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

This course teaches the learner about different types of ignition, charging, and starting systems, as well as wiring found on motorcycles and mopeds. The focus is on theory and application of test equipment and product knowledge using manufacturer's service manuals. Hands-on troubleshooting of the complete electrical system on the motorcycle or moped is also stressed. Prerequisite: First year of the Marine and Small Engine Mechanic program or instructor approval.

B. COURSE EFFECTIVE DATES: 06/01/2003 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Explain electrical theories.
2. Perform AC and DC circuit tests.
3. Analyze solenoids, relays, fuses and switches.
4. Perform starting system checks.
5. Perform charging system checks.
6. Perform lighting system checks.
7. Perform ignition system checks.
8. Analyze wiring diagrams.
9. Troubleshoot motorcycle electrical.

D. LEARNING OUTCOMES (General)

1. The learner will identify components and learn the theory of components.
2. The learner will successfully complete competencies on motorcycle electronics
3. The learner will demonstrate and practice troubleshooting skills.

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus
G. SPECIAL INFORMATION
None noted