

Year & Sem	Course Code: CE4502	Course Name: Introduction to Construction Management	No. of Credits: 4	L	T&PS	P
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UNIT- I: Introduction to Civil Engineering Project Management
General Scope, Useful Terms, Life Cycle, Phases of Construction, Challenges, Functions, Responsibility of an engineer etc

UNIT- II: Contractual Relation and Contract Management
Various parties involved, Contracts-Types, Stages of awarding contract, Disputes and Arbitration

UNIT -III: Network Based Project Management Techniques
Time Management - Work Break Down Structure, Project Planning, Events, Activities, Scheduling Techniques, Gantt Charts, AoN, Time-Cost Trade-offs, Illustrations & Exercises.

UNIT -IV: Resource Scheduling, Project Monitoring
Resource- Allocation, Leveling, Applying Improvement Factor.
Precedence Diagram Method, Earned value of money concept, Project Control Process.

UNIT -V: Introduction to Construction Technology
Quality in Construction, Safety in Construction, Earthwork, Form work, Concreting, Drilling and Blasting, Piling, De-watering, Guest Lecture by Experts.

UNIT- VI: Introduction to Construction Equipment
Equipment selection and utilization, Equipment Costs.

References/Text Books:

1. Schexnayder, C. J. and Mayo, R. E., “Construction Management Fundamentals”, International Edition, McGraw-Hill, 2003.
2. Peurifoy, R. L., Schexnayder, C. J. and Shapira, A., “Construction Planning, Equipment, and Methods, 7th ed., Tata McGraw-Hill, New Delhi, 2010.
3. PERT and CPM – Punmia.

Lecture Plan: Unit-I & -II syllabus for MID-I, Unit-III & -IV syllabus for MID-II and Unit-V & -VI syllabus for MID-III examinations.

Video Lectures (Web Links):

1. NPTEL
- 2.
- 3.

Study Materials (Web Links):

- 1.
- 2.
- 3.