

Gujarat Technological University

Home Science

Semester - II

Subject Name: **Space Designing**

Subject Code: **320036**

Teaching Scheme				Evaluation Scheme		
Theory	Tutorial	Practical	Total	University Exam (Theory) (E)	Mid Sem Exam (Theory) (M)	Internal Assessment (I)
2	0	2	4	70	30	50

1. RATIONALE:

The students will be able to get knowledge of layout plans understand various plans and building bye-laws.

2. SCHEME OF TEACHING:

Topic No.	Name of Topic	Lecture Hour	Practical Hour	Total Hour
1.	Introduction	4	-	4
2.	Principal of building planning	8	10	18
3.	Building Drawing	6	10	16
4.	Building bye – laws for residential building.(IS – 1256)	5	-	5
5.	Estimating & Costing	5	8	13
Total		28	84	112

3. OBJECTIVES:

1. To interpret building drawing.
2. To acquire basic knowledge of principles involved in planning residential Building.
3. To learn simple technique of scale drawing and flat rendering.
4. To estimate rough coast of building.

Sr. No.	Course Content:
1.	Introduction: 1.1.0 Types of building 1.1.1 Residential building 1.1.2 Public building 1.1.3 Educational building 1.1.4 Commercial building 1.1.5 Industrial building 1.2.0 Introduction to building drawings. 1.3.0 Types of Residential building. 1.3.1 Bungalow 1.3.2 Duplex

	<ul style="list-style-type: none"> 1.3.3 Raw house 1.3.4 Farmhouse 1.3.5 Flat 1.3.6 Apartment 1.3.7 Housing Complex 1.4.0 Advantages and disadvantages of all types of residential building.
2.	<p>Principal of building planning.</p> <ul style="list-style-type: none"> 2.1. General principles of planning for residential planning. <ul style="list-style-type: none"> 2.2.1 Aspect 2.2.2 Prospect 2.2.3 Furniture requirement 2.2.4 Roominess 2.2.5 Groupings 2.2.6 Sanitation 2.2.7 Circulation 2.2.8 Ventilation 2.2.9 Economy 2.2.10 Flexibility 2.2.11 Orientation 2.2. Principals of planning & designing Single & Two stored residential building 2.3. Principles of planning for Public buildings. 2.4. Principles of planning for Educational buildings. 2.5. Principles of planning for Commercial buildings. 2.6. Guidelines for planning residential building on : <ul style="list-style-type: none"> 2.6.1 Regular & irregular shape of plots 2.6.2 Sloping ground 2.6.3 Irregular grounds
3.	<p>Building Drawing</p> <ul style="list-style-type: none"> 3.1 Sketches 3.2 Line plan 3.3 Detailed plan 3.4 Site plan 3.5 Elevation 3.6 Section 67. <p>Service plan Explain importance and purpose of above each type of drawing.</p>
4.	<p>Building bye – laws for residential building.(IS – 1256)</p> <ul style="list-style-type: none"> 4.1 Plot area & build-up area 4.2 Size of rooms 4.3 Heights 4.4 Margin 4.5 Passage 4.6 Ventilation 4.7 Circulation 4.8 Open space 4.9 Water supply & sanitary 4.10 Electrification
5.	<p>Estimating & Costing:</p> <ul style="list-style-type: none"> 5.1 Preliminary / rough estimate Methods : <ul style="list-style-type: none"> 5.1.1 Unit rate estimate 5.1.2 Plinth area estimate 5.1.3 Cubic rate estimate 5.2 Various units for estimation of different types of buildings.

Laboratory Experiences:

1. Prepare plan / sketch of given residential buildings for given requirements.
2. Prepare plan / sketch of building components.
3. Prepare service plan / sketch.
4. Survey of various families to know activity pattern and space requirement.
5. Market survey of building materials available and cost.
6. Visit to house under construction to know the details and preparing report.
7. Exercises on interpretation of building drawing.
8. Exercises on estimating preliminary / rough cost of building

Term Work:

Students have to draw plan on computer.

1. Prepare a scrap book of various building materials used for construction and finishing.
2. Collection of various building drawings (2 bed room, 3 bed room and Bungalows).
3. Prepare a model of house.

References Books:

- | | | | |
|----|--|----------------|------------------------------|
| 1. | The house –its plans and uses
Lippincott 1976. | Agan T. | |
| 2. | Build your Own Homes | Deshpande R.S. | United Book Corp.
1981. |
| 3. | Modern Ideal Homes for India | Deshpande R.S. | United Book Corp.
1981. |
| 4. | Homes for middle class | Deshpande R.S. | U.BCorp.1981 |
| 5. | The housing problems in India | Punekar D. | 1960 |
| 6. | Introduction to Art & Design | Pranav Bhatt | Deep Prakashan
V.V Nagar |
| 7. | Year Book of India | | |
| 8. | Building drawing | | Shah, Kale
& Patki |
| 9. | Estimating & Costing
(Civil Engineering Structures) | | Datta Or Any
other author |