

## 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, fasteners. Teaches theory and application of dimensioning and tolerances, pictorial drawing, and preparation of drawings. Part II of II. (Credit will not be awarded for both CAD 152 and DRF 152.)

Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week. 3 credits

### **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/Corequisites**

Prerequisite: EGR 115 or equivalent.

### **Course Objectives**

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

- Use of drafting tools and various drafting media
- Create multi-view orthographic views, sectional views, and auxiliary views
- Create working drawings with details, dimensions, and tolerances
- 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