

DHABALESWAR INSTITUTE OF POLYTECHNIC

LESSON PLAN

Discipline:	Semester: 6 th	Name of the Teaching Faculty Dibyadarshini Sahoo.
Subject: Construction Management	No. of days per week Class Allotted:	Semester from Dt. 14/02/23 to Dt. 23/05/23 No. of Weeks: 15
Week	Class Day	Theory / Practical Topics
Feb- 1 st	1 st class	1. <u>Introduction To construction Management:-</u>
	2 nd class	1.1 Aims & objectives of construction management.
	3 rd class	1.2 Functions of construction management.
	4 th class.	1.3 The Construction team Components:- Owner, engineer, architect, contractor-their Functions and interrelationship and jurisdiction.
		1.4 Resources for construction management - Men, Machines, materials, & Money.
2 nd week	1 st class	2. <u>Constructional Planning:-</u>
	2 nd class	2.1 Importance of construction Planning.
	3 rd class	2.2 Developing work breakdown structure for construction work.
	4 th class	2.3 Construction Planning stages- pre-tender stage.
	5 th class	2.4 Construction scheduling by bar charts- Preparation of bar charts for simple construction works
	1 st class	2.5 Preparation of Schedules for labour materials, Machinery, finance for small works.
3 rd week	2 nd class	2.6 Limitation of bar charts.
	3 rd class	2.7 Construction scheduling by network techniques:-
	4 th class	- PERT & CPM Definition. → Advantages & Disadvantages. - Network analysis, Estimation time & Critical Path.

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4 th week	5 th class	- Application of PERT & CPM techniques in sample construction work.
	1 st class	3. <u>Materials & stores Managements</u> 3.1 Classification of stores - storage of stock 3.2 Issue of materials - indent, invoice, billhead.
	2 nd class	4. <u>Construction Site Management:-</u>
	3 rd class	4.1 Job layout :- Objectives, Review Plans, Specification, layout of equipments.
5 th week	4 th class	4.2 Location of equipment, organizing labour at site.
	1 st class	4.3 Job layout for different construction sites. 4.4 Principle of storing material at site.
	2 nd class	5. <u>Construction organization:-</u> 5.1 Introduction:- characteristics, structure importance.
	3 rd class	5.2 organization types - line & staff. - functions & their characteristics.
6 th week	4 th class	5.3 Principles of organization:- - Meaning & significance of terms - control Authority, responsibility, job & task.
	1 st class	5.4 Leadership - Necessity, style of leadership, role of leader.
	2 nd class	5.5 <u>Human Relationship:-</u> - Relation with sub-ordinates, Peers, Supervisors.
	3 rd class	- characteristics of group behavior, Mob Psychology, handling of grievances, absenteeism, labour welfare.
	4 th class	

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6th week	1st class	5.6 <u>Conflicts in organization</u> :-
	2nd class	- Genesis of conflicts, types - Intrapersonal
	3rd class	- Intergroup, resolving conflicts.
	4th class	6. <u>Construction Labour and Labour management</u> :-
7th week	1st class	6.1 Preparing labour schedule.
	2nd class	6.2 Essential steps for optimum labour output.
	3rd class	6.3 Labour characteristics.
	4th class	6.4 Wages & their Payment.
8th week	1st class	6.5 Labour incentives.
	2nd class	6.6 Motivation
	3rd class	7. <u>Equipment Management</u> :-
	4th class	7.1 Preparing the equipment schedule.
9th week	1st class	7.2 Identification of different alternative equipment.
	2nd class	7.3 Importance of owning owning & operating costs in making decisions for hiring & purchase of equipment.
	3rd class	7.4 Inspection & testing of equipment.
	4th class	7.5 Equipment Maintenance.
10th week	1st class	8. <u>Quality Control</u> :-
	2nd class	8.1 concept of quality in construction.
	3rd class	8.2 Quality standards:-
10th week	1st class	- During construction
	2nd class	- After construction
10th week	1st class	- Destructive & non-destructive methods
	2nd class	9. <u>Monitoring Progress</u> :-
10th week	1st class	9.1 Programme and Progress of work
	2nd class	9.2 work study

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11 th week	2 nd class	9.3 Analysis and control of Physical & Financial Progress corrective measures
	3 rd class	
	7 th class	10. <u>Safety Management in construction:-</u>
	2 nd class	10.1 Importance of safety
12 th week	3 rd class	10.2 Causes and effects of accidents in construction works.
	4 th class	10.3 Safety Measures in worksites for excavation, scaffolding, formwork, fabrication and erection, demolition.
	7 th class	10.4 Development of safety consciousness.
	2 nd class	10.5 Safety legislation:- - Workman's compensation act, - contract labour act. etc.
13 th week	3 rd class	11. <u>Role of Vulnerability Atlas of India in Construction Project:-</u>
	4 th class	11.1 Introduction to Vulnerability Atlas of India. - Concepts of natural hazards and disasters - Vulnerability Profile of India. - Definition of disaster related terms.
	1 st class	11.2 Earthquake hazard and vulnerability magnitude and intensity scales of earthquake. - Seismic zones. - Earthquake hazard maps - Types of structures and damage classification.
	2 nd class	
	3 rd class	
	4 th class	

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Week	Class Day	Theory / Practical Topics
14 th week	1 st class	- Effects in housing and resistant measures.
	2 nd class	11.3 Wind/cyclone hazard and vulnerability
	3 rd class	- Wind speed and Pressures.
	4 th class	- Wind hazards and cyclone occurrence maps
	5 th class	- Storm Surveys and cyclone resistant Measures.
15 th week	1 st class	11.4 Flood hazard and vulnerability.
		- Flood hazard and flood prone area of the country.
		- General Protection of habitats and flood resistant construction.
	2 nd class	11.5 Landslide, Tsunamis and Thunderstorm hazards and vulnerability, landslide & Thunderstorm incidence maps.
		- Measures against Tsunami hazards.
		11.6 Housing vulnerability risk tables
		- uses of vulnerability atlas of India
		- Inclusion of vulnerability atlas in Tender documents.