

Minnesota State College Southeast

MACH 1600: Manufacturing 101: Introduction to Manufacturing

A. COURSE DESCRIPTION

Credits: 1

Lecture Hours/Week: *.*

Lab Hours/Week: 2

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course will provide an introduction to manufacturing careers and processes. Topics covered will include Careers in Manufacturing, Safety, Manufacturing Math, Measurements and Blue Print Reading, Lean Principles, Manufacturing Terminology, Machines and Tools, and Processes for Manufacturing. (1 credit: 0 lecture/1 lab)

B. COURSE EFFECTIVE DATES: 06/21/2016 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Career Exploration
2. Safety
3. Lean Principles
4. Terminology & Tools
5. Math
6. Blueprint Reading

D. LEARNING OUTCOMES (General)

1. Identify safety rules for operating machinery, including proper eye wear and clothing
2. Recognize related careers in manufacturing: welding, electronics, machining, maintenance technician, etc.
3. Demonstrate an efficient level of manufacturing math
4. Use calipers, micrometers, and dial indicators to effectively measure features
5. Interpret a blueprint of a part and identify the tools required to machine it
6. Identify the best machine to use and process steps for producing a machined part
7. Develop a proficient vocabulary of manufacturing terminology
8. Show a basic understanding of Lean Manufacturing ideas such as the 6-S program

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

Successful completion of this course along with successful completion of MACH1602 OSHA 10 plus Critical Soft Skills for Employment equals the 2-credit course MACH1603 Foundations in Manufacturing.