

Course Title	SOFTWARE LAB - II
Course Code	ME305
Course Credit	Lecture : 00
	Practical : 01
	Tutorial : 00
	Total : 01

Course Learning Outcomes

At the end of the course the students will be able to

- **Understand** working of CAD software and hence **recognize** basic concepts of CAD.
- **Model** a mechanical component using higher end CAD software.
- **Discriminate** proper selection and sequence of features.
- **Create** a detail drawing of a mechanical component.

Detailed Syllabus

Sr. No.	Details	Hours Allotted
1.	Introduction to Modeling software: Sketcher (Draw, Dimensions, Modify, Constraints)	02
2.	Practice of Sketcher.	02
3.	Solid modeling: Understanding of Parent-Child Relations, Features, Wireframe and surface model understanding, Extrude and its practice, Mirror.	02
4.	Revolve Round, Chamfer and its practice.	02
5.	Hole and Patterning with practice.	02
6.	Rib, Shell, Draft.	02
7.	Sweep and its practice.	02
8.	Surface modeling and its practice.	02
9.	Sheet metal and its practice.	02
10.	Drawing And Detailing: 2D view generation, General and projection view and its practice.	04
11.	Dimensioning: Driving and Driven, practice.	02
12.	Sectional view generation and Sheet Generation and printing.	04

	Total	28
Instructional Method and Pedagogy:		
<ul style="list-style-type: none">• Entire syllabus is to be covered in Practical hours and it is not part of theory exam.• Assignments / Exercises based on course content will be given to the students at the end of each unit/topic and will be evaluated at regular intervals.• For Each Lab session first the training session would be held and then hands on session would be executed.		
Reference Books:		
<ol style="list-style-type: none">1. Pro/Engineer for Engineers and Designers by Sham Tickoo, Dreamtech press.2. Pro/Engineer Wildfire by David Kalley, Tata McGraw Hill3. Pro/Engineer Wildfire 5.0 by Roger Toogood, SDC4. Autodesk Inventor 2012 For Engineers And Designers by by Prof. Sham Tickoo Autodesk SaaleshKar, Dreamtech Press.5. Ansys Workbench 14.0 for Engineers and Designers: A Tutorial Approach by by Sham Tickoo, Dreamtech Press.6. Using Catia V5 by Frad Karam and Chuck Kleismit, Onward Press.		
Additional Resources		
<ul style="list-style-type: none">• www.ptc.com• http://learningexchange.ptc.com/tutorials/by_sub_product/sub_product_id:1• http://learningexchange.ptc.com/tutorials/by_sub_product/ptc-creo-elements-pro-pro-engineer/sub_product_id:1• http://learningexchange.ptc.com/tutorials/by_sub_product/ptc-creo-sketch/sub_product_id:17• www.frotime.com		