Alexandria Technical and Community College

MGEM 2623: Motorcycle Power Trans

A. COURSE DESCRIPTION

Credits: 4
Lecture Hours/Week: 3
Lab Hours/Week: 2
OJT Hours/Week: *.*

Prerequisites:
This course requires either of these prerequisites
  MGEM 1623 - Snowmobile I (Number of Years Valid: 5)
  MGEM 1604 - Snowmobile I

Corequisites: None
MnTC Goals: None

This course studies motorcycle engines, clutches, transmissions, and final drives found on Japanese and U.S. built motorcycles; full size motorcycles, mopeds, and dirt bikes are included. Supplied with a motorcycle, necessary tools, and a service manual; learners explain the theory of operation, diagnose problems, and repair the unit per manufacturer's specifications. This shop course provides time for the learner to gain hands-on experience. Work includes component service including suspensions, wheel systems, brakes and transmission. Prerequisite: First year of the Marine, Motorcycle, and Powersports Technician program or instructor approval.

B. COURSE EFFECTIVE DATES: 04/26/2021 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

  1. Analyze motorcycle frame design and function.
  2. Define motorcycle frame dimensions and affect.
  3. Analyze suspension function and purpose.
  4. Discuss vehicle handling issues.
  5. Perform Suspension service.
  6. Perform proper motorcycle tire service.
  7. Perform brake system service.
  8. Identify vehicle power flow.
  9. Disassemble and reassemble components.
 10. Analyze transmissions used in motorcycles.

D. LEARNING OUTCOMES (General)

  1. The learner will identify and repair the different parts of the motorcycle chassis using the right service manual.
  2. The learner will repair and adjust a motorcycle suspension and wheels to specifications using the right service manual.
  3. The learner will identify and repair the different styles wheels, drive, and brake systems.
  4. The learner will identify primary, secondary, clutch, and transmissions.
E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted