NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
CAD 152 - ENGINEERING DRAWING FUNDAMENTALS II (3 CR.)

Course Description

Introduces technical drafting from the fundamentals through advanced drafting practices. Includes lettering, geometric construction, technical sketching, orthographic projection, sections, intersections, development, and fasteners. Teaches theory and application of dimensioning and tolerances, pictorial drawing, and preparation of drawings. Lecture 1 hours. Laboratory 6 hours. Total 7 hours per week.

General Course Purpose

To introduce the student to the techniques, instruments, and principles required of a draftsman or designer. To develop skills in the use of various drafting techniques and the use of various media including pen and ink and plastic leads.

Course Prerequisites/Co-requisites

High school algebra and geometry.

Course Objectives

Upon completion of the course, the student will be competent in the use of drafting tools and in the use of various drafting media; and will be able to produce multi-view orthographic drawings, sectional drawing and auxiliary views with dimensioning and tolerances, detail and working drawings. The student will also be able to solve descriptive geometry problems graphically.

Major Topics to be Included

- Principles and practices of drafting
- Tolerancing
- Lettering
- Threaded fasteners
- Lines and sketching
- Developments
- Geometric construction
- Gears and cams
- Orthographic projection
- Intersections
- Isometrics
- Working Drawings
- Dimensioning
- Detail Drawings
- Sectional views
- Assembly Drawings
- Auxiliary views