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.