

WORKSHOP PRACTICE LAB (ME-112L)

Pre-requisite: None

Credit Hours: 02

Contact Hours: 96

RECOMMENDED BOOK(S)

Workshop Technology, Latest Edition by W. A. J. Chapman.

REFERENCE BOOK(S)

Mechanical Workshop Practice, By K. C. John, PHI Learning.

Reference and Instruction Sheets Given By Course Instructor during the Course.

COURSE OBJECTIVES

To give introduction of different mechanical workshop practices and experience of basic manufacturing processes. 1. To introduce students to the basic operations of bench fitting tools. 2. To familiarize students with the various types of manual machines and introduce them to different operation of machining. 3. To familiarize students with the various types of Welding and introduce them to different type of welding joints. 4. To familiarize students with the different tools of electric shop and introduce them to parallel and series circuit. 5. To familiarize students with the different tools of woodshop and introduce them to different type of wood joints.

S. No.	CLO/PLOS MAPPING	DOMAIN	PLO
1	Describe different machines, equipment and processes related to various mechanical workshops.	C2	01
2	Pay attention to the correct and safe usage of machine components, tools and their associated operations.	A1	08
3	Operate to show development of parts by utilizing machines from different shops to solve practical engineering problems.	P3	04

COURSE CONTENTS

Workshop Safety:

Demonstration of safety concepts and practices in workshop.

Measurement Section:

Practice of basic measuring tools, like Vernier calipers, micrometer, thread pitch gauge etc.

Bench Fitting Shop:

Introduction to bench fitting tools, use of tools and equipment, bench work.

Machine Shop:

Introduction to machine tools, basic lathe operations including facing, turning, step turning, taper turning, grooving, chamfering, parting and external threading.

Welding Shop:

Introduction to welding. Introduction of arc welding tools, equipment and welding practice.

Wood shop:

Introduction of different tools used in wood shop. To make different wood joint like Lap joint, Dado joint, Wood block joint Miter joint.

Basics of Electric Shop:

Use of electrical tools. Types and uses of cables and electrical accessories for house wiring. Practice of simple house wiring and testing methods.