Alexandria Technical and Community College

MGEM 1603: Four-Cycle Engine Service & Rebuild

A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: 1
Lab Hours/Week: 4
OJT Hours/Week: *

Prerequisites:
This course requires the following prerequisite
MGEM 1602 - Basic Engine Principles II (Number of Years Valid: 5)

Corequisites: None
MnTC Goals: None

Learners use rebuilding procedures on large single-cylinder, multi-cylinder, and four-cycle engines. Complete engine diagnosis and reconditioning practices are followed. This is a basic course beginning on small two- and four-cycle engines and is built on throughout the program and applied to larger engines as the course progresses. Learners gain valuable experience in shop conditions doing complete engine overhauls on the many types of engines used. Prerequisite: MGEM1602.

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

C. OUTLINE OF MAJOR CONTENT AREAS

1. Identify 4-cycle engine systems.
2. Identify 4-cycle diagnostic procedures.
3. Perform 4-cycle engine system diagnostics.
4. Describe parts identification and lookup procedures.
5. Perform estimate to rebuild 4-cycle engine.
6. Demonstrate proper work order procedures.
7. Identify special tools needed for 4-cycle rebuild.
8. Perform 4-cycle engine rebuild.
9. Demonstrate safe use of tools and equipment.

D. LEARNING OUTCOMES (General)

1. The learner will demonstrate computer skills by looking up parts and service information.
2. The learner will apply shop practices to recondition 4 cycle engines.
3. The learner will use diagnostic equipment to determine necessary repairs.

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted