

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

## **General Syllabus**

### **EET 4113 Senior Design**

Credit Hours: 3                      Lecture Hours: 2              Laboratory: 2

Prerequisites: EET 3743 Discrete Electronics, PRFS 4133 Project Management

Effective Catalog: 2020-2021

#### **I. Course Information**

##### **A. Catalog Description**

Examines principles of engineering design processes. Students will design small electronic systems to specifications. A preliminary paper design followed by a hardware or software prototype is completed. A functioning design and final presentation are required.

#### **II. Student Learning Outcomes**

##### **A. Subject Matter**

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

1. Prototype an electronic and/or software system to meet given specifications.
2. Integrate knowledge from across the core EET curriculum.
3. Take a systems approach to problem solving.
4. Work productively in a team environment.
5. Research and prepare scientific and technical documents.
6. Effectively communicate technical ideas and concepts.

##### **B. University Learning Outcomes**

This course enhances student abilities in the following areas:

###### **Analytical Skills**

**Quantitative Reasoning** -Students will identify, formulate, design, conduct experiments, analyze, and interpret measured data.

###### **Communication Skills (written and oral)**

Students will communicate technical ideas and concepts both in writing and orally.

**Ethical Decision Making**

Students will discuss an ethical framework in their system design to answer questions related to safety, standards, and sustainability.

**III. Major Course Topics**

- A. Engineering Design Process
- B. Software Design Prototyping
- C. Hardware Design and Analysis
- D. Project Management