MACH 1629: Machine Tool Theory II

A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: 3
Lab Hours/Week: *.*
OJT Hours/Week: *.*

Prerequisites:
This course requires the following prerequisite
   MACH 1523 - Machine Tool Theory I (Number of Years Valid: 5)
Corequisites: None
MnTC Goals: None

This course is an introduction to Computer Numerical Control (CNC) using the format of G-Codes and E-Z Trak Conversational Programming, abrasives, and assorted machining concepts. Metallurgy is included. This course emphasizes practical applications. Prerequisite: MACH1523.

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

C. OUTLINE OF MAJOR CONTENT AREAS

1. Explain fundamentals of CNC machining processes.
2. Learn fundamentals of CNC programming.
3. Learn basic functions and capabilities of CNC machine tools.
4. Develop CNC programming skills using conversational programming.
5. Discuss basic work holding principles.
6. Learn to identify different types of metal and their uses.
7. Research and explain properties of metals and their machining characteristics.

D. LEARNING OUTCOMES (General)

   1. The learner will understand theories and processes of the program's machining operations.

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

   None

F. LEARNER OUTCOMES ASSESSMENT

   As noted on course syllabus

G. SPECIAL INFORMATION

   None noted