

**University of Arkansas - Fort Smith
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General Syllabus

ASTE 24304 Electrical Systems II

Credit Hours: 4

Lecture Hours: 2

Laboratory Hours: 4

Prerequisite: ASTE 14304 Automotive Electrical Systems I

Effective: 2018-2019

I. Course Information

A. Catalog Description

Thorough study and practical application to electrical systems. Students will learn advanced trouble shooting techniques using wiring diagrams and schematics. Students will diagnose lighting systems, gauges and warning devices, and various vehicle accessories.

B. Additional Information

Shop gives the students hands-on experience. Students learn maintenance troubleshooting and repair of electrical/electronic systems. Students may work on components supplied by the instructor or on operational vehicles. A progress sheet is used to keep track of student 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 shop organization and safety functions.
2. Take customer's complaints.
3. Use electronic service tools.
4. Perform ignition system diagnosis and repair.
5. Diagnose lighting systems.
6. Diagnose gauges and warning systems.
7. Diagnose body accessory systems.
8. Perform shop organization and safety functions.

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.

Analytical Skills

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

III. Major Course Topics

- A. Perform shop organization and safety functions
- B. Take customer's complaints
- C. Use electronic service tools
- D. Perform ignition system diagnosis and repair
- E. Diagnose lighting systems
- F. Diagnose gauges and warning systems
- G. Diagnose body accessory systems

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