Minnesota State College Southeast

AUTO 1204: Suspension & Steering Theory

A. COURSE DESCRIPTION

   Credits: 2
   Lecture Hours/Week: 2
   Lab Hours/Week: *.*
   OJT Hours/Week: *.*
   Prerequisites: None
   Corequisites: None
   MnTC Goals: None

   This course instructs the student in steering component diagnosis and component replacement/adjustment. Emphasis is placed on all components of automotive steering and suspension. (Prerequisites: AUTO1105, AUTO1106, or instructor approval) (2 Credits: 2 lecture/0 lab)

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

C. OUTLINE OF MAJOR CONTENT AREAS

   1. Safety Procedures
   2. Steering Component and Suspension
   3. Diagnosis, Replacement, and Adjustment
D. LEARNING OUTCOMES (General)
   1. Explain safety procedures
   2. Define steering terms
   3. Define Pascals Law
   4. Describe manual rack and pinion function
   5. Describe hydraulic steering systems
   6. Describe coil spring installation procedure
   7. Describe leaf spring installation procedures
   8. Explain static wheel balance
   9. Explain dynamic wheel balance
  10. Describe tire and wheel balance
  11. Describe off car wheel balance
  12. Describe defective tire symptoms
  13. Complete mid-course exam
  14. Identify steering gear types and components
  15. Analyze power steering pump
  16. Describe power steering recirculation ball operation
  17. Analyze power rack and pinion steering gear
  18. Explain linkage type power steering unit
  19. Analyze steering column
  20. Analyze steering column components
  21. Describe steering column problems
  22. Analyze conventional tie-rod ends
  23. Explain steering angles
  24. Analyze steering angles
  25. Analyze different types of wheel alignment
  26. Exhibit professionalism
  27. Complete final exam

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

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted