



Date: 15-01-2016

In addition to part -I (General Handout for all courses appended to the time table) this portion gives further specific details regarding the course.

Course No. : CE F242
Course Title : Construction, Planning & Technology

Instructor-in-charge : RAJIV GUPTA

Instructor : G Muthukumar
: R Srinivas

1. Scope and Objective of the Course:

To impart current construction, planning & control techniques followed in general by Indian construction industries so that, after getting exposure to this course one can handle the project of any nature & magnitude with cost effectiveness. The course deals with planning techniques, engineering economy, valuation including estimation & costing, system design, construction methodologies ranging from small buildings to large infrastructure projects, construction technologies including recent advancement. Relevant Indian Standard code of practice will be given emphasis.

2. Text Books:

T1. Gupta R. (2013) "Construction Planning & Technology", CBS Publishers, New Delhi.

T2. Punmia, B.C. (2008). "Building Construction", Laxmi Publication Pvt. Ltd., New Delhi.

Reference Books:

R1. Relevant B.I.S Codes and SP-7, National Building code of India, 2005

3. Course Plan:

No. of Lecture	Learning Objective	Topics to be covered	Reference Chap./Book
7	Networking techniques for construction planning	Bar Chart, CPM and PERT, AON, LoB, Optimal scheduling	Chap. II (T1)
3	Planning & control techniques	Single and multi- Resource allocation and leveling	Chap. II (T1)





4	Valuation and construction economy	Valuation, engineering economy, NPW, Annual worth, IRR and cost benefit analysis methods	Chap. I (T1)
6	Construction & contract management, estimation & costing	Contracts, tender, quantity estimation & costing, rate analysis	Chap. I (T1)
3	Decision making models and optimum design	Civil engineering systems	Chap. III (T1)
2	Functional requirement, Classifications & types of buildings	Definition, classification & general requirements of building components	Chap.1, (T2) & R1
3	Planning and construction of various foundation system	Foundations type, selection proportioning, construction, code of practice.	Chap. 2-4 (T2) & R1
4	Types & use of various masonry constructions.	Stone and brick masonry construction, classification, Bond in brick work, Plastering and pointing	Chap. 5-10, 19 (T2)
3	Various types & their properties, & constructing methods	Floors and roofs	Chap. 11-12,15 (T2)
1	Vertical movement of resources in a building	Vertical transportation	Chap. 14 (T2)
2	Construction safety & health acts and management	Legal issues	Handouts
3	IS code guidelines and provisions for earthquake resistant construction of buildings	Philosophy of earthquake resistant design. Why building fails during earthquakes? Measures and provisions for EQ resistant construction	Chap. 32 (T2)

4. **Reading Assignments:** Will be given as & when necessary.





5. **Evaluation Scheme:**

Component	Duration	Weightage	Date & Time	Remarks
Mid-semester test	90 min	30	16/3 9:00 - 10:30 AM	O.B.
Tutorials	50 min	15		C.B.
Project	-	20	-	-
Comprehensive	3 hrs	35	13/5 FN	C.B.

O.B. – Open Book, C.B. - Closed Book

6. **Mid-semester grading:** It will be announced normally in the month of March. It is done in the same manner as that of the final grading
7. **Chamber Consultation Hour:** To be announced in the class.
8. **Notice:** Notice concerning this course will be displayed on the Notice Board of Civil Engineering Group.

Instructor-in-charge

