## NM INSTITUTE OF ENGINEERING & TECHNOLOGY BHUBANESWAR

## **Mechanical Engineering Department**



## LESSON PLAN Session 2023-2024

Semester: 6th

Subject: INDUSTRIAL ENGINEERING & MANAGEMENT

Faculty Name: Dr. SANTOSH KUMAR SAHU

Subject: <u>IEM</u>	No of Days	No of Days/per week class allotted:		
	•	•		
Semester from date:	to date:	No. of Weeks:		

Week	Class Day	Theory topics	
1	1	Selection of Site of Industry.	
	2	Define plant layout	
	3	Describe the objective and principles of plant layout.	
	4	Explain Process Layout	
2	1	Explain Product Layout .	
	2	Explain Combination Layout.	
	3	Techniques to improve layout.	
	4	Principles of material handling equipment.	
3	1	Plant maintenance,	
	2	Importance of plant maintenance	
		Break down maintenance.	
	3	Preventive maintenance.	
	4	Scheduled maintenance.	
4	1	Introduction to Operations Research	
	2	Applications	
	3	Define Linear Programming Problem,	
	4	Solution of L.P.P. by graphical method.	
5	1	Solve numerical of LPP	
	2	Introduction to Project completion time	
	3	Evaluation of Project completion time by Critical Path Method	
	4	Evaluation of Project completion time by PERT	
6	1	Solve simple problems	
	2	Introduction to INVENTORY CONTROL	
	3	Classification of inventory.	
	4	Objective of inventory control.	
7	1	Describe the functions of inventories.	
	2	Benefits of inventory control.	
	3	Costs associated with inventory.	
	4	Terminology in inventory control	

Subject: <u>IEM</u>		No of Days/per week class allotted:		
Semester f	rom date :	to date:	No. of Weeks:	

Week	Class Day	Theory topics
8	1	Explain and Derive economic order quantity for Basic model
	2	Solve numerical
	3	Define and Explain ABC analysis.
	4	Define Inspection
9	1	Define Quality control.
	2	Describe planning of inspection
	3	Describe types of inspection.
	4	Advantages and disadvantages of quality control
10	1	Study of factors influencing the quality of manufacture.
	2	Explain the Concept of statistical quality control
	3	Explain the Concept of Control charts (X, R, P and C - charts)
	4	Methods of attributes
11	1	Concept of ISO 9001-2008.
	2	Quality management system
	3	Registration /certification procedure
	4	Benefits of ISO to the organization
12	1	JIT, Six sigma
	2	7S, Lean manufacturing
	3	Solve related problems.
	4	Introduction to PRODUCTION PLANNING AND CONTROL
13	1	Major functions of production planning
	2	production control
	3	Methods of forecasting Routing
	4	Scheduling
14	1	Dispatching
	2	Controlling
	3	Types of production
	4	Mass production
15	1	Batch production
	2	Job order production
	3	Principles of product and process planning
	4	Solve related problems.

