

COURSE TITLE : CADD LAB - I
COURSE CODE : 5057
COURSE CATEGORY : A
PERIODS/WEEK : 4
PERIODS/SEMESTER : 60
CREDITS : 2

TIME SCHEDULE

Module	Topic	Periods
1	Introduction to CAD Advantages of CAD Draw and modifying commands.	15
2	Working on CAD	15
3	Two dimensional drawing of simple objects with sectional views	15
4	Drawing of small Automotive Components-2D drawings only	15
TOTAL		60

GENERAL COURSE OUTCOME

Sl.No.	sub	Student will be able
1	1	Understand the computerized drafting
	2	Understand various commands used in CAD
	3	Draw two dimensional drawing and sectional views with CAD
	4	Draw two dimensional drawings of simple automotive components

SPECIFIC COURSE OUTCOME

- 1.1.0 Understand the computer aided drafting
- 1.1.1 Understand the various commands used in CAD.
- 1.1.2 Draw two dimensional drawing with CAD
- 1.1.3 Understand the two dimensional drawing with section using CAD
- 1.1.4 Draw 2D drawings of simple Automotive Components
- 1.1.5 Understand the layout drawing of Road side Garage

CONTENT DETAILS

MODULE I

Introduction to Computer Aided Drafting: History – application – Advantages over manual drafting – Hard ware requirements – Soft ware requirements – Different software - Auto CAD – Pro E – IDEAS and Open Source drafting software etc.

CAD basics – main menu, starting a new drawing, open, save, save as, exit, drawing editor, entering commands using mouse, pull down menu, getting help, data entry, entity selection.

MODULE II

Draw and modifying commands: Setting commands limits of drawing, units, grid, snap, osnap, coordinates, ortho mode locating a point – Absolute coordinate system-Relative coordinate system-Polar coordinate system-direct distance entry system.

Draw commands- line, circle, arc, ellipse, rectangle, Polygon, spline, polyline, etc.

Editing commands-erase, copy, array, rotate, mirror, offset, scale move, trim, fillet, chamfer, extend, stretch, p-line edit, explode etc.

MODULE III

Working with CAD: Properties of lines – colour, line weight, line type, layer properties - Hatch and gradients, dimensions and text on drawings - Developing simple orthographic views and dimensions it with text - Developing detailed orthographic views with all features-simple blocks - Knuckle joint, Foot step bearing, cylinder, connecting rod, eccentric etc.

MODULE IV

Draw the Automotive components like Poppet Valve, Piston, Universal Joint (Hookes Joint), Wheel Cylinder. Draw the layout of a Road side Garage, Paint Booth etc

REFERENCE BOOKS

1. Sankarprasad Dey - AutoCAD 2014 for Engineers Vol.I – Vikas publishing
2. M.B.Shah, B.C.Rana - Engineering Drawing - Pearson Education India