

## Lesson Plan

**Name of the Teacher with Designation** : SH SUBHASH CHANDER BHARDWAJ

**Discipline** : Mech. Engg.

**Semester** : 4th Semester

**Subject** : Industrial Engineering

**Lesson Plan Duration** : 15 weeks

**Work Load ( Lecture / Practical ) per week ( In hours ) : Lectures : 03 , Practicals : Nil**

Week	Theory		Practical	
	Lecture Day	Topic (Including Assignment / Test)	Practical Day	Topic
1 <sup>st</sup>	1 <sup>st</sup>	<b>Chapter-1 Productivity</b> Introduction to productivity, factors affecting productivity Measurement of productivity	1 <sup>st</sup>	<b>Not Applicable</b>
	2 <sup>nd</sup>	Causes of low productivity		
	3 <sup>rd</sup>	Methods to improve productivity		
2 <sup>nd</sup>	4 <sup>th</sup>	<b>Chapter-2 Work Study</b> Definition and scope of work study	2 <sup>nd</sup>	
	5 <sup>th</sup>	Inter-relation between method study and work measurement		
	6 <sup>th</sup>	Inter-relation between method study and work measurement		
3 <sup>rd</sup>	7 <sup>th</sup>	Inter-relation between method study and work measurement	3 <sup>rd</sup>	
	8 <sup>th</sup>	Human aspects of work study		
	9 <sup>th</sup>	Role of work study in improving productivity.		
4 <sup>th</sup>	10 <sup>th</sup>	<b>Chapter-3 Method Study</b>	4 <sup>th</sup>	
	11 <sup>th</sup>	Method Study Objectives and procedure for Method analysis		
	12 <sup>th</sup>	Information collection and recording techniques.		
5 <sup>th</sup>	13 <sup>th</sup>	Information collection and recording techniques.	5 <sup>th</sup>	
	14 <sup>th</sup>	Information collection and recording techniques.		
	15 <sup>th</sup>	Information collection and recording techniques. <b>Assisnment No. 1</b> <b>Productivity, causes of low Productivity, Method to improve Productivity, Human Aspect of work study, Role of Work study to improve productivity, Information and Recording Techniques</b>		
6 <sup>th</sup>	16 <sup>th</sup>	<b>Sessional Test No. 1</b>	6 <sup>th</sup>	
	17 <sup>th</sup>	<b>Chapter-4 Motion Analysis</b> Motion Analysis , Principles of Motion analysis		
	18 <sup>th</sup>	Motion Analysis , Principles of Motion analysis		
7 <sup>th</sup>	19 <sup>th</sup>	Therbligs and SIMO charts	7 <sup>th</sup>	
	20 <sup>th</sup>	Therbligs and SIMO charts		
	21 <sup>st</sup>	Normal work area and design of work places. Ergonomics		
8 <sup>th</sup>	22 <sup>nd</sup>	<b>Chapter-5 Work Measurement</b> Work Measurement Objectives , Work measurement techniques	8 <sup>th</sup>	
	23 <sup>rd</sup>	Stop watch time study		
	24 <sup>th</sup>	Principle, equipment used and procedure		
9 <sup>th</sup>	25 <sup>th</sup>	Systems of performance rating	9 <sup>th</sup>	
	26 <sup>th</sup>	Calculation of basic times; various allowances		
	27 <sup>th</sup>	Calculation of standard time, work sampling		
10 <sup>th</sup>	28 <sup>th</sup>	Standard data and its usage	10 <sup>th</sup>	
	29 <sup>th</sup>	<b>Chapter-6 Wages and incentives Schemes</b>		
	30 <sup>th</sup>	Wage payment plans and incentives		
11 <sup>th</sup>	31 <sup>st</sup>	Wage payment plans and incentives	11 <sup>th</sup>	
	32 <sup>nd</sup>	Various incentive plans, incentives for indirect labour <b>Assisnment No. 2</b> <b>Motion Analysis and its Principles, Therbligs and SIMO Chart, Work Measurement techniques, Stop watch Study Procedure, Standard data and Its usage, Wages plans , Various incentives for indirect labour.</b>		
	33 <sup>rd</sup>	<b>Sessional Test No. 2</b>		
12 <sup>th</sup>	34 <sup>th</sup>	<b>Chapter-7 Production Planning and Control</b> Production Planning and Control Introduction, objectives and components (functions) of P.P.C	12 <sup>th</sup>	
	35 <sup>th</sup>	Advantages of production planning and Production Control, stages of P.P.C , Process planning, routing, scheduling, dispatching and follow up		
	36 <sup>th</sup>	Routing purpose, route sheets, scheduling – purpose		
13 <sup>th</sup>	37 <sup>th</sup>	Machine loading chart, Gantt chart, dispatching – purpose and procedure	13 <sup>th</sup>	
	38 <sup>th</sup>	Follow up – purpose and procedure. CPM/PERT technique,		
	39 <sup>th</sup>	Drawing of simple networks and critical time calculation , Production Control in job order		
14 <sup>th</sup>	40 <sup>th</sup>	Batch type and continuous type of productions. , Difference between these controls	14 <sup>th</sup>	
	41 <sup>st</sup>	<b>Chapter-8 Stores Management</b> Different Layout and structures of stores		
	42 <sup>nd</sup>	Inventory control, calculation of EOQ		
15 <sup>th</sup>	43 <sup>rd</sup>	Bin cards and various forms required in stores for documentation. Purchase procedures	15 <sup>th</sup>	
	44 <sup>th</sup>	Estimation of cost for machining processes, Numerical problems <b>Assisnment No. 3</b> <b>PPC Objectives and its different stages, Machine loading chart and Gantt chart , PERT and CPM Techniques and difference between these two, Different Layout and structures of stores, , Inventory control, calculation of EOQ</b>		
	45 <sup>th</sup>	<b>Sessional Test No. 3</b>		

