

GUJARAT TECHNOLOGICAL
UNIVERSITY BRANCH NAME: B.ID.
SUBJECT NAME: INTERIOR MATERIAL & TECHNOLOGY –II
SUBJECT CODE: 2X25103
1stYear: Semester: 2

Prerequisite:

It is mandatory to complete Material & construction I subject in order to opt for this course.

Rationale:

- Overview of Building Industry
- Role of Designer in the scheme of overall building industry
- Exposure to various materials used construction for different elements of building
- To make students aware of the various elements and impart basic knowledge and functioning of the various parts.
- Site visits/ sketches/ write up of technical reports are considered essential at this stage.
- Collect information regarding manufacturing qualities, varieties and uses.

Teaching and Assessment Scheme:

Teaching Scheme			Credits C	Examination Marks				Total Marks	University Exam Type
Lectures	Tutorials	Studio		External exam		Internal exam			
				(ESE) Practical	(ESE) Viva	(PA) Practical	(PA)Viva		
2	0	2	04	40	NA	60	NA	100	Drawing Exam

Content:

Sr.No	Content	Total Hours*	% Weightage*
1	<p>Unit 1: Introduction of Materials and Construction techniques in Interior design</p> <ul style="list-style-type: none"> ● Design parameters ● Criteria for selection of materials. ● Properties and durability of Various Materials 	10	15
2	<p>Unit2: Materials and Products:</p> <p>Material: Timber and wood based products. Metal and metal based sheets, profiles and sections.</p> <ul style="list-style-type: none"> ● Material: Metal- Steel, Aluminium etc (ferrous, non-ferrous, alloys used in building industry) ● Techniques of constructing in Timber and Metal. For eg. Timber - wooden joinery, hardware reliant construction, Wooden Boards applications and construction. <p>Metal - Metal joinery by welding, riveting, Hardware based construction etc.</p>	24	30

3	Unit 3: Elements and the Details <ul style="list-style-type: none"> ● Foundations and Fixing of Interior Structures. Brief introduction to foundations with reference to extensions and Modifications of existing structures. ● Floors : and Flooring Dry & wet floors, Timber Steel, Glass, Precast r.c.c. floors, Metal decks, etc. ● Roofs: Introduction and design consideration for Roof and Canopy structures. ● Staircases: Various types of staircases and their detailing with various materials used namely metal, wood, glass, etc. 	20	40
4	Unit 4: Design and Construction <ul style="list-style-type: none"> ● Rationale for appropriating technology and construction method using above mentioned materials and methods of construction. 	10	30

*:indicative

Thrust/Projects:

- Minimum 1 case study of each of the elements above mentioned in the contents.
- Drawings and models.
- Construction site visits.
- Market survey.

References:

- Mackay W. B. : Building Construction – Volumes I, II, III & IV.
- Barry R.: The Construction of Buildings – Volumes I, II, III, IV, V & VI
- Arora S. P. & Bindra S.P. : Building Construction.
- F.D.K.Ching : Building construction illustrated.
- F.D.K.Ching : Interior design illustrated.

*- this is suggestive for common purpose. Faculty may decide on this, considering student group and institution philosophy.

