

CM501: Construction Project Management

Teaching Scheme			Credits	Marks Distribution				Total Marks
L	T	P		Theory Marks		Practical Marks		
				ESE	CE	ESE	CE	
4	2	0	6	70	30	30	20	150

Course Content:

Sr. No.	Topics	Teaching Hrs.
1	<p><u>Project Management Basic Concept:</u></p> <p>Introduction. Over view of Construction Project & Project Management. Indian Construction industry and their problems of Cost overruns & Time overruns. Phases of construction project and life cycle of project. Project Appraisal & Cost-benefit analysis. Detailed Project Report (DPR), Project Maturity, Success and Failures. Concepts of BOT, BOLT, BOOT etc.</p>	06
2	<p><u>Project Organizations:</u></p> <p>Introduction. Formal and informal organization. Forms of Project organizations. Requirements of a project organization. Types and selection of organizations.</p>	06
3	<p><u>Project Planning, Scheduling and Control Management:</u></p> <p>Introduction. WBS: Necessity, Methodology and Types. Project planning and scheduling techniques: CPM, PERT & GERT, LOB & LADDER Networks, Precedence Networks, Critical Chain Network. Time & Resource Planning. Management Software.</p>	16
4	<p><u>Construction Safety Management:</u></p> <p>Evolution of safety, Accident causation theories, Foundation of major injury, Health & Safety Act & Regulations, Cost of accidents, Roles of safety personnel, Investigations and Prevention Of Accidents, Nature, Causes And Control Measures, Principles of safety, Hazard Identifications and Control Techniques, Safety and health management system. Research results in safety management.</p>	08

Introduction. Construction Quality Control: QA-QC Model, Quality Assurance: TQM, ISO Standards, CONQUAS and AUDIT. Cost of Quality. Quality policy, Objectives and methods in construction industry, Factors Influencing Construction Quality, Construction Productivity.

Total Hrs. 44

Reference Books:

1. J.D. Weist and F.K. Levy, “*A Management Guide to PERT/CPM*”, Prentice Halls of India Pvt. Ltd.
2. Parammeshwar P. Iyer, “*Engineering Project Management Wheeler Publishing*”, New Delhi.
3. K. K. Chitkara, “*Construction Project Management*”, Tata McGraw-Hill, New Delhi.
4. P. K. Joy, “*Total Project Management*” Macmillan India Ltd, New Delhi.
5. Kumar Neeraj Jha, “*Construction Project Management*” Pearson, New Delhi.
6. George J. Ritz, “*Total Construction Project Management*” McGraw-Hill, New York.
7. J.D. Stevens, “*Planning Techniques for Construction Network Scheduling*”, McGraw.
8. Dr. S. Seetharaman, “*Construction Engineering & Management*”, Umesh Publications, Delhi.
9. Gupta Rajiv, “*Construction Planning and Technology*”, CBS Publication, Delhi.
10. Pandey S.K., “*Fundamentals Network Analysis & Synthesis*”, S.Chand Publication, Delhi.