

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

**General Syllabus**

**CS 3013 Human Computer Interaction**

Credit Hours: 3

Lecture Hours: 3

Laboratory Hours: 0

Prerequisite: CS 2003 Data Structures

Effective Catalog: 2018-2019

**I. Course Information**

**A. Catalog Description**

Examines human and computer interaction through user and task analysis, human factors, ergonomics, accessibility standards, and cognitive psychology.

**B. Additional Course Information**

A key component to the discipline of information technology is the understanding and the advocacy of the user in the development of IT applications and systems. IT graduates must develop a mind-set that recognizes the importance of users and organizational contexts. They must employ user-centered methodologies in the development, evaluation, and deployment of IT applications and systems.

**II. Student Learning Outcomes**

**A. Subject Matter**

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

1. Design and implement interfaces based upon user and device requirements.
2. Analyze and design interfaces based upon cognitive models.
3. Assess and design HCI based upon how ergonomics contributes to the design and evaluation of tasks, jobs, products, environments and systems in order to make them compatible with the needs, abilities and limitations of people.

**B. University Learning Outcomes**

This course enhances student abilities in the following areas:

### **Analytical Skills**

**Critical Thinking Skills:** Students will identify a problem related to current approaches and, break it down into its component parts and develop a solution.

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

Students will utilize communication skills when designing an interface which will foster efficiency and understanding of business systems and user interaction.

## **III. Major Course Topics**

- A. Human factors
- B. HCI aspects of application domains
- C. Human-centered evaluation
- D. Developing effective interfaces
- E. Accessibility
- F. Emerging technologies
- G. Human centered computing