

**University of Arkansas - Fort Smith
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General Syllabus

MSTE 22062 Computer Integrated Machining Capstone

Credit Hours: 2 **Lecture Hours:** 0 **INT/PRAC:** 6

Prerequisite(s): Consent of instructor

Effective Catalog: 2021-2022

I. Course Information

A. Catalog Description

Intended to provide the student an opportunity to demonstrate skill proficiency in a real-world work environment. Activities in the capstone may vary according to appropriate application of the learning, ensuring the activities are germane to the specific work environment selected by the student and respective faculty member. The faculty member and assigned business representative will jointly supervise the capstone experience.

B. Additional Information

This course is a requirement for all Computer Integrated Machining Associate of Applied Science majors. It should be taken as the last Computer Integrated Machining course.

II. Student Learning Outcomes

A. Subject Matter

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

1. Use Computer Numerical Control processes in the context of a manufacturing facility.
2. Produce finished parts that meet customer/employer specifications and quality standards.
3. Communicate at a professional level in an advanced manufacturing workplace.
4. Reflect on a real-world work experience and self-assess strengths, weaknesses, and areas for development.

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Analytical Skills

Critical Thinking Skills: Students will transfer technical principles, ideas and theories to application in an advanced manufacturing environment.

Communication Skills (written and oral)

Students interpret and discuss, verbally or in writing, with engineers, supervisors, fellow machinists and any others the details of machined blueprint drawings and how they relate to producing quality manufactured parts

Ethical Decision Making

Students will identify implications of producing and allowing defective components to be used.

Global and Cultural Perspectives

Students will identify cultural differences, compare and contrast the implications for interacting with people from other cultures in the context of international industry and customer service.

III. Major Course Topics

A. To be determined by Capstone work assignment.