CDM|

Course: DMED 540: UX Design for Emerging Technology (3 credits)
Term: Summer 2024
Instructor: Pushkar Patange
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Acknowledgement of Coast Salish Peoples and Land
We respectfully acknowledge the xʷməθkʷəy̓əm (Musqueam), Sḵwx̱wú7mesh Úxwumixw (Squamish), səlilwətaɬ (Tsleil-Waututh) peoples on whose unceded traditional territories our campus resides.

Course Description

We live in a world where emerging technologies continuously redefine how we live and work, the importance of UX design in creating meaningful and accessible interactions is paramount. Explore ways to evolve your approaches as a designer, in order to stay ahead of technological advancements while crafting experiences that are intuitive and inclusive.
Building on your knowledge around the core principles and methodologies of UX design, you will hone your ability to develop designs that are not only intuitive and accessible but also ethically mindful, for emerging technologies shaping the future.

Course Objectives

Upon completion of this course, students will be able to:

- Explore and apply the nuances of designing for emerging technologies.
- Apply UX design processes to create innovative solutions.
- Evaluate the usability and accessibility considerations in design.
- Leverage AI Tools for Enhanced UX, UI, and UX Research
- Effectively communicate design ideas and collaborate with teams.

Format of the Course

The course will run for 13 weeks with 3-hour weekly class and will consist of graduate level seminars and UX design critiques. Students will be expected to participate in classroom activities and should show up prepared (having completed any necessary readings, or consumed any relevant media requested).

Throughout the course of the semester, students will deconstruct the UX design of existing Digital products, games and experiences using the principles taught in class, complete individual and/or team-based assignments, and deliver a final team-based (1-4 students) comprehensive UX Presentation and accompanying digital prototype. The course is capped by a final class presentation of each team's project.

Course Schedule

The course will run on Thursdays, 6pm – 9pm, May 9 – August 1, 2024.
The following schedule outlines the majority of the topics covered during the course. Based on the interaction with students as well as the topics covered by parallel courses, some topics may be added or modified during the semester at the discretion of the instructor.

Class	Topic
Week 1 (May 9)	**Review UX design fundamentals, relative to Emerging Technology** Overview: Introduction. Review UX design fundamentals relative to Emerging Technology. Objective: Grasp the core principles and methodologies of UX design.
Week 2	**UX Research Methods** Overview: Exploring different UX research methods and their applications. Look in to emerging landscape of AI-powered UX research analytics tools Objective: Learn how to conduct and apply UX research for design insights.
Week 3	**Designing for Usability Accessibility and Ethics** Overview: Discussing the importance of usability and accessibility in UX design. Objective: Evaluate the usability and accessibility considerations in design.
Week 4	**Introduction to Emerging Technologies in UX** Overview: Overview of emerging technologies and their impact on UX design. Objective: Understand the nuances of designing for emerging technologies. **Assignment #1: UX Critique** - Critique a UX design of a current technology product, focusing on accessibility and usability considerations.
Week 5	**UX, UI, and UX Research using AI Tools** Overview: Introducing AI tools that enhance UX research, design, and testing. Objective: Leverage Generative AI Tools for Enhanced UX, UI, and UX Research.
Week 6	**Design Thinking and Prototyping** Overview: Applying design thinking in the UX process and introduction to prototyping tools. Explore generative AI tools for UI Design and prototyping. Objective: Prototype, test, and refine designs based on user feedback.
Week 7	**UX/UI Design Documentation** Overview: Learning to create comprehensive design documentation. Objective: Understand the importance and methodology of design documentation. **Assignment #2: Project - UX Design application - Emerging Technology UI Prototype** - Create a prototype for a UX application using an emerging technology, focusing on AI enhancements.
Week 8	**Interactive Design and User Feedback** Overview: Designing interactive elements and gathering user feedback. Objective: Apply interactive design principles and integrate user feedback into design iterations.
Week 9	**Collaborative Design Processes** Overview: Techniques and tools for effective collaboration in design teams.

	Objective: Effectively communicate design ideas and collaborate with teams.
Week 10	**Prototyping for Emerging Technologies** Overview: Advanced prototyping techniques for Mobile, Web, VR, AR, AI, and other technologies. Objective: Apply UX design processes to create innovative solutions.
Week 11	**Refining Designs and Preparing for Presentations** Overview: Techniques for refining designs and preparing effective presentations. Objective: Refine project prototypes and prepare for final presentations.
Week 12	**Group Project Work Session** Overview: Dedicated class time for group project work, with instructor feedback. Objective: Collaborate on group projects, applying course concepts and preparing for final presentations. **Assignment #3: Group Project - Emerging Technology UX Final Presentations** - In groups, students will finalize their projects for presentation.
Week 13	**Final Group Project Presentations** Overview: Groups present their final projects to the class, showcasing their application of UX principles to emerging technologies. Objective: Demonstrate mastery of course objectives through final project presentations.

Assignments & Final Project Evaluation:

- **Assignments** are designed to reinforce individual learning and application of course concepts, with feedback provided to encourage improvement.
- **The Final Group Project** encourages teamwork, application of comprehensive course content, and presentation skills, culminating in a showcase of students' abilities to design innovative UX solutions for emerging technologies.

This course is structured to further build on foundational knowledge, apply learning through practical assignments, and culminate in a collaborative project that showcases students' ability to innovate in the field of UX design relative to Emerging Technology.

Course Assignments
Note: Assignments, due dates, and weighting are subject to change before the start of the semester

Assignment	Due Date	Weight	Details
Assignment #1	Week 4	15%	UX Design Critique

Assignment #2	Week 7	35%	Project - UX Design application
Assignment #3	Week 12	35%	Emerging Technology UX Final Presentations
Class Participation	*Week 1 - 13*	*15%*	*Contribution to class discussion, participation and group activities*

Required Readings
- **Design of Everyday things - Don Norman**
- **The Design of Future Things - Don Norman**
- **Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability - Steve Krug**
- **Hooked: How to Build Habit-Forming Products - Nir Eyal**

Each week students will be assigned required readings which will be posted on Canvas. Required readings include written materials, videos, experiences and games that will be discussed during the following class. Students are expected to have read all the materials before class. There are also additional suggested readings that supplement the course notes for students interested in delving further into UX design.

Attendance and Participation
Regular attendance is expected of students in all their classes (including participation, group work, tutorials, seminars, online etc.). Students who are unavoidably absent due to illness or disability should notify their instructors of their situation.

- Students are expected to attend every class on the schedule (based on their assigned group) and be fully present**.** While sickness is sometimes inevitable, understand that due to the experiential nature of the material, classes cannot be made up.
- Lateness also informs grading. Classes start punctually every week according to the schedule. Instructions will not be repeated, nor will it be tolerated if a latecomer bothers another student for instructions. If arriving later than half an hour into a class, a student may be marked as absent.
- Due dates: Assignments granted an extension beyond the due date will have no extended comments; assignments handed in late without prior permission will be returned with a grade only, no comments, and 2% per day late, including weekends (i.e., 4% for Saturday and Sunday), deducted from the grade assigned to your paper. Assignments submitted after the assignment has been returned to the rest of the class will not normally be accepted.

https://www.sfu.ca/students/enrolment-services/policies-and-procedures/academic-concessions.html

Grading Profile

A+	95-100	Exemplary expectations
A	90-94	Exceeding expectations
A-	85-89	Meet expectations

B+	80-84	Approaching expectations
B	75-79	
B-	70-74	Below expectations
C	60-69	Far below expectations
F	0 – 59	Fail (Students must retake the course).

A student in a master's or doctoral program must maintain a CGPA of 3.0. Under no circumstances will a student whose CGPA is below 3.0, be awarded a graduate degree.
https://www.sfu.ca/students/advising-resources/calculators/gpa-calculator.html

Laptops & Cell Phones
The use of laptops and cell phones during class is at the discretion of the instructor. *Please respect your classmates and instructors and refrain from text messages, social media, games and videos during class and workshop times.* Please note you should always bring pen and paper to class.

Written & Spoken English
English is the official language of the school and all communication (written and spoken) is expected to be conducted in English. SFU and the MDM Program provide a wide range of free language support for those who need and it's up to each learner to seek that support.

Accommodations
The university accommodates students whose religious obligations conflict with attendance, submitting assignments, or completing scheduled tests and examinations. Please let your instructor know in advance, preferably the first week of class, if you will require any accommodations on these grounds. The Centre for Accessible Learning (CAL) will make every effort to assist students with disabilities so that they achieve their educational goals. https://www.sfu.ca/students/accessible-learning/establishing-accommodations/accommodation.html

Academic Integrity: Your Work, Your Success
SFU's Academic Integrity website http://www.sfu.ca/students/academicintegrity.html is filled with information on what is meant by academic dishonesty, where you can find resources to help with your studies and the consequences of cheating.
Each student is responsible for their conduct as it affects the university community. Academic dishonesty, in whatever form, is ultimately destructive of the values of the university. Furthermore, it is unfair and discouraging to the majority of students who pursue their studies honestly. Scholarly integrity is required of all members of the university. http://www.sfu.ca/policies/gazette/student/s10-01.html

Inappropriate use of technology in coursework
If you are using any technology, including generative AI, to produce or edit content that will be part of your graded work in the course, you must be transparent about the tools that you use. Undeclared use of the tool/technology will be considered a violation of the academic integrity policy. Be aware that any tool used will require you to evaluate the output for accuracies and be responsible for making the appropriate corrections.

Graduate Studies Notes

Important dates and deadlines for graduate students are found here: http://www.sfu.ca/dean-gradstudies/current/important_dates/guidelines.html.