Alexandria Technical and Community College

MGEM 2617: Motorcycle Fuel Systems

A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: 2
Lab Hours/Week: 1
OJT Hours/Week: *.*

Prerequisites:
This course requires all five of these prerequisites
  MGEM 1619 - Compact Diesel Service (Number of Years Valid: 5)
  MGEM 1614 - Snowmobile II (Number of Years Valid: 5)
  MGEM 1620 - Marine Products I (Number of Years Valid: 5)
  MGEM 1612 - Outdoor Power Equipment (Number of Years Valid: 5)
  MGEM 1611 - Engine Service and Rebuild (Number of Years Valid: 5)

Corequisites: None
MnTC Goals: None

Learners are able to identify, repair, or replace fuel delivery components and rebuild all types of carburetors found on motorcycles. Oil injection, fuel injection, and turbo charging are covered. The focus is on today's fuel system technology, carburetor rebuilding, and synchronization of multi-carburetors.
Prerequisite: First year of the Marine and Small Engine Mechanic program or instructor approval.

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

C. OUTLINE OF MAJOR CONTENT AREAS

  1. Explain today's fuels and octane rating.
  2. Analyze fuel system delivery components.
  3. Explain Carburetor theory.
  4. Troubleshoot carburetor failures.
  5. Perform throttle cable services.
  6. Analyze electronic fuel injection theory.
  7. Analyze electronic fuel injection data.
  8. Identify electronic fuel injection components.

D. LEARNING OUTCOMES (General)

  1. The learner will identify fuel components and explain their operation on carbureted motorcycles and mopeds.
  2. The learner will be able to correctly route cables and synchronize carburetors to manufacture specifications.
  3. The learner will identify fuel injection and oil injection system and explain their operation.
  4. The learner will be able to troubleshoot and demonstrate what they have learned.

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

None
F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted