



Pimpri Chinchwad Education Trust's
Pimpri Chinchwad College of Engineering
Sector No. 26, Pradhikaran,
Nigdi, Pune – 411 044



COURSE OUTLINE

Department: Mechanical Engineering

A.Y.:2022-23 Sem-II

Class: SY BTech Mechanical

Name of the Course: **Computer Aided Machine Drawing II**

Relevance of the course:

The Course Computer Aided Machine Drawing II provide a level of design depth that cannot possible through rough sketches or 2D designs, 3D modelling gives the improved control over details. It also **lets engineers explore the physical aspects of a design without surrendering to physical limitations.**

It provides the opportunity to the learners to apply the knowledge of GD&T and sign conventions in production drawing, assemblies and surface modelling using CAD software.

It requires the prerequisite knowledge from courses given below

- I. Engineering Graphics
- II. Basic Cad Software such as AutoCAD etc.

Course Outcomes

| CO | Statement | Method of direct assessment |
|-----|---|-----------------------------|
| CO1 | CREATE 3D assemblies that represent mechanical applications. | Hands on, Assignment |
| CO2 | INTERPRET dimensioning, tolerance, and surface finish symbols from production drawing | Quiz |
| CO3 | APPLY geometric and dimensional tolerance, surface finish symbols in drawings | Hands on |
| CO4 | CREATE Kinematic simulation for motion study. | Mini project |
| CO5 | CREATE surface models for mechanical components. | Hands on |

Practical Assignments:

| Sr. no | Experiments | Activity planned |
|--------|--|-----------------------|
| 1 | Assignment on assembly of the parts using proper constrained conditions and generation of exploded view. | Hands on |
| 2 | Assignment on Assembly modeling for a product by importing parts from free online resources | Assignment – hands on |
| 3 | Study, reading and generation of production drawing for given parts and assembly by applying required GD &T symbol | Quiz |
| 4 | Create Kinematic simulation for assembly. | Mini Project |
| 5 | Assignment on surface modeling of machine components | Hands on |

Course Faculties

Mrs. J. P. Wagh
Dr.Sujit Muley
Mr.Chandan R. Ingole (Course co-ordinator)

Module Coordinator

Dr.Abhay Lingayat