Outline of Instruction

Division: Industrial Technology  Area: Automotive Engineering Technology
Course Number: AUTO 107  Course Name: Automotive Chassis Units
Prerequisite: None
Corequisite: None
Hours Required: Class: 30  Lab: 60  Credits: 4

Course Description/Purpose

This course covers the design theory, construction, operation and maintenance of basic chassis components. Differentials, propeller shafts, springs, suspension, alignment and brake systems are studied. Use of road simulators with accelerometers and load cells are used to study vehicle dynamics.

Major Units

• Suspension Systems
• Vehicle Dynamics
• Road Simulation
• Brakes

Educational/Course Outcomes

Student learning will be assessed by a variety of methods, including, but not limited to, quizzes and tests, journals, essays, papers, projects, laboratory/clinical exercises and examinations, presentations, simulations, portfolios, homework assignments, and instructor observations.

Cognitive Each student will be expected to Identify/Recognize . . .
• describe the operation of automotive suspension systems

Performance Each student will be expected to Demonstrate/Practice . . .
• calculate center of gravity
• calculate weight transfer
• determine spring rates and wheel rates
• determine camber compensation
• service automotive brakes

Attitudinal Each student will be expected to Believe, Feel, Think . . .
• practice shop safety
• understand the importance of technical writing

AUTO 107-8/03:DK:cs
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