SENG310: Human Computer Interaction

Course Dates

CRN(s):	Section A01 CRN: 30785
	Section A02 CRN: 30786
Term:	2023
Course Start:	2023-05-03
Course End:	2023-08-18
Withdrawal with 100% reduction of tuition fees:	2023-05-15
Withdrawal with 50% reduction of tuition fees:	2023-06-04
Last day for withdrawal (no fees returned):	2023-06-28

Scheduled Meeting Times (M=Mon, T=Tue, W=Wed, R=Thu, F=Fri)

Section:	Location:	Classes Start:	Classes End:	Days of week:	Hours of day:	Instructor:
A01	ECS 125	2023-05-03	2023-07-28	MR	11:30-12:50	Hamid Mansoor
A02	ECS 125	2023-05-03	2023-07-28	MR	11:30-12:50	Hamid Mansoor
B01	ELW B215	2023-05-15	2023-07-28	T	14:30-16:20	
B02	ELW B215	2023-05-15	2023-07-28	T	16:30-18:20	
B03	ELW B215	2023-05-15	2023-07-28	R	14:30-16:20	
B04	ELW B215	2023-05-15	2023-07-28	R	16:30-18:20	

Instructor(s)

Name: **Hamid Mansoor**
Office: ECS 609
Phone: 250-472-5769
Email: hmansoor at uvic dot ca

Office Hours:		Comments
Mon	03:00pm-04:00pm	ECS 609
Fri	02:00pm-03:00pm	ECS 609

Course Overview

This course introduces students to the basics of Human-Computer Interaction, a field that is focused on understanding and designing people's interactions with computers (e.g., web and desktop applications, wearables, apps, VR/AR systems, home appliances, technology in-the-wild). This includes identifying the challenges faced by people as well as learning about unique strategies that people have developed to interact with computers. Informed by such an understanding, designers build new computer technologies and techniques to address human needs (e.g., functional, reliable, usable, accessible, enjoyable, creative).

Understanding human behaviour as it applies to user interfaces includes the use of several methods: work activity analysis, task analysis, cognitive modelling, observational techniques, questionnaire administration and unobtrusive measures. Based on the data gathered and analyzed, the designer proposes new interaction design principles and develops prototype solutions at different levels of fidelity. The developed prototypes are then evaluated by the target audiences and for that, the designer uses several evaluation techniques such as cognitive walkthroughs, usability studies and verbal protocol analysis.

In this course, students will be introduced to the three main phases of HCI work: (a) understanding people, (b) developing prototypes and (c) evaluation. More specifically, students will focus on understanding and applying the human-centred design process. This course is not about developing technically robust software systems, but instead will require students to develop an understanding of people's everyday interactions with computer technology and,

apply that understanding to critically reflect upon and suggest new ways to improve or enhance human-computer interactions.

Topics

Topics will include:

- Human-Centered Design Process
- Establishing Requirements
- Prototyping
- Evaluation Techniques
- Interaction Devices and Styles
- Visual Design

Course Objectives And Learning Outcomes

At the end of the course, students will be able to:

- Identify a real HCI problem or opportunity
- Select appropriate HCI methods to understand the target users and develop corresponding design requirements
- Describe human behaviours and needs and informed by that propose well-explained design principles
- Apply design principles and develop prototype systems using rapid prototyping techniques
- Plan and conduct small-scale studies to evaluate the developed prototype by selecting appropriate methods
- Appropriately disseminate the lessons learned using different formats (written reports, presentations, and videos)
- Understand emerging topics in HCI

Textbooks

	Available via UVic Library: http://tinyurl.com/yx56u9te
Optional:	Interaction Design: Beyond Human-Computer Interaction, 5th Edition
	Helen Sharp, Jennifer Preece, Yvonne Rogers
Optional:	Sketching User Experiences: the Workbook
	Saul Greenberg, Bill Buxton, Sheelagh Carpendale and Nicolai Marquardt
Optional:	Designing the User Interface: Strategies for Effective Human-Computer Interaction, 6th Edition
	Shneiderman, Plaisant, Cohen, Jacobs, and Elmqvist

Workload

This is an intense course with a lot of team work. If you are aiming for a good grade, you will need to be a good team player and start working right from the beginning as opposed to wait until the last few weeks. It is going to be a lot of work but it should also be a lot of fun.

Attendance

Lectures will include several small activities throughout the term and therefore attending class lectures and discussions is critically important and expected of students.

Lab attendance will be mandatory. 1-2 absences will be excused. For longer or additional absences see UVic's policy: https://www.uvic.ca/students/academics/academic-concessions-accommodations/index.php. Additional work may need to be completed to make up for missed classes or labs.

Assignments

Throughout the term you will work on a single project in small groups. The groups must comprise of students from the same lab section.

In this project, you will design, implement, and evaluate a prototype computer-based user interface. The project will be composed of several assignments. Assignments related to the project account for **70%** of the grade. It is crucial to plan in advance and be ahead of the deadlines. These assignments will include both group work and indivdual assignments.

In regard to group reports and project progress: the group members must immediately bring to the attention of the instructor and/or TA any problems which may hamper their progress, for instance if a member of the group is not contributing to the project, etc. Otherwise, the group as a whole will be responsible. When a specific group member

does not contribute to the project work, that individual will receive 0 for that particular assignment. Otherwise, all group members will receive the same grade.

Each assignment is due on the specified date unless there are extenuating circumstances and the instructor has been notified of the situation. Given the fast paced nature of this course, extensions will normally not exceed one week beyond the assignment due date. This applies to group and individual work. In case of group work, it is the responsibility of the group member to notify the group of the situation and discuss a plan for completing the project work, and do so in a timely manner. For longer extensions, students can refer to academic concessions and accomodation: https://www.uvic.ca/students/academics/academic-concessions-accommodations/index.php

Cheating, plagiarism and other forms of academic fraud are taken very seriously by both the university and the department. You should consult the UVic Policy on Academic Integrity and read the specific guidelines: https://www.uvic.ca/calendar/undergrad/index.php#/policies

Exams

There will be one midterm exam and will be worth **30%**. The midterm exam is tentatively scheduled for **26 June**, but the date may change. You are expected to be available during both lecture and lab hours and no exam-related accomodations can be made for personal schedule conflicts.

There is no final exam but instead there will be final project presentations by project groups and that will be worth **10%**. The final presentations are expected to take place during the last two weeks of the term.

Course Policies And Guidelines

Late Assignments: No late assignments will be accepted unless prior arrangements have been made with the instructor at least 48 hours before the assignment due date. Coursework Mark Appeals: All marks must be appealed within 7 days of the mark being posted. Attendance: We expect students attend all lectures and labs. It is entirely the students' responsibility to recover any information or announcements presented in lectures from which they were absent. Electronic devices in labs and lectures: No unauthorized audio or video recording of lectures is permitted. Electronic devices in midterms and exams: Calculators are only permitted for examinations and tests if explicitly authorized and the type of calculator permitted may be restricted. No other electronic devices (e.g. cell phones, pagers, PDA, etc.) may be used during examinations or tests unless explicitly authorized. Plagiarism: Submitted work may be checked using plagiarism detection software. Cheating, plagiarism and other forms of academic fraud are taken very seriously by both the University and the Department. You should consult the link given below for the UVic policy on academic integrity. Note that the university policy includes the statement that "A largely or fully plagiarized assignment should result in a grade of F for the course."

The Faculty of Engineering and Computer Science Standards for Professional Behaviour are at https://www.uvic.ca/engineering/assets/docs/professional-behaviour.pdf U.Vic guidelines and policy concerning fraud and academic integrity are at http://web.uvic.ca/calendar/undergrad/info/regulations/academic-integrity.html U. Vic Privacy Policy: If any student has concerns about their private information being stored or accessed outside of Canada, they are required to inform the course instructor about their concerns before the end of second week of classes.

Grading

Coursework		Weight (out of 100%
Assignment 1	Project Proposal	5%
Assignment 2	Formative Data Collection from End-Usersl	13%
Assignment 3	Low-Fidelity Prototyping with Self-Evaluation	13%
Assignment 4	Medium-Fidelity Prototyping and Evaluation Plan	13%
Assignment 5	Final Evaluation with End-Users	13%
Assignment 6a	Final Presentation	10%
Assignment 6b	Peer Review	3%
Midterm Exam		30%

Grading System

The University of Victoria follows a percentage grading system in which the instructor will submit grades in percentages. The University will use the following Senate approved standardized grading scale to assign letter grades. Both the percentage mark and the letter grade will be recorded on the academic record and transcripts.

F	D	C	C+	B-	B	B+	A-	A	A+
0-49	50-59	60-64	65-69	70-72	73-76	77-79	80-84	85-89	90-100

Grades	Description
A+, A, A-	**Exceptional**, **outstanding** or **excellent** performance. Normally achieved by a minority of students. These grades indicate a student who is *self-initiating*, *exceeds expectation* and has an *insightful* grasp of the subject matter.
B+, B, B-	**Very good**, **good** or **solid** performance. Normally achieved by the largest number of students. These grades indicate a *good* grasp of the subject matter or *excellent grasp in one area balanced with satisfactory grasp in the other areas*.
C+, C	**Satisfactory**, or **minimally satisfactory**. These grades indicate a *satisfactory performance and knowledge* of the subject matter.
D	**Marginal Performance**. A student receiving this grade demonstrated a *superficial grasp* of the subject matter.
F	**Unsatisfactory performance**. Wrote final examination and completed course requirements; no supplemental.

Posting of Grades

Typically marks for assignments, examinations, and provisional final grades, are made available through a Learning Management System (LMS) like Brightspace, where each student will be able to view only their own grades. Sometimes numerical marks/grades may be posted publicly to the entire class. In that case, full student numbers or names will not be included with the posted information.

Course Experience Survey (CES)

I value your feedback on this course. Towards the end of term you will have the opportunity to complete a confidential course experience survey (CES) regarding your learning experience. The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future. When it is time for you to complete the survey, you will receive an email inviting you to do so. If you do not receive an email invitation, you can go directly to the CES site

You will need to use your UVic NetLink ID to access the survey, which can be done on your laptop, tablet or mobile device. I will remind you closer to the time, but please be thinking about this important activity, especially the following three questions, during the course.

- What strengths did your instructor demonstrate that helped you learn in this course?
- Please provide specific suggestions as to how the instructor could have helped you learn more effectively.
- Please provide specific suggestions as to how this course could be improved.

Csc Student Groups

The Computer Science Course Union (https://onlineacademiccommunity.uvic.ca/cscu/) serves all students who are either in a computer science program or taking a class in computer science. Please sign yourself up on their mailing list if you would like to be informed about their social events and services.

The Engineering Students' Society (ESS) serves all students registered in an Engineering degree program, including Software Engineering (BSEng). For information on ESS activities, events and services navigate to http://www.engr.uvic.ca/~ess .

Course Policies And Guidelines

Late Assignments: No late assignments will be accepted unless prior arrangements have been made with the instructor **at least 48 hours before** the assignment due date. *Coursework Mark Appeals:* All marks must be appealed **within 7 days** of the mark being posted. *Attendance:* We expect students attend all lectures and labs. It is entirely the students' responsibility to recover any information or announcements presented in lectures from which they were absent. *Electronic devices in labs and lectures:* No unauthorized *audio* or *video* recording of lectures is permitted. *Electronic devices in midterms and exams:* Calculators are only permitted for examinations and tests if explicitly authorized and the type of calculator permitted may be restricted. No other electronic devices (e.g. cell phones, pagers, PDA, etc.) may be used during examinations or tests *unless explicitly authorized*. *Plagiarism:* Submitted work may be checked using plagiarism detection software. Cheating, plagiarism and other forms of academic fraud are taken very seriously by both the University and the Department. You should consult the link given below for the UVic policy on academic integrity. Note that the university policy includes the statement that "A largely or fully plagiarized assignment should result in a grade of F for the course."

The Faculty of Engineering and Computer Science Standards for Professional Behaviour are at https://www.uvic.ca/ecs/_assets/docs/student-forms/professional-behaviour.pdf U.Vic guidelines and policy concerning fraud and academic integrity are at http://web.uvic.ca/calendar/undergrad/info/regulations/academic-integrity.html *U. Vic Privacy Policy:* If any student has concerns about their private information being stored or

accessed outside of Canada, they are required to inform the course instructor about their concerns before the end of second week of classes.

Equality

This course aims to provide equal opportunities and access for all students to enjoy the benefits and privileges of the class and its curriculum and to meet the syllabus requirements. Reasonable and appropriate accommodation will be made available to students with documented disabilities (physical, mental, learning) in order to give them the opportunity to successfully meet the essential requirements of the course. The accommodation will not alter academic standards or learning outcomes, although the student may be allowed to demonstrate knowledge and skills in a different way. It is not necessary for you to reveal your disability and/or confidential medical information to the course instructor. If you believe that you may require accommodation, the course instructor can provide you with information about confidential resources on campus that can assist you in arranging for appropriate accommodation. Alternatively, you may want to contact the Centre for Accessible Learning located in the Campus Services Building.

The University of Victoria is committed to promoting, providing, and protecting a positive, and supportive and safe learning and working environment for all its members.

Copyright Statement

All course content and materials are made available by instructors for educational purposes and for the exclusive use of students registered in their class. The material is protected under copyright law, even if not marked with a ©. Any further use or distribution of materials to others requires the written permission of the instructor, except under fair dealing or another exception in the Copyright Act. Violations may result in disciplinary action under the Resolution of Non-Academic Misconduct Allegations policy (AC1300).