

**CIS\*6170 – Human Computer Interaction**  
**0.50 Credits – Graduate – Fall 2023**  
**School of Computer Science – University of Guelph**

**Lectures:**

Mondays, 11:30am-2:20pm  
Reynolds 1101

**Instructor:**

David Flatla <[dflatla@uoguelph.ca](mailto:dflatla@uoguelph.ca)>  
Office hours: by email appointment

**Course Website:** <https://courselink.uoguelph.ca/d2l/home/839077>

The course website will be used for all distributions and all submissions for this course. I will use it to post announcements, additional readings, assignment descriptions, and grades.

**Readings:** *Research Methods in Human Computer Interaction* (2<sup>nd</sup> edition) by Jonathan Lazar, Jinjuan Heidi Feng and Harry Hochheiser.

The entire book is available electronically from the UoG Library:

<https://www-sciencedirect-com.subzero.lib.uoguelph.ca/book/9780128053904>

**Course Calendar Description:** This course concentrates on the theoretical and practical issues related to the design and study of interactive technologies for human use. Topics will include general principles of design, qualitative and quantitative research methods, prototyping techniques, theoretical issues underlying designing to individuals and groups, and ethical issues related to conducting research involving humans.

**Course Overview:** This course is designed to introduce graduate students in technical programs to the principles and research methods used in Human-Computer Interaction (HCI). HCI is an interdisciplinary field concerned with the study of the interaction between humans and interactive computing systems. Research in HCI looks at major cognitive and social phenomena surrounding human use of computers with the goal of understanding their impact and creating guidelines for the design and evaluation of software and physical products and services in industry. As computers are incorporated into almost every aspect of our society, and as those computers become more and more complex, the need for human-centred computing is increasingly relevant to more and more application domains beyond the traditional office work domain, including health, automotive, manufacturing, sports, and domestic applications.

While the course is designed primarily for graduate students in computer science and engineering, advanced undergraduates in these programs and graduate students from other programs may take the course with the permission of the instructor. No prerequisites are required to take the course.

**6170 F23 Plan:** My goal for CIS\*6170 this semester is to enable self-directed workloads while maintaining a consistent baseline of weekly work. The course will be in-person – there will be no Zoom meetings or recordings. There will also be no midterm or final exam.

Lectures (after 11 September) will comprise 1-2 Facilitated Discussions on an HCI paper, some lecture time on the weekly topic, and an activity in which you design, implement, execute, and analyze the technique for that week. It is likely that your analysis will overflow past the lecture time, but I hope to keep your workload to the plan listed below. I'll try to include a lunch break during lecture.

**Anticipated Weekly Work:**

1. *Textbook Readings (1-2 chapters from the textbook) [1-2 hours]:* Each week (goal is Tuesday), I will assign readings from the course textbook for the following week.

2. *HCI Paper Reading [1-2 hours]*: Each week (goal is Tuesday), one of your peers will notify the class of their choice of paper for the following week.
3. *Discussion Primer [30 minutes]*: You will write and submit a Discussion Primer based on the paper and textbook readings.
4. *Attending Class [3 hours]*: Please commit to coming to class so you can engage in discussions and activities.

### **Anticipated Semester-Scope Work:**

1. *Facilitating one class discussion on an HCI paper*: You will be responsible for facilitating one 25-30 minute class discussion sometime during the semester.
2. *One 'Evaluation Section' report based on HCI methods covered in class*: You will be responsible for writing a report that serves as the 'Evaluation' Section of a typical HCI research paper. Your Evaluation Section will be based on HCI research techniques that you will design, implement, execute, and analyze throughout the semester.
3. *Ethics feedback of an REB application after completing CORE training*: You will be required to complete the Tri-Council CORE training sometime this semester. Once you have completed the CORE training, you will provide feedback on a draft REB application.

### **Assessment Details:**

*Discussion Primer [10 @ 2% each = 20%]*: Due at the beginning of each class (starting 18 Sept), the Discussion Primer will consist of your answers to the two questions below. Your answers must pertain to that week's HCI paper and textbook readings. General questions/comments will not count for credit but are welcome as additional considerations. The two questions are:

- 1) How does this week's paper *properly* reflect the textbook guidance for the paper's chosen HCI research technique?
- 2) How does the paper *fail to properly* reflect the textbook guidance for the paper's chosen HCI research technique?

*Facilitated Discussion [20%]*: At some point in the semester, you will need to select and assign a CHI 2023 Late-Breaking Work (see <https://programs.sigchi.org/chi/2023/program/>). The paper you choose must utilize/showcase the technique(s)/topic(s) for that week. Send the paper to me and I will make it available to the class (who will read it and create their discussion primers). You will then facilitate a 15-20 minute discussion of the paper in the relevant class. Your facilitated discussion can follow whatever direction you would like, but successful discussions in the past were more focussed than "What did you think of the paper?", and sometimes used the Discussion Primers as fodder for interesting discussion. Facilitated Discussions will begin 18 September.

To access CHI 2023 LBWs, go to <https://programs.sigchi.org/chi/2023/program/> and select 'Filters', then 'Filter by Type(s)' and select 'Late-Breaking Work'. Make sure to explore the 'A' and 'B' lists. Clicking on a paper will give you access to the Abstract and a link to its DOI page.

*Evaluation Section Report [30%]*: Each lecture will include a practical element (design, built, execute, analyze) of an HCI technique. You will be responsible for selecting one of these throughout the semester and writing up your process it as a CHI paper 'Evaluation' Section. These will be due 11:59pm on Sunday, 03 December 2023. Reading the weekly CHI papers will provide valuable training for this exercise, as will seriously engaging with each week's activity.

*CORE training [10%]*: Prior to completing the REB Critique (below), you must complete the Tri-Council CORE Training (<https://tcps2core.ca/welcome>). Please upload your CORE certificate to the course website upon completion.

**REB Feedback [20%]:** Once completing your CORE Training, you will be given a draft University of Guelph REB (Research Ethics Board) application. You will write a feedback letter (as though you are a member of the REB) providing ethics-related feedback based on your CORE Training. This will be due 11:59pm on Sunday, 03 December 2023.

**ChatGPT and LLMS and AI:** Let's have some fun. I want to see and learn all about how you can use new AI tools to learn about HCI research methods. More details and discussion in class.

**Working Course Schedule:**

[https://docs.google.com/spreadsheets/d/1ZhrjYQY0e51NoQvLx-lzP\\_3y8R\\_phBPRFXEggLKT0cM/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1ZhrjYQY0e51NoQvLx-lzP_3y8R_phBPRFXEggLKT0cM/edit?usp=sharing)

In terms of chapter order, there are two large blocks that would be nice to keep together. We'll start with broadly 'qualitative methods' (Chapters 5-9,11), then continue with broadly 'quantitative methods' (Chapters 2-4, 12-13). Remaining chapters (10,14-16) can go anywhere. We likely won't cover every chapter. Find a chapter that interests you soon!

**Late Policy:** Due to the strict weekly synchronization of this class, any assignments submitted after the deadlines outlined above will receive a grade of '0'. However, in cases of extenuating circumstances, please reach out to me via email so we can find a solution.

**When You Cannot Meet a Course Requirement:** Please contact me in cases when you are having difficulty meeting a course requirement. This is particularly important if you are unable to attend your own facilitated paper discussion. If you encounter difficulties completing your coursework, make sure to reach out to me to discuss potential solutions.

**Communication (i.e., How to get help ...):** As per university regulations, all students are required to check their *uoguelph.ca* e-mail account regularly. E-mail is the official route of communication between the University and its students. The best way to get help is to ask questions during lecture. You can also email me at the email address provided above, but my response time will be unpredictable.

**Other Notes:**

- Lectures will begin Monday, 11 September 2023.
- Thanksgiving break (no lectures or labs) is 09-10 October 2023.
- I am likely away on 23 October 2023, so class \*may\* be cancelled that day.
- Course ends Friday, 01 December 2023 (this is a make-up day for 09 October).
- There is no midterm exam & no final exam for this course.

**Drop Date:**

Courses that are one semester long must be dropped by the end of the last day of classes. The regulations and procedures for dropping courses are available in the Undergraduate Calendar: <https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

**Copies of out-of-class assignments:** Keep reliable back-up copies of any work that you do in the course; you may be asked to resubmit your work at any time.

**Accessibility:** The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required, however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to make a booking at least 7 days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). Similarly, new or changed accommodations for online quizzes, tests and exams must be approved at least a week ahead of time. More information is available at: <http://www.uoguelph.ca/sas>

**Academic Misconduct:** The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor. The Academic Misconduct Policy is detailed in the Undergraduate Calendar:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

**Recording of Materials:** Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

**Resources:** The Academic Calendars are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs: <http://www.uoguelph.ca/registrar/calendars/index.cfm?index>

**Illness:** Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g., major assignment).

**Disclaimer:** Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings, changes in classroom protocols, and academic schedules. Any such changes will be announced via CourseLink and/or class email. This includes on-campus scheduling during the semester, mid-terms, and final examination schedules. All University-wide decisions will be posted on the COVID-19 website (<https://news.uoguelph.ca/2019-novel-coronavirus-information/>) and circulated by email.

For information on current safety protocols, please follow these links:

<https://news.uoguelph.ca/return-to-campus/how-u-of-g-is-preparing-for-your-safe-return/>  
<https://news.uoguelph.ca/return-to-campus/spaces/#ClassroomSpaces>

Please note, these guidelines may be updated as required in response to evolving University, Public Health, or government directives.