CEN 4721C / CAP 5100: Human-Computer Interaction

Course Logistics

- Section: 1H09/06FF
- Meeting times: MWF 7th period (1:55pm – 2:45pm)
- Location: NEB 201

Instructor Information

Instructor: Andrea Kleinsmith, PhD
Office: CSE Room E546
Email: alk@cise.ufl.edu (Put HCI in the subject)
Office hours: Wednesday 8th & 9th periods

Teaching Assistant: Andrew Robb
Email: arobb@cise.ufl.edu
TA office hours (Room 520D): Monday and Thursday 8th period

Teaching Assistant: Andrew Cordar
Email: acordar@cise.ufl.edu
TA office hours (Room 520D): Tuesday 4th & 5th periods

Course Information

Catalog Descriptions:

- CEN 4721C – Human-Computer Interaction – Credits: 3
- CAP 5100 – Human-Computer Interaction – Credits: 3

Course Website:
http://ufhci2014.wordpress.com/

Course Description:
A study of the major topics in human-computer interaction, including interface design (principles, theories), software tools, virtual environments, interactive devices, collaboration, and visualization.

What is this course, and who is it for?
This course is directed towards senior undergraduate students and graduate students who wish to learn the **basic concepts** and **current research** into the design, creation, and evaluation of computer interfaces. The course involves three core components:

- Lectures – core HCI topics will be presented and discussed
- Research paper reading – recent HCI research conference and journal publications will be read and discussed in class.
- Creation and Evaluation of an interface – students will 1) create an interface and 2) evaluate the interface
- Midterm paper – students will research HCI papers and provide a novel solution to an issue

Course Objectives:
Upon completion of this course, students will be able to understand and be able to evaluate the criteria used in developing interfaces.

Prerequisites:
COP 3530 Data Structures. You should have a strong programming background.

Course Materials

Material and supply fees: None

Texts:

- *Recommended:* **Interaction Design: Beyond Human-Computer Interaction**, 3rd Edition, Rogers, Sharp, Preece, ISBN: 9780470665763
- *Optional:* **Designing the User Interface**, 5th Edition, Ben Shneiderman and Catherine Plaisant, ISBN: 0321537351.
- *Optional*: **Design of Everyday Things**, Donald Norman, ISBN: 9780465050659

Students will do in-class work on their projects during a few scheduled class days and are therefore **required to bring a laptop to class**[1] on those days.

Course Outline

Tentative List of Topics:

1. *Introduction to Human-Computer Interaction*
2. *Conducting User Studies*
3. *Evaluating User Interfaces*
4. *Design guidelines, principles and theory*
5. *Affective Interaction*
6. *The Media Equation (summary of book)*
7. *Design of Everyday Things (summary of book)*
8. *Direct Manipulation and Virtual Environments*
9. *Interaction Devices*
10. *Command and Natural Languages*

Grading

Grading:

- 10% Project #1 (user study) - individual
- Project #2 - teams
    - 10% Project 2A (propose project)
    - 20% Project 2B (create new interface)
    - 10% Project 2C (study design)
    - 10% Project 2D (pilot test)
    - 20% Project 2E (evaluate new interface)
- 10% Midterm paper
- 10% quizzes/assignments
- No midterm or final exams

Grading Scale:

(Rounded to the nearest point)

- 100-92 A, 91-90 A-
- 89-88 B+, 87-82 B, 81-80 B-
- 79-78 C+, 78-72 C, 71-70 C-
- 69-68 D+, 68-62 D, 61-60 D-
- 59-0 E

[1] Consistent with UF College of Engineering computer requirements: "The University of Florida requires students to have access to a computer. The College of Engineering further requires that students have access to and on-going use of a laptop/mobile computer." For more information, see http://www.eng.ufl.edu/students/career-resources/computer-requirements/

A C- will not be a qualifying grade for critical tracking courses. In order to graduate, students must have an overall GPA and an upper-division GPA of 2.0 or better (C or better). Note: a C- average is equivalent to a GPA of 1.67, and therefore, it does not satisfy this graduation requirement. For more information on grades and grading policies, please visit: http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html

Undergraduate students, in order to graduate, must have an overall GPA and an upper-division GPA of 2.0 or better (C or better). Note: a C- average is equivalent to a GPA of 1.67, and therefore, it does not satisfy this graduation requirement. Graduate students, in order to graduate, must have an overall GPA of 3.0 or better (B or better). Note: a B- average is equivalent to a GPA of 2.67, and therefore, it does not satisfy this graduation requirement. For more information on grades and grading policies, please visit: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

This course will use the Sakai e-Learning course management system to post grades and to communicate with the class members.

Expectations for the graduate and undergraduate Human-Computer Interaction courses:
The graduate and undergraduate course offerings of Human-Computer Interaction differ in the six class projects and the midterm paper. The graduate student projects require more study participants, more extensive data analysis, longer project reports, and more programming. The graduate student midterm paper will require more papers and an additional report section.

Workload: The course requires an average to above average time commitment.

- **January**: students will conduct a study that compares a basic interface for a web-based task.
- **February - March**: students will identify a task that would be enhanced through an improved interface. Students will identify a client for this interface. Students will create a new interface (involving a combination of coding, creation, etc.). Students will research and write a midterm paper.
- **March - April:** students will evaluate the new interface

Honor Code & Collaboration:
High level questions, syntax topics, and algorithms can be discussed. Not allowed in this course include the following:

1. **Plagiarism** (misrepresenting others' ideas as your own, can be fixed with simple citation)
2. **Copying code**
3. **Social loafing** (e.g., for group work)
4. **Work offensive to others**

As in prior semesters, offenders will be held to the UF Honesty Policy (see below) including reporting incidents to the Dean of Students. The results of this have included failing grades, ethic lectures, and a permanent mark in records (which can lead to expulsion).

Undergraduate ABET:
Contribution of course to meeting the professional component (ABET only – undergraduate courses):
This course contributes to meeting the 48 hour or 37.5% of total credit hours minimum required by ABET in the Engineering Topics Curricular Area of the professional component.

Relationship of course to program outcomes: Skills students will develop in this course (ABET only undergraduate courses): This course is related to (but does not assess) the following ABET outcomes:
(b) an ability to design and conduct experiments, as well as to analyze and interpret data
(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
(g) an ability to communicate effectively

Course Policies

Assignments:
A late penalty of -10% for each day late will be assessed. After **3** days, students will receive a 0. The only exception to this rule is if students contact the instructor ***in writing before the assignment due date***. Requirements for class attendance and make-up exams, assignments, and other work are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.

Attendance:
Attendance will not be graded. Engagement in class discussions is graded, however, so if you must miss class, I recommend increasing participation on the other days. If you are sick or will be absent for a significant period, please contact me, and we will work out a way for you to catch up.

Makeup:
Students who contact the professor before the due date with appropriate requests for extension and/or makeup assignments will be given an additional amount of time to makeup late assignments equal to the time lost due to the unforeseen circumstance.

Incompletes: Incompletes will be granted for only the most extreme circumstances, e.g. medical or family reasons. To be considered for an incomplete, the student **must** 1) let the professor know at in advance that they are seeking an incomplete, and 2) provide documentation to support the request.

Classroom Expectations:
To be courteous to your fellow classmates, please:

- Turn off all cell phone ringers and audible notifications
- Do not use your phones
- Do not read the newspaper
- Use laptops only during project work days, only for project work (no Facebook, YouTube, Twitter, etc)

Guest Lectures:
In this course, guest lecturers are invited to present material related to their research and how it relates to the course material. These are experts in their fields and are taking time out of their busy schedules to share their knowledge with you. Please respect their time and attend the guest lectures as you would any other meeting of the course.

University Policies and Resources

Honesty Policy:
As a student at the University of Florida, you are bound by the Honor Pledge, which states: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code." On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Note that failure to comply with this commitment will result in disciplinary action compliant with the UF Student Honor Code Procedures. See http://www.dso.ufl.edu/sccr/procedures/honorcode.php

Accommodation for Students with Disabilities:
Students requesting classroom accommodation must first register with the Dean of Students Office. That office will provide the student with documentation that he/she must provide to the course instructor when requesting accommodation.

UF Counseling Services:
Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, http://www.counseling.ufl.edu/cwc/Default.aspx, counseling services and mental health services.
- Career Resource Center, Reitz Union, 392-1601, career and job search services.
- University Police Department 392-1111

Software Use:
All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Course Evaluations:
Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results.