

**J. Sargeant Reynolds Community College**  
**Course Content Summary**

**Course Prefix and Number:** AUT 266

**Credits:** 3

**Course Title:** Automotive Alignment, Suspension, and Steering

**Course Description:** Introduces use of alignment equipment in diagnosing, adjusting, and repairing front and rear suspensions. Deals with repair and servicing of power and standard steering systems. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week.

**General Course Purpose:** This course is a requirement of the Automotive Technology AAS and Certificate programs. Competent automotive technicians must have a thorough knowledge of assemblies, sub-assemblies, and components of automotive suspension and alignment systems. They must also be able to identify possible suspension and alignment system defects along with their cause and effect upon automobile operation.

**Course Objectives:**

Upon completing the course, the student will be able to

- a. Explain the purpose and operation of automotive suspension and alignment systems;
- b. Demonstrate diagnostic methods, tools, and equipment used in suspension and alignment systems tests;
- c. Determine the extent of repairs and adjustments and parts necessary for correction;
- d. Determine the cause of abnormal vehicle handling such as pulling, wandering, hard steering, or poor return and recommend needed repairs;
- e. Measure camber, caster, SAI, toe-out on turn, and toe on the front wheels;
- f. Adjust front and rear alignment angles that are adjustable on a given vehicle; and
- g. Perform ASE tasks relating to wheel alignment diagnosis, adjustment, and repair at the instructor's request.

**Major Topics to Be Included:**

- a. Suspension and steering system diagnosis, inspection, and component service
- b. Tire and wheel service
- c. Automotive alignment
- d. Road testing and troubleshooting
- e. Electronic controlled suspension systems

**Effective Date of Course Content Summary:** September 1, 2011