CSC318H1S 20251 (All Sections): The Design of Interactive Computational Media

Jump to Today



Course Description

User-centered design results in robust solutions that successfully address real human problems. In this course, students will learn about methods and principles of user-centered design to explore a problem space and the people within that space, identify users' needs, system constraints and requirements, and ultimately design solutions that incorporate all those components. Designs will be iterated from initial concepts to really valuable solutions by gathering feedback and usability testing prototypes with users throughout the course. The course project will culminate with the development of a robust design that addresses the identified problem. Final project presentations will take place at the end of the course; this course has no final exam.

The delivery of this course will be different from standard lecture-based courses. Students will sit through a handful of lectures and complete in-class activities to get hands-on experience with the content. This subset of lectures will prepare them for an intermediate group project milestone. Students will then work within their groups during the scheduled tutorial sessions and outside of the course hours to complete a project report. Once the project milestone has been passed, the students will sit through another set of lectures, and the process will repeat.

Learning Objectives

This course is designed to provide students with the foundations necessary for understanding and applying user-centered design to address real-world problems. The learning objectives are:

- 1. to practice research methods for understanding user needs and practices.
- 2. to interpret raw data and create design artifacts (e.g., personas, scenarios).
- 3. to brainstorm, sketch and design prototypes that solve real user problems.
- 4. to evaluate prototypes (one's and others') for usability, learnability, and usefulness.
- 5. to work in multidisciplinary design teams.

Course Details

Course policies: <u>Course Policies (https://q.utoronto.ca/courses/380063/pages/course-policies?wrap=1)</u>
Grading scheme: <u>Grading Scheme (https://q.utoronto.ca/courses/380063/pages/grading-scheme?wrap=1)</u>
Studios: <u>Studio Divisions (https://q.utoronto.ca/courses/380063/pages/studio-divisions?wrap=1)</u>
Joining from Waitlist: <u>Joining from Waitlist (https://q.utoronto.ca/courses/380063/pages/joining-from-</u>

waitlist?wrap=1)

Zoom Links

Instructor office hours: https://utoronto.zoom.us/my/mariakakis)

Office Hours

Monday 6:00-7:00 PM (BA 7266 or Zoom)

Prerequisites

CSC300H1 provides useful background for work in CSC318H1, so if you plan to take CSC300H1 then you should do it before CSC318H1. No required background, but any of the following is an asset: graphic design and image manipulation; technical writing; research and literature review experience; mobile or web development; psychology or human cognition.

Course Summary:

Date	Details	Due
Tue Jan 7, 2025	L1: Design Thinking & Course Introduction (https://q.utoronto.ca/calendar? event_id=947352&include_contexts=course_380063)	4pm to 6pm
Wed Jan 8, 2025	L1: In-Class Activity (https://q.utoronto.ca/courses/380063/assignments/1433759)	due by 4pm
Thu Jan 9, 2025	L2: Observations (https://q.utoronto.ca/calendar? event_id=947354&include_contexts=course_380063)	4pm to 6pm
		due by 4pm
Fri Jan 10, 2025	L2: In-Class Activity (https://q.utoronto.ca/courses/380063/assignments/1433760)	due by 4pm
	A0: Short Bio (https://q.utoronto.ca/courses/380063/assignments/1433749)	due by 11:59pm
Tue Jan 14, 2025	L3: Interviews (https://q.utoronto.ca/calendar? event_id=947353&include_contexts=course_380063)	4pm to 6pm

https://q.utoronto.ca/courses/380063

Date	Details	Due
Wed Jan 15, 2025	L3: In-Class Activity (https://q.utoronto.ca/courses/380063/assignments/1433761)	due by 4pm
Thu Jan 16, 2025	L4: Questionnaires (https://q.utoronto.ca/calendar? event_id=947355&include_contexts=course_380063)	4pm to 6pm
Fri Jan 17, 2025	∑ L3 + L4 Quiz (https://q.utoronto.ca/courses/380063/assignments/1433740)	due by 4pm
	L4: In-Class Activity (https://q.utoronto.ca/courses/380063/assignments/1433762)	due by 4pm
	A0: Group Information (https://q.utoronto.ca/courses/380063/assignments/1433748)	due by 11:59pm
Tue Jan 21, 2025	L5: Job Stories & Experience Maps (https://q.utoronto.ca/calendar? event_id=947347&include_contexts=course_380063)	4pm to 6pm
Wed Jan 22, 2025	L5: In-Class Activity (https://q.utoronto.ca/courses/380063/assignments/1433763)	due by 4pm
Thu Jan 23, 2025	L6: Group Projects and Presenting Findings (https://q.utoronto.ca/calendar? event_id=947348&include_contexts=course_380063)	4pm to 6pm
Fri Jan 24, 2025	\(\sum_{\text{L5 + L6 Quiz}} \) \(\left(\text{https://q.utoronto.ca/courses/380063/assignments/1433739} \) \(\text{https://q.utoronto.ca/courses/380063/assignments/1433739} \) \(\text{https://q.utoronto.ca/courses/380063/assignments/480063} \) \(\text{https://q.utoronto.courses/380063/assignments/480063} \) \(\text{https://q.utoronto.courses/380063} \) \(\tex	due by 4pm
	A0: Team Charter (https://q.utoronto.ca/courses/380063/assignments/1433750)	due by 11:59pm
Mon Jan 27, 2025	A1: Project Timeline (https://q.utoronto.ca/courses/380063/assignments/1433752)	due by 4pm
Tue Jan 28, 2025	S1a: Group Presentation (https://q.utoronto.ca/courses/380063/assignments/1433768)	due by 12pm
	S1a: Presentations on Formative Studies	4pm to 6pm

Date	Details	Due
	(https://q.utoronto.ca/calendar? event_id=947358&include_contexts=course_380063)	
Wed Jan 29, 2025	S1a: Critique (https://q.utoronto.ca/courses/380063/assignments/1433767)	due by 4pm
Tue Feb 4, 2025	S1b: Open Session on Formative Studies (https://q.utoronto.ca/calendar? event_id=947359&include_contexts=course_380063)	4pm to 6pm
Mon Feb 10, 2025	A1: Anonymous Peer Review Form (https://q.utoronto.ca/courses/380063/assignments/1433745)	due by 11:59pm
	A1: Formative Studies (https://q.utoronto.ca/courses/380063/assignments/1433751)	due by 11:59pm
Tue Feb 11, 2025	L7: Brainstorming, Storyboarding, and Low-Fidelity Prototyping (https://q.utoronto.ca/calendar? event_id=947356&include_contexts=course_380063)	4pm to 6pm
Wed Feb 12, 2025	L7: In-Class Activity (https://q.utoronto.ca/courses/380063/assignments/1433764)	due by 4pm
Thu Feb 13, 2025	L8: Discount and Expert Evaluation Methods (https://q.utoronto.ca/calendar? event_id=947357&include_contexts=course_380063)	4pm to 6pm
Fri Feb 14, 2025	L7 + L8 Quiz (https://q.utoronto.ca/courses/380063/assignments/1433741)	due by 4pm
	L8: In-Class Activity (https://q.utoronto.ca/courses/380063/assignments/1433765)	due by 4pm
Mon Feb 24, 2025	A2: Project Timeline (https://q.utoronto.ca/courses/380063/assignments/1433754)	due by 4pm
Tue Feb 25, 2025	S2a: Group Presentation (https://q.utoronto.ca/courses/380063/assignments/1433770)	due by 12pm

Date	Details	Due
	S2a: Presentations on Design Concepts and Prototypes (https://q.utoronto.ca/calendar? event_id=947361&include_contexts=course_380063)	4pm to 6pm
Wed Feb 26, 2025	S2a: Critique (https://q.utoronto.ca/courses/380063/assignments/1433769)	due by 4pm
Tue Mar 4, 2025	S2b: Open Session on Design Concepts and Prototypes (https://q.utoronto.ca/calendar? event_id=947360&include_contexts=course_380063)	4pm to 6pm
Mon Mar 10, 2025	A2: Anonymous Peer Review Form (https://q.utoronto.ca/courses/380063/assignments/1433743)	due by 11:59pm
	A2: Design Concepts and Prototypes (https://q.utoronto.ca/courses/380063/assignments/1433753)	due by 11:59pm
Tue Mar 11, 2025	L9: High-Fidelity Prototyping (https://q.utoronto.ca/calendar? event_id=947351&include_contexts=course_380063)	4pm to 6pm
Wed Mar 12, 2025	L9: In-Class Activity (https://q.utoronto.ca/courses/380063/assignments/1433766)	due by 4pm
Thu Mar 13, 2025	L10: Usability Testing (https://q.utoronto.ca/calendar? event_id=947350&include_contexts=course_380063)	4pm to 6pm
Fri Mar 14, 2025	L10: In-Class Activity (https://q.utoronto.ca/courses/380063/assignments/1433758)	due by 4pm
	L9 + L10 Quiz (https://q.utoronto.ca/courses/380063/assignments/1433747)	due by 4pm
Mon Mar 17, 2025	A3 + A4: Project Timeline (https://q.utoronto.ca/courses/380063/assignments/1433755)	due by 4pm

Date	Details	Due
Tue Mar 18, 2025	S3a: Group Presentation (https://q.utoronto.ca/courses/380063/assignments/1433772)	due by 12pm
	S3a: Presentations on High- Fidelity Prototype and Summative Evaluation (https://q.utoronto.ca/calendar? event_id=947362&include_contexts=course_380063)	4pm to 6pm
Wed Mar 19, 2025	S3a: Critique (https://q.utoronto.ca/courses/380063/assignments/1433771)	due by 4pm
Tue Mar 25, 2025	S3b: Open Session on High- Fidelity Prototype and Summative Evaluation (https://q.utoronto.ca/calendar? event_id=947363&include_contexts=course_380063)	4pm to 6pm
Mon Mar 31, 2025	A3: Anonymous Peer Review Form (https://q.utoronto.ca/courses/380063/assignments/1433746)	due by 11:59pm
	A3: High-Fidelity Prototype and Usability Study (https://q.utoronto.ca/courses/380063/assignments/1433756)	due by 11:59pm
Wed Apr 2, 2025	Final Presentations (https://q.utoronto.ca/calendar? event_id=947349&include_contexts=course_380063)	4pm to 6pm
	A4: Anonymous Peer Review Form (https://q.utoronto.ca/courses/380063/assignments/1433742)	due by 4pm
	A4: Presentation and Demo of High-Fidelity Prototype (https://q.utoronto.ca/courses/380063/assignments/1433757)	due by 4pm

Course Policies

Accessibility: Students with diverse learning styles and needs are welcome in this course. If you have a disability or a health consideration that may require accommodations, please register with Accessibility Services (AS) at the beginning of the academic year. AS staff will assess your situation, develop an accommodation plan with you, and recommend adequate accommodations by issuing a Letter of Accommodation (https://studentlife.utoronto.ca/service/letter-of-accommodation/). Remember that the process of accommodation is private: AS will not share details of your needs or condition with the teaching team, and the teaching team will not reveal that you are registered with Accessibility Services. Note that it is your responsibility to forward your letter to the instructors and to request accommodations timely as indicated in the letter issued by AS.

If you have missed class time and/or encounter difficulties completing your course work due to personal circumstances other than illness, you are encouraged to contact the Office of the Faculty Registrar (http://www.artsci.utoronto.ca/current/advising/ofr) for counseling on what special consideration may apply.

Contact Policy: Questions about the lecture materials, in-class activities, and group assignments should be posted in their respective Quercus discussions. Questions about personal matters like accommodations, absences, or re-mark requests should be sent as an email to csc318-2025-01@cs.toronto.edu (mailto:csc318-2025-01@cs.toronto.edu). When emailing the instructors and/or the TAs, begin your subject line with "[CSC318]" and follow it with a meaningful phrase. All correspondence must happen with official University of Toronto email addresses. Please allow up to 72 hours for a reply. Emails that do not follow these instructions may not receive a reply.

Late Policy: All assignments should be submitted by the due date. On-time submissions are graded as normal. Late submissions will incur a penalty:

- Submissions < 24 hours late incur a 10% penalty.
- Submissions < 48 hours late incur a 30% penalty.
- Submissions more than 48 hours late earn 0%.

In the event of illness, students should declare an absence using the <u>Absence Declaration Tool in ACORN (https://help.acorn.utoronto.ca/blog/ufaqs/how-do-i-declare-an-absence/)</u> and notify the instructor to request special consideration.

Writing Quality: All assignments should be written with proper English spelling and grammar. For the group project reports specifically, documents should be written with university-level prose and structure. Documents in violation of these expectations are subject to a penalty of up to -10%. If you

are concerned about meeting these expectations should refer to the university's <u>Writing Centres</u> (http://writing.utoronto.ca/writing-centres/) and the course's policy on generative AI (see below).

Re-marking: Re-marking requests must be made within 2 weeks of receiving the marks. The request must include a written explanation as to why the students believe the work was incorrectly marked. Re-evaluation appeals are at the discretion of the instructors. Adjustments in marks will be rare and could equally result in a lowering or raising of the mark. If a re-evaluation is completed by the instructors, the student must accept the resulting mark as the new mark, whether it goes up or down or remains the same. When appealing a re-evaluation decision, the student accepts this condition.

Use of Generative AI (e.g., ChatGPT): User-centered design requires individuals to critically examine a problem beyond what can be summarized in a single text prompt. However, generative AI can help individuals expand their thinking and examine a problem from multiple perspectives. Therefore, the use of generative AI is permitted as a supplementary tool for (1) exploring new ideas or (2) copyediting of written materials. Generative AI is not permitted for creating design artifacts (e.g., questionnaires, storyboards) or for completing quizzes.

It is your responsibility to critically evaluate the content generated and to regularly assess your own learning independent of generative AI tools. Please be warned that these tools have not been vetted by the University of Toronto and might not meet University guidelines or requirements for privacy, intellectual property, security, accessibility, and records retention. Generative AI may produce content that is incorrect, misleading, or inconsistent with the expectations of this course. They may even provide citations to sources that don't exist—and submitting work with false citations is an academic offense.

Academic Offenses: All the work you submit must be done by you (individually or within your group), and your work must not be submitted by anyone else. Plagiarism is academic fraud and is taken very seriously. Read the University of Toronto Regulations and Policies (especially the Code of Behaviour on Academic

Matters): http://www.governingcouncil.utoronto.ca/Governing_Council/policies.htm). You should also review this document regarding plagiarism in the context of

CS: http://www.cs.toronto.edu/~fpitt/documents/plagiarism.html. "How Not to Plagiarize" and other advice on documentation format and methods of integrating sources are available on the Writing at UofT website (http://advice.writing.utoronto.ca/using-sources/).

Copyright: Recording (video and/or audio), photographing, or otherwise reproducing and/or sharing of course materials is prohibited. Course materials include lecture slides, course notes, assignments, data, and documents provided by the instructors. Course materials created by the instructors of this course are their intellectual properties. They may not be shared, posted, rehosted, sold, or otherwise distributed and/or modified without expressed permission from the authors. All such reproduction or

dissemination is an infringement of copyright and is prohibited. All rights are reserved by the instructors. See the University of Toronto <u>Academic Integrity</u>

(https://www.academicintegrity.utoronto.ca/smart-strategies/recording-lectures/)

Grading Scheme

Individual Work

In-class activities (25%)

40% Quizzes (4%)

Studio critiques (10%)

A0: Group Formation (1%)

Group Work

Studio group presentations (10%)

A1: Formative Study (15%)

A2: Design Concepts and Prototypes (15%)

A3: Summative Evaluation (15%)

A4: Final Presentation (5%)

In-Class Activities: A significant portion of each lecture will be dedicated towards completing an activity related to the content being covered that day. Although these activities may seem small and tedious, they serve a number of purposes: (1) to help you "learn by doing", (2) to give you practice for your group project, and (3) to ensure that there is a sufficient individual component to your grade.

Quizzes: Every pair of lectures will be followed by a brief quiz. These quizzes are "open notes" (i.e., you may refer to the course materials while completing them), but you can only complete them once.

Group assignments A0–A4: Throughout the semester, you will go through the iterative design process in a small team of up to 6 students to create a high-fidelity prototype that addresses a problem of your choosing. There will be periodic milestones to ensure that progress is being made throughout the semester. Each team will submit a single report per milestone, and the grade that is given for that report will be shared by all team members. However, each report will contain a summary of each group member's contribution, and individuals' grades will be adjusted in the case of imbalanced contributions.

In-studio group presentations and critiques: Some of the studios will be used as feedback sessions. During these times, groups present their progress to the rest of the class and receive feedback from their peers. After those sessions, students will be assigned a team for whom they have to provide a written critique based on the content of their presentations.