



Basic Technical Drawing with CAD

Course Description

The objective of this course is to give the student an introduction to the language of Technical Drawing. They will learn of the drawing instruments used by draftspersons and designers, and the principles and techniques that were applied to achieve working drawings.

They will be taught to apply these same principles that were used in the manual drafting industry, but now they will use CAD to employ those same techniques.

Instructs students in modern graphics and modeling fundamentals for engineering design. Students will be introduced to freehand sketching, multi-view orthographic projection, shape modeling and its applications in computer-aided drafting and design (CADD). Studies will include graphic geometry and projection techniques, visualization methods, and pictorial drawings, geometric modeling techniques for CADD, mechanical and architectural drafting practices, and manufacturing processes and materials documentation.

Course Objectives

Introduce students to the principals of engineering graphics employing both traditional drafting and Computer-Aided-Drafting techniques. Describe and demonstrate the process of visualization and construction of orthographic, isometric, and section views. Demonstrate and explain the theory and practice of dimensioning. Explain the importance of standards (ASME and ISO) in the modern engineering graphics environment.