CS160 User Interface Design, Prototyping and Evaluation

Spring 2006 Course Information

Classes: MW 2:30-4 in 306 Soda
Discussion Sections: Tuesday 11-12, 3-4 in 320 Soda
Course Home Page: www-inst.eecs.berkeley.edu/~cs160

Instructor: John Canny, 529 Soda Hall, 642-9955 jfc@cs.berkeley.edu
Office Hours: Tues 2-3, Thurs 4-5

TA: Ryan Aipperspach, ryanaip@eecs.berkeley.edu
Office Hours: MW 1:30-2:30, 330 Soda

Course Information:
CS 160 is an introduction to Human Computer Interaction (HCI). You will learn to prototype, evaluate, and design a user interface. You will be expected to work with a group of three or four other students in this project-based course. The project topic will be proposed individually by you, and your topic will be used to assign you to a group. Your final project should be tailored to your users' needs based on interviews with them. Throughout the course of this project, you will work closely with that user group.

For the first week:
- Sections **will not** meet in the first week.
- If you are not already enrolled in the class you need to be on the waitlist and submit a petition form. Petitions should be handed in to 529 Soda by 9am Friday this week.
- A class ombudsperson will be appointed next class. They will be responsible for passing on student concerns to the staff. Please contact them with any problems.

Background
CS160 is concerned with the design, evaluation, and use of IT applications. In contrast, most of the other classes in Berkeley CS focus on particular techniques or technologies. You will make use of technology to develop your applications, and you will acquire some expertise in the development environment you choose. But the focus of the course is not on technical skills, but on a broad set of skills needed for user-centered design. These skills include ideation, needs assessment, communication, rapid prototyping and evaluation.
CS160 is an upper division course, and one of few where you will work extensively on one, independently chosen project. To participate fully in this course, you are required to have taken CS 61B.
You will be expected to actively participate in lectures, complete readings ahead of time, and, most importantly, participate fully in your group project. The teaching staff will promptly return graded homework to you, and will be available to provide feedback and help with problems.

In the future, you will often have to design interfaces for people who work and live in significantly different environments from the one you are accustomed to. In order to create a realistic difference between you and your users, you will be required to work on an application for a specific group of people. To maximize the learning value of designing for others, your target group should not be Cal students. You will hear more about the target user group next week.

Assessment

CS160 includes both group and individual assignments. Much of the grading in this class is qualitative, including assessments of the end user experience of the system and the quality of your designs, evaluations, and prototypes.

- You are expected to read the assigned readings before class. There will be plenty of opportunities in class to apply that knowledge and in-class participation will be part of your grade.
- You will be expected to turn in written documentation at each stage of your group project. You will also turn in working code twice. Each group member will help to give an oral presentation about your project.
- There will be two exams (a midterm and a final).
- Individual assignments should be handed in on paper at the start of the lecture during which they are due. Project assignments should be submitted online (more about this later).
- Group assignments may not be turned in late. Individual assignments will lose 20% per day they are late.
- Each group is responsible for making sure that all members are participating. As part of the project reports, you be required to describe the effort put in by each member, both on specific tasks and as a fraction of the group's effort. Make sure you discuss this regularly, to make sure your group is in agreement about the work breakdown.
- If a group member is not participating, the entire group must meet with the teaching staff. Effective group work (which entails some amount of conflict resolution) is a key still for success in industry. We would like you to work through conflicts if at all possible, and we will devote some class time to this topic.
- If you have a question about a grade, you should meet with one of the TAs. You can come to the professor if the issue cannot be resolved with the TA's help.
- Cheating will not be tolerated, and will get you an F in the class.

Admission

If you are not yet enrolled, make sure you are on the waitlist, and complete the petition handed out in class today. Turn it in to 529 Soda by 9am Friday.

Grading:
Grading will not be on a curve. Your grade will be a combination of:
- midterm (15%)
- final (15%)
- individual assignments (15%)
- group project (40%):
  - demos/presentation (group component)
  - project write-ups and exercises
  - ratings given by other team members & class
- in-class quizzes (10%)
- in-class participation (5%)

Textbook and other expenses
There is no required textbook for the course. There are several recommended texts posted online. There will be readings for each lecture which will be posted online.

Syllabus
A preliminary syllabus is online in the class homepage. This will change slightly as we progress through the semester.

Additional Information
We expect to include 50 about students in this class, from both CS and non CS (mostly Cognitive Science) backgrounds. Although these differing backgrounds present a challenge, we believe the benefits are worth it. Over the years, students in CS160 have completed amazing projects. Graduates who took this course have told us that it helped them to get and to succeed in their jobs. We are looking forward to working with you on your projects, and seeing what you accomplish!

Project Theme
Projects this semester should be targeted to small devices (Smart phones). These are an important emerging market, and entail most of the challenges of designing for desktop and laptop PCs, and more. Each group should receive one target device later in the semester. More details will follow as we get closer to the code development part of the course ("high-fidelity" prototyping).