Alexandria Technical and Community College

MGEM 1601: Basic Engine Principles I

A. COURSE DESCRIPTION

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

   Learners study the history, development, and engine operating principles as they relate to marine and recreational engine mechanics. This course familiarizes learners with basic repair of these engines.

B. COURSE EFFECTIVE DATES: 12/22/1997 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

   1. Describe precision measuring instruments.
   2. Examine history of internal combustion engines.
   3. Demonstrate simple firefighting and prevention.
   4. Demonstrate safety when running engines.
   5. Demonstrate proper care and use of tools.
   6. Evaluate personal working time management.
   7. Describe safety and shop practices.
   8. Demonstrate use of paper and electronic service manuals.
   9. Demonstrate use of special tools to disassemble and reassemble engines.
   10. Describe 2 and 4 cycle engine theory.

D. LEARNING OUTCOMES (General)

   1. The learner will demonstrate safety practices, firefighting and prevention, and fork lift operation.
   2. The learner will use service manuals and special tools needed to disassemble and reassemble engines.
   3. The learner will describe the theory of 2 and 4 cycle engines.

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

   None

F. LEARNER OUTCOMES ASSESSMENT

   As noted on course syllabus

G. SPECIAL INFORMATION

   None noted