

COURSE OUTLINE

CADD-104

Advanced CAD

3 Credits

HOWARD COMMUNITY COLLEGE

Description

The student will learn the programming methods and techniques required to develop an applications package for the CAD system. The students will learn the CAD system's file structure and how to manipulate its database. The students will learn how to create customized menus and macro programming applications and techniques. Prerequisite: CADD-103. (2 hours lecture, 2 hours lab)

Overall Course Objectives

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

1. Identify and manipulate the operating environment of the CAD software.
2. Develop and evaluate macros, LISP routines and scripts using standard text editors.
3. Create customized menus and macros for specific applications.
4. Debug LISP routines.
5. Create new commands within the CAD program.
6. Redirect information using LISP.
7. Create links between other software and CAD.
8. Develop error handling and reporting routines.
9. Load LISP routines.
10. Load ADS applications.
11. Interpret ADS functions.

Major Topics

- I. CAD File Structure and File Types
 - A. AUTOCAD Executables
 - B. AUTOCAD Ovals
 - C. AUTOCAD Drivers

- II. Creating Scripts and Macros
 - A. What are Scripts?
 - B. When to Use Scripts
 - C. What are Macros?
 - D. Why use Macros?
 - E. Script and Macros Comparisons

III. Creating Slides and Slide Libraries

- A. What is a Slide?
- B. Creating Slides
- C. Viewing Slides
- D. Creating a Library of Slides
- E. Slide Library Applications

IV. Menu Systems and Development

- A. AUTOCAD Menu Types
- B. Creating a Screen Menu
- C. Creating a Pull-Down Menu
- D. Creating a Pop-Up Menu
- E. Creating a Tablet Menu
- F. Using Menus and Macros

V. Creating Text Fonts, Linetypes and Hatches

- A. Creating Text Fonts
- B. Creating Various Linetypes
- C. Creating Hatch Applications

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.