

GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for B.Arch

FORTH SEMESTER

SUBJECT NAME: Structure-IV

SUBJECT CODE: 1045003

Focus:

- Understanding of basic theories and principles of structural analysis.
- Understanding of properties of materials relevant to structural analysis.

Content:

- Design concept of limit state method.
- Design of Beams: Singly and Doubly reinforced beam,
Design of Slab: One Way slab, Two Way slab, One Way and two way Continuous slab
(based on studio drawings)
 - Design of Column: Axially Loaded (only),
 - Design of Isolated footing (Only axial loaded) other types of footing drawing.
 - Design of stair case (Waist slab type) (based on studio drawings)

Reference Books:

1. Strength of Material, RK Bansal, Laxmi Publications, New Delhi
2. Application Mechanics and Strength of Materials, IB Prasad, Khanna Publications, New Delhi
3. Engineering Mechanics, statics & Dynamics, Desai & Mistry, Mac Millan Publishing Co
4. Vector mechanics for engineers- statics, Bear & Johnston, Mcgrewhill
5. Applied Mechanics, Junarkar & H.J. Shah, Charotar Publishing House

Seeking structure from nature, Jeffery Cook, BirkHauser