

Minnesota State College Southeast

AUTO 1108: Introduction to Light Duty Diesel and Hybrid Service

A. COURSE DESCRIPTION

Credits: 2

Lecture Hours/Week: 2

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course teaches basic fundamentals of diesel engine construction and maintenance of engine and the power plants used in hybrid vehicles. Major emphasis on engine construction, fuel systems, hybrid safety, service and maintenance. Materials and information will be presented in a manner related directly to the occupation. (Prerequisite: AUTO 1105, AUTO 1106, or instructor approval) (2 credits: 2 lecture/0 lab)

B. COURSE EFFECTIVE DATES: 05/09/2018 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Diesel engine construction
2. Fuel systems of diesel engines
3. Maintenance of diesel vehicles
4. Hybrid safety
5. Hybrid power plants
6. Hybrid maintenance
7. How to properly look up parts, service information and interpret specifications

D. LEARNING OUTCOMES (General)

1. Explain safety procedures
2. Explain engine construction and maintenance
3. Explain fuel systems and maintenance
4. Explain turbo systems
5. Explain exhaust filtration systems
6. Explain hybrid safety
7. Identify hybrid system components
8. Explain the operation of hybrid Systems
9. Compare hybrid systems from current manufacturers
10. Perform high voltage disconnect procedures

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted