



<b>Division:</b>	Industrial Technology	<b>Area:</b>	Automotive Engineering Technology
<b>Course Number:</b>	AUTO 107	<b>Course Name:</b>	Automotive Chassis Units
<b>Prerequisite:</b>	None		
<b>Corequisite:</b>	None		
<b>Hours Required:</b>	<b>Class:</b> 30	<b>Lab:</b> 60	<b>Credits:</b> 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  
Updated to 2006 Catalog 6/06