

GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for B.Arch

FORTH SEMESTER

SUBJECT NAME: Building Construction-IV

SUBJECT CODE: 1045002

Focus:

- Study of Interior elements like false ceiling & Light partitions.
- Study of Hollow walls used in construction.
- Advanced Services in Buildings (Air conditioning, Electrification, Lifts & Escalators). □
Toilet & Kitchen Design.

Content:

Construction

- False Ceiling: Asbestos sheets, soft boards, Plaster of Paris, Gypsum boards, etc. in framework of timber, steel, or Aluminium, alongwith details of lighting and AC grid panels and concealed lighting.
- Light Partitions: Timber, Asbestos sheet, soft board & glazed partitions, etc.
- Hollow walls: Cavity walls in bricks and hollow concrete blocks.
- Study of Lift & Escalator manufacturers.
- Introduction to fundamentals of R.C.C. construction
- Formwork, scaffolding, shoring and strutting for the building

Services

- Principles of Electric installation in smaller building with specific symbols for graphical presentation
- The study of electrical services-power connection, A.C.& D.C. currents, Distribution boards and types of wiring systems for buildings.
- Types and components of air conditioning, various ducting layouts, Advancement in air conditioning systems.
- Difference between Air condition and Air coolers.

- Day lighting and Day light factor.
 - Distribution of electric power for large projects.
 - Transformers, sub-stations, LT rooms.
 - By laws pertaining to installations and load of electric supply
 - Architectural Drawings - Electrical layout of a residential flat or an office, etc.
- Toilet & Kitchen drawings (including layout and sections)

Reference Books:

1. Engineering Materials, Rangwala S.C, Charotar Publishing House
2. Building Construction, Punmia B.C., Laxmi Publishing
3. Building Construction, Arora, S.P. ,Bindra, Dhanpat rai publications
4. Building Construction, Mackey W.B, Orient Longman
5. Fundamentals of Building Construction, Allen Edward, ohn Wiley & Sons Inc, Somerset, New Jersey, U.S.A., 1998
6. Electrical Wiring Estimating & Costing, S. L. Uppal.(Khanna Publications),New

Delhi