University of Arkansas - Fort Smith
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General Syllabus

MACH 1434 Introduction to Computer Aided Machining (CAM)

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

Prerequisite(s): MACH 1424 Introduction to Computer Aided Design (CAD)

Effective Catalog: 2021-2022

I. Course Information

A. Catalog Description

Provides concepts and practices on computer aided machining (CAM) including creating 2D and 3D geometric models and creating Computer Numerical Control (CNC) programs.

II. Student Learning Outcomes

A. Subject Matter

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

1. Describe basic conceptions and applications of Computer Aided Machining
2. Create 2D geometric models using Computer Aided Machining software
3. Create 3D geometric models using Computer Aided Machining software
4. Create Computer Numerical Control programs using Computer Aided Machining 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.

II. Major Course Topics

A. Effective use of Computer Aided Machining software
B. Lathe applications of Computer Aided Machining software
C. Mill applications of Computer Aided Machining software
D. Computer Aided Machining software application in Computer Numerical Control Machining