DEPT.  MACH  COURSE NUMBER: 1465

NUMBER OF CREDITS: 2  Lecture: 1  Lab: 1

Course Title:
Swiss Lathe Programming & Operation

Catalog Description:
Provide students an introduction to swiss type turning centers. Areas addressed will be: G & M codes, program editing and lathe setup.

FULFILLS MN TRANSFER CURRICULUM AREA(S) (Leave blank if not applicable)
Goal 1: Communication: ____ by meeting the following competencies:

Goal 2: Critical Thinking: ____ by meeting the following competencies:

Goal 3: Natural Sciences: ____ by meeting the following competencies:

Goal 4: Mathematics/Logical Reasoning: ____ by meeting the following competencies:

Goal 5: History and the Social and Behavioral Sciences: ____ by meeting the following competencies:

Goal 6: The Humanities and Fine Arts: ____ by meeting the following competencies:

Goal 7: Human Diversity: ____ by meeting the following competencies:

Goal 8: Global Perspective: ____ by meeting the following competencies:

Goal 9: Ethical and Civic Responsibility: ____ by meeting the following competencies:

Goal 10: People and the Environment: ____ by meeting the following competencies:

Prerequisites or Necessary Entry Skills/Knowledge:
MACH 1430 or MACH 1420 with a grade of 2.0 or higher. Or permission by instructor for prior industry experience.
### Topics to be Covered (General)

- Machine tool safety
- “G & M” codes.
- RPM feeds for various materials
- Tooling for swiss type turning center.
- Production of dimensionally correct parts.

### Student Learning Outcomes

1. Identify tooling required to produce part geometry
2. Write programs using “G & M” code
3. Set up procedure for tooling.
4. Edit program to meet part specifications
5. Calculate correct RPM, feed rates for various materials.
6. Inspect and measure completed parts.
7. Interpret & apply (G & M) codes specific to swiss type turning center.
8. Edit G & M code program
9. Select proper tooling

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**Is this course part of a transfer pathway:** Yes ____  No _X_

*If yes, please list the competencies below*

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**All syllabi must include the following statement:**

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, high school students are encouraged to notify their counselor and instructor.

This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or via your preferred Telecommunications Relay Service.

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