Minnesota State College Southeast

AUTO 1201: Gas and Diesel Engine Repair Theory

A. COURSE DESCRIPTION

   Credits: 1
   Lecture Hours/Week: 1
   Lab Hours/Week: *.*
   OJT Hours/Week: *.*
   Prerequisites: None
   Corequisites: None
   MnTC Goals: None

   This course covers basic engine theory, parts identification of block and cylinder heads, inspection, and measurement of critical wear points. The complete disassembly, rebuilding, and assembly are discussed along with engine removal and installation techniques. (Prerequisites: AUTO1105, AUTO1106, or instructor approval) (1 Credit: 1 lecture/0 lab)

B. COURSE EFFECTIVE DATES: 04/27/1998 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

   1. Safety Procedures
   2. Basic Engine Theory
   3. Block and Cylinder Heads Parts Identification, Inspection, and Measurement of Critical Wear Points
   4. Disassembly, Rebuilding, and Assembly
   5. Engine Removal and Installation Techniques
D. LEARNING OUTCOMES (General)
   1. Identify safety procedures
   2. Explain engine theory
   3. Identify engine components
   4. Analyze various engine cylinder arrangements
   5. Explain engine rebuild procedures
   6. Explain engine parts labeling and marking
   7. Analyze engine removal procedures
   8. Explain engine cleaning procedures
   9. Analyze engine disassembly
  10. Explain lubrication system
  11. Compete mid-semester exam
  12. Explain engine measurements
  13. Identify engine machining
  14. Identify component inspection
  15. Identify engine reassembly procedures
  16. Analyze engine installation procedures
  17. Explain final inspection
  18. Identify break-in procedures
  19. Complete final

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted