UNIVERSITY OF CALGARY
FACULTY OF SCIENCE

Department of Computer Science
ICT 602
403 220-6015
cpsc@cpsc.ucalgary.ca

COURSE OUTLINE

1. **Course:** CPSC 481, Human-Computer Interaction I - Fall 2020

   Lecture 01: MWF 10:00 - 10:50 - Online

Instructor	Email	Phone	Office	Hours
Lorans Alabood	lorans.alabood@ucalgary.ca	NA	ICT 552	Please use You-Can_book me page: https://loransalabood.youcanbook.me

While this is an online course, the teaching team (the instructor and TAs) work regular working hours. Please note that the course teaching team will respond to your course-related enquires within 24 hrs except on weekends and holidays.

Online Delivery Details:

Some aspects of this course are being offered in real-time via scheduled meeting times. For those aspects you are required to be online at the same time.

This course will be delivered entirely online.

All **Lectures** will be held synchronously on time as per schedule via MS Teams. Students are required to attend all lectures on time. It is required for all students to have a stable internet connection and a computer/laptop to attend classes.

Tutorials will be held online in a hybrid method; asynchronous and synchronous meetings. Students will be assigned to teams at the beginning of the semester. Each team will be given a time slot for a recurring meeting with the TA. Narrated PowerPoint slides will be posted in advance by the TA on the MS Teams channel. Every team should start their meeting on MS Teams as per the tutorials schedule and have finished watching the narrated slides together prior to the TA joining. The TA will join each of the student meetings on MS Teams for 10 minutes to discuss the slides, answer any questions, and eventually discuss the team project. The TA will have back to back meetings with other student teams. Therefore, it is very important for students to start their meeting on time and be prepared for their one-on-one meeting with their TA.

The aim of the CPSC 481 course is to teach students the principles of HCI by exploring a variety of important topics including the User-Centered Design method, prototyping, and usability testing. This goal will be accomplished through student team projects, three individual assignments, and one team assignment. The content and lessons of each class is built on top of the previous class, and as such, the flow of information is designed carefully to help students to build the required skills pertaining to HCI. Therefore attending class is mandatory, missing classes will negatively affect students' learning curve individually and on a team level.

As for the online tutorials, if necessary, students can miss a maximum of three online meetings, as the group work builds each week and a student's absence directly impacts the progression of other members of their group. Should a student miss more than three meetings, they need to reach out immediately to the course coordinator. The student will then be removed from the team. The student will receive a maximum grade of 25% in this component pendant on their participation at the time of their removal from the team.

Course Site:

- All course grades, lecture slides, and student work submission will be uploaded to D2L: CPSC 481 L01-(Fall 2020)-Human-Computer Interaction I
- All communications, announcements, participation, and meetings will be held via MS Teams - CPSC 481 (Fall 2020)

Note: Students must use their U of C account for all course correspondence.

2. **Requisites:**

   See section 3.5.C in the Faculty of Science section of the online Calendar.

   Prerequisite(s):
   3 units from Software Engineering 300, 301, Software Engineering 480 or Data Science 311.

3. **Grading:**

The University policy on grading and related matters is described in F.1 and F.2 of the online University Calendar.

In determining the overall grade in the course the following weights will be used:

Component(s)	Weighting %	Date
Assignment 1	5%	14 Sep 2020
Assignment 2	10%	25 Sep 2020
Assignment 3	10%	9 Oct 2020
Team Assignment	25%	30 Oct 2020
Participation	5%	Participation in lectures via MS Teams
Team project	45%	5 iterations with 5 different deadlines. Deadlines are between 20 Sep 2020 and 5 Dec 2020.

Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the student will be assigned a grade. The student's grade for each component listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

The conversion between a percentage grade and letter grade is as follows.

	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
Minimum % Required	95 %	90 %	85 %	80%	75%	70 %	65 %	60%	55%	50 %	45 %

4. **Missed Components Of Term Work:**

The university has suspended the requirement for students to provide evidence for absences. Please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations.

In the event that a student legitimately fails to submit any online assessment on time (e.g. due to illness etc...), please contact the course coordinator, or the course instructor if this course does not have a coordinator to arrange for a re-adjustment of a submission date. Absences not reported within 48 hours will not be accommodated. If an excused absence is approved, then the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course.

Assignment and project iteration deadlines are hard deadlines and fixed for all students. With the exception of the above-mentioned reasons, no extensions will be granted. Students are required to plan their course work properly and utilize their time wisely in order to avoid any emergency situation at the very last minute. In addition, it is the student's responsibility to submit their coursework task using the required file format for that task accordingly (video file, PDF. slides, Balsamiq file, etc.). Failure at submitting the required file format will result in a complete loss of mark for that course work component. As for any late submissions, failure at meeting a deadline will result in a late submission penalty as the following:

a) 1 to 24 hours late: 20% deduction penalty

b) 24 to 48 hours late: 40% deduction penalty

c) 48 to 72 hours late: 80% deduction penalty

d) More than 72 hours late: student/team will be given 0.

5. **Scheduled Out-of-Class Activities:**

There are no scheduled out of class activities for this course.

6. **Course Materials:**

Recommended Textbook(s):

Antti Oulasvirta, Per Ola Kristensson, Xiaojun Bi,*Computational Interaction*: Oxford University Press .
Donald A. Norman, *The Design of Everyday Things*: Basic Books; Basic Pbk ed. edition (Sept. 19 2002).
Jianlong Zhou's, Fang Chen, *Human and Machine Learning*: Springer; 1st ed. 2018 edition (June 8, 2018).
Phil Turner, *A Psychology of User Experience*: Springer; 1st ed. 2017 edition (December 4, 2017).
Interaction Design Foundation, *The Encyclopedia of Human-Computer Interaction*: Interaction Design Foundation.
Ellen Lupton, *Graphic Design Thinking: Beyond Brainstorming*: Princeton Architectural Press.
IDEO.org, *The Field Guide to Human-Centered Design*: IDEO.org / Design Kit (1750).
Alex W. White, *The Elements of Graphic Design*: Allworth; Second edition (March 15 2011).
Jesse James Garrett, *The Elements of User Experience: User-Centered Design for the Web and Beyond* New Riders; 2 edition (Dec 16 2010).
Brian Still, Kate Crane , *Fundamentals of User-Centered Design: A Practical Approach*: CRC Press; 1 edition (Dec 17 2016).
Russ Unger, Carolyn Chandler , *A Project Guide to UX Design: For user experience designers in the field or in the making (2nd Edition)*: New Riders; 2 edition (March 9 2012).
Jeffrey Rubin, Dana Chisnell, Jared Spool, *Handbook of Usability Testing: How to Plan, Design, and Conduct Effective Tests*: Wiley; 2 edition (May 12 2008).
Thomas Tullis, William Albert, *Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics*: Morgan Kaufmann; 2 edition (July 17, 2013).

Books recommendation:

All the books listed above are the instructor's recommendations for students to read. Students are not expected to read all these books however, it is recommended to buy or borrow one of these books and read it.

- The *Design of Everyday Things* is one of the most popular books in the HCI field.
- However, *The Encyclopedia of Human-Computer Interaction* written by a group of authors in the Interaction Design Foundation is one of the best open-source material in the field of HCI. The entire content is provided online with free access. It is highly recommended that all students visit the foundation website and explore their publications.
- *The Elements of Graphic Design* is a good and easy material for students to understand the principles of graphic design. User-centered design is an essential topic in HCI.
- It is recommended that students explore a book like *The Elements of User Experience*.
- Finally, *Handbook of Usability Testing: How to Plan, Design, and Conduct Effective Tests* book is a recommended read for all students who are interested in usability testing.

In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security, and malware updates;
- A current and updated web browser;
- Webcam/Camera (built-in or external);
- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled;
- Stable internet connection.

For more information please refer to the UofC ELearning online website.

7. **Examination Policy:**

No aids are allowed on tests or examinations.

Students should also read the Calendar, Section G, on Examinations.

8. **Approved Mandatory And Optional Course Supplemental Fees:**

There are no mandatory or optional course supplemental fees for this course.

9. **Writing Across The Curriculum Statement:**

For all components of the course, in any written work, the quality of the student's writing (language, spelling, grammar, presentation etc.) can be a factor in the evaluation of the work. See also Section E.2 of the University Calendar.

10. **Human Studies Statement:**

Students will not participate as subjects or researchers in human studies.

See also Section E.5 of the University Calendar.

11. **Reappraisal Of Grades:**

A student wishing a reappraisal, should first attempt to review the graded work with the Course coordinator/instructor or department offering the course. Students with sufficient academic grounds may request a reappraisal. Non-academic grounds are not relevant for grade reappraisals. Students should be aware that the grade being reappraised may be raised, lowered or remain the same. See Section I.3 of the University Calendar.

a. **Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within **ten business days** of either being notified about the mark, or of the item's return to the class. If the student is not satisfied with the outcome, the student shall submit the Reappraisal of Graded Term work form to the department in which the course is offered within 2 business days of receiving the decision from the instructor. The Department will arrange for a reappraisal of the work within the next ten business days. The reappraisal will only be considered if the student provides a detailed rationale that outlines where and for what reason an error is suspected. See sections I.1 and I.2 of the University Calendar

b. **Final Exam:** The student shall submit the request to Enrolment Services. See Section I.3 of the University Calendar.

12. **Other Important Information For Students:**

a. **Mental Health** The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, Mental Health Services Website) and the Campus Mental Health Strategy website (Mental Health).

b. **SU Wellness Center:** For more information, see www.ucalgary.ca/wellnesscentre or call 403-210-9355.

c. **Sexual Violence:** The Sexual Violence Support Advocate, Carla Bertsch, can provide confidential support and information regarding sexual violence to all members of the university community. Carla can be reached by email (svsa@ucalgary.ca) or phone at 403-220-2208. The complete University of Calgary policy on sexual violence can be viewed at (https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf)

d. **Misconduct:** Academic misconduct (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under Section K. Student Misconduct to inform yourself of definitions, processes and penalties. Examples of academic misconduct may include: submitting or presenting work as if it were the student's own work when it is not; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; collaborating in whole or in part without prior agreement of the instructor; borrowing experimental values from others without the instructor's approval; falsification/ fabrication of experimental values in a report. **These are only examples**.

e. **Academic Accommodation Policy:** Students needing an accommodation because of a disability or medical condition should contact Student Accessibility Services in accordance with the procedure for accommodations for students with disabilities available at procedure-for-accommodations-for-students-with-disabilities.pdf.

Students needing an accommodation in relation to their coursework or to fulfill requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Associate Head of the Department of Computer Science, Nelson Wong by email nelson@cpsc.ucalgary.ca or phone 403-210-8483. Religious accommodation requests relating to class, test or exam scheduling or absences must be submitted no later than **14 days** prior to the date in question. See Section E.4 of the University Calendar.

f. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). Students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information, see Legal Services website.

g. **Student Union Information:** VP Academic, Phone: 403-220-3911 Email: suvpaca@ucalgary.ca. SU Faculty Rep., Phone: 403-220-3913 Email: sciencerep@su.ucalgary.ca. Student Ombudsman, Email: ombuds@ucalgary.ca.

h. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction (USRI) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference - please participate in these surveys.

i. **Copyright of Course Materials:** All course materials (including those posted on the course D2L site, a course website, or used in any teaching activity such as (but not limited to) examinations, quizzes, assignments, laboratory manuals, lecture slides or lecture materials and other course notes) are protected by law. These materials are for the sole use of students registered in this course and must not be redistributed. Sharing these materials with anyone else would be a breach of the terms and conditions governing student access to D2L, as well as a violation of the copyright in these materials, and may be pursued as a case of student academic or non-academic misconduct, in addition to any other remedies available at law.

Course Outcomes:

- Explain and reason with core concepts from human-computer interaction, design, psychology and cognitive science– such as affordances, signifiers, and “Recognition vs. Recall” – and describe existing interfaces based on these principles.
- Understand and apply specific user-centered design methods (for user research, ideation, prototyping and evaluation) to design problems and situations (e.g. task and goal centered system design, IDEO Method Cards).
- Generate design ideas grounded in user research, and rationalize the connection from a design concept back to observations of people’s real-world behavior.
- Prototype user interfaces using low-level (e.g., paper prototyping, pictives, storyboarding), mid-level (e.g., wire framing) and high-fidelity techniques (e.g., C#).
- Constructively evaluate and critique interfaces (e.g., via usability walkthroughs and design heuristics), identifying effective design elements, design weaknesses that require revision, and opportunities for improvement.
- Demonstrate design communication skills to present user research and design concepts to elicit criticism and feedback — including hand sketching, prototyping, personas, scenarios, as well as verbal, written, and video presentation.

Electronically Approved - Aug 28 2020 10:57

Department Approval

Electronically Approved - Aug 28 2020 14:45

Associate Dean's Approval