

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E. Semester: III

Civil Engineering (Computer Aided Structural Analysis & Design)

Subject Name: **Structural Masonry (Major Elective -IV)**

Sr. No	Course content
1.	Masonry materials: Classification, types and suitability, Testing methodologies.
2.	Structural Behaviour: Properties of masonry under compression, Masonry failure theories, Behaviour of Masonry under flexure, Shear and Bi-axial stress, Effect of slenderness on wall behaviour, Effect of opening in wall, Load transfer and load resisting mechanism.
3.	Design principles of masonry: Design of Wall panels under flexure, Shear walls, Design of Un-Reinforced masonry structures using IS code.
4.	Earthquake design aspects of unreinforced masonry structures.

Reference Books:

1. Structural masonry , Mc Millan Press
2. Introduction to Load Bearing Brick work Design, A.W.Hendry, Sinha, Davis, John Willey & Sons
3. IS 1905
4. Structural modeling and experimental techniques HG Harris, GM Sabnis, RN White - 1999 - CRC Press New York
5. Structural masonry - S Sahlin - 1971 - Prentice Hall