

**COURSE TITLE : CADD LAB - II**  
**COURSE CODE : 6059**  
**COURSE CATEGORY : A**  
**PERIODS/WEEK : 3**  
**PERIODS/SEMESTER: 45**  
**CREDITS : 2**

**TIME SCHEDULE**

<b>Module</b>	<b>Topic</b>	<b>Periods</b>
1	Working with layer property manager. Creating blocks with CAD	10
2	Solid Primitives	12
3	Solid modeling and assembling, Section of solids	10
4	Rendering in AutoCAD. Pro- E,CATIA Automobile component drawings Solid Works	13
<b>TOTAL</b>		<b>45</b>

**GENERAL COURSE OUTCOME**

<b>Sl. No.</b>	<b>Sub</b>	<b>Students Will be able to</b>
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	Draw the 3D models of different automobile components

**SPECIFIC COURSE OUTCOME**

<b>Sl.No.</b>	<b>Student will be able to</b>
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 Drawings of Automobile components
8	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 to 3D modeling- Constructing solid primitives-box - sphere - cylinder - cone - wedge - torus. Understanding UCS - viewing a 3D model - Boolean operations such as union - subtraction - intersection

### **MODULE III**

Solid Modeling – Extrude – revolve – sweep- loft. Assembling 3D models – 3d operations such as align - move - rotate - array. Create bush bearing - Foot step bearing - Flange coupling - Engine Piston - crank shaft - Solid editing tools such as face edit - slice. Section of solids- Sectional view of bush 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 Pro-E – create simple solids - Pro-E and CATIA  
 3 D modeling of Automobile components like Piston, Connecting rod, poppet valve etc  
 Introduction to Solid Works – Draw simple figures

### **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