Overview

People are an essential part of every computational system. The usefulness of any computation ultimately depends on the input provided by and the output interpreted by users. Surfing web pages in a browser, writing letters in a text editor, performing calculations in a spreadsheet, editing computer programs in a development environment, and implementing and testing entirely new algorithms in a command language, are but a few of the everyday activities that people perform through interaction with computational systems. This course introduces the theory and practice of human-computer interaction, with a focus on the graphical user interfaces that make up the modern human+computer experience. Topics include fundamental principles of human-computer interaction, interface design and analysis, human cognitive and perceptual capabilities and limitations, desktop/window systems, and social implications of computing. You will learn about current graphic user interface development tools and programming libraries, and complete a semester-long team project that provides realistic experience with human-computer interaction from a developer (rather than just a user) perspective.

The general/overall learning objectives for this course include: (1) ability to analyze a problem, and identify and define the computing requirements appropriate to its solution (ABET Outcome B); (2) ability to function effectively on teams to accomplish a common goal (ABET Outcome D); (3) an understanding of social issues and responsibilities (ABET Outcome E5); (4) ability to communicate effectively with a range of audiences (ABET Outcome F); (5) ability to analyze the local impact of computing on individuals, organizations, and society (ABET Outcome G1); (6) ability to analyze the global impact of computing on individuals, organizations, and society (ABET Outcome G2); (7) ability to apply design and development principles in the construction of software systems of varying complexity (ABET Outcome K).

General Information

Place: Devon Energy Hall, Room 270
Days: Tuesday+Thursday
Time: 12:00pm-01:15pm

Instructor: Chris Weaver
Office: DEH 241
Email: weaver {at} cs {dot} ou {dot} edu
Phone: 405.325.3380 (email preferred)
Office Hours: Tuesday 11:00am-12:00pm, Friday 1:15pm-2:15pm, and by appointment (email to schedule)

Prerequisites: CS 2413 and CS 2813 or Mathematics 2513. Prior programming experience, including in Java, is assumed.

Materials

Class Web Pages:

- http://learn.ou.edu/ (Desire2Learn)
Required Textbooks:

Recommended Readings:

Project Software:
- Java
- HTML and CSS
- JavaScript, jQuery, JSON, PHP, Google Web Toolkit, etc. (optionally for team projects)
- resources for Android development (optionally for team projects)
- resources for iPhone and iPad development, including Objective-C (optionally for team projects)

Evaluation

In this course you will be learning and applying human-computer interaction theory and practice. The interrelatedness of HCI topics makes it essential that you attend class consistently and engage in discussion diligently. What you get out of this course will depend on what you put into it. The contributions to your grade are as follows:

- Team project: 35%, consisting of the following components ([1.00] Total)
  - [0.05] Mini-proposal (0.5 pages, single-spaced)
  - [0.10] Outline (2-3 pages, single-spaced, as an outline)
  - [0.15] Plan (3+ pages, single-spaced, as text)
  - [0.10] Progress report (3+ pages, single-spaced)
  - [0.15] Presentation (approximately 10 minutes + 5 minutes Q&A, depending on number of teams)
  - [0.10] Poster (with presentation at the spring CS poster session on Friday, May 2, 2014 in the DEH atrium)
  - [0.25] Final report (8-10 pages, double-spaced, not including appropriate appendices and attachments)
  - [0.10] Individual participation (based on input from your teammates on a peer evaluation questionnaire)
- Individual homework: 20% (divided evenly amongst $N$ assignments, $N$ to be determined)
- Midterm exam: 15% (during a regular class meeting on a date to be determined)
- Final exam: 20% (see below for details)
- Class participation: 10% (based on quality and quantity of participation in discussion and in-class exercises)

Grade Questions: To maintain fairness in grading, I prefer that any disagreement be brought to me within a week of the item being returned.

Grade Summary: I will store all of your grades in the Desire2Learn online grade book. It is your responsibility to verify that the grades on Desire2Learn are correct. If an error is found, bring the graded item to me and I will correct the online entry.

Borderline Grades: Borderline final grades will be decided by your class participation. This means that being an active participant in class can push you over a grade boundary.

Final Examination: The final examination is Friday, May 9, 2014 from 01:30pm-03:30pm. No final examinations can be given early, except as required by University policy.

Due Dates: Homeworks and projects are due at the exact beginning of class (12:00pm sharp) regardless of whether you hand them in electronically in Desire2Learn or physically on paper. The grade of any late assignment will be
lowered by 10% per day late. No assignment will be accepted more than 72 hours after the original due date and time.

**Project:** Your final project will be due the last week of classes. Per university policy, you may turn in a project prior to pre-finals week if you have completed it.

**Course Policies**

The following set of rules will help keep us all on the same page all semester and help to ensure fair treatment for all students.

**Academic Misconduct:** All work submitted for an individual grade, such as homework and projects should be the work of that single individual, not their friends or their tutor. Students who fail to do their own work not only violate the Code of Conduct for the University of Oklahoma, but also may fail to learn critical learning objectives for the class.

1. Do not show another student a copy of your homework or projects before the submission deadline.
2. Do not email your project to another student, even if they promise they will not copy it.
3. The penalties for knowingly permitting your work to be copied are the same as the penalties for copying someone else’s work.
4. Make sure that your computer account is properly protected. Use a good password, and do not give your friends access to your account or your computer system.
5. Do not leave thumb drives around a laboratory where others might access them.

Upon the first documented occurrence of collaborative work, I will report the academic misconduct to the Campus Judicial Coordinator. The procedure to be followed is documented in the University of Oklahoma Academic Misconduct Code. In the unlikely event that I elect to admonish the student, the appeals process is described here: [http://integrity.ou.edu/summary_of_the_process.html](http://integrity.ou.edu/summary_of_the_process.html).

**Project code:** Your project code and writeups must be written exclusively by you or your group. Use of any downloaded code or code taken from a book (whether documented or undocumented) is considered academic misconduct and will be treated as such. Exceptions from this policy (such as a course project that builds on an existing open-source project) may be granted but you MUST obtain approval from me first.

**Classroom Conduct:** Disruptions of class will not be permitted. I STRONGLY prefer that no electronic devices be used during class except to take notes or as a direct part of class exercises. Examples of disruptive behavior include:

- Allowing a cell phone or pager to repeatedly beep audibly.
- Browsing the web, listening to music, or playing computer games during class, regardless of whether they are visible or audible to other class members. (Such activities disrupt YOUR ability to pay attention and participate.)
- Exhibiting erratic or irrational behavior.
- Behavior that distracts the class from the subject matter or discussion.
- Making physical or verbal threats to a faculty member, teaching assistant, or class member.
- Refusal to comply with faculty direction.

In the case of disruptive behavior, I may ask that you leave the classroom and may charge you with a violation of the Student Code of Responsibilities and Conduct.

**Class Web Page:** Login to the Desire2Learn website using your 4+4 (first four letters of your last name followed by the last four digits of your student number), using your standard OU password. If you have difficulty logging in, call 325-HELP. This software provides a number of useful features, including a list of assignments and announcements, an electronic mailing list, newsgroups, and grade book. All handouts are available from Desire2Learn. You should check the site daily. When I update the site, I will post an announcement telling you what has been added and where it is located. You are responsible for things posted on the site after a 24 hour delay or the end of the first following class meeting, whichever occurs first.
Class Email Alias: Urgent announcements will be sent through email. It is your responsibility to:

- Have your university supplied email account properly forwarded to the location where you read email.
- Make sure that your email address in Desire2Learn is correct, and forwards email to the place where you read it. I’ll send out a test message during the first week of class. If you do not receive this message, it is your responsibility to get the problem resolved immediately.
- Have your email program set up properly so that replying to your email will work correctly the first time. You can send email to yourself and reply to yourself to test this.

If you need assistance in accomplishing any of these tasks, contact 325-HELP.

Newsgroups and Email: The newsgroup on Desire2Learn should be the primary method of communication, outside of class. This allows everyone in the class to benefit from the answer to your question. If you email me a question of general interest, I may post your question and my answer to the newsgroup. Matters of personal interest should be directed to email instead of to the newsgroup, e.g. informing me of an extended personal illness. Posting guidelines for the newsgroup are available on Desire2Learn.

Religious Holidays: It is the policy of the University to excuse the absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required classwork that may fall on religious holidays.

Incompletes: The grade of I is intended for the rare circumstance when a student who has been successful in a course has an unexpected event occur shortly before the end of the course. I will not consider giving a student a grade of I unless all three of the following conditions have been met: (1) it is within two weeks of the end of the semester; (2) the student has a grade of C or better in the class; (3) the reason that the student cannot complete the class is properly documented and compelling.

Accommodation of Disabilities: The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with the professor as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone 405.325.3852 or TDD only 405.325.4173.

Evaluating the Course: The College of Engineering utilizes student ratings as one of the bases for evaluating the teaching effectiveness of each of its faculty members. The results of these forms are important data used in the process of awarding tenure, making promotions, and giving salary increases. In addition, the faculty uses these forms to improve their own teaching effectiveness. The original request for the use of these forms came from students, and it is students who eventually benefit most from their use. Please take this task seriously and respond as honestly and precisely as possible, both to the machine-scored items and to the open-ended questions.

I reserve the right to add, remove, or change any element or policy of this course, including evaluation percentages, at any time and for any reason, within the limits of University policy.