MEDR 1601: Engineering Drawing I

A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: 1
Lab Hours/Week: 2
OJT Hours/Week: *
Prerequisites: None
Corequisites: None
MnTC Goals: None

This course includes single view drawings, geometric construction, and orthographic projection. This course teaches the basics of mechanical drawing. Both freehand sketching and drawing with computer assisted drafting software is used. A laptop computer is required. Corequisite: MEDR1617.

B. COURSE EFFECTIVE DATES: 12/16/1997 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Learn the history of engineering drafting, drafting career professions, and workplace ethics.
2. Discuss and identify drafting standards.
3. Describe and demonstrate the use of manual drafting equipment and supplies.
4. Identify manual drafting equipment, media, and media sizes.
5. Read and convert common drafting scales: Civil, Mechanical, Architectural, and Metric.
6. Sketch lines, circles, arc, and other geometric shapes utilizing various techniques.
7. Sketch isometric and multi-views.
8. Identify and use the ASME Standard alphabet of lines.
9. Identify and use the ASME Standard for lettering on engineering drawings.

D. LEARNING OUTCOMES (General)

1. The learner will identify and draw sheet sizes, lettering, and drawing media.
2. The learner will identify and draw geometric shapes.
3. The learner will draw and sketch geometric shapes both orthographically and isometrically.
4. The learner will complete 3 view drawings.

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted