

University of Arkansas - Fort Smith
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General Syllabus

ELEG 21131 Electric Circuits II Laboratory

Credit Hours: 1

Lecture Hours: 0

Laboratory Hours: 2

Corequisite: ELEG 21143 Electric Circuits II

Effective Catalog: 2018-2019

I. Course Information

A. Catalog Description

Experimental investigation of the steady-state behavior of circuits excited by sinusoidal sources. Includes test and measure equipment and techniques, single- and three phase circuits, power in single- and three-phase circuits, transformers, and resonance.

B. Additional Information - None

II. Student Learning Outcomes

A. Subject Matter

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

1. Conduct hands-on lab exercises to demonstrate understanding of the content in Electric Circuits II.
2. Solve AC circuit problems.
3. Use test and measurement equipment in appropriate ways.
4. Use computer technology to solve different types of circuits.

B. University Learning Outcomes

This course enhances student abilities in the following general education areas:

Analytical Skills

Critical Thinking Skills - The student will identify and solve problems using solutions that complement the Electric Circuits II lecture course.

III. Major Course Topics

- A. Analog and digital scopes
- B. Probes
- C. Signal-phase AC circuits
- D. Power in signal-phase AC circuits
- E. Power in three-phase AC circuits
- F. Transformers
- G. Resonance