

Dakota County Technical College

AUTM 2115: Automotive Body Electrical Systems

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 1

Lab Hours/Week: 2

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course covers automotive batteries, starting and charging system theories, diagnosis and repair procedures using various types of tools and test equipment and reference materials available in Alldata, Mitchell and student textbook. Prerequisites: AUTM2100

B. COURSE EFFECTIVE DATES: 06/01/2010 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. Diagnose incorrect horn operation; perform necessary action
2. Diagnose incorrect wiper operation; diagnose wiper speed control and park problems; perform necessary action
3. Diagnose the cause of brighter than normal, intermittent, dim, or no light operation; determine necessary action
4. Diagnose the cause of incorrect operation of warning devices and other driver information systems; determine necessary action
5. Identify system voltage and safety precautions associated with high intensity discharge headlights
6. Inspect and diagnose incorrect turn signal or hazard light operation; perform necessary action
7. Inspect and test connectors, wires, and printed circuit boards of gauge circuits; determine necessary action
8. Inspect and test gauges and gauge sending units for cause of intermittent, high, low, or no gauge readings; determine necessary action
9. Inspect and test sensors, connectors, and wires of electronic (digital) instrument circuits; determine necessary action
10. Inspect, replace, and aim headlights and bulbs
11. Check for module communication (LAN/CAN/BUS) errors using a scan tool
12. Diagnose body electronic system circuits using a scan tool; determine necessary action
13. Diagnose incorrect heated glass, mirror, or seat operation; determine necessary action
14. Diagnose incorrect operation of cruise control systems; repair as needed
15. Diagnose incorrect operation of motor-driven accessory circuits; determine necessary action
16. Diagnose incorrect windshield washer operation; perform necessary action
17. Diagnose radio static and weak, intermittent, or no radio reception; determine necessary action
18. Diagnose supplemental restraint system (SRS) concerns; determine necessary action
19. Diagnose the cause of false, intermittent, or no operation of anti-theft system
20. Disarm and enable the air bag system for vehicle service
21. Remove and reinstall door panel

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted