MACHINE TOOLS LAB

Course Code	20ME3552	Year	III	Semester	I
Course Category	Professional Core	Branch	ME	Course Type	Lab
Credits	1.5	L – T – P	0 – 0 – 3	Prerequisites	Nil
Continuous Internal Evaluation	15	Semester End Evaluation	35	Total Marks	50

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

COs	Statement	Skill	BTL	Expts.
CO1	Perform various operations on Lathe machine.	Apply	L3	1-7
CO2	Perform Drilling, Reaming and Tapping operations using universal radial drilling machine	Apply	L3	8
CO3	Make plain and stepped surfaces using shaper, planner and surface grinder.	Apply	L3	9-11
CO4	Fabricate spur gear and splined shaft using milling machine and Slotting machine respectively.	Apply	L3	12,13
CO5	Prepare single point cutting tool using Tool and cutter grinding machine.	Apply	L3	14

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

LIST OF EXPERIMENTS

Syllabus Exp.No.	Content	Mapped CO
EXPERIMENTS ON LATHE		
1.	Step turning	CO1
2.	Taper turning by swiveling compound rest	
3.	Taper turning by taper turning attachment	
4.	Knurling and Grooving	
5.	Thread cutting	
6.	Drilling and Boring	
7.	Form Turning	
EXPERIMENTS ON OTHER MACHINE TOOLS		
8.	Drilling, reaming and tapping operations	CO2
9.	Making a stepped surface using Shaper	CO3
10.	Machining flat surface using Planner	
11.	Surface grinding operation	
12.	Machining External Splines using slotting machine	CO4
13.	Machining Spur Gear using Milling machine	
14.	Grinding of single point cutting tool using Tool and cutter Grinding Machine	CO5