

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY CAD 140 - TECHNICAL DRAWING (3 CR)

Course Description

Enhances the principles learned that are related directly to the field of drafting and design. Gives a more in-depth exposure to detail and working drawings, dimensioning, tolerancing and conventional drafting practices. Teaches CAD modeling, may include parametric modeling. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

General Course Purpose

To develop skills in the use of various drafting techniques and the use of various media in both traditional and computer aided drafting.

Course Prerequisites/Corequisites

Prerequisite: EGR 115

Course Objectives

Upon completion of the course the student will be able to:

- Recall principles and practices of drafting by creating technical drawings
- Use Parametric Modeling software to create solid models
- Create working drawings showing the different orthographic views, auxiliary views, sections and/or isometrics of 3D models.
- Use 3D solid modeling software to generate technical drawings of solids intersections and/or surface developments
- Generate assembly and detail drawings

Major Topics to Be Included

- Principles and practices of drafting
- Geometric construction
- Gears and cams
- Orthographic projection
- Intersections and Developments
- Isometrics
- Working drawings
- Dimensioning and Tolerancing
- Detail drawings
- Sectional views
- Assembly drawings
- Auxiliary views