Alexandria Technical and Community College

MACH 1625: Blueprint Reading/Geometric Tolerancing II

A. COURSE DESCRIPTION

   Credits: 3
   Lecture Hours/Week: 3
   Lab Hours/Week: *.*
   OJT Hours/Week: *.*

   Prerequisites:
   This course requires either of these prerequisite categories
   1. MACH 1505 - Blueprint Reading/Geometric Tolerancing I (Number of Years Valid: 5)
   Or
   2. MEDR 1602 - Engineering Drawing II (Number of Years Valid: 5)

   Corequisites: None
   MnTC Goals: None

   This is an intermediate course in industrial blueprint reading utilizing geometric tolerancing. Contents
   include orthographic projects, sectional views, spacial views, screw threads, and steel identification. This
   course teaches learners the technical knowledge to interpret industrial blueprints. Prerequisite:
   MACH1505 or MEDR1602.

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

C. OUTLINE OF MAJOR CONTENT AREAS

   1. Identify datum planes, axis, and points.
   2. Identify geometric characteristic symbols and types.
   3. Define 2D & 3D controls.
   4. Calculate MMC and LMC.
   5. Calculate allowed position.
   6. Utilize paper gages for verification.
   7. Utilize and identify MMC, LMC, and RFS modifiers.
   8. Interpret features of size and features without size.
   9. Calculate inner and outer boundaries.

D. LEARNING OUTCOMES (General)

   1. The learner will have the ability to interpret blueprints.
   2. The learner will interpret blueprints using geometric tolerancing symbols.

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

   None

F. LEARNER OUTCOMES ASSESSMENT

   As noted on course syllabus

G. SPECIAL INFORMATION

   None noted