

Devi Ahilya University, Indore, India Institute of Engineering & Technology				III Year B.E. (Mechanical Engg.) (Full Time)			
Subject Code & Name	Instructions Hours per Week			Credits			
	L	T	P	L	T	P	Total
MER6L4 Workshop/Practical(MACHINE DESIGN – II)	0	0	2	0	0	1	1

Learning Objectives:

1. To solve the Practical based problems forthe designing the Mechanical Components.
2. To introduce the market survey practice to the students.
3. To develop the practice for literature survey to the students.
4. To prepare the students to work in a team.

Pre requisite(s): Machine Design I, Material Science, Strength of Material.

COURSE CONTENTS

1. Problem on Design of Single Plate Clutch/Cone Clutch
2. Problem on Design of Centrifugal Clutch.
3. Problem on Design of Flat/V Belt.
4. Problem on Design of Screw Jack.
5. Problem on Design of Spur/Helical/Bevel Gears.
6. Problem on Design of parts subjected to Fatigue Loading.
7. Problem on Design of Shoe/Band/Block/Internal Expanding Brake.
8. Problem on Design of Engine Cylinder/Piston/Connecting rod.
9. Problem on Design of Crank Shaft.
10. Problem on Design of Valve and Valve gear mechanism.

Learning Outcomes:

Upon Completing the Course, Student will able to:

1. Get the practical knowledge of designing the various components of Internal Combustion Engine.
2. Learn the market survey practice.
3. Get practice of literature survey.
4. Learn to work in a team.

BOOKS RECOMMEDED:

- [1]. Shigley J.E., *Mechanical Engineering Design*, McGraw-Hill 2015.
- [2]. Spotts M.F., Shoup T.E., Hrnberger L.E., *Design of Machine Elements*, Pearson Education ,8e,2007.
- [3]. Sharma P.C. & Aggarwal D.K., *Machine Design*, S.K.Kataria& Sons,11e,2013
- [4]. Bhandari V.B., *Design of Machine Elements*, McGraw-Hill,4e,2017.
- [5]. Black and Adams, *Machine Design*, Mc.Graw Hill,1968.
- [6]. Maleev V.L., *I.C.Engine Design*, Mc.Graw Hill ,1945.