

Discipline	Semester	Name of the faculty- Simarani Nayak & Saikrishna Pati
SUBJECT- CM	No. of Days per Week Class Alloted	Semester From Date: 16/01/2024 To Date:26/04/2024
Week	Class Day-4	No of Weeks:15
		Theory Topics
		<b>1.Introduction To Construction Management</b>
		1.1 Aims and objectives of construction management.
		1.2 Functions of construction management.
		1.3 The construction team components- owner,engineer,architect,contractor-their functions and interrelationship and jurisdiction.
3rd week of jan	day 1,2,3	1.4 Resources for construction management- men,machines,materials,money
		<b>2.Constructional Planning</b>
		2.1 Importance of Construction Planning
		2.2 Developing work breakdown structure for construction work
		2.3 Construction Planning stages-Pre-tender stage, Post-tender stage.
4th week of jan	day 1,2,3	2.4 Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works.
1st week of feb	day 1,2	2.5 Preparation of schedules for labour materials,machinery, finance for small works
		2.6 Limitation of Bar charts
		2.7 Construction scheduling by network techniques-definition of terms ,PERT and CPM techniques, advantages and disadvantages of two techniques, network analysis, estimation of time and critical path, application of PERT and CPM techniques in sample construction works.
		<b>3.Materials and Stores Management</b>
2nd week of feb	day 1,2,3	3.1 Classification of Stores-storage of stock.
		3.2 Issue of materials-indent , invoice, bin card
		<b>4.Construction Site Management</b>
3rd week of feb	day 1,2,3	4.1 Job Lay out-Objectives, Review plans, specifications, Lay out of equipments.
4th week of feb	day 1	4.2 Location of equipment, organizing labour at site.
		4.3 Job lay out for different construction sites.
		4.4 Principle of storing material at site.
		<b>5.Construction Organization:</b>
		5.1 Introduction – Characteristics, Structure, importance.
4th & 5th week of feb	day 2,3 & day 1	5.2 Organization types-line and staff, functions and their characteristics
1st week of march	day 1	5.3 Principles of organization- meaning and significance of terms- control, authority, responsibility, job & task.
		5.4 Leadership-necessity, styles of leadership, role of leader
		5.5 Human relations-relations with subordinates, peers, Supervisors, characteristics of group behavior, mob psychology, handling of grievances, absenteeism, labour welfare.
		5.6 Conflicts in organization-genesis of conflicts, types-intrapersonal, interpersonal, intergroup, resolving conflicts.
		<b>6.Construction Labour and Labour Management:</b>
2nd week of march	day 1,2,3	6.1 Preparing Labour schedule
3rd week of march	day 1,2	6.2 Essential steps for optimum labour output
		6.3 Labour characteristics
		6.4 Wages & their payment
		6.5 Labour incentives

Simarani Nayak (GFCivil)  
 16/01/24  
 Saikrishna Pati (GFCivil)  
 16/1/24



		6.6 Motivation- Classification of motives, different approaches to motivation.
		<b>7.Equipment Management</b>
3rd week of march	day 2,3	7.1 Preparing the equipment schedule
4th week of march	day 1	7.2 Identification of different alternative equipment
		7.3 Importance of Owning & operating costs in making decisions for hiring & purchase of equipment
		7.4 Inspection and testing of equipment
		7.5 Equipment maintenance
		<b>8.Quality Control</b>
4th week of march	day 2,3	8.1 Concept of quality in construction
5th week of march	day 1,2	8.2 Quality Standards- during construction, after construction, destructive & non destructive methods.
		<b>9.Monitoring Progress</b>
		9.1 Programme and progress of work
5th week of march	day 2,3	9.2 Work study
1st week of april	day 1,2,3	9.3 Analysis and control of physical and financial progress corrective measures.
		<b>10.Safety Management In Construction</b>
		10.1 Importance of safety
2nd week of april	day 1,2,3	10.2 causes and effects of accidents in construction works
		10.3 Safety measures in worksites for excavation, scaffolding, formwork, fabrication and erection, demolition.
		10.4 Development of safety consciousness
		10.5 Safety legislation- Workman's compensation act, contract labour act.
		<b>11.Role of Vulnerability Atlas of India in construction projects</b>
		11.1 Introduction to Vulnerability Atlas of India, Concepts of natural hazards and disasters and vulnerability profile of India. Definition of disaster related terms.
3rd & 4th week of april	day 1,2,3 & day 1,2	11.2 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.
		11.3 Wind / Cyclone hazard and vulnerability, wind speed and pressures, wind hazard and cyclone occurrence maps, storm surveys and cyclone resistant measures.
		11.4 Flood hazard and vulnerability, Flood hazard and Flood prone areas of the country, General protection of habitants and flood resistant construction.
		11.5 Landslides, Tsunamis and Thunderstorm hazards and vulnerability, Landslide & Thunderstorm incidence maps, Measures against Tsunami hazards.
		11.6 Housing vulnerability risk tables and usage of vulnerability atlas of India, Inclusion of vulnerability atlas in Tender documents.

Binayak Nayak (AF Civil)  
 Lakshmi Narayan (GIF Civil)  
 16-1-24