Alexandria Technical and Community College

MFGT 1520: Applied Mechanical Components

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 is an introduction to the theory and the application of mechanical components in the mechatronics field.

B. COURSE EFFECTIVE DATES: 05/18/2015 - Present

C. OUTLINE OF MAJOR CONTENT AREAS
   1. Recognize normal safety standards
   2. Recognize proper fastener identification
   3. Apply the proper selection, care, and use of hand tools
   4. Demonstrate mechanical ability in lab
   5. Determine standards of measurement
   6. Recognize mechanical components
   7. Demonstrate mechanical component comprehension
   8. Evaluate and trouble shoot mechanical situations
   9. Identify basic fluid power ports and fittings

D. LEARNING OUTCOMES (General)
   1. The learner will gain an understanding of the safety standards expected in the mechanical field.
   2. The learner will gain an understanding of the proper use of personal protective equipment (PPE),
      tools, fasteners, fittings, and components.
   3. The learner will gain an understanding of power transmission components including the knowledge
      of and applications for bearings, gears, pulleys, sprockets, levers, and inclined planes.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted