ME 151 - Engineering Drawings & Projection

Hour: Lecture: 2 Hrs. Tutorial: 2 Hrs. Credit: 3.
Coordinator: Mostafa Rostom

Text Book:

- Engineering Drawing Book prepared and edited from several related books.

Reference Books:

- S. Bogolyulov a. Voinor "Engineering Drawing", Mir publishers, Latest edition.
- Thomas E. French "Eng. Drawing & Graphics Techniques", McGraw – Hill Co, Latest edition.
- Sham Tickoo, "AutoCAD 2008: A problem solving approach", Autodesk Press 2007

Specific course information

a. Drawing practices and techniques – Geometrical constructions – Dimensioning and free hand sketching – Methods of projection – Orthogonal projection — Sectioning and conventions – Intersection of geometrical surfaces and development – Standard metal sections and metal structures – Pictorial projection (Isometry) – Surface intersections – Perspective projection – An introduction to Computer Aided Drafting using AutoCAD.
b. Prerequisite: None
c. Designation: Required

Specific goals for the course:

- Design a system, process, or component to meet desired needs subject to given constraints. Analyze and evaluate alternative solutions.
- Identify, formulate, and solve engineering problems. Make appropriate and necessary assumptions. Suggest and evaluate new approaches.
- Recognize the need for and demonstrate ability to engage in lifelong learning.

Course instruction outcomes:

- The students will be able to communicate by means of engineering drawing and to relate the applications of drawing techniques to mechanical engineering practice.

Student outcomes:

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Topics Covered:

- Drawing practices and techniques

- Methods of object projection
- Orthogonal projection Missing views, dimensioning and free hand sketching
- Sectioning and conventions
- Intersection of geometrical surfaces and development
- Standard metal sections and metal structures
- Compound metal sections and welds
- Isometric projection & Surface intersections
- Perspective projection
- Computer Aided drafting using AutoCAD (General Introduction)

Course / credit hours	Math & Basic Sciences	Engineering Topics	General Education
Engineering Drawing & Projection(ME151)/		2	