

Minnesota State College Southeast

MACH 1605: Engineering Drawings 1

A. COURSE DESCRIPTION

Credits: 2

Lecture Hours/Week: 2

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course covers the fundamentals of basic blueprint reading. The student will learn skills to interpret blueprint and sketches that would be used in industry. Topics of study will be sketching, dimensioning, line interpretation, section views, tolerance, and working drawings. (Prerequisites: None) (2 Credits: 2 lecture/0 lab)

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

C. OUTLINE OF MAJOR CONTENT AREAS

1. Drawings and prints
2. Dimensioning techniques
3. Tolerancing application
4. Machining details
5. Section views
6. Geometric tolerancing and dimensioning

D. LEARNING OUTCOMES (General)

1. Demonstrate professionalism
2. Identify line types
3. Identify title block information
4. Identify drawing types
5. Identify views
6. Identify missing views
7. Identify steels
8. Sketch missing views
9. Define datum
10. Interpret blueprints
11. Interpret dimensions
12. Interpret fractional tolerances
13. Interpret decimal tolerances
14. Interpret hole dimensions
15. Interpret limit dimensions
16. Interpret geometric symbols
17. Describe dimensioning types
18. Interpret screw thread specifications
19. Interpret sectional views
20. Interpret angular dimensions
21. Interpret taper specifications
22. Interpret bolt circle dimensions
23. Interpret cylindrical drawings
24. Describe geometric tolerance
25. Describe positional dimensioning
26. Describe surface texture
27. Complete all assignments and quizzes
28. Complete final exam

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

This course was previously called Blueprint Reading 1.