

## ENGINEERING DRAWING AND GRAPHICS LAB (ME-111L)

Pre-requisite: None

Credit Hours: 01

Contact Hours: 48

### RECOMMENDED BOOK(S)

Engineering Drawing by N. D. Bhatt.

Practical Geometry & Engineering Graphics By Abbot.

AutoCAD A Problem-Solving Approach By Sham Tickoo.

### REFERENCE BOOK(S)

Technical Graphics Communication By Bertoline Wiebe, Miller. Mohler, Irwin McGraw-Hill.

Machine Drawing By. Dr. K. L. Narayana.

### COURSE OBJECTIVES

This course is a part of engineering foundation. It is targeted to help student visualize the basics of engineering design. It is intended for improving students approach towards conceptual design.

S. No.	CLO/PLOS MAPPING	DOMAIN	PLO
1	<b>Be aware of</b> appropriate Engineering Drawing tools and use the drawing principles for adequate representation of mechanical components.	A2	05
2	<b>Practice</b> 2-D Drawings/Sketches using orthographic projections.	P3	01
3	<b>Copy</b> a CAD drawing/project related to mechanical Engineering applications.	P3	03

### COURSE CONTENTS

Part – I: (Manual)

Sheet Layout and Free-hand Sketching.

Lines, Lettering, Scaling and Sheet Planning.

Orthographic Projections (1st Angle).

Orthographic Projection (3rd Angle).

Dimensioning.

Part – II: (CAD)

Getting Started with AutoCAD and Advanced Sketching and Editing.

Advanced Sketching and Editing.

Technical Drawing with AutoCAD.

Isometric Drawings.

Section Views and Hatching.

Viewports, Layouts and Plots.

Dimensioning and Tolerances in AutoCAD.