

**GUJARAT TECHNOLOGICAL UNIVERSITY****BRANCH NAME: B. Arch.****SUBJECT NAME: Building Construction – I****SUBJECT CODE: 2X15003****1st Year: Semester: I****Prerequisite:**

It is a beginner course. There is no prerequisite for this course.

**Rationale:**

Understanding of basic building elements, building materials and different construction processes

**Teaching and Assessment Scheme:**

Teaching Scheme			Credits C	Examination Marks				Total Marks	University Exam Type
Field work	Lectures	Studio		External exam		Internal exam			
			(ESE)Theory	(ESE) Viva	(PA)Theory	(PA)Viva			
1	2	3	06	40	NA	60	100	DRAWING EXAM	

**Content:**

Sr. No.	Content	Total Hours*	% Weightage*
1	Unit I: Introduction Structural and non structural building elements and terminologies Building Elements – a. functions and Design b. Important Building Components c. Foundation, Plinth and Superstructure d. Typical wall section Understanding of basic construction drawing	24	25%
2	Unit II: Building Material Study of basic building materials like mud, brick, stone, timber and bamboo	24	25%
3	Unit III: Building Construction Stone Masonry – a. Construction Techniques with examples b. Case studies of buildings, landmark structures Brick Masonry – a. Techniques with examples b. Types of Brick masonry c. Case studies Mud Construction – a. Techniques with examples b. Types of mud Construction c. Case studies	48	50%

\*: indicative

**Reference Books:**

- Construction of Building Vol.-I- R. Berry
- Building Construction Metric Vol.-II- W. B. Mckay
- Construction Technology Vol.-I- Chudley
- Building Construction Illustrated- Francis D. K. Ching
- Engineering Materials – S.C. Rangwala (course book)
- Building Materials – B.C. Punamia (Additional Reference)
- Time Savers Standards – Building Materials and Systems – Donald Watson (Advanced Reference)

**List of Projects/Assignments\*:**

Lectures, Drafting exercises and case studies, sketches & model making, Site visit, Practical

\*- this is suggestive for common purpose.