

COURSE OUTLINE
CADD-101
Introduction to Computer-Aided Drafting and Design
3 Credits

HOWARD COMMUNITY COLLEGE

Description

This course introduces the student to the CAD system. The student will receive “hands-on” training and will develop the techniques that are essential in today’s job market. The student will learn how to adapt basic technical drafting techniques to computer generated drawings of the various drafting disciplines. (2 hours lecture, 2 hours lab)

Overall Course Objectives

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

1. Identify the hardware and software requirements to maintain and operate a CAD system.
2. Identify the capabilities and the limitations of the CAD system.
3. Create and Modify CAD drawing files.
4. Manipulate CAD files using the commands of the Operating System.
5. Produce scale-accurate hardcopy prints and plots of CAD files.
6. Create sectional views of objects.
7. Develop discipline - specific drawing environments.
8. Apply basic CAD editing commands to existing drawings.
9. Apply basic entity creation commands to drawing files.
10. Create a library of parts and symbols.
11. Create multiview drawings (sections, details, etc.).
12. Learn to import text files into the CAD package.

Major Topics

- I. Hardware and Software Introduction
 - A. Operating Systems Hardware Requirements
 - B. Hardware for Input
 - C. Hardware for Output
 - D. Types of Software

- II. Operating Systems
 - A. Types of Operating Systems
 - B. Pros and Cons of Operating Systems
 - C. Working with CAD in Operating Systems
- III. DOS and DOS File Handling
 - A. Introduction to the Disk Operating System
 - B. Basic Disk Operating System Commands
 - C. CAD-Specific Operating System Commands
- IV. AUTOCAD Introduction
 - A. Understanding AUTOCAD's Menus
 - B. AUTOCAD's Drawing Editor
 - C. AUTOCAD's File Formats
- V. CAD Drawing Setup
 - A. Creating Drawing Prototypes
 - B. Setting Limits, Linetypes and Colors
 - C. Creating and Assigning Layers
- VI. Using AUTOCAD Commands
 - A. Basic Drawing Commands
 - B. Basic Editing Commands
 - C. Basic Dimensioning
 - D. Basic Text Commands
 - E. Plotting and Printing Basics

Course Requirements

Grading/exams: Grading procedures will be determined by the individual faculty member with emphasis on the following:

Final grades will be based on lab exercises, homework, quizzes and unit test.

Writing: CAD-specific writing assignments will be assigned to students by a faculty member.

Other Course Information

This course is a course in the Computer-Aided Design program.