A. COURSE DESCRIPTION

Credits: 4
Lecture Hours/Week: *. *
Lab Hours/Week: 8
OJT Hours/Week: *. *
Prerequisites: None
Corequisites: None
MnTC Goals: None

This course is a continuation of MACH2634. Learners use advanced techniques and processes in CNC setup and operations as well as problem solving and task optimization of processes.

B. COURSE EFFECTIVE DATES: 12/12/1997 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Demonstrate proper shop safety techniques using CNC machine tools.
2. Learn how to use CNC mill control for advanced NC programming.
3. Learn how to use CNC mill control for conversational programming.
4. Learn proper tool selection for CNC mill.
5. Learn proper machine offsets for CNC mill.
6. Learn how to use CNC lathe control for advanced NC programming.
7. Learn proper tool selection for CNC lathe.
8. Learn proper machine offsets for CNC lathe.
9. Identify proper tool holders for CNC machining methods.
10. Demonstrate CAM programming skills.

D. LEARNING OUTCOMES (General)

1. The learner will demonstrate knowledge in strategic planning of CNC setup.
2. The learner will demonstrate knowledge in locating part datums on a Machining Center.
3. The learner will demonstrate knowledge in CNC setup reduction.
4. The learner will demonstrate knowledge in evaluating a program while in a machining process

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted