

## INF2208H:

# **User-Centered Systems for Communication**

Course Syllabus

**Lectures: Thursday 18:30 - 20:30** 

TUT201: Thursday 17:30 - 18:30

TUT101 Thursday 20:30 - 21:30

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Course Website and Work Submission: Quercus (q.utoronto.ca)

## **COURSE DESCRIPTION**

Classes:

Instructor:

This course allows students to learn about the design of systems for communication by giving them fundamental theoretical knowledge and an understanding of practical design aspects. Students will learn prior academic research and publications on design for communication, as well as current practices in the industry around their implementation in practical scenarios. Students will also gain an understanding of how to design with consideration for privacy, diversity, and communication ethics.

#### **Course Objectives**

This course will introduce students to concepts related to systems for human-human and human-agent communication. In particular, the course covers the theoretical mechanisms and UI/UX design principles for developing technology to support communication through the system (e.g. teleconferencing), around the system (e.g. collaborative software and hardware), and directly with the system (e.g. human communication with intelligent agents). The course will provide students with a mix of theoretical knowledge and practical application of that knowledge. Specifically, the course focuses on developing the foundational knowledge driving the design of these systems, and on examining the practical design mechanisms for their support. In the course, students are exposed to prior academic research and publications on design for communication, as well as current practices in the industry around their implementation in practical scenarios. Key trends in design practice will be illustrated with current examples. The course also emphasizes the need for designing with consideration for privacy, diversity, and communication ethics, and demonstrates how and when core UX research methods are applicable.

## **Learning Outcomes**

After completing this course, a student should be able to:

1. Search and analyze academic literature to produce a comprehensive literature synthesis (demonstrated through assignment 1)

- 2. Critically identify existing communication systems and examine and analyze design components, mechanisms, and patterns (demonstrated through Assignment 1)
- 3. Articulate how domain-specific design principles can be applied to the implementation of given types of communication systems (demonstrated through Assignment 1 and 3)
- 4. Conduct user research and analyze the results in the context of theoretical knowledge and existing practical solutions (demonstrated through Assignment 2)
- 5. Develop a data-driven understanding of user communication needs, as well as user perception and conceptions (demonstrated through Assignment 3)
- 6. Synthesize information from diverse sources (academic literature, existing systems, user research) to identify design opportunities therein (demonstrated through Assignment 3)

### **Relationship to MI Student Outcomes**

In this course, students will gain an understanding of fundamental theoretical mechanisms for designing systems of communication and practical design aspects (**Program Learning Outcomes 1 and 4**). They will develop appropriate knowledge and values about the design of systems for communication with consideration for privacy, diversity, and communication ethics (**Program Learning Outcome 2**). Students will develop the ability to critically assess the diverse body of knowledge (including new technological developments) related to the systems for communication (**Program Learning Outcomes 3 and 5**).

Master of Information Program-Level Student Learning Outcomes can be found at: <a href="https://ischool.utoronto.ca/current-students/programs-courses/programs-of-study/master-of-information/">https://ischool.utoronto.ca/current-students/programs-courses/programs-of-study/master-of-information/</a>

#### **COURSE STRUCTURE**

#### **Individual and Group Work**

Students will work both individually and in teams. Groups (of size 3-5) should be formed at the beginning of the term (**by Thursday, September 22**) and expected to stay the same throughout the term. Assignments and final deliverables are submitted per group and marked accordingly. Students are expected to work with the project group, as well as perform individual work toward the group project. Progress is assessed through the individual (IPP) and group progress points (GPP). Each type of analysis performed in Assignments (desk research, user study, feature design) includes individual and group (synthesized) components. Each group is expected to submit all the assignments (see late submission policy) and give one mid-course and one final presentation (in class, presentations are graded - see marking scheme).

This will allow students to share their work with others, explore the work done by other groups, and expand their understanding of other systems. It will also enable the instructor to provide feedback to the groups that can be incorporated into their final report.

## **Group Projects**

Project details and expectations:

Throughout the course, each project group is working on one type of communication system chosen at the beginning of the term. At the end of the course, each project is expected to produce synthesized results from literature analysis, analysis of existing systems, and user research, culminating in developing a communication feature for the chosen system. During the term, students are required to

identify specific problems and research questions within the chosen type of communication system, conduct literature and analyze several existing systems of this type in the context of the corresponding findings, design, conduct and analyze user interview study (Assignment 1), and synthesize the results and design a corresponding communication feature for the chosen system (Final Report).

### Project deliverables:

Students are expected to submit 1 mid-course assignment, as well as make 2 group presentations. These deliverables help us to monitor the intermediate progress of the projects and to provide forehanded feedback on the next steps to ensure correct and effective workflow. There are 3 final deliverables to present the process and outcomes of the group projects. These include a final group project report (written presentation of the project), a feature demo video, and a group project presentation (visual and verbal presentations of the project). The main goals of the final deliverables are to practice the diverse common formats of project presentation, obtain feedback, and explore other projects presented by classmates. Be aware that the final presentations might be recorded and posted on the course website and available for watching.

## **Marking Scheme**

| E                   | valuation Rubric                 | Weight | Due                   |  |
|---------------------|----------------------------------|--------|-----------------------|--|
| Course Dragression  | Individual Progress Points (IPP) | 15%    | See course schedule   |  |
| Course Progression  | Group Progress Points (GPP)      | 10%    | See course schedule   |  |
|                     | Assignment 1                     | 15%    | November 3            |  |
| Group Assignments   | Final Report                     | 20%    | December 8            |  |
|                     | Feature Demo                     | 15%    | December 8            |  |
| Group Presentations | Mid-term Presentation            | 5%     | October 13/November 3 |  |
| Group Presentations | Final Presentation               | 10%    | December 8            |  |
| Final Quiz          |                                  | 10%    | TBD                   |  |

#### **Course Schedule**

| Sept.15 | Introduction into Systems for Communication |                                     | 1%         | IPP: Ethics                 | 1% |
|---------|---|-------------------------------------|------------|-----------------------------|----|
| Sept.22 | Communication through the systems           | GPP: Group<br>Contract, Topic       | 1%         | IPP: Desk research notes    | 2% |
| Sept.29 | Communication around the systems            | GPP: Desk<br>research discussion    | 1%         | IPP: Product analysis notes | 2% |
| Oct.6   | Communication with the systems              | GPP: RQs & Goals                    | 1%         | IPP: Interview Qs           | 1% |
| Oct.13  | Context Dimensions:<br>Privacy of Space     | Presentations1<br>GPP: Interview Qs | (5%)<br>1% | IPP: Interviews             | 2% |
| Oct.20  | Context Dimensions: Sense of Presence       | GPP: Discussion of results          | 2%         | IPP: Functionality ideas    | 1% |

| Oct.27 | Context Dimensions:<br>Addressee | GPP: Functionality ideas                             | 1%         | A1                       | 15%             |
|--------|----------------------------------|--|------------|--------------------------|-----------------|
| Nov.3  | Context Dimensions:<br>Reason    | Presentations 2<br>GPP: Functionality<br>to features | (5%)<br>1% | IPP: Sketch of 2 designs | 2%              |
| Nov.17 | Context Dimensions: Time         | GPP: Feature<br>design discussion                    | 1%         | IPP: Design work         | 2%              |
| Nov.24 | History of CSCW                  | GPP: Feature demo design                             | 1%         | IPP: Design work         | 2%              |
| Dec.1  | Special Topics                   | Final Report and<br>Presentation<br>Discussion       |            |                          |                 |
| Dec.8  | Project Presentations            |  | 10%        | Final Report &<br>Demo   | 20%<br>+<br>15% |

## **COURSE ADMINISTRATION**

The course consists of synchronous lectures, in-class workshops and group work, and off-class individual and group work. Students are expected to attend the classes and to actively participate in discussions and exercises.

Teaching and learning is a shared responsibility, achieved through expanding our awareness of the different issues and approaches in the domain. Commitment, preparation, and active participation are important to fully realize your learning goals.

All the course materials will be available through the University of Toronto learning portal (Quercus), alongside readings, assignment specifications, and announcements.

## **Contact policy**

Students are responsible for monitoring Quercus to receive time-sensitive announcements.

#### Discussion:

If you have a question about the course material, there is a high chance that other students in the course have the same question or, at least, will benefit from the answer. Where appropriate, please post your questions to the Discussion Board on Quercus so everyone in the course can benefit from your questions and our answers. Students are encouraged to post answers to the questions of other students where appropriate.

#### Office Hours:

By appointment only. Please email Anastasia Kuzminykh (<u>anastasia.kuzminykh@utoronto.ca</u>) to schedule an appointment.

## **Equity, Diversity, and Inclusion**

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. University of Toronto does not condone discrimination or harassment against any person or communities.

#### **Absence Declaration Tool**

During the COVID-19 pandemic, the University is temporarily suspending the need for a doctor's note or medical certificate for absences from academic participation; students should use the Absence Declaration tool on ACORN (<a href="https://acorn.utoronto.ca/">https://acorn.utoronto.ca/</a>) to declare an absence if they require consideration for missed academic work; students are responsible for contacting instructors to request the academic consideration they are seeking; students should record each day of their absence as soon as it begins, up until the day before they return to classes or other academic activities.

## **Evaluation and Grading**

The deliverables to be submitted through Quercus by **8:59 pm** on the due date. You are **not allowed** to submit the next assignment if the previous assignment was not submitted. Failing to submit all the assignments and final report by the end of the term may result in failing the course.

Please consult the Faculty of Information's Grade Interpretation Guidelines:

https://www.ischool.utoronto.ca/wp-content/uploads/2020/08/grade interpretation revised August2020.pdf and the University Assessment and Grading Practices Policy:

http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/grading.pdf These documents will form the basis for grading in the course.

## **Late Submission Policy**

Assignments are graded out of 100%. Late penalties for assignments: -10% per additional day (9:00 pm to 8:59 pm) for a maximum of 5 days after the due date, after which the assignment will receive 0%, however, the next assignment will not be considered submitted until you submit previous assignments. IPP and GPP must be submitted on time or incur a mark of 0. Any extension requests must have strong justification, must be made strictly before the deadline, and the final decision regarding each request stays at the discretion of the instructor.

#### Re-grading Policy

A student (group) who believes that their term work has been unfairly graded may submit a re-evaluation request. Students have up to one month from the date of return of an item (or from the date the mark was made available) to inquire about the mark and submit a request. For example, should the work be returned, or the mark be made available on March 2nd, the student has until April 2nd to inquire in writing and start the re- evaluation process. The instructor/TAs must acknowledge receipt of a student request for re-evaluation within 3 working days, and decisions should be provided in a timely fashion. Re-evaluation requests may be submitted in writing to the person who marked the work. The student must submit (1) the original piece of work and (2) a written explanation detailing why they believe the work was unfairly/incorrectly graded. The course instructor must be CC'd on all communications.

Following a re-evaluation decision, if the student is still not satisfied with the result, they may appeal to the instructor in charge of the course if the work was not marked by the instructor (e.g., marked by a

TA). In this instance (i.e., the instructor was not the one who marked the work), the student must now submit to the instructor (1) the original piece of work, (2) the written reasons as to why they believes the work was unfairly/incorrectly marked, and (3) communications from the original marker. Re-evaluation appeals are at the discretion of the instructor. If a re-revaluation is granted by the instructor, 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. Instructors and TAs should ensure all communications with the student are in writing (e.g. follow-up email) and keep a copy for later reference.

## **Academic Integrity**

Please consult the University's site on Academic Integrity: <a href="http://academicintegrity.utoronto.ca">http://academicintegrity.utoronto.ca</a>. The Faculty of Information has a zero-tolerance policy on plagiarism as defined in section B.I.1.(d) of the University's Code of Behaviour on Academic Matters:

http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/ppjun011995.pdf You should acquaint yourself with the Code. Please review the material in Cite it Right and if you require further clarification, consult the site How Not to Plagiarize:

http://advice.writing.utoronto.ca/using-sources/how-not-to-plagiarize/

Cite it Right covers relevant parts of the UofT Code of Behaviour on Academic Matters (1995). All Faculty of Information students are required to take the Cite it Right workshop and the online quiz. Completion of the online Cite it Right quiz should be made prior to the second week of classes as the workshop is now interactive. To review and complete the workshop, visit the Orientation Workshop portion of the Inforum site: <a href="https://inforum.library.utoronto.ca/workshops/orientation">https://inforum.library.utoronto.ca/workshops/orientation</a>

### **Notice of Video Recording and Sharing**

This course, including your participation, might be recorded on video and become available to students in the course for viewing remotely. Course videos and materials belong to your instructor, the University, and/or other source depending on the specific facts of each situation, and are protected by copyright. In this course, you are permitted to download session videos and materials for your own academic use, but you should not copy, share, or use them for any other purpose without the explicit permission of the instructor.

## **ACCOMMODATIONS AND SUPPORT**

If you encounter any barriers of difficulties during the course, please contact Anastasia Kuzminykh by email or book an appointment to discuss. Anastasia will work with you to ensure you are able to participate fully in all aspects of the course.

## 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 feel free to approach Student Services and/or the Accessibility Services Office as soon as possible: <a href="http://www.studentlife.utoronto.ca/as">http://www.studentlife.utoronto.ca/as</a>. The Accessibility Services staff are available by appointment to assess needs, provide referrals and arrange appropriate accommodations. The sooner you let them know your needs, the quicker they can assist you in achieving your learning goals in this course.

## **Writing Support**

As stated in the Faculty of Information's Grade Interpretation Guidelines, "work that is not well written and grammatically correct will not generally be considered eligible for a grade in the A range, regardless

of its quality in other respects". With this in mind, please make use of the writing support provided to graduate students by the SGS Graduate Centre for Academic Communication: <a href="https://www.sgs.utoronto.ca/resources-supports/gcac/">https://www.sgs.utoronto.ca/resources-supports/gcac/</a>. The services are designed to target the needs of both native and non-native speakers and all programs are free. Please consult the current workshop schedule for more information: <a href="https://www.sgs.utoronto.ca/resources-supports/gcac/workshops/">https://www.sgs.utoronto.ca/resources-supports/gcac/workshops/</a>

### STATEMENT OF ACKNOWLEDGEMENT OF TRADITIONAL LAND

We would like to acknowledge this land on which the University of Toronto operates. For thousands of years it has been the traditional land of the Huron-Wendat, the Seneca, and most recently, the Mississaugas of the Credit River. Today this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.