CS 3053 Human Computer Interaction  
Fall 2007 Syllabus

Administrative Information

- **Instructor**: Dr. Yifei Dong, Engineering Lab 154, dong@ou.edu, 405-325-6165  
- **Classes at**: Carson Engineering Center 0121, Monday/Wednesday/Friday 10:30 - 11:20 am

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, social implications of computing, and some 2D graphics. Current interface programming tools will be described and used. Oral presentations are required for some assignments.

Learning Objectives

- **Principles**  
  - 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**  
  - 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**  
  - Use flowchart to represent conceptual design  
  - Apply Gestalt theory to organize visual elements  
  - Use MVC architecture in coding
- **Evaluation**  
  - 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**  
  - Analyze the impact of information technology on society

References and Resources

Required Textbooks


Recommend Readings
Software Skills

- GUI Programming: Java, QtDesigner
- Web design: HTML, XHTML, JavaScript

Workload and Grading

Estimated Workload

The estimated total workload is about 10 hours each week, including

- Class: 2.5 hours
- Reading: ~2 hours
- Writing: ~1 hours
- Designing & Programming: ~5 hours

The actual time varies according to each individual's study habit and ability. The programming part may be longer when the student is not familiar with the language. (But don't cut other necessary time to amend this; it is proven to be counterproductive.) You are advised to seek help from the instructor if your actual work time is significantly longer than the estimation.

Individual Homework

There will be 5 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. Submissions are judged by the percentage of completion (weight: 80%) and the quality (20%).

Team Project

There will be one term-long project to be completed by a team of 3-4 students. The teams will be formed during the first week of the semester. Each team must select its project topic by the end of the second weeks.

Written Tests and Examinations

- Online self-tests: There are about 4 online quizzes through Blackboard for the students to self-test their understanding of course materials. Quizzes are available during limited time and scores will be recorded automatically.
- In-class quizzes: There are 2 or 3 in-class close-book quizzes lasting for 15-20 minutes each time. The quizzes can happen at any class meeting. There is no prior notice.
- 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, which are subject to minor change when necessary:

- Individual homework: 25%
- Team project: 30%
- Online self-tests: 10%
- In-class quizzes: 10%
- Final exam: 25%

All grades are final one week after grading. The grading scale is $A=[85,\infty), B=[75,85), C=[65,75), D=[50,65), F=[0,50)$.

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)

Incompletes

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.