

# MACH A199: CURRENT TOPICS IN MACHINE TECHNOLOGY

| Item                               | Value  |
|------------------------------------|--|
| Curriculum Committee Approval Date | 12/06/2023   |
| Top Code                           | 095630 - Machining and Machine Tools                     |
| Units                              | 1-5 Total Units  |
| Hours                              | 18-126 Total Hours (Lecture Hours 18-72; Lab Hours 0-54) |
| Total Outside of Class Hours       | 0  |
| Course Credit Status               | Credit: Degree Applicable (D)                            |
| Material Fee                       | No   |
| Basic Skills                       | Not Basic Skills (N)                                     |
| Repeatable                         | No   |
| Grading Policy                     | Standard Letter (S),<br>• Pass/No Pass (B)               |

## Course Description

Current issues in the field of Manufacturing Technology, rotating through a variety of topics, such as inspection, quality control, lean manufacturing, rapid prototype, materials, and other topics related to manufacturing. Transfer Credit: CSU.

## Course Level Student Learning Outcome(s)

1. Identify, discuss and develop skills related to a current topic in Machine Technology and apply those skills to a student project.

## Course Objectives

- 1. Identify, discuss and analyze current issues in machine technology.
- 2. Develop skills related to current issues.
- 3. Place and evaluate action or response related to the current issues.
- 4. Describe needs for new and existing manufacturing technologies.

## Lecture Content

1. Content related to the current issues in machine technology. 2. Analysis of implications related to changes in machine technology. 3. Responses to industry changes.

## Lab Content

1. Content related to the current issues in machine technology. 2. Analysis of implications related to changes in machine technology. 3. Responses to industry change

## Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- Lab (04)
- DE Live Online Lab (04S)

## Instructional Techniques

Lecture, demonstrations, discussions, students working cooperatively, instructor feedback

## Reading Assignments

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## Writing Assignments

In-class writing assignments as appropriate to topic. Students will spend 2 to 9 hours a week on assignment.

## Out-of-class Assignments

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## Demonstration of Critical Thinking

Lecture, demonstrations, discussions, students working cooperatively, instructor feedback

## Required Writing, Problem Solving, Skills Demonstration

In-class writing assignments as appropriate to topic.

## Eligible Disciplines

Machine tool technology (tool and die making): Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

## Other Resources

1. Selected handout materials for a specific topic will be provided and distributed by the instructor.