

**University of Arkansas - Fort Smith
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General Syllabus

ASTE 13504 Suspension and Steering

Credit Hours: 4

Lecture Hours: 2

Laboratory Hours: 4

Prerequisite or corequisite: ASTE12304 Theory and Maintenance

Effective: 2018-2019

I. Course Information

A. Catalog Description

A study of the functioning of conventional suspension, air ride suspension, and steering systems. Students gain experience in working with alignment equipment, balancing wheels and adjusting steering systems.

B. Additional Information

Shop or laboratory work gives the students hands-on experience. Students learn maintenance troubleshooting and repair of suspension and steering. Students may work on components supplied by the instructor or on operational vehicles. A progress sheet is supplied to keep track of your progress and must be handed in at the end of the semester.

II. Student Learning Outcomes

A. Subject Matter

Upon successful completion of this course, the student will be able to:

1. Perform steering systems diagnosis and repair.
2. Perform suspension systems diagnosis and repair.
3. Perform air suspension system diagnosis and repair.
4. Perform wheel alignment diagnosis, adjustment and repair.
5. Perform wheel and tire diagnosis and repair.
6. Perform shop organization and safety functions.
7. Take customer's complaints

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Communication Skills (written and oral)

Students must deal effectively with customers' complaints and ask effective questions to elicit more information.

Global & Cultural Perspectives

Students will demonstrate how interactions with people of different cultures and global sourcing of component parts affect an automotive shop.

Analytical Skills

Critical Thinking Skills: Students must analyze data gathered from customer complaints, inspections, tests, etc. in order to diagnose suspension and steering problems.

III. Major Course Topics

- A. Steering Systems
- B. Suspension Systems
- C. Wheel Alignment
- D. Wheel and Tire
- E. Shop Organizations and Safety Functions