

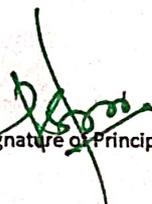
**GOVERNMENT POLYTECHNIC, MALKANGIRI  
DEPARTMENT OF MECHANICAL ENGINEERING**

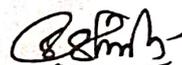
**LESSON PLAN**

<b>Discipline:</b> Mechanical Engineering	<b>Semester:</b> 3rd	<b>Name of the Teaching Faculty:</b> CHINMAYA BRAHMADARSHI MISHRA	
<b>Subject:</b> Manufacturing Engineering Lab-I	<b>No. of days/week class allotted</b> 4	<b>Semester From date:</b> 14.07.2025 <b>No. of Week:</b> 15	<b>To date:</b> 15.11.2025
<b>Course Outcomes</b>	1. Prepare a mould sand mix and molten metal and calculate the amount of metal to be poured in the mould 2. Centre the job and select the proper tool to perform the job on lathe machine. 3. Calculate the taper angle and practice different taper turning methods on lathe. 4. Prepare the edges for welding and select the suitable electrode, voltage and current. 5. Operate the welding transformer and generator to perform various weld joint operations.		
<b>Week</b>	<b>Class Day</b>	<b>Theory/Practical Topics</b>	
1st	1st	Moulding & casting of (i) Connecting rod (ii) Solid bearing (iii) V-Pulley/Gear Pulley	
	2nd	Arc welding (i) Lap Joint (ii) Butt Joint (iii) T- Joint	
2nd	1st	Gas welding (i) Lap Joint (ii) Butt Joint	
	2nd	Spot welding (i) Lap Joint	
3rd	1st	Turning Exercise (i) Facing, Step Turning & Chamfering	
	2nd	Turning Exercise (i) Facing, Step Turning & Chamfering	
4th	1st	Turning Exercise (i) Facing, Step Turning & Chamfering	
	2nd	Step Turning & Taper Turning	
5th	1st	Step Turning & Taper Turning	
	2nd	Step Turning & Taper Turning	
6th	1st	Step Turning & Groove Cutting	
	2nd	Step Turning & Groove Cutting	
7th	1st	Step Turning & Groove Cutting	
	2nd	Step Turning & Knurling	
8th	1st	Step Turning & Knurling	
	2nd	Step Turning & Knurling	
9th	1st	Step Turning & Thread Cutting	
	2nd	Step Turning & Thread Cutting	
10th	1st	Turning and Drilling	
	2nd	Turning and Drilling	
11th	1st	Grinding the Lathe Cutting tools to the required angles	
	2nd	Grinding the Lathe Cutting tools to the required angles	
12th	1st	Study of Lathe, Drilling machine, shaping machine and slotting machine	
	2nd	Study of Lathe, Drilling machine, shaping machine and slotting machine	
13th	1st	The dismantling some of the components of lathe and then assemble the same	
	2nd	The dismantling some of the components of lathe and then assemble the same	
14th	1st	List the faults associated with lathe and its remedies	
	2nd	List the faults associated with lathe and its remedies	
15th	1st	The routine and preventive maintenance procedure for lathe	
	2nd	The routine and preventive maintenance procedure for lathe	

Chinmaya Brahmadarshi  
Signature of Faculty  
Mishra,

  
Signature of HOD/

  
Signature of Principal

  
Signature of Academic  
Coordinator