INFO 6410 / CS 5682: HCI and Design

Professor: Prof. Nicki Dell and Prof. Thijs Roumen

Credits: 3 hours

Course website: TBD

Catalog Description: Human-Computer Interaction (HCI) and design theory and techniques. Methods for designing, prototyping, and evaluating user interfaces. Basics of visual design, graphic design, and interaction design. Understanding human capabilities, interface technology, interface design methods, prototyping tools, and interface evaluation tools and techniques.

Course Frequency: Offered every fall

Prerequisites: Students are expected to have previously taken a course in programming, design, or psychology, or should have equivalent professional experience in one of these areas.

Corequisites: None.

Preparation Summary: See prerequisites.

Textbook(s) and/or Other Required Materials: Course readings available via the course website.

Class and Laboratory Schedule: Lectures: 2 lectures/wk. Labs: None

Assignments, Exams, and Projects: Homework: 4-5 assignments.

Hands-on activities: Students will complete (and turn in) “in-class” activities during class to practice concepts discussed in that day’s lecture.

Reading questions: Prior to every class, students will complete a quick quiz on the assigned reading and video lecture.

Grading: Homework: 50%; Hands-on activities: 25%; Quizzes: 25%

We will drop your 3 lowest scoring hands-on activities and your 3 lowest scoring quizzes.

Topics Covered:

- Understanding users
- Survey design
- Qualitative Interviews
- Contextual Inquiry
- Analyzing qualitative data
- Storyboarding
- Prototyping
- Using video in HCI
- Voice interaction
- Designing for people with disabilities
- Designing for marginalized communities
- Web accessibility
- Color and typography
- Hierarchy and UI components
- Bias and Ethics in HCI
- Usability
- Heuristic Evaluation
- AB Testing
- etc.

Student Outcomes:

- Critically discuss common methods in the user-centered design process.
- Use and adapt basic design standards, guidelines, and patterns.
- Employ key design and evaluation methods in future projects.
- Build prototypes at varying levels of fidelity, from paper prototypes to functional, interactive prototypes.

Academic Integrity:

Each student in this course is expected to abide by the Cornell University Code of Academic Integrity. Any work submitted by a student in this course for academic credit will be the student's own work. The policy can be found on the university's website here: https://theuniversityfaculty.cornell.edu/academic-integrity/.

You are encouraged to study together and to discuss information and concepts covered in lecture and the sections with other students. You can give "consulting" help to or receive "consulting" help from such students. However, this permissible cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in the form of an email, an email attachment file, or a hard copy.

Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment. Penalty for violation of this Code can also be extended to include failure of the course and University disciplinary action.

During examinations, you must do your own work. Talking or discussion is not permitted during the examinations, nor may you compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations will result in failure of the exam, and may lead to failure of the course and University disciplinary action.

Students with Disabilities

Your access in this course is important. Please give me [the TA, the Course Coordinator] your Student Disability Services (SDS) accommodation letter early in the semester so that we have adequate time to arrange your approved academic accommodations. If you need an immediate accommodation for equal access, please speak with me after class or send an email message to me and/or SDS at sds_cu@cornell.edu. If the need arises for additional accommodations during the semester, please contact SDS. You may also feel free to speak with Student Services at Cornell Tech who will connect you with the university SDS office.