

ACADEMIC SESSION: SUMMER-2026

Discipline : Civil Engg.	Semester: 6th Semester	Name of the Teaching Faculty : Sri Sourav Kumar Behera, Lect. Stage-II (Civil)
Subject: Construction Management	No. of Days / Week class allotted: 4	Semester Duration: 22/12/2025 to 18/04/2026 No. of Weeks : 18
Chapters	Class day (Hours)	Theory/Practical Topics:
1 Introduction To Construction Management	1	Aims and objectives of construction management
	2	Functions of construction management
	3	The construction team components owner,engineer,architect,contractor-their functions and interrelationship and jurisdiction
	4	Resources for construction management-men,machines,materials,money
2 Constructional Planning	5	Importance of Construction Planning
	6	Developing work breakdown structure for construction work
	7	Construction Planning stages-Pre-tender stage, Post-tender stage
	8	Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works
	9	Preparation of schedules for labour materials,machinery, finance for small works, Limitation of Bar charts
	10	Limitation of Bar charts 2.7 Construction scheduling by network techniques-defination of terms ,PERT and CPM techniques, advantages and disadvantages of two techniques
	11	network analysis, estimation of time and critical path, application of PERT and CPM techniques in sample construction works
3 Materials and Stores Management	12	Classification of Stores-storage of stock
	13	Classification of Stores-storage of stock
	14	Issue of materials-indent
	15	invoice, bin card
4 Construction Site Management	16	Job Lay out-Objectives, Review plans
	17	specifications, Lay out of equipments
	18	Location of equipment, organizing labour at site
	19	Job lay out for different construction sites
	20	Principle of storing material at site
5 Construction Organization	21	Introduction – Characteristics, Structure, importance
	22	Organization types-line and staff, functions and their characteristics
	23	Principles of organization- meaning and significance of terms-control, authority, responsibility, job & task
	24	Leadership-necessity, styles of leadership, role of leader, Human relations-relations with subordinates, peers, Supervisors
	25	characteristics of group behavior, mob psychology, handling of grievances, absenteeism, labour welfare

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	26	Conflicts in organization-gensis of conflicts, types-intrapersonal, interpersonal, intergroup, resolving conflicts
6 Construction Labour and Labour Management	27	Preparing Labour schedule
	28	Essential steps for optimum labour output
	29	Labour characteristics
	30	Wages & their payment
	31	Labour incentives
	32	Motivation- Classification of motives, different approaches to motivation
7 Equipment Management	33	Preparing the equipment schedule
	34	Identification of different alternative equipment
	35	Importance of Owning & operating costs in making decisions for hiring
	36	Importance of Owning & operating costs in making decisions for purchase of equipment
	37	Inspection and testing of equipment
	38	Equipment maintenance
8 Quality Control	39	Concept of quality in construction
	40	Quality Standards- during construction
	41	after construction
	42	destructive & non destructive methods
	43	destructive & non destructive methods
9 Monitoring Progress	44	Programme and progress of work
	45	Work study
	46	Analysis and control of physical corrective measures
	47	Analysis and control of financial progress corrective measures
	48	revision
	49	revision
10 Safety Management In Construction	50	Importance of safety
	51	causes and effects of accidents in construction works
	52	Safety measures in worksites for excavation, scaffolding, formwork, fabrication and erection, demolition
	53	Development of safety consciousness
	54	Safety legislation- Workman's compensation act, contract labour act.
11 Role of Vulnerability Atlas of India in	55	Introduction to Vulnerability Atlas of India, Concepts of natural hazards and disasters and vulnerability profile of India. Definition of disaster related terms
	56	Earthquake hazard and vulnerability, Magnitude and intensity scales of earthquake, seismic zones, earthquake hazard maps, types of structures and damage classification, effects in housing and resistant measures
	57	Wind / Cyclone hazard and vulnerability, wind speed and pressures, wind hazard and cyclone occurrence maps, storm surveys and cyclone resistant measures

construction projects

58	Flood hazard and vulnerability, Flood hazard and Flood prone areas of the country, General protection of habitants and flood resistant construction
59	Landslides, Tsunamis and Thunderstorm hazards and vulnerability, Landslide & Thunderstorm incidence maps, Measures against Tsunami hazards
60	Housing vulnerability risk tables and usage of vulnerability atlas of India, Inclusion of vulnerability atlas in Tender documents



Signature of Faculty



Signature of HoD Civil