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