Book:

1. L.M. Prasad – Organisational Behaviour

References:

- 1. Stephen P. Robbins, Timothy A. Judge, NeharikaVohra Organizational Behavior 14th Edition, Pearson 2011
- 2. Kavita Singh Organizational Behavior: Text and cases, Pearson, 2010
- 3.K. Aswathappa, Organizational Behaviour, HPH.
- 4. Appanniah, Management and Behavioural Process, HPH.
- 5. Rekha and Vibha Organizational Behavioural, VBH. 20
- 6. Robbins, Organizational Behaviour, International Book House.
- 7. John W. Newstrom and Kieth Davis, Organizational Behaviour, McGraw Hill.
- 8. M. Gangadhar. V.S.P.Rao and P.S.Narayan, Organizational Behaviour
- 9. M.N.Mishra: Organisational Behaviour and Corporate Development, HPH.
- 10. Karamapl: Business Management and Organizational Behavioral I.K. International
- 11. N.S. Gupta, Organizational Behaviour, HPH.
- 12. Sharma R.K and Gupta S.K, Management and Behaviour Process, Kalyani Publishers

E – Materials:

- 1. https://en.wikipedia.org/wiki/Organizational_life_cycle
- 2. https://www.tuturself.com/posts/view?menuId=136&postId=1027
- 3. https://www.achievers.com/blog/organizational-culture-definition/
- 4. https://www.economicsdiscussion.net/organisation/what-is-organisational-change/31897
- 5. https://www.indeed.com/career-advice/career-development/leadership-styles-and-theories
- 6. https://www.tlu.ee/~sirvir/Leadership/Leadership%20Models/contingency_theory.htm
- 7. https://www.managementstudyhq.com/types-of-groups.html
- $8. \ https://www.yourarticlelibrary.com/personality/personality-meaning-and-determinants-of-personality/24336$
- 9. https://www.iedunote.com/perception

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	-	S	M	-	-	-	S	-	M
CO2	S	S	M	-	M	S	-	-	M	-
CO3	S	S	M	-	M	S	-	-	M	-
CO4	S	M	M	S	-	-	-	S	M	M

CO5	-	M	-	-	M	M	M	M	S	-	
-----	---	---	---	---	---	---	---	---	---	---	--

 $PO-Programme\ Outcome,\ CO-Course\ outcome$

S-Strong , $M-Medium,\, L-Low$ (may be avoided)

Paper type: Open Elective Paper code:

Name of the Paper: Paper – 3: A. ACCESSORIES IN INTERIORS

Credit: 3

Total Hours per Week: 4 Lecture Hours: 60 Tutorial Hours: 60 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

- 1. Apply, create and study the functional and decorative values of accessories in interiors.
- 2. Arrange flowers with basic principles
- 3. Gain knowledge on different arts and craft items and their use in interiors.
- 4. Learn to take care of accessories
- 5. Acquire basic skills on folk art styles in interiors

Course Outcomes:

- 1. After studied unit-1, the student will be able to classify accessories and analyze the importance, selection and arrangement of accessories in relation to background.
- 2. After studied unit-2, the student will be able to criticize various kinds of art forms used as accessories.
- 3. After studied unit-3, the student will be able to arrange flowers with principles
- 4. After studied unit-4, the student will be able to take care of accessories with proper maintenance
- 5. After studied unit-5, the student will be able to appraise the folk art styles in interiors

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	Yes	Yes	No	No	No	No
2	Yes	Yes	No	Yes	Yes	Yes
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 10

Accessories - Definition and importance in interiors, Classification – functional, decorative and both accessories. Factors influencing the selection of accessories, Placement, location and background for accessories.

UNIT 2 Teaching Hours: 10

Kinds of accessories - Decorative - mural, photographs, pictures, artifacts, drawings, antiques. Functional accessories - books, mirror, clock, accent furniture.

UNIT 3 Teaching Hours: 10

Indoor plants – Need and importance of indoor plants, selection of placement of indoor plants. Care and maintenance.

Sculpture – types, uses in interior and exterior.

UNIT 4 Teaching Hours: 15

Flower arrangement – Role of flower arrangement as accessories. Types of flower arrangements – line, mass, line and mass, miniature, floating, foliage and dry arrangements, Japanese styles of arrangements, Basic principles and Color application.

UNIT 5 Teaching Hours: 15

Art and Crafts – definition, kinds of art and crafts-pot painting, glass painting, wall art, wall hanging, pillows, cushions, origami, models, lamps and vases, bamboo crafts, folk arts and crafts of India, Application of arts and crafts in interiors.

Text Books:

- 1. PremavathySeetharaman and ParveenBanu, (2001). Interior Design and Decoration.CBS publishers.
- 2. Andal. A and Parimalam.P, (2008). A Text Book of Interior Decoration. Satish Serial Publishing House.

References:

- 1. Anna Hong Rutt (Second edition, 1991). Home Furnishing. John Wiley & Sons, Inc.
- 2. Martha Vaughan & Phoebe Vaughan, (1993). Simply The Best Home Decorating Book, Fashion Apparel, Accessories & Home Furnishings. Jay Diamond & Ellen Diamond, Pearson Education, Inc.
- 3. Book Club Associates, (1990). Good House Keeping's Home Encyclopedia.
- 4. Eaglemoss Publications Ltd, (1996). Creating your Home, Creative Flowers & Plants for Your Home.
- 5. Eve Harlow, (1995). The Book of Handicrafts for all the Family. Hennerwood Publishing Limited.
- 6. The Practical Encyclopaedia of Good Decorating and Home Improvement, Vol I.
- 7. Creative Home Owner, (First Edition 2006). Design Ideas of Home Decorating. New Jersey.

E – Materials:

- 1. http://www.home-designing.com/category/accessories
- 2. https://wbdg.org/ccb/AF/AFDG/interior.pdf
- 3. https://en.wikipedia.org/wiki/Sculpture

- 4. https://origami.me/paper/
- 5. https://hmhub.me/indoor-plants-selection-care/
- 6. https://www.bookmyflowers.com/blog/7-different-types-of-flower-arrangements-for-various-occasions/
- 7. https://www.dgreetings.com/fragrance-flowers/type-of-flower-arrangement.html

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	-	-	M	-	-	-	M	M
CO2	M	M	M	M	M	M	S	-	M	M
CO3	S	M	S	M	S	M	S	-	S	S
CO4	S	S	-	S	M	M	M	-	S	M
CO5	S	S	-	M	S	M	-	-	M	M

PO – Programme Outcome, CO – Course outcome

S – Strong, M – Medium, L – Low (may be avoided)

Paper type: Open Elective Paper code:

Name of the Paper: Paper - 3: B.COMMERCIAL INTERIORS

Credit: 3

Total Hours per Week: 4 Lecture Hours: 60 Tutorial Hours: 60 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

- 1. Learn the importance of Merchandizing.
- 2. Distinguish display techniques.
- 3. Study psychology of window display.
- 4. Acquire knowledge on retail space.
- 5. Learn processes and techniques used in retail industry to attract customers.

Course Outcomes:

- 1. After studied unit-1, the student will be able to recognize the role of art in merchandising.
- 2. After studied unit-2, the student will be able to identify techniques of display
- 3. After studied unit-3, the student will be able to make various types of window display.
- 4. After studied unit-4, the student will be able to design commercial space for various uses.
- 5. After studied unit-5, the student will be able to create retail space for different requirements of customers

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	Yes	Yes	No	Yes	No	No
2	Yes	Yes	No	Yes	Yes	No
3	Yes	Yes	Yes	Yes	Yes	No
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	No	No	No

UNIT 1 Teaching Hours: 10

Commercial Art - Meaning and definition of commercial art and its importance in Merchandising. Development of commercial art. New trends, Steps in Merchandising and art display. Role of commercial art in Merchandising.

UNIT 2 Teaching Hours: 10

Commercial display and Techniques – Interior Display – general Arrangement, principles and factors, types and merchandise display, types of lighting arrangements in commercial buildings.

UNIT 3 Teaching Hours: 12

Window Display -Meaning, basic principles, factors of window display, window arrangement-window art, psychology of window display, Techniques and importance. Types of window display- Closed, Open, Island, Elevated, Shadow box, Corner and Semi-Closed displays.

UNIT 4 Teaching Hours: 12

Definition of commercial space, types of commercial space-Office Space, Retail space, Hospitality space, Health care, Education, Entertainment and Relaxation, Religious, Banks and Financial Institutions – their functions and need, Factors to be considered in Commercial space design, Recent trends in commercial space design.

UNIT 5 Teaching Hours: 16

Retail Space -Introduction to Retail space, Types of Retail Layout-Straight plans, Angular plans, Geometrical plans and Diagonal plans. Principles of Retail store design -Eye catching Visual Merchandising, Slowing the customer journey in the store, Customer pathway, Steering the customer to the right of the store, Creativity and Innovation, Aerating the store design, Optimize space. Elements of Store Design-Exterior, Interior, Atmosphere, Fixture, Merchandise, People.

References:

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

E – Materials:

- 1. https://www.smartsheet.com/retail-merchandising
- 2. https://sinalite.com/printersuccess/visual-merchandising-7-steps-to-revitalize-your-print-shop/
- 3. https://www.digitalvidya.com/blog/display-advertising/
- 4. https://www.warehouse-lighting.com/blogs/lighting-application-suggestions/different-types-of-office-lighting
- 5. https://www.unibox.co.uk/news-inspiration/types-importance-of-window-displays

- 6. https://smallbusiness.chron.com/psychology-visual-merchandising-66054.html
- 7. https://timesofstartups.com/more/factors-consider-planning-office-design-layout/
- 8. https://accountlearning.com/selection-of-office-building-important-factors-to-be-considered/

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M	S	-	-	S	S	M	-	S	M
CO2	S	S	M	M	S	S	S	-	S	-
CO3	M	S	S	-	M	S	-	S	S	-
CO4	S	S	S	S	-	M	S	S	S	M
CO5	S	S	S	M	-	S	M	M	S	-

PO – Programme Outcome, CO – Course outcome

S – Strong, M – Medium, L – Low (may be avoided)

Paper type: Open Elective Paper code:

Name of the Paper: Paper - 3: C. BASICS OF FURNITURE DESIGN

Credit: 3

Total Hours per Week: 4 Lecture Hours: 60 Tutorial Hours: 60 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

- 1. Familiarize with the basic considerations in furniture design, aesthetics and appropriate structure.
- 2. Comprehend the socio- economic and cultural factors that influence the design of furniture.
- 3. Understand the role of fabric in interior decoration.
- 4. Develop ability to design fabulous window treatments
- 5. Gain knowledge on selection, arrangement, care and maintenance of furniture.

Course Outcomes:

- 1. After studied unit-1, the student will be able to identify and select furniture for different areas of a residence
- 2. After studied unit-2, the student will be able to analyse the furniture for the process involved, joineries used and finishes applied in furniture construction
- 3. After studied unit-3, the student will be able to Differentiate or interpret the styles in furniture.
- 4. After studied unit-4, the student will be able to analyse the trends in furniture usage
- 5. After studied unit-5, the student will be able to care and maintain furniture used in a given area.

Matching Table

Unit	i.Remembering	ii.Understanding	iii.Applying	iv.Analyzing	v.Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	No
2	Yes	Yes	Yes	Yes	Yes	Yes
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 16

Furniture - Meaning and importance, Styles of furniture - traditional, contemporary and modern design. Classification- Furniture for comfort, rest and relaxation, work and storage, built-in and portable, Factors influencing furniture decisions - family needs, preferences, availability, principles of design and financial limit. Factors to be considered in furniture selection.

UNIT 2 Teaching Hours: 12

Materials used in furniture construction -Familiar furniture materials – Wood – teak, rose wood, walnut, cedar, mahogany, pine, birch, sal, ply wood, veneers bamboo, cane, metals, plastics, leathers, fabrics, glass.

UNIT 3 Teaching Hours: 12

Steps involved in furniture construction- Shaping, carving, turning, fluting, reeding and joining of furniture. Types of joints.

Upholstered furniture – meaning and method of construction.

UNIT 4 Teaching Hours: 10

Selection and Arrangement of furniture - Factors to be considered in the selection of furniture, arrangement of furniture for various rooms - Living room, dining room, bedroom, kitchen and study room.

UNIT 5 Teaching Hours: 10

Care and maintenance of different types of furniture – wood, metals, plastic, and cane. Furniture polishes – types, natural and synthetic varnishes, other types of furniture finishes.

References:

- 1. <u>Gandotra V, Shukul M and Jaiswal</u>N ,(2011). Introduction to Interior Design and Decoration, New Delhi: Dominant publishers,India.
- 2. <u>Premavathy .S</u>,(2005) Interior Design and Decoration, New Delhi: CBS Publishers and Distributors, India.
- 3. Stuart. L,(2013) Furniture Design: An Introduction to Development, Materials and Manufacturing, Laurence King Publishing, London.
- 4. Stepat, D.D, (1971), Introduction to Home furnishings, The Mac MillanCo, New York.
- 5. Wilhide, E and Cope stick, I. (2000) contemporary decorating, conron octopus Ltd., London.
- 6. Levine M (1998), Living rooms, Rockport publishers, USA.
- 7. Faulkner. R and Faulkner. S, (1987), Inside today's home, Rinehart Winston, New York.
- 8. Mullick.P, (2000), Textbook of Home science, Kalyani publishers, NewDelhi.

E – Materials:

1. https://www.pinterest.com/freehandarch/living-room-references/

- 2. https://tympanus.net/codrops/2010/04/27/60-interior-design-and-furniture-websites-for-your-inspiration-2/
- 3. https://www.luxdeco.com/blogs/styleguide/popular-interior-design-styles
- 4. https://www.decoraid.com/blog/interior-design-history
- 5. https://www.dezeen.com/interiors/offices-interiors/
- 6. https://www.researchgate.net/figure/Materials-and-finishes-proposed-for-selected-furniture-design_tbl1_228933679
- 7. https://www.sciencedirect.com/science/article/pii/S0261306905002736
- 8. https://www.slideshare.net/Diwakarkushwaha5/types-of-materials-using-to-make-furnitures-interior-design-vi-sem-2017
- 9. https://www.idec.org/files/M_Anderson&J_Pengilly_2.pdf
- 10. https://mondecasa.com.sg/5-popular-materials-used-for-outdoor-furniture-manufacturing/

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	M	M	S	M	S	M	S	M
CO2	S	S	S	S	M	M	S	S	S	S
CO3	S	S	S	M	S	M	M	S	M	S
CO4	S	S	S	M	S	S	S	M	S	M
CO5	S	M	M	-	-	S	S	M	S	S

PO – Programme Outcome, CO – Course outcome

S – Strong, M – Medium, L – Low (may be avoided)

Paper type: Field Study and USRR (University Social Responsibility Report)

Paper code:

Name of the Paper: Field Study

Credit: 2

.....

USSR (FIELD STUDY) GUIDELINES

Field Study and USRR (University Social Responsibility Report)

The aim of the Field Study is to help students connect with the society in the respective discipline. Following are the important features of the Field Study and the USRR:

- **1. Aim:** The Field Study must aim at relating the subject of study with the society in so far as the application and the usefulness of the study are concerned
- **2. Topic selection:** The topic for the Field Study must be chosen by the student in the second semester in the month of February; the process for the same shall begin on 1st February and shall end on the last working day of the month of February. Students are free to select the topic for the Field Study in consultation with the Experts and Faculty Members of their choice, both from within and outside the University
- **3. Period and duration:** The Field Study shall be undertaken for a duration of 15 days in the summer vacation that falls immediately at the end of the second semester of the program and the same should be accounted for the Third Semester of the program
- **4. USRR:** The USSR (University Social Responsibility Report) must be prepared by every student of the program written in 50 to 75 pages. The report shall be written based on the standard research methodology.
- 5. Review and evaluation schedule:
- a. Reviewing the Field work: First week of July
- b. Report Review: Second week of August
- c. Report submission: First week of September
- d. Report Evaluation: Third week of September
- **6. Faculty Composition:** The following members may be nominated for confirming the topic and for evaluating the USRR:
- a. Professor and Head of the concerned Department
- b. One Faculty member with related field of specialization from the concerned Department
- c. One senior faculty member from the Department of Sociology from other Institution

Paper type: Massive Open Online Course (MOOC)

Paper code:

Name of the Paper: Massive Open Online Course

Credit: 2

.....

GUIDELINES FOR MOOC:

a. For MOOC, the co-coordinator to be nominated in the colleges by Principal for guiding / supervising MOOC related study of the students. A mentor to be nominated in each department by the Head of the Department with the advice of the Principal. Mentor can guide the students to pass MOOC and MOOC related activities may be organized in all stages.

- b. Teachers including Tamil programme who has worked in colleges / universities may be requested to prepare lessons and approach national portals like Swayam for conducting online courses.
- c. Eight weeks and above period of MOOC may be approved by the University for the candidates.
- d. MOOC can be studied from the Semester I to Semester III. After Semester III it will be considered as arrear paper. Teachers can inform the MOOC details to the students.
- e. Two credits may be given to MOOC by University. Students may be recommended to study PG level and two credits/more credits MOOC from SWAYAM, approved by MHRD.

Paper type: Core Paper code:

Name of the Paper: Paper – 11 PROFESSIONAL PRACTICE AND ESTIMATION

Credit: 5

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

Course Objectives:

To enable the students to

1. Impart awareness on approach to work by designer.

- 2. Introduce to issues related with the interior designer's profession.
- 3. Working out quantities of different materials and their costs to prepare an estimate of the project before execution.
- 4. Prepare of Estimation and Specification for executing projects.
- 5. Estimate the cost of various interior and exterior works.

Course outcomes:

- 1. After studied unit-1, the student will be able to know how to understand and conduct oneself as business person
- 2. After studied unit-2, the student will be able to update about client's expectation and legal and ethical operation
- 3. After studied unit-3, the student will be able to gain knowledge on collaborating with industry cohorts and prepare quotation for works.
- 4. After studied unit-4, the student will be able to estimate the cost of various works
- 5. After studied unit-5, the student will be able to generate bills of estimates.

Matching Table

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	No
2	Yes	Yes	No	Yes	Yes	No
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	No	No	Yes	No

UNIT 1 Teaching Hours: 15

Interior Designers approach to works :ways of getting works: types of works, works partly executed by other Interior Designers. Various precautions to be taken before taking up the

work, conditions of engagement between interior Designer and client: commencement of work.

Preliminary knowledge of Consumer protection Act.

UNIT 2 Teaching Hours: 15

Issues of professional practice: Professional behaviour, Ethics, Types of clients, Contracts, Tenders, Arbitration as defined in terms of Interior Design field and current day context. Career opportunities, styles of interior design practice, relationship between client and professional, type of fees, process of fees negotiations, billing methods, tax liabilities, contracts – types of contracts – item rate, labour, lump sum, cost plus percentage.

UNIT 3 Teaching Hours: 10

Interior Designer's duties: drawings to be prepared: Interior Designer's relation with other parties connected with works such as client, contractor, sub-contractors, consultants and authorities. IIID Code of professional conduct: scale of charges: units and mode of measurements, clerk of work and his duties, inspection of work, certificate of payment to contractor, bill of quantities, schedule of rates, tenders, public, limited and negotiated tender documents and allied formalities.

UNIT 4 Teaching Hours: 20

Rate Analysis and Estimation Format: Rate Analysis – definition, method of preparation, quantity and labour estimate for woodwork, steel work, aluminium work, glass and its rate for different thickness and sections, finishing (enamel paint, melamine, DU coats, Hand polishing, veneering and laminating) for walls and ceilings. Electrical and plumbing products, wiring, ducting, and laying of tiles and wall paneling in the estimate format of the project.

UNIT 5 Teaching Hours: 15

Estimation and Specification: Detailed Estimate – Estimating interior items manually and through spreadsheet programmes, abstract of Estimate, contingencies, labour charges, bill of quantities, different methods of estimate for interior design works, methods of measurement of works. Specification – Definition, purpose, procedure for writing specification for the purpose of calling tenders, types of specification. Specification for different item related to interior design project.

Text Books:

- 1. S. C. Rangwala, Elements of Estimating and costing, Charoter publishing House, Anand, India, 1984.
- 2. The interior designers guide: to pricing, estimating budgeting. By Theo Susan
- 3. M. Chakrabarti. Estimation, Costing, Specification and Valuation in Civil Engineering.
- 4. Dutta, Estimating and Costing, S. Dutta and Co., Lucknow 1983
- 5. Carol Simpson, Estimating for Interior Designers, Watson Guptill, Rev. Sub edition, 2001.
- 6. Indian Institute of Architects. H.B. Professional Practice, The Architects pub. Bombay.

- 7. Namavati. H. Roshan. Professional Practice. 8th ed, Lakshani Book Depot, Bombay, 2001.
- 8. Christine .M. Piotrowski, Professional practice for Interior Designers, 3rd edition, Wiley and sons, 2001.
- 9. Cindy Coleman, Interior Design Handbook practice, McGraw Hill professional, isted, 2001
- 10. Ronald Veitch, Professional practice for Interior Designers, Penguin Publishers, Limited, 1987.

E – Materials:

- 1. https://collegegrad.com/careers/interior-designers
- 2. http://www.gautamshah.in/PDF/DMIJul07.pdf
- 3. http://osp.mans.edu.eg/elbeltagi/Cost%20Ch4.pdf
- 4. https://interiordesign.org.sg/code-of-professional-conduct
- 5. http://www.civilprojectsonline.com/civil-projects/purpose-of-specifications-and-types-of-specifications/
- 6. https://www.concreteconstruction.net/how-to/construction/spreadsheet-based-estimating_o
- 7. https://designlike.com/9-basic-styles-in-interior-design/
- 8. https://resources.workable.com/interior-designer-job-description
- 9. https://www.coa.gov.in/index1.php?lang=1&level=2&&sublinkid=295&lid=82
- 10. https://theconstructor.org/construction/analysis-of-rates-for-civil-engineering-works/6488/

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S			M	L	S	S	M	S
CO2	S	M	S		M	M		M	S	S
CO3	S	S			S	M		M	S	S
CO4	S	S			M	M	S	M	S	S
CO5	S	S			M	M	S		M	S

PO – Programme Outcome, CO – Course outcome

Paper type: Core Paper code:

Name of the Paper: Paper - Project / Dissertation

Credit: 5

Total Hours per Week: 12 Lecture Hours: 180 Tutorial Hours: 180 Practical Hours:

Nil

.....

GUIDELINES FOR PROJECT

- 1. **Aim:** The aim of the Project is to help students to actively engage in research work in the respective discipline.
- **2. Topic selection:** The topic for the Project must be chosen by the student in the third semester in the month of August; the process for the same shall begin on 1st September and shall end on the month of January. Students are free to select the topic for the Project in consultation with the Guide and Faculty Members of their department.
- **3. Project Report:** A Project Report must be prepared by every student of the program written in 75 to 100 pages. The report shall be written based on the standard research methodology.
- 4. Review and evaluation schedule:
- a. Reviewing the Project work: First week of December
- b. Report Review: Second week of February
- c. Report submission: Fourth week of February
- *d. Report Evaluation and Viva voce:* First week of March / Conducted as per the Schedule of University Practical / Viva voce Examinations for Even Semester.

Paper type: Core Elective Paper code:

Name of the Paper: Paper – 4 A. SUSTAINABLE INTERIORS

Credit: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course objectives:

To enable the students to

1. Understand the importance of green building technology.

- 2. Learn the significance of using solar devices.
- 3. Acquired knowledge in recent green building materials and to trap rain water
- 4. Prepare of Estimation and Specification for executing projects.
- 5. Gain exposure to the call for conservation of natural resources at the global level.

Course outcomes:

- 1. After studied unit-1, the student will be able to understand green building concepts
- 2. After studied unit-2, the student will be able to learn the characteristics of green building materials
- 3. After studied unit-3, the student will be able to know the green building materials and practices
- 4. After studied unit-4, the student will be able to understand the importance of solar energy utilization.
- 5. After studied unit-5, the student will be able to identify the methods of rain water harvesting.

Matching Table

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	No
2	Yes	Yes	No	Yes	Yes	No
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 15

Green building technology – Meaning, concept, need for developing green building concept in India, importance of green building technology, benefits of green buildings –

environmental benefits, economic benefits, social benefits, Disadvantages of green buildings, impact of green building on human health and natural environment.

UNIT 2 Teaching Hours: 15

Sustainable building materials - Meaning, Characteristics of sustainable materials. Materials and finishes used in green building – Bamboo, straw bale, recycled plastic, wood, dimension stone, Recycled stone, non-toxic metals, Earth blocks-compressed, rammed and baked; flax linen, sisal, wood fibres, cork, coconut, non- VOC paints and polyurethane block. Vermiculites – meaning and commercial uses.

UNIT 3 Teaching Hours: 15

Green building practices and technologies. Site planning and design, Energy Efficiency – Passive Solar Design- advantages, use of thermostats, doors, windows and insulating materials, Materials Efficiency – recyclable materials, Operations and Maintenance Optimization, Water Efficiency - **Porous paving schemes**, landscaping and plumbing, Indoor Environmental Quality Enhancement - lighting, ventilation and low VOC paints, Waste Reduction.

UNIT 4 Teaching Hours: 15

Alternate Sources of Energy: Energy Conservation and Efficiency – Need and Methods – Energy Efficiency and Need in Modern Buildings: Green Buildings – Intelligent Buildings – Energy Rating Buildings – Eco-housing Concepts – Energy Security - Alternate Sources of Energy – Use, Principles and Importance

Types of Alternative Sources of Energy - Solar - Biomass - Wind - Tidal and Wave Energy.

Future Prospects for Renewable Energy – Environmental Impacts of Energy Sources.

UNIT 5 Teaching Hours: 15

Water conservation technology – need for water conservation, Difference between water conservation and water efficiency, Strategies to save water at home, Rain water harvesting-meaning, importance of rain water harvesting, requirements of rain water harvesting structure, methods of rain water harvesting systems – surface run off and Roof top rain water harvesting, advantages, Grey water usage.

References:

- 1. Nilesh Y. J (2016), Green and Smart Buildings: Advanced Technology Options (Green Energy and Technology), Springer; 1st ed.
- 2. Faulkner, S. and Faulkner, R. (1987), Inside Today's Home, Rinehart Publishing Company, New York.
- 3. <u>Charles J. Kibert</u>, (2008), Sustainable Construction: Green Building Design and Delivery, John Wiley and sons.
- 4. Rai, G.D. (1995), Solar Energy Utilization, Khanna Publishers, New Delhi.
- 5. Rob Avis P and Michelle A.P.(2018), Essential Rainwater Harvesting: A Guide to Home-Scale System Design New Society Publishers.

- 6. Riggs, J.R. (1992) Materials and Components of Interior Design, Regents Hall, New Jersey.
- 7. Roa, M.P. (1998), Interior Design, Principles and Practice, Standard Publishers, Delhi.

E – Materials:

- 1. https://theconstructor.org/building/elements-of-green-building/5375/
- 2. https://theconstructor.org/water-resources/methods-of-rainwater-harvesting/5420/
- 3. https://www.greenbuilt.org/about/importance-of-green-building/
- 4. https://chillsairconditioning.com/how-does-solar-air-conditioning-work/
- 5. https://en.wikipedia.org/wiki/Vermiculite
- 6. https://en.wikipedia.org/wiki/Solar_lamp
- 7. https://homeguides.sfgate.com/importance-renewable-resources-energy-79690.html
- 8. https://en.wikipedia.org/wiki/Solar_air_heat
- 9. https://openei.org/wiki/Solar_space_heating
- 10. https://home.howstuffworks.com/solar-air-heaters1.htm

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	-	M	S	L	-	M	S	S	M	M
CO2	-	M	S	S	-	M	M	S	M	S
CO3	M	-	S	S	-	M	M	S	M	M
CO4	-	M	S	S	S	M	M	S	M	S
CO5	-	M	S	M	S	M	M	S	M	S

PO – Programme Outcome, CO – Course outcome

Paper type: Core Elective Paper code:

Name of the Paper: Paper – 4 - B.ADVANCED RESOURCE MANAGEMENT

Credit: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

1. Understand the evolution of management in organizations.

- 2. Understand the various approaches to Management
- 3. Know the conceptual, human and specific aspects of management functions
- 4. Develop ability to evaluate the management efficiency and effectiveness in organizations
- 5. Comprehend issues of stress and conflicts in organisations.

Course outcomes:

- 1. After studied unit-1, the student will be able to understand the concepts and Management skills
- 2. After studied unit-2, the student will be able to learn the management process
- 3. After studied unit-3, the student will be able to understand the theories and approaches to management.
- 4. After studied unit-4, the student will be able to know how to manage stress and conflicts in organizations
- 5. After studied unit-5, the student will be able to identify the techniques of human resource management.

Matching Table

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	Yes
2	Yes	Yes	No	Yes	Yes	Yes
3	Yes	Yes	Yes	Yes	Yes	No
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 15

Introduction to Management: Concept of Management, Evolution of Management Thoughts; Managerial Functions – Planning, Organizing, controlling; Decision making – types and styles, Role of Manager, Application of Management in different fields and as a profession, Social responsibility and managerial ethics, Levels of management, Management skills, Management of innovation and Total Quality Management.

UNIT 2 Teaching Hours: 10

Management Function and Process: Planning – Objectives, Principles, policies, strategies, Controlling- Tools for management control, Evaluation –Tools and techniques, Appraisal., Decision Making - Meaning, Types of Decisions, Techniques and tools in Decision making-Decision tree and Cost benefit analysis.

UNIT 3 Teaching Hours: 15

Theories and Approaches to Management: The historical perspective, rationality of Bureaucracy, Classical approach problem with classical view point open and closed system. Behavioural approach, Systems approaches – by Henry Foyal, 14 principles of management and Scientific Management – principles, four parts of a system, the Contemporary perspective.

UNIT 4 Teaching Hours: 20

Human Behaviours in Organisation: Personality, Attitude and Motivating Factors, Group behaviour and Dynamics, Team Management, Stress and Conflict Management in Organisations.

The conceptual model of organization behaviour; The individual processes – personality, values and attitude, perception, motivation, learning and reinforcement, work stress and stress management; The dynamics of organization behaviour – power and politics, conflict and negotiation, leadership process and styles, communication.

UNIT 5 Teaching Hours: 15

Techniques of Human Resource Management: PERT, GANTT, CPM, and Total Quality Management.

HR challenges; HRM functions; The future challenges of HRM; Strategic Management of human resources; Human resource planning; Job analysis; Job evaluation; Recruitment and selection; Training and development; Promotion and transfer; Performance management; Compensation management and benefits; Employee morale and productivity.

References:

- 1. Harold Koontz, Heinz Weibrich (2006,) Essentials of Management, TataMcGraw Hills.
- 2. N.V.R Naidu, T.KrishnaRao (2008), Management and Entrepreneurship, IK International Publishing house pvt Ltd.
- 3. P.N.Reddy, P.C.Tripathi, H.R.Appannaiah, Essentials of Management, Himalaya publishing Home.
- 4. Shashi K. Guptha, and Rosy Joshi (2001), OrganisationalBehaivour, Kalyani Publishers, Ludhiana.
- 5. S.A Sherlekar (2005), Ethics in Management, Himalaya publishing house.
- 6. T.Sivalingam (2005), Foundations of Management, Vrinda Publications Ltd, Delhi.

7. OmvirChaudhryPrakash Singh (2011), Principles of Management, New age International Publishers.

E – Materials:

- 1. https://blog.easysourceindia.com/managerial-functions-in-hrm/
- 2. https://www.civilserviceindia.com/subject/Management/notes/the-dynamics-of-organization-behavior-communication.html
- 3. https://courses.lumenlearning.com/boundless-management/chapter/management-levels-and-types/
- 4. https://www.economicsdiscussion.net/management/tools-and-techniques-of-control-in-management/31537
- 5. https://www.usaeservice.com/2019/07/conceptual-model-of-organization.html
- 6. http://users.rcn.com/mm107/dt.html
- 7. https://www.businessmanagementideas.com/management/approaches-to-management.
- 8. https://www.managers.org.uk/~/media/Campus%20Resources/Henri%20Fayol%20%20Planning%20organisation%20command%20coordination%20and%20control.ashx
- 9. https://www.civilserviceindia.com/subject/Management/notes/the-future-challenges-of-HRM.html

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		M				S	S		M	S
CO2	S	S			M	S	S		S	S
CO3	S	S			M	S	M		M	S
CO4	S	S			M	S	S		S	S
CO5		S				S	S		S	S

PO – Programme Outcome, CO – Course outcome

Paper type: Core Elective Paper code:

Name of the Paper: Paper - 4 C. GREEN CONSUMERISM

Credit: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

1. Familiarize with the changing trends in Green Consumerism.

- 2. Enrich their knowledge and skills in identifying and using green products.
- 3. Aware of the necessity of implementing green consumerism.
- 4. Study the impact of lifestyle on environment
- 5. Accept and adopt an attitudinal change to emerge as green consumers.

Course Outcomes:

- 1. After studied unit-1, the student will be able to acquire knowledge on importance of green consumerism
- 2. After studied unit-2, the student will be able to understand the roots of Green Consumerism.
- 3. After studied unit-3, the student will be able to identify the impact of lifestyle on environment
- 4. After studied unit-4, the student will be able to learn the principles of green consumerism.
- 5. After studied unit-5, the student will be able to know the significance of 3R Concept Reduce, Reuse And Recycle in waste management.

Matching Table

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	Yes	Yes	Yes	Yes
2	Yes	Yes	Yes	Yes	Yes	Yes
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	Yes

UNIT 1 Teaching Hours: 15

Green Consumerism - Meaning and importance of green consumerism. green products, green marketing, green supply and green certificate; Need, consideration in daily consumption and significance.

UNIT 2 Teaching Hours: 15

Roots of Green Consumerism: Environmental Problems, Global climatic change; Destruction of rainforests, Ozone layer depletion. Environmental pollution, Scope of green consumerism to reduce environmental impacts.

UNIT 3 Teaching Hours: 15

Lifestyle and Green Consumerism - Sustainable or eco-friendly lifestyle; Green/sustainable purchase behavior - meaning and benefits, efforts to reduce pollution and wastage in the production side.

UNIT 4 Teaching Hours: 15

Implementation of Green Consumerism. Principles of green consumerism - reduction in packaging/plastic bags Eco-label certifications - green label/eco-label, green seal star rating; Eco Logo, EPA design for the environment.

UNIT 5 Teaching Hours: 15

Impacts of Green Consumerism, 3R Concept - Reduce, Reuse And Recycle. Role of procurement in environmental management, Freeganism, green marketing - biodegradable, environmentally friendly, purchasing behaviour of consumers.

References:

- 1. Deshpande, J. Gangawane, L. V., Khilare, V. C. (2007), Sustainable Environmental Management, Daya Books.
- 2. Rangwala, S.C. (1999), Engineering Materials, Charotar Publishing House, India. Jeffery, Yvonne, Michael Grosvenor, and Liz Barclay (2008) Green Living for Dummies. Indianapolis, IN: Wiley Pub.
- 3. Snell, Clarke, and Tim Callahan (2005) Building Green: a Complete How-to Guide to Alternative Building Methods: Earth Plaster, Straw Bale, Cordwood, Cob, Living Roofs. New York: Lark.
- 4. Nayyar, J (2009) Green Living by Design: The Practical Guide for Eco-friendly Remodeling and decorating, China: Filipacci publishing.

E – Materials:

- 1. https://www.conserve-energy-future.com/green-consumerism-importance-examples-strategies.php
- 2. https://www.kyos.com/faq/green-certificate/
- 3. https://www.thebalancesmb.com/green-marketing-2948347
- 4. https://www.moneycrashers.com/freegan-principles-problems-freeganism/

- 5. https://www.gdrc.org/sustbiz/green/doc-cons_introduction.html
- 6. https://hbr.org/2019/07/the-elusive-green-consumer
- 7. https://sites.google.com/site/richardgosden/green-consumerism
- 8. https://en.wikipedia.org/wiki/Green_consumption
- 9. https://en.wikipedia.org/wiki/Ecolabel
- 10. https://en.wikipedia.org/wiki/Green_Seal

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	S	M	S	M	M	S	M	-
CO2	M	S	M	M	S	S	-	S	S	S
CO3	S	M	S	S	S	S	S	S	M	S
CO4	S	S	M	-	S	M	M	M	-	S
CO5	S	S	S	-	M	M	S	-	S	M

PO – Programme Outcome, CO – Course outcome

Paper type: Open Elective Paper code:

Name of the Paper: Paper – 4 A. HOME FURNISHINGS

Credit: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

1. Familiarize with the basic considerations in design, aesthetics and furnishings

- 2. Understand the role of fabric in interior design and decoration
- 3. Develop ability to design fabulous window, wall and door treatments
- 4. Know about various types of fabrics used for furnishings
- 5. Learn to care and maintain the furnishings

Course outcomes:

- 1. After studied unit-1, the student will be able to understand the difference of furnishings used in various rooms
- 2. After studied unit-2, the student will be able to differentiate period styles in furnishings.
- 3. After studied unit-3, the student will be able to appreciate role of soft furnishings in an interior.
- 4. After studied unit-4, the student will be able to contemplate on furnishings' selection based on use, comfort and cost.
- 5. After studied unit-5, the student will be able to take care of different types of household textiles.

Matching Table

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	No	Yes	Yes	No
2	Yes	Yes	Yes	Yes	Yes	Yes
3	Yes	Yes	No	No	No	No
4	Yes	Yes	No	Yes	No	No
5	Yes	Yes	Yes	Yes	Yes	Yes

UNIT 1 Teaching Hours: 15

Introduction to home Furnishings- Definition, Importance of home furnishings, Need for home furnishings, use of furnishings – functional and decorative, Fabrics for protective clothing in interiors walls. Factors to be considered while selecting home furnishings.

UNIT 2 Teaching Hours: 15

Types of furnishings - Cushion, cushion covers, slip covers, bed linens, Table linens, kitchen linen, and bath linen.

Upholstery – History, types of upholstery – traditional, automobile, commercial, marine upholstery, care and maintenance

UNIT 3 Teaching Hours: 10

Types of fabrics used for furnishings - Chiffon, cotton, georgette, jersey, lace, leather, linen, polyester, satin, silk, velvet, viscose rayon. Uses and application in interior furniture- sofa, chairs, cushions, bed.

Carpets and rugs – Meaning, Importance, Difference between carpets and rugs.

UNIT 4 Teaching Hours: 20

Window Treatment - Parts of window, Types of window treatments - Soft Window Treatment and Hard Window Treatment, Curtains - types of curtains, Blinds- Application, Fittings and Fixtures- French and vintage styles, Tie back, Hold back, Curtain Rods, Curtain rings and finials.

UNIT 5 Teaching Hours: 15

Care and Maintenance of home furnishing materials. Laundering - soaking, washing, rinsing, brightening or softening agents, drying, ironing and storing. Stain removal methods and agents, Principles followed while maintaining the fabrics. Storing and maintaining the soft furnishing.

References:

- 1. Mendelson, C., (2005). Home Comforts The Art and Science of Home Comforts The Art and Science of Keeping Home. Scriber Company. New York.
- 2. Stepat. D.D. (1991), Introduction to Home Furnishings, The Macmillan Company, New York.
- 3. Faulkner, R. and Faulkner, S. (1987), Inside Today's Home, Rinehart Winston, New York.
- 4. Kasu, A. 2005, Interior design, Ashish Book Centre Mumbai
- 5. Veena, G., and Shukul M and Jaiswal N, Introduction to Interior Design and Decoration, Dominant publishers and Distributors, New Delhi
- 6. Seetharaman P, Pannu P (2009) Interior design and Decoration, New Delhi and distributors Pvt Ltd, New Delhi.
 - E Materials

E- Materials:

1. http://www.britannica.com

- 2. http://softfurnishingsforhome.weebly.com
- 3. https://en.wikipedia.org/wiki/Upholstery
- 4. https://www.thespruce.com/what-are-curtains-drapes-shades-and-blinds-4067656
- 5. https://www.homelane.com/blog/types-of-fabric-thats-best-for-your-home-interior/
- 6. https://www.99acres.com/articles/use-of-soft-furnishings-in-home-decor.html
- 7. https://textilecourse.blogspot.com/2018/06/types-classification-home-textiles.html
- 8. https://aces.nmsu.edu/pubs/_g/G402.pdf

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		M				S	S		M	S
CO2	S	S			M	S	S		S	S
CO3	S	S	M	M	M	S	M		M	S
CO4	S	S			M	S	S		S	S
CO5		S				S	S		S	S

PO – Programme Outcome, CO – Course outcome

Paper type: Open Elective Paper code:

Name of the Paper: Paper – 4 B. GREEN INTERIORS

Credit: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

1. Understand the importance of green building technology.

- 2. Acquire knowledge in recent green interior materials and to harvest rain water.
- 3. Learn the role of green HVAC technologies in energy conservation.
- 4. Enrich their knowledge on market systems and be informed consumers.
- 5. Familiarize with the changing trends in green interiors.

Course Outcomes:

- 1. After studied unit-1, the student will be able to understand the concept of green building technology.
- 2. After studied unit-2, the student will be able to classify various materials and finishes used in green buildings.
- 3. After studied unit-3, the student will be able to analyze the technologies used in Green building practices.
- 4. After studied unit-4, the student will be able to judge the suitable Renewable energy source for interiors.
- 5. After studied unit-5, the student will be able to design and create Awareness and execution of water conservation technologies in interiors.

Matching Table

Unit	i. Remembering	ii. Understanding	iii. Applying	iv. Analyzing	v. Evaluating	vi. Creating
1	Yes	Yes	Yes	No	No	Yes
2	Yes	Yes	No	Yes	No	Yes
3	Yes	Yes	Yes	Yes	No	No
4	Yes	Yes	No	Yes	No	Yes
5	Yes	Yes	Yes	Yes	Yes	No

UNIT 1 Teaching Hours: 10

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

UNIT 2 Teaching Hours: 20

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 fibers, cork, coconut ,polyurethane block.

UNIT 3 Teaching Hours: 10

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

UNIT 4 Teaching Hours: 20

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 5 Teaching Hours: 15

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, KhannaPublihsers, 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
- 6. Chaudhari, S.N. 2006, Interior Design, Aavishkar Publishers, Jaipur, India.
- 7. Choudhury, A.K.R. 2000, Modern Concepts of Colour and Appearance, Oxford and IBH Pubhsning Co. Pvt. Ltd., New Delhi.
- 8. Hilliard, E. 2000, Brilliant Colour at Home, Kyle Cathie Ltd., London.
- 9. Laura Slack, What is product Design? Roto Vision Publishers, 2006.
- 10. Pile F 1997 Colour in Interior Design, McGraw hill, New York.
- 11. Reens Crochet and David Vleck, Designers's Guide to Decorative Accessories, Prentice Hall, Ist Edition, 2008.

- 12. Wyszecki, G and Stiles, W.S. 2000, Colour Science Concepts and Methods, Quantitative Data and Formulae, John Wiley and Sons Inc., New York.
- 13. Diesendorf, Mark (2007). Greenhouse Solutions with Sustainable Energy.
- 14. Faulkner, R., and Faulkner. S, (1987) Inside Today's Home, Rinehart publishing House, New York

E - Materials:

- 1. http://www.indiamart.com/handi-exports/flower-vessels-stands.html
- 2. http://www.theflowerexpert.com/content/growingflowers/flowers-and-seasons
- 3. http://www.talktalk.co.uk/home-garden/garden-advice/orchids-care.html
- 4. http://www.houzz.com/ideabooks/271411/list/5-Ways-to-Decorate-Around-a-Flat-Screen-TV
- $5. \ http://www.wvu.edu/{\sim}agexten/hortcult/flowers/preservi.htm$
- 6. http://www.epa.gov/statelocalclimate/documents/pdf/12_8_what_is_green_GGGC.pd f
- 7. http://www.etn-presco.net/links/sustainable-building_technical-guide.pdf
- 8. http://greenliving.nationalgeographic.com/importance-renewable-resources-energy-2146.html
- 9. http://www.gdrc.org/uem/water/rainwater/rainwaterguide.pdf

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	S	M	M	M	M	S	M	S
CO2	M	S	S		S	S	M	S		S
СОЗ	M	S	S		S	M	M	S		S
CO4		S	S	S	M		M	S		S
CO5		M	S	M		M			S	

PO – Programme Outcome, CO – Course outcome

Paper type: Open Elective Paper code:

Name of the Paper: Paper – 4 C. ALTERNATIVE SOURCES OF ENERGY

Credit: 3

Total Hours per Week: 5 Lecture Hours: 75 Tutorial Hours: 75 Practical Hours: Nil

.....

Course Objectives:

To enable the students to

- 1. Understand the Basic characteristics of energy, its transformation and sustainable process.
- 2. Overview on the utilization trends in energy conservation and efficiency.
- 3. Acquire intelligence in handling the conversion technologies and application of alternate sources of energy.
- 4.Be sensitive to the present energy scenario in India
- 5. Become aware of the importance and principles of alternative energy sources.

Course outcomes:

- 1. After studied unit-1, the student will be able to define basic properties, classification and utilization pattern of alternate sources of energy
- 2. After studied unit-2, the student will be able to describe energy conservation, efficiency and energy aspects.
- 3. After studied unit-3, the student will be able to analyze the new technological innovation and application of solar energy in daily living.
- 4. After studied unit-4, the student will be able to understand the main elements of technical systems designed for utilizing alternate energy sources.
- 5. After studied unit-5, the student will be able to acquire knowledge of other forms of energy sources, wave power, tidal power and geothermal principles and applications.

Matching Table

Unit	i. Remembering	ii. Understanding iii. Applying		iv. Analyzing	v. Evaluating	vi. Creating	
1	Yes	Yes	No	Yes	Yes	No	
2	Yes	Yes	No	Yes	Yes	No	
3	Yes	Yes	Yes	Yes	Yes	Yes	
4	Yes	Yes	Yes	No	Yes	No	
5	Yes	Yes	No	Yes	No	No	

UNIT 1 Teaching Hours: 20

Energy – An Introduction: Meaning - Theory and Importance of Energy - Classification of Energy sources –Primary, Secondary and Intermediate – Conventional, Non-conventional – Renewable, Non-renewable – Commercial, Non-commercial, Origin – Energy for Sustainable Development - Energy Conversion–Energy Utilization Pattern in the Past, Present and Future Projections – Sector wise Energy Consumption – Environmental Aspects and Policies of Energy.

UNIT 2 Teaching Hours: 20

Alternate Sources of Energy: Energy Conservation and Efficiency – Need and Methods – Energy Efficiency and Need in Modern Buildings: Green Buildings – Intelligent Buildings – Energy Rating Buildings – Eco-housing Concepts – Energy Security - Alternate Sources of Energy – Use, Principles and Importance

Types of Alternative Sources of Energy – Solar – Biomass and Wind Energy.

UNIT 3 Teaching Hours: 10

Solar Energy: An Introduction, Advantages, Solar Applications – Solar Water Heater - Solar Dryer – Solar Distillation (Still) – Solar Pumping Systems –Solar Air Conditioning and Refrigeration – Solar Cooker – Solar Green House.

UNIT 4 Teaching Hours: 10

Bio-gas: Meaning and Importance of Biogas Technology – Principles of Biogas Conversion – Stages of Biogas Production – Types of Biogas Plants - Extraction of Energy from Wastes.

UNIT 5 Teaching Hours: 15

Wind Energy: Basics of Wind Energy – Measurement of Wind – Wind Energy Applications – Types of Wind Turbines – Applications of Wind Energy – Environmental Benefits and Problems of Wind Energy - Current Status and Future Prospects in India.

Text Books:

- 1. Kothari, D.P. Singal K.C. &RakeshRanjan, (2011). Renewable Energy Sources and Emerging Technologies, 2nd Edition, PHI Learning Private Limited, India.
- 2. Bhatia, S.C & Gupta, R.K, (2018). Textbook of Renewable Energy, Woodhead Publishing India Pvt Ltd, India
- 3. Banerjee, B.P, (2005). Handbook of Energy and Environment in India, Oxford University Press, India.
- 4. Thiyagarajan, V, (2013). Renewable Energy Sources, Lakshmi Publications, India
- 5. Thipse, S.S, (2014). Non-Conventional and Renewable Energy Sources, Narosa Publishing House PVT Ltd, India

References:

1. Tiwari G.N., Solar Energy, Fundamentals design, modeling and Applications, Narosa Publishing House PVT Ltd, 2002, India.

- 2. Kishore V.V.N., Renewable Energy Engineering and Technologies, TERI, 2009, India.
- 3. Rai G.D., Non-conventional Energy Sources, Khanna Publication, 2001, India.
- 4. Anne Maczulak., Renewable Energy: Sources and Methods, Library of Congress Cataloging-in-Publishing Data, 2010, New York.
- 5. Christopher AA. Simon., Alternative Energy Political, Economic and Social Feasibility, Rowman& Littlefield Publishers Inc, 2007, USA
- 6. Kathiann M. Kowalski., Alternative Energy Sources, Marshall Cavendish Corporation, 2011, Malaysia.
- 7. ZiyadSalameh., Renewable Energy System Design, Elsevier Inc, 2014, UK
- 8. Aldo Vieira da Rosa., Fundamentals of Renewable Energy Processes, 2nd Edition, Elsevier Inc, 2009, UK
- 9. Vaughn Nelson., Introduction to Renewable Energy, Taylor and Francis Group, 2011, Florida.
- 10. Efstathios, E.M, (2012). Alternative Energy Sources, Springer, New York.

E- Materials:

- 1.https://books.google.co.in/books?id=pabWCwAAQBAJ&printsec=frontcover&dq=alt ernative+sources+of+energy&hl=en&sa=X&ved=0ahUKEwicy7rj-JfpAhXu6nMBHYYyC98Q6AEIYjAH#v=onepage&q=alternative%20sources%20of%20energy&f=false
- 2. https://shodhganga.inflibnet.ac.in/bitstream/10603/15703/8/08_chapter%202.pdf
- 3. https://www.energy.gov/sites/prod/files/2017/03/f34/qtr-2015-chapter5.pdf
- 4. https://www.sciencedirect.com/science/article/pii/S1110016817300911
- 5. https://www.energy.gov/eere/solar/articles/solar-radiation-basics
- 6.https://www.researchgate.net/publication/331114519_An_Overview_of_Biogas_Production_Fundamentals_Applications_and_Future_Research
- 7. https://shodhganga.inflibnet.ac.in/bitstream/10603/87163/11/11_chapter3.pdf

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		M	S	S	-	S	S		M	S
CO2	S	S			M	S	S		S	S
CO3	S	S	S	S	M	S	M		M	S
CO4	S	S			M	S	S		S	S
CO5		S				S	S		S	S

PO – Programme Outcome, CO – Course outcome