Toronto Metropolitan University

Faculty of Science
Department of Computer Science

CPS 613: Human-Computer Interaction

Fall 2024, All Sections

Instructor Information

- **Instructor Names:** Sophie Quigley and Rissan Devaraja (for lab sections 2 and 4)
- **Office Location:** ENG263
- **Office Hours:** Wednesdays 2:00-4:00 in office and Zoom (link in D2L calendar)
- **Phone:** (416) 979 – 5000, ext. 557401
- **Course Website:** my.torontomu.ca and www.cs.torontomu.ca/~cps613
- **Email Address:** cps613@cs.torontomu.ca

Email Policy

- The official email address for this course is cps613@cs.torontomu.ca
- Torontomu's email policy states that only Torontomu e-mail accounts are to be used for communication with students. All students, including continuing education students, have access to Torontomu email through the my.torontomu.ca website, and this is the official way in which they receive communication. All students are required to register for and maintain this account. Emails sent from other accounts may not be answered.
- Emails sent from a student's TMU email address to the official course email address and which only require a simple response will normally be answered within one business day. Replies to emails requiring more complex responses will take longer.

Course Description

CPS 613 - Human-Computer Interaction

This course introduces the concepts of human-computer interaction and usability testing. Topics include: human information processing, usability principles, models of interaction, user interface paradigms, design of user interfaces. Students will also learn how to develop Graphical User Interfaces using a specific User Interface Management system.

Weekly Contact: Lecture 3 hrs. Lab 2 hrs.

Prerequisites: CPS 209

Course Details

Teaching Methods

The lectures and labs in this course will be in person on campus, and they will not be recorded. The slides used for the lectures will be posted in D2L.

The instruction in this course is project-based: in order to learn about the integration of usability concerns in the software lifecycle. Throughout the semester, students working in teams will be gradually refining the design of the user interface of an app and testing its usability.

Course Materials

Information about references and software required for this course can be found at the References and Software page.

Technology Used

All the technology required for this course is available in the Computer Labs of the Department of Computer Science. Other than D2L and G Suite, here are the technologies that will be used in this course:

- Some of the assignments will be developed in Visual Basic in Visual Studio 2022.
- Doodle and Google Calendar for scheduling usability test sessions, and possibly Zoom to record the sessions.

Students may use Generative AI (e.g. ChatGPT, Grammarly, Perplexity, DeepL Translator) for ideation and brainstorming but not for research or for writing anything that will be submitted for credit. Failure to stay within these limits will be considered a breach of Policy 60.

Topics and Course Schedule

The schedule of topics for this course can be found in calendar form in the Topics and Course Schedule page also available in D2L.

Course Learning Outcomes

At the end of the course, a successful student will be able to:

1. Have a good understanding of human cognitive processes as they apply to interactions with software and technology.
2. Have a basic understanding of the three dominant interaction paradigms and be able to select the most appropriate one for specific users and their systems.
3. Have a good understanding of how to integrate principles of user-centered design in the software lifecycle, and in particular how to conduct formative usability testing.
4. Have a basic understanding of UI design guidelines and proper usage of widgets.
5. Develop Graphical User Interfaces (GUIs) in Visual Studio.

Evaluation

The Assessments and Grading Scheme page provides a list in tabular form of all assignment, labs, exams and other work to be graded. Details for each assessment are:

- The name, general description of the assessment, and topics learned.
- The dates when it is handed out and due.
- Its weight towards the final course grade.
- Whether it is an individual or group assessment.
- The late submission rule that applies to this assessment.

Results for assessments handed in on time will be returned within 3 weeks of due date. In particular, labs 1, 2, 3, and 4, and the assignment, collectively worth 40% of the total course grade, will be returned to students before the last date to drop the class, **Friday November 15, 2024** if they are handed in on time.

Grading for labs 4 and 6 includes an assessment of work performed during the lab session. Students must attend each of these labs to get a grade in it.

The final exam is in person and closed book but questions will be randomly selected at the beginning of the exam from a posted question bank.

To pass the course, students need to get at least 50% of the total course marks.

Intellectual Property

Sophie Quigley holds the copyright in the works of all original materials used in this course and students registered in this course can use the materials for the purposes of this course but no other use is permitted, and there can be no sale or transfer or use of the work for any other purpose without explicit permission of Sophie Quigley.

In particular, none of the course material, including programming assignments, their solutions, or work that integrate their solutions, are to be disseminated outside of this course without the explicit permission of Sophie Quigley

University Policies

Students are required to adhere to all relevant university policies found in their online course shell in D2L and/or on the Senate website, and in particular Academic Integrity Policy 60.

Important Resources Available at Toronto Metropolitan University

- The Library provides research workshops and individual assistance. If the University is open, there is a Research Help desk on the second floor of the library, or students can use the Library's virtual research help service to speak with a librarian.

- Student Life and Learning Support offers group-based and individual help with writing, math, study skills, and transition support, as well as resources and checklists to support students as online learners.

- You can submit an Academic Consideration Request when an extenuating circumstance has occurred that has significantly impacted your ability to fulfill an academic requirement. You may always visit the Senate website and select the blue radio button on the top right hand side entitled: Academic Consideration Request (ACR) to submit this request.

  For Extenuating Circumstances, Policy 167: Academic Consideration allows for a once per semester ACR request without supporting documentation if the absence is less than 3 days in duration and is not for a final exam/final assessment. Absences more than 3 days in duration and those that involve a final exam/final assessment, require documentation.

Students must notify their instructor once a request for academic consideration is submitted. See Senate Policy 167: Academic Consideration.

- If taking a remote course, familiarize yourself with the tools you will need to use for remote learning. The Remote Learning Guide for students includes guides to completing quizzes or exams in D2L Brightspace, with or without Respondus LockDown Browser and Monitor, using D2L Brightspace, joining online meetings or lectures, and collaborating with the Google Suite.

- Information on Copyright for Faculty and students.

Accessibility

- The final exam is a two hour exam scheduled in a three hour exam period. This is to ensure that all students can finish the final exam on time, whether or not they have any registered academic accommodations. The questions on this exam will also be randomly selected from a question bank that students can review beforehand.
- Please contact Sophie Quigley using any of the methods described on the front page if you discover an accessibility barrier with any course material or technology.

Academic Accommodation Support

Academic Accommodation Support (AAS) is the university's disability services office. AAS works directly with incoming and returning students looking for help with their academic accommodations. AAS works with any student who requires academic accommodation regardless of program or course load.

- Learn more about Academic Accommodation Support.

- Learn how to register with AAS.

Academic Accommodations (for students with disabilities) and Academic Consideration (for students faced with extenuating circumstances that can include short-term health issues) are governed by two different university policies. Learn more about Academic Accommodations versus Academic Consideration and how to access each.

Wellbeing Support

At Toronto Metropolitan University, we recognize that things can come up throughout the term that may interfere with a student's ability to succeed in their coursework. These circumstances are outside of one's control and can have a serious impact on physical and mental well-being. Seeking help can be a challenge, especially in those times of crisis.

If you are experiencing a mental health crisis, please call 911 and go to the nearest hospital emergency room. You can also access these outside resources at anytime:

- **Distress Line:** 24/7 line for if you are in crisis, feeling suicidal or in need of emotional support (phone: 416–408–4357)
- **Good2Talk:** 24/7-hour line for postsecondary students (phone: 1-866-925-5454)
- **Keep.meSAFE:** 24/7 access to confidential support through counsellors via My SSP app or 1-844-451-9700

If non-crisis support is needed, you can access these campus resources:

- **Centre for Student Development and Counselling:** 416-979-5195 or email csdc@torontomu.ca
- **Consent Comes First – Office of Sexual Violence Support and Education:** 416-919-5000 ext 3596 or email osvse@torontomu.ca
- **Medical Centre:** call (416) 979-5070 to book an appointment

We encourage all Toronto Metropolitan University community members to access available resources to ensure support is reachable. You can find more resources available through the Toronto Metropolitan University Mental Health and Wellbeing website.