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