

Minnesota State College Southeast

DESL 1280: Diesel Diagnostics

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: 2

Lab Hours/Week: 4

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course is designed to give the student an understanding of systems operation, service, diagnose, troubleshooting, repair, and programming of electronic computer controlled diesel engines. (Prerequisites: None) (4 credits: 2 lecture/2 lab)

B. COURSE EFFECTIVE DATES: 11/26/2013 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Inputs to Electronic Computer Controlled Engines
2. Outputs of Electronic Computer Controlled Engines
3. Diagnostic

D. LEARNING OUTCOMES (General)

1. Identify fuel system types
2. Analyze EPA regulations
3. Perform engine tune-ups
4. Evaluate engine computer operation
5. Program engine computer parameters
6. Troubleshoot mechanical engine failures
7. Troubleshoot electronic engine failures
8. Interpret wiring diagrams for engines
9. Identify, describe, and test input devices
10. Apply varied software used in scan tools and laptops
11. Retrieve data and perform basic programming of the ECM
12. Identify, describe, and test output devices
13. Locate, retrieve and apply service, technical, and troubleshooting information

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted