CS 3053 Human Computer Interaction
Fall 2008 Syllabus

Administrative Information

- **Instructor**: Dr. Yifei Dong, Engineering Lab 154, dong@ou.edu, 405-325-6165
- **Teaching Assistant**: Lesheng Hua, hua@ou.edu
- **Classes at**: Felgar Hall 336, Tuesday/Thursday 12:00 - 1:15 pm

Course Description

This course introduces human-computer interaction and graphical user interfaces. Topics include: principles of human-computer interaction, human cognitive abilities, interface analysis and design, window systems, and social implications of computing. Current interface programming tools will be described and used. Oral presentations are required for some assignments.

Learning Objectives

- **Principles (Ch. 1-3)**
  - Identify usability goals based on the application specifics
  - Understand human's cognitive capacity and limit
  - Remember the design principles
  - Know different interaction activities and understand their applicability and advantages/disadvantages
- **Discovery (Ch. 4)**
  - Involve users throughout the design process
  - Identify primary, secondary, and tertiary users
  - Collect user requirements using questionnaire and interview
  - Describe tasks by storyboarding and use case scenarios
- **Design and Implementation (Ch. 5-7, 9-12)**
  - Apply conceptual design methods (card sort, scenarios, flowcharts)
  - Develop prototypes
  - Apply Gestalt theory to organize visual elements
  - Use MVC architecture in coding
  - Select appropriate controls for interaction tasks
- **Evaluation (Ch. 5-8)**
  - Understand the usage of different evaluation paradigms
  - Choose the appropriate paradigm based on application context
  - Develop test plan, arrange equipment and staff roles for usability testing
  - Design questionnaires to collect qualitative data
  - Evaluate interface using heuristics and design principles
- **Ethics (DJ Ch. 8)**
Analyze the impact of information technology on society

**References and Resources**

**Required Textbooks**


**Recommend Readings**


**Software Tools**

- GUI programming: Java, Swing
- Web development: HTML, CSS, Google Web Toolkit

**Workload and Grading**

**Individual Homework**

There will be assignments to be finished by each individual alone. All homework should be submitted by their posted deadline, which is normally one week after the posting date unless otherwise announced. But partial credit can be given for unfinished assignments submitted on time.

**Team Project**

There will be one term-long project to be completed by a team of 4-5 students. The teams will be formed during the first two weeks of the semester.

**Written Tests and Examinations**
•  *Online self-tests:* There are about online quizzes through learn.ou.edu for the students to self-test their understanding of course materials. Quizzes are available during limited time and scores will be recorded automatically.

•  *Final Examination:* There are one close-book final examination.

**Grading**

The final grade is made up of the above components according to the following weights.

- Individual homework: 30%
- Team projects: 40%
- Tests: 30%

All grades are final one week after grading. The grading scale is $A=[90, \infty)$, $B=[80,90)$, $C=[70,80)$, $D=[60,70)$, $F=[0,60)$. The grading weights and scales are subject to minor change when it is necessary.

**Policies**

**Class Attendance**

The students are expected to attend each class meeting, because the course demands active participation from each student and random quizzes may be held. If a student is unable to attend to attend a meeting, he/she should send a prior notice to the instructor, so that corresponding arrangement can be made to assure everybody is on the same line. In case of unforeseeable event, explanations afterward are also needed and accepted. One who is absent without any notice and explanation is responsible for his/her own loss.

**Scholastic Conduct**

All work submitted from an individual should be the work of that single individual. In written assignments, references must be cited where the idea or text is presented; otherwise it is considered as plagiarism. Direct copying of computer code from any resource other than the examples in the textbooks and lectures is also considered as academic misconduct.

Any academic misconduct will be documented and handled immediately, including being admonished or being reported to the Campus Judicial Coordinator with a request that a grade of F be given in the class to all participants.

**Official documents:**

- [University of Oklahoma Academic Misconduct Code](http://www.ou.edu/studentcode)
- [A Student's Guide to Academic Integrity](http://www.ou.edu/provost/integrity/)
- [Your right to appeal](http://www.ou.edu/provost/integrity-rights)
Incomplete

The grade of I is intended for the rare circumstance when a student has been successful in a class has an unexpected event occur shortly before the end of the class. An incomplete will not be considered unless the following has three conditions have been met:

- It is within two weeks of the end of the semester.
- The student is above the average of C or better in the class.
- The reason that the student cannot complete the class is properly documented and compelling.

Making up an incomplete grade will usually require completing a new project the following year.

Accommodation

Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact the instructor personally as soon as possible so that necessary accommodations can be discussed to ensure full participation and facilitate the student's educational opportunities.