

University of Arkansas - Fort Smith
5210 Grand Avenue
P. O. Box 3649
Fort Smith, AR 72913-3649
479-788-7000

General Syllabus

MACH 1424 Introduction to Computer Aided Design (CAD)

Credit Hours: 4 **Lecture Hours:** 2 **Laboratory or other types of Hours:** 4

Prerequisite(s): None

Effective Catalog: 2021-2022

I. Course Information

A. Catalog Description

Provides instruction on computer aided design (CAD) with reference to principles of computer aided machining (CAM).

II. Student Learning Outcomes

A. Subject Matter

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

1. Evaluate the use and application of Computer Aided Design software tools.
2. Create 2D and 3D drawings using Computer Aided Design software tools.
3. Use basic drawing, text and editing commands
4. Save and retrieve drawings
5. Utilize dimensioning capabilities of Computer Aided Design software
6. Utilize hatching capabilities of Computer Aided Design software

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Analytical Skills

Critical Thinking Skills: Students will read and interpret blueprints and adjust machines as necessary.

Communication Skills (written and oral)

Students will proficiently and accurately interpret blueprints and mechanical data sheets and will effectively communicate to resolve issues or concerns.

III. Major Course Topics

- A. Introduction to Computer Aided Design (CAD)
- B. Geometric shapes
- C. Architectural and drafting views
- D. 2D and 3D modeling
- E. Dimensioning
- F. Plotting
- G. Block, attributes and drafting symbols