



NILASAILA INSTITUTE OF SCIENCE & TECHNOLOGY  
SERGARH-756060, BALASORE (ODISHA)  
(Approved by AICTE& affiliated to SCTE&VT, Odisha)



### LESSON PLAN

**SUBJECT: Th-2 (CONSTRUCTION MANAGEMENT)**

**Name Of The Faculty :-** Er. Diptimayee Mohanty

**Branch :-** Civil Engineering

**Session :-** 2024-25

**Semester :-** 6th

**Examination :-** 2025 (S)

#### **CHAPTER WISE DISTRIBUTION OF PERIODS**

Sl.No.	Name of the chapter as per the Syllabus	No. of Periods as per the Syllabus	No. of periods actually needed
1	Introduction To Construction Management	4	4
2	Constructional Planning	7	7
3	Materials and Stores Management	4	4
4	Construction Site Management	5	5
5	Construction Organisation	6	6
6	Construction Labour and Labour Management	6	6
7	Equipment Management	6	6
8	Quality Control	5	5
9	Monitoring Progress	6	6
10	Safety Management In Construction	5	5
11	Role of Vulnerability Atlas of India in construction projects	6	6
TOTAL:		60	60

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Sign of Faculty

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Sign of H.O.D.

Discipline: CIVIL ENGINEERING	Semester: 6th	Name of the Teaching Faculty: Er. Diptimayee Mohanty	
		SESSION : 2024-25	EXAMINATION : 2025 (5)
Week	Class Day	Topics to be Covered	
1 <sup>st</sup>	1 <sup>st</sup>	<b>Introduction To Construction Management:</b> 1.1 Aims and objectives of construction management	
	2 <sup>nd</sup>	1.2 Functions of construction management.	
	3 <sup>rd</sup>	1.3 The construction team components-owner,engineer,architect,contractor-their functions and interrelationship and jurisdiction	
	4 <sup>th</sup>	1.4 Resources for construction management-men,machines,materials,money	
2 <sup>nd</sup>	1 <sup>st</sup>	<b>Constructional Planning:</b> 2.1 Importance of Construction Planning	
	2 <sup>nd</sup>	2.2 Developing work breakdown structure for construction work	
	3 <sup>rd</sup>	2.3 Construction Planning stages-Pre-tender stage, Post-tender stage	
	4 <sup>th</sup>	2.4 Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works	
3 <sup>rd</sup>	1 <sup>st</sup>	2.5 Preparation of schedules for labour materials,machinery, finance for small works	
	2 <sup>nd</sup>	2.6 Limitation of Bar charts	
	3 <sup>rd</sup>	2.7 Construction scheduling by network techniques-defination of terms ,PERT and CPM techniques, advantages and disadvantages of two techniques, network analysis,	
	4 <sup>th</sup>	<b>Materials and Stores Management:</b> 3.1 Classification of Stores-storage of stock	
4 <sup>th</sup>	1 <sup>st</sup>	3.1 Classification of Stores-storage of stock	
	2 <sup>nd</sup>	3.2 Issue of materials-indent , invoice, bin card	
	3 <sup>rd</sup>	3.2 Issue of materials-indent , invoice, bin card	
	4 <sup>th</sup>	<b>Construction Site Management:</b> 4.1 Job Lay out-Objectives, Review plans, specifications, Lay out of equipments.	
5 <sup>th</sup>	1 <sup>st</sup>	4.1 Job Lay out-Objectives, Review plans, specifications, Lay out of equipments.	
	2 <sup>nd</sup>	4.2 Location of equipment, organizing labour at site.	
	3 <sup>rd</sup>	4.3 Job lay out for different construction sites.	
	4 <sup>th</sup>	4.4 Principle of storing material at site.	
6 <sup>th</sup>	1 <sup>st</sup>	<b>Construction Organization:</b> 5.1 Introduction – Characteristics, Structure, importance	

6 <sup>th</sup>	2 <sup>nd</sup>	5.2 Organization types-line and staff, functions and their characteristics
	3 <sup>rd</sup>	5.3 Principles of organization- meaning and significance of terms- control, authority, responsibility, job & task.
	4 <sup>th</sup>	5.4 Leadership-necessity, styles of leadership, role of leader
7 <sup>th</sup>	1 <sup>st</sup>	5.5 Human relations-relations with subordinates, peers, Supervisors, characteristics of group behavior, mob psychology, handling of grievances, absenteeism, labour welfare
	2 <sup>nd</sup>	5.6 Conflicts in organization-genesis of conflicts, types-intrapersonal, interpersonal, intergroup, resolving conflicts.
	3 <sup>rd</sup>	<b>Construction Labour and Labour Management:</b> 6.1 Preparing Labour schedule
	4 <sup>th</sup>	6.2 Essential steps for optimum labour output
8 <sup>th</sup>	1 <sup>st</sup>	6.3 Labour characteristics
	2 <sup>nd</sup>	6.4 Wages & their payment
	3 <sup>rd</sup>	6.5 Labour incentives
	4 <sup>th</sup>	6.6 Motivation- Classification of motives, different approaches to motivation.
9 <sup>th</sup>	1 <sup>st</sup>	<b>Equipment Management:</b> 7.1 Preparing the equipment schedule
	2 <sup>nd</sup>	7.2 Identification of different alternative equipment
	3 <sup>rd</sup>	7.3 Importance of Owning & operating costs in making decisions for hiring & purchase of equipment
	4 <sup>th</sup>	7.3 Importance of Owning & operating costs in making decisions for hiring & purchase of equipment
10 <sup>th</sup>	1 <sup>st</sup>	7.4 Inspection and testing of equipment
	2 <sup>nd</sup>	7.5 Equipment maintenance
	3 <sup>rd</sup>	<b>Quality Control:</b> 8.1 Concept of quality in construction
	4 <sup>th</sup>	8.1 Concept of quality in construction
11 <sup>th</sup>	1 <sup>st</sup>	<b>INTERNAL ASSESSMENT</b>
	2 <sup>nd</sup>	<b>INTERNAL ASSESSMENT</b>
	3 <sup>rd</sup>	8.2 Quality Standards- during construction, after construction, destructive & non destr
	4 <sup>th</sup>	<b>Monitoring Progress:</b> 9.1 Programme and progress of work
12 <sup>th</sup>	1 <sup>st</sup>	9.1 Programme and progress of work
	2 <sup>nd</sup>	9.2 Work study



12 <sup>th</sup>	3 <sup>rd</sup>	9.2 Work study
	4 <sup>th</sup>	9.3 Analysis and control of physical and financial progress corrective measures
13 <sup>th</sup>	1 <sup>st</sup>	9.3 Analysis and control of physical and financial progress corrective measures
	2 <sup>nd</sup>	<b>Safety Management In Construction:</b> 10.1 Importance of safety
	3 <sup>rd</sup>	10.2 causes and effects of accidents in construction works
	4 <sup>th</sup>	10.3 Safety measures in worksites for excavation, scaffolding, formwork, fabricationn and erection, demolition
14 <sup>th</sup>	1 <sup>st</sup>	10.4 Development of safety consciousness
	2 <sup>nd</sup>	10.5 Safety legislation- Workman's compensation act, contract labour act.
	3 <sup>rd</sup>	<b>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.
	4 <sup>th</sup>	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.
15 <sup>th</sup>	1 <sup>st</sup>	11.3 Wind / Cyclone hazard and vulnerability, wind speed and pressures, wind hazard and cyclone occurrence maps, storm surveys and cyclone resistant measures.
	2 <sup>nd</sup>	11.4 Flood hazard and vulnerability, Flood hazard and Flood prone areas of the country, General protection of habitants and flood resistant construction
	3 <sup>rd</sup>	11.5 Landslides, Tsunamis and Thunderstorm hazards and vulnerability, Landslide & Thunderstorm incidence maps, Measures against Tsunami hazards.
	4 <sup>th</sup>	11.6 Housing vulnerability risk tables and usage of vulnerability atlas of India, Inclusion of vulnerability atlas in Tender documents.

*S. Mohanty*  
01.02.25  
Sign of Faculty

*K. P. Singh*  
01/02/25  
Sign of H.O.D.