HEAVY DUTY ELECTRONICS — HCEM 1234

A. Course Description

- Credits: 3.00
- Lecture Hours/Week: 1.00
- Lab Hours/Week: 2.00
- OJT Hours/Week: 0
- Prerequisites: HCEM 1132: Heavy Duty Electrical
- Corequisites: None
- MnTC Goals: None

This course teaches students heavy duty electronics, diagnostics and repair. Hands on training by the students will enhance their knowledge of equipment electronics. Course work will include electrical schematics and symbols, advanced multi-meter training, testing, troubleshooting and repair of electronic monitoring systems. Computerized engine components are also covered. Prerequisite: HCEM 1132

B. Course Effective Dates: 8/21/03 – Present

C. Outline of Major Content Areas

As noted on course syllabus

D. Learning Outcomes

1. Analyze and explain electrical schematics.
3. Define voltage drop.
4. Demonstrate shop safety practices.
5. Demonstrate use of diagnostics equipment on computerized engines.
7. Explain electrical monitoring systems.
8. Identify electrical components.
9. Identify electrical symbols.
10. Troubleshoot electronic systems.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
F. Learner Outcomes Assessment
   As noted on course syllabus

G. Special Information
   None noted