

## **NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY**

### **CAD 201 - COMPUTER AIDED DRAFTING AND DESIGN I (4 CR.)**

#### **Course Description**

Teaches computer-aided drafting concepts and equipment designed to develop a general understanding of components of a typical CAD system and its operation. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

#### **General Course Purpose**

The course purpose is to build upon the student's knowledge of technical drawings in the fields of architecture and/or engineering using Computer Aided Drafting and Design (CAD). Skills acquired in previous drafting classes will be transferred to the computer to prepare the student for employment in the drafting and design fields. The course will use CAD system extensively and will provide drafting students hands-on skills and experiences in generating design drawings using a CAD system.

#### **Course Prerequisites/Corequisites**

Competency in basic technical drafting. Corequisite is ARC 121, ARC 123, CAD 165, EGR 115 or division approval.

#### **Course Objectives**

- Upon completion of the course the student will be able to:
- Use file utility functions to Copy, Move, and Delete Files
- Create file directories and sub-directories to organize their CAD files
- Use CAD "Draw", "Modify", "View" and "Utility" functions to create technical drawings
- Plot CAD drawings to "Scale", using Model and Paper Space
- Create and use "Block"
- Generate architectural/technical working drawings using a CAD system
- Develop CAD proficiency and overall drafting skills

#### **Major Topics to Be Included**

- Components of a CAD System
- Using computer Operating System and CAD software
- AutoCAD principles
- Using CAD pull-down menus, icons and tool bars
- Drawing setup
- Draw and Modify commands
- Inquiry and Utility commands
- Object snap options
- Creating "Blocks"
- Construction of architecture/engineering drawings