B.Tech. Civil Engineering				
Course code: Course Title	**Course Structure**			**Pre-Requisite**
CE435: Construction Project Management	L	T	P	Nil
	3	1	0	

Course Objective: Understand the concepts and principles of modern-day Construction.

S. No	Course Outcomes (CO)
CO1	Understand the Network Techniques, Construction Planning, and Management.
CO2	Find the time cost optimization of the projects.
CO3	Understand the site layout, inspection, supervision, and quality control.
CO4	Implement safety in construction.
CO5	Implement the labour laws and Acts

S. No	Contents	Contact hours
UNIT 1	Construction Planning and Network Techniques: Pre-tender planning; contract planning; planning and scheduling construction jobs by bar charts; Planning and scheduling construction jobs by critical path network techniques; allocation of resources; techniques of development and analysis of PERT/CPM networks for building project, bridge project and industrial shed constructions; updating of network; examples and case studies; Computer software for network analysis.	8
UNIT 2	Time-cost Optimization: Direct cost, indirect cost, total cost; purpose, stages, and methods of cost control techniques of time cost optimization; examples and case studies.	8
UNIT 3	Labour Laws and Acts, Project Management: Feasibility study; project reports; progress reports; monitoring and controlling project activities.	8
UNIT 4	Site Layout: Principles governing site layout; factors affecting site layout; preparation of site layout. Supervision, Inspection and Quality Control: Supervisor's responsibilities; keeping records; control of field activities, handling disputes and work stoppages; storage and protection of construction materials and equipment; testing and quality control. Purpose of inspection: Inspection of various components of construction, reports and records; and statistical quality control	9
UNIT 5	Safety in Construction: Safety: importance of safety, accident-prone situations at a construction site, i.e, safety measures for excavation, drilling/blasting, scaffolding/formwork, hoisting & erection, demolition, and hot bituminous work. Fire Safety: Safety record of the construction industry, safety campaign	9

	Total	**42**

REFERENCES		
S. No	**Name of Books/ Authors/ Publishers**	**Year of Publication/ Reprint**
1	Chitkara, K.K. Construction Project Management – Planning, Scheduling and Controlling, Tata McGraw-Hill.	**2015**
2	Seetharaman, S. Construction Engineering and Management, Umesh Publications.	2006
3	Choudhary, S. Project Management. Tata McGraw-Hill	**2004**
4	Srivastava, V.K. Construction Planning and Management, Galgotia Publications.	**2014**
5	Punmia, B.C.; Khandelwal, K.K. (2002). Project Planning & Control with PERT& amp; CPM, Laxmi Publications.	**2002**
6	Kumar, Neeraj Jha. Construction Project Management – Theory and Practice –Pearson.	**2015**
7	Gahlot, P.S. & Dhir B.M. Construction Planning and Management, New Age International.	**2007**