AUTO 2145: Suspension and Steering System Service

A. COURSE DESCRIPTION

Credits: 4
Lecture Hours/Week: 1
Lab Hours/Week: 6
OJT Hours/Week: *.*
Prerequisites: None
Corequisites: AUTO 1010 and AUTO 1010
MnTC Goals: None

This course covers the operational theory and repair of automotive suspension and steering systems. Two-wheel and four-wheel alignment process and adjustments will be addressed. Service procedures for manual, power, and electric steering systems will be covered. Lab experiences will provide an opportunity to service a variety of vehicles. (Prerequisites: None) (Co-requisites: AUTO 1000, AUTO 1010, and AUTO 1167)(1 credits lecture/3 credits lab)

B. COURSE EFFECTIVE DATES: 06/24/1999 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Types of suspension systems and service
2. Types of steering systems and service
3. Wheel and tire service
4. Wheel alignment principles
5. Wheel alignment adjustment procedures and service

D. LEARNING OUTCOMES (General)

1. Describe the purpose and operation of the vehicle suspension system.
2. Inspect and identify worn suspension system components, explain their impact on vehicle operation and safety.
3. Replace suspension system components safely.
4. Explain the purpose and operation of the steering system.
5. Inspect and identify worn steering system components, explain their impact on vehicle operation and safety.
6. Replace steering system components safely and correctly.
7. Safely dismount, mount, balance, and repair wheels and tires.
8. Diagnose wheel and tire caused vibration issues.
10. Identify and demonstrate correct wheel alignment adjustment procedures.
11. Create an accurate customer quote or estimate for the cost of vehicle suspension, steering, and wheel alignment service or repair.

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

None
F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted