

# Minnesota State College Southeast

## DESL 1271: Diesel Engine Service

### 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 is designed to give students an understanding of diesel engine system operation. Theory, operation, troubleshooting, and repair of diesel engine intake, exhaust, cooling, lubrication, and fuel systems will be examined. In-addition to tune up procedures will be performed on a variety of truck diesel engines. (3 credits: 1 lecture/2 lab)

**B. COURSE EFFECTIVE DATES:** 03/10/2015 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Lubrication System
2. Exhaust System
3. Cooling System
4. Fuel System
5. Air Intake System
6. Tune-up

### D. LEARNING OUTCOMES (General)

1. Identify diesel engine theory of operation and engine components
2. Identify diesel engine air intake, exhaust, lubrication, cooling, and fuel system components and operation
3. Diagnose diesel engine complaints related to these systems, including fuel system timing, fuel governor adjustments and performance issues
4. Interpret diesel engine operating characteristics
5. Perform diesel engine tune up procedure

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

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted