

**COURSE TITLE** : CADD LAB - 2  
**COURSE CODE** : 6028  
**COURSE CATEGORY** : A  
**PERIODS/ WEEK** : 3  
**PERIODS/ SEMESTER** : 45  
**CREDIT** : 2

#### TIME SCHEDULE

MODULE	TOPIC	PERIODS
1	Working with layer property manager. Creating blocks with CAD	8
2	Solid Primitives	6
3	Solid modelling and assembling, Section of solids	17
4	Rendering in AutoCAD. Pro- E,CATIA Piping layout drawings, Solid Works	14
TOTAL		45

#### **COURSE OUTCOME :**

SL.NO.	SUB	STUDENT WILL BE ABLE TO
1	1	Understand the working with layer property.
	2	Draw the 3D Models
	3	Draw the solid models
	4	Draw the sections of solids.
	5	Understand the Rendering in AutoCAD,
	6	Understand the modeling in Pro E and CATIA.
	7	Understand the 3D Piping layout
2	1	Comprehend the basics of Solid Works

#### **COURSE CONTENT**

##### **MODULE I**

Working with Layer Property Manager - Creating new layers – assigning colors – naming layers – assigning line type - Creating and inserting blocks – editing blocks.

##### **MODULE II**

Introduction 3D modeling- Constructing solid primitives-box - sphere - cylinder - cone - wedge - torus.  
Understanding UCS - viewing a 3D model - Boolean operations such as union - subtract - intersection.

### **MODULE III**

Solid modeling – extrude – revolve – sweep- loft. assembling 3D models – 3d operations such as align - move - rotate – array- create bushed bearing - foot step bearing - flange coupling - engine piston - crank shaft - solid editing tools such as face edit – slice- section of solids- sectional view of bushed bearing - foot step bearing by using slice - rendering – light and material render .

### **MODULE IV**

Application of view ports - plotting a drawing - – Camera – motion path animation

Introduction to ProE – create simple solids - ProE and CATIA

3 D modeling of piping layout

Introduction to Solid Works – Draw simple figures

### **REFERENCE**

1. Autocad 2014 for Engineers      Vol.I -Sankarprasad Dey
2. Engineering Drawing              - M.B.Shah, B.C.Rana