

Minnesota State College Southeast

MACH 2639: CAM Programming and Toolmaking Application 2

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: *.*

Lab Hours/Week: 6

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course will familiarize the student with the manufacturing methods using CNC machines to support manufacturing processes. The Instructor will give each student a design for a special projector multiple projects. Each student will manufacture the project components to specifications, and complete inspection reports on all components. (Prerequisites: MACH1601, MACH1605, MACH1610, MACH1615, MACH1625, MACH1630, MACH1641, MACH1650, MACH1661, MACH2633, MACH2635, MACH2637, & MACH2662, or equivalent) (3 Credits: 0 lecture/3 lab)

B. COURSE EFFECTIVE DATES: 01/27/2016 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. Practice Southeast Technical College shop safety rules
2. Wear proper attire for safety
3. Use proper tool design theory and Master CAM software to design a project
4. Use CNC machining applications to manufacture the project
5. Use basic and advanced machining processes to manufacture 3-D components
6. Prepare tooling and fixtures to support 3-D surface machining
7. Use inspection report to record machined dimension tolerance of parts
8. Use the lab time to support the capstone course project
9. Practice 5-S procedures to clean work area and maintain machine lubrication
10. Complete all assignments

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted