

**University of Arkansas - Fort Smith**  
**5210 Grand Avenue**  
**P. O. Box 3649**  
**Fort Smith, AR 72913**  
**479-788-7000**

**General Syllabus**

**ELEG 29003 Digital Systems I**

Credit Hours: 3

Lecture Hours: 3

Laboratory Hours: 0

Effective Catalog: 2018-2019

**I. Course Information**

**A. Catalog Description**

An introduction to diodes and transistors, gates, binary arithmetic, combinational logic, sequential logic, registers, counters, memory, and computer organization.

**B. Additional Information - None**

**II. Student Learning Outcomes**

**A. Subject Matter**

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

1. Describe basic concepts related to computer organization, different types of mathematical logic, and logic gates.
2. Construct AND –OR- INVERT circuits, etc.
3. Describe basic concepts associated with Microprocessor design.

**B. University Learning Outcomes**

This course enhances student abilities in the following areas:

**Analytical Skills**

**Critical Thinking Skills-** The student will identify problems and design solutions using digital circuits.

**III. Major Course Topics**

- A. Logic Gates
- B. Computer Organization
- C. Design of Circuitry