

Minnesota State College Southeast

MDAD 1251: Manufacturing Processes for CAD Design

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course covers manufacturing methods and materials. It includes plastics, steels, machining, casting, molding, material selections, etc. This course also covers material handling, JIT, inventory reductions, etc. Attention will be given to understanding the characteristics of manufacturing processes and systems. This will help the student in fitting into today's and tomorrow's manufacturing climate. (Prerequisite: none) (3 credits: 3 lecture/0 lab)

B. COURSE EFFECTIVE DATES: 01/24/2012 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. Introduce the student to manufacturing
2. Identify opportunities for improving manufacturing processes
3. Analyze automated manufacturing systems
4. Select appropriate materials for manufacture
5. Analyze processes used to form materials (includes metallic, plastic, wood, ceramic, and composite materials)
6. Analyze processes used to separate materials (includes metallic, plastic, wood, ceramic, and composite materials)
7. Analyze processes used to fabricate materials (includes metallic, plastic, wood, ceramic, and composite materials)
8. Analyze processes used to condition materials (includes metallic, plastic, wood, ceramic, and composite materials)
9. Analyze processes used to finish materials (includes metallic, plastic, wood, ceramic, and composite materials)
10. Analyze packing products for distribution

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted