

**MANUFACTURING TECHNOLOGY LAB**

<b>Course Code</b>	19ME3552	<b>Year</b>	III	<b>Semester</b>	I
<b>Course Category:</b>	Program Core	<b>Branch</b>	ME	<b>Course Type</b>	Lab
<b>Credits:</b>	1.5	<b>L – T – P</b>	0 – 0 – 3	<b>Prerequisites:</b>	Nil
<b>Continuous Evaluation:</b>	25	<b>Semester End Evaluation:</b>	50	<b>Total Marks:</b>	75

**Course Outcomes**

Upon successful completion of the course, the student will be able to

<b>CO1</b>	Perform various operations on Lathe machine.	L3
<b>CO2</b>	Perform Drilling, Reaming and Tapping operations using universal radial drilling machine	L3
<b>CO3</b>	Make plain and stepped surfaces using shaper, planner and surface grinder.	L3
<b>CO4</b>	Fabricate spur gear and splined shaft using milling machine and slotter respectively.	L3
<b>CO5</b>	Prepare single point cutting tool using Tool and cutter grinding machine.	L3

**Course Articulation Matrix:**

	Contribution of Course Outcomes towards achievement of Program Outcomes Strength of correlations (3: High, 2: Moderate, 1: Low)													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	-	-	-	-	-	-	-	2	1	-	1	3	1
CO2	3	-	-	-	-	-	-	-	2	1	-	1	3	1
CO3	3	-	-	-	-	-	-	-	2	1	-	1	3	1
CO4	3	-	-	-	-	-	-	-	2	1	-	1	3	1
CO5	3	-	-	-	-	-	-	-	2	1	-	1	3	1

**LIST OF EXPERIMENTS**

<b>Syllabus</b>		
<b>Exp. No.</b>	<b>Content</b>	<b>Mapped CO</b>
<b>LATHE</b>		
1	Step turning	CO1
2	Taper turning by swiveling compound rest	
3	Taper turning by taper turning attachment	
4	Knurling	
5	Thread cutting	
6	Form Turning	
7	Drilling and Boring	

<b>NON-LATHE</b>		
1	Drilling, reaming and tapping operations	CO2
2	Shaping a stepped surface	CO3
3	Machining of flat surface using Planner	
4	Surface grinding	
5	Splined Shaft on slotting machine	CO4
6	Spur Gear making on a Milling machine	
7	Grinding of single point cutting tool angles	CO5