

MECH113 COMPUTER AIDED ENGINEERING DRAWING I

Course Code:	3650113
METU Credit (Theoretical-Laboratory	3(2-2)
hours/week):	
ECTS Credit:	4.5
Department:	Mechanical Engineering
Language of Instruction:	English
Level of Study:	Undergraduate
Course Coordinator:	Instr. Dr. Murat Sönmez
Offered Semester:	Fall Semesters.

Course Objective

In this course, mainly it is aimed to provide students with the writing and reading principles of “Engineering Drawing”, which is a graphical universal language used in technical world for describing the shape and size of an object via supplying orthographic views and/ or solid models associated with all the necessary dimensions, associated tolerances and annotations created in a CADD environment

Course Content

Introduction to engineering drawing; drafting as a language, drafting environment, board drafting, Computer Aided Drafting. Geometrical constructions; sketching in Inventor environment, Drawing and editing commands. Orthographic projection; 1st and 3rd angle projection, Principal views, Auxiliary views, Basic Dimensioning, Tolerancing. Creating three dimensional Models; Extrude, Revolve, Holes, Shell, Fillet, Chamfer, Split, Work Planes, Axes, Ribs, Loft, Sweep. Generating orthographic views from a solid model. Pictorial Drawing; Isometric Drawing, Oblique Drawing. Sectioning and conventions.

Learning Outcomes

The students are expected to acquire the ability to draw the orthographic views of an object in a 2-Dimensional domain, to read the engineering drawings of an object, to create the solid model of an object and generating principal and auxiliary views from the solid model in a CADD environment.