Course Details

Course: HCI 522 - Methods in Human Computer Interaction
Meeting Time: T R 11:00AM – 12:20 PM
Meeting Location: 1242 Howe Hall
Course URL: Blackboard

Instructor

Zayira Jordan
Office: 1137 Pearson Hall
Office Hours: R 12:30 – 1:30 PM in office, Wednesdays 10:30-11:30 via Zoom (meeting link will be sent) or by appointment via zjordan@iastate.edu.

Textbook / Software / Resources

Lazar, Jonathan, Jinjuan Heidi Feng and Harry Hochheiser
Research Methods in Human-Computer Interaction
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Course Description

Much of HCI research is built on the premise that the researcher/practitioner should improve the experience of humans working with a technological system, perhaps by increasing performance, increasing satisfaction, or decreasing time required for completion of a task. The challenge this raises is how to define this improvement and measure whether one has actually taken place. The researcher/practitioner needs to be able to measure changes in system (human-machine) performance in a systematic way while also being able to convey the results to others both in and outside the field. Furthermore, the researcher/practitioner must be able to use this knowledge to understand other research and be able to interpret its results. This course provides an introduction to these concepts to lay the groundwork for such knowledge and to lead to more in-depth study in other courses. This class is a survey of “how to do” HCI. In other words, a survey of HCI methodologies that prepares the student to understand the possible “tools” he may resort to when conducting HCI research or even as a practitioner. It also reviews ethical considerations in HCI research.

Learning Outcomes

Upon successful completion of this course, you will be able to:
1. Critically apply knowledge on methodological issues of human computer interaction.
2. Discern the ethical implications of human computer interaction research.
3. Use statistical terminology to communicate and understand results from human computer interaction research projects.
4. Compare and decide on appropriateness of qualitative and/or quantitative methods in the study of human computer interaction topics.
5. Critically evaluate results presented in scholarly research.
6. Design simple, effective and appropriate studies in human computer interaction.
7. Analyze data utilizing relevant methods.
8. Interpret statistical output and present results in an understandable fashion.

Prerequisites

PSYCH/HCI 521 and STAT 101 or equivalent.
Basic knowledge of computer systems.
Course Policies and Methodology

- Students should review course requirements and comply with assigned material. Come to class prepared for in-class discussion and activities.
- Inform the instructor about absences and/or delayed submissions preferably before deadlines.
- Leading edge pedagogical methodology will be implemented in this course: flipped classroom team-based learning (http://www.celt.iastate.edu/teaching/TBL.html). The intention is to have students take advantage of the latest findings in up-to-date approaches to the teaching-learning experience which have purportedly shown higher satisfaction and improved performance. As such, activities will tend to follow the following order:
  - Each student will be a part of a team which will remain active throughout the semester.
  - Each student will be asked to prepare for class by covering assigned material (readings, videos, or any other instructional support material).
  - Students will report on their understanding of assigned material through individual and group assessments through the activities described below.
  - The instructor will elaborate on the material provided, clarify doubts, and answer questions during class scheduled times and/or through online meetings. These sessions will be recorded for asynchronous access.
  - Peer evaluations will aid in assessing individual contributions to team’s goals.

Assessment

Assessment of this course will be conducted through the evaluation of the following components:

Case Studies
Throughout the semester we will engage methodological considerations in human computer interaction research by applying theoretical knowledge acquired in class. We will do so through the study, analysis, critique, and modification of case studies. You will be expected to read background theoretical frameworks which together with real-life case studies will provide the opportunity to take decisions about feasible and appropriate methodologies within context and present the rationale for these. You will also evaluate and/or implement data analysis tools and strategies which will ultimately allow you to evaluate and report on results from your own research or assigned case studies. The instructor will evaluate performance and completion of case studies through assessment of: 1) team presentations, 2) discussion groups including interaction postings, and 3) quizzes.

Theoretical Underpinnings
Theoretical readings will be accompanied by video presentations which will include reading assessments (quizzes).

Final Project
The final project will consist of wikibook chapter presenting a methodology and its application through a case study. Requirements for this will be published mid-term. The project will include history and background, description and application of the proposed method(s) and protocol. It will require that team members implement data analysis tools and strategies and offer a report on findings and how these relate to a proposed research question and/or hypothesis. Through this project, you are expected to demonstrate an in-depth understanding of class content. The content should include, but will not be limited to, hypothesized relationships, all relevant information pertaining to the population/sample, variables used (IVs, DVs, covariates, etc.), measurement instruments used, design of the study, procedures used to run the study, analysis and results.

Grading Policies
- While you are free to get help from me or others on the above items, you are expected to do your own work with all final materials prepared by you personally.

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- Aside from individual work, you will be part of a team and are, therefore, accountable for assigned responsibilities within your team. Periodic peer evaluations will help assess your preparedness and degree of collaboration with your teammates.
- Appropriate citation practices must be followed (Association of Computing Machinery (ACM) style unless your field of expertise or publications require otherwise - http://www.acm.org/publications/word_style).
- Submissions must be made online by the specified time on the day it is due or will be considered late. There will be a 25% per day penalty for late homework.

Grading Issues
Issues arising regarding grading, or some other grievance, should be presented in writing to the instructor.

Grading Weights
Case Studies – Discussion Groups and Presentations  45%
Reading Assessments  30%
Final Project  25%
Total  100%

Academic Dishonesty
The class will follow Iowa State University’s policy on academic dishonesty. Anyone suspected of academic dishonesty will be reported to the Dean of Students Office. http://www.dso.iastate.edu/ja/academic/misconduct.html

Disability Accommodation
Iowa State University complies with the Americans with Disabilities Act and Sect 504 of the Rehabilitation Act. If you have a disability and anticipate needing accommodations in this course, please contact (instructor name) to set up a meeting within the first two weeks of the semester or as soon as you become aware of your need. Before meeting with (instructor name), you will need to obtain a SAAR form with recommendations for accommodations from the Disability Resources Office, located in Room 1076 on the main floor of the Student Services Building. Their telephone number is 515-294-7220 or email disabilityresources@iastate.edu. Retroactive requests for accommodations will not be honored.

Dead Week
This class follows the Iowa State University Dead Week policy as noted in section 10.6.4 of the Faculty Handbook http://www.provost.iastate.edu/resources/faculty-handbook.

Harassment and Discrimination
Iowa State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, genetic information, or status as a U.S. veteran. Any student who has concerns about such behavior should contact his/her instructor, Student Assistance at 515-294-1020 or email dso-sas@iastate.edu, or the Office of Equal Opportunity and Compliance at 515-294-7612.

Religious Accommodation
If an academic or work requirement conflicts with your religious practices and/or observances, you may request reasonable accommodations. Your request must be in writing, and your instructor or supervisor

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will review the request. You or your instructor may also seek assistance from the Dean of Students Office or the Office of Equal Opportunity and Compliance.

Contact Information
If you are experiencing, or have experienced, a problem with any of the above issues, email academicissues@iastate.edu.
*All items are open to change by the instructors.*