FOCUS GROUP FEEDBACK

A self-directed report detailing the student experience of [4/6]HC[3/6]

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OVERVIEW & PURPOSE

Human Computer Interfaces is a fourth and graduate level course taught by Dr. Christopher Anand at McMaster University in the fall of 2019. This document has been synthesized as a means to review the success of the course and make recommendations to improve the quality going forward. The contents of this document are based on over 20 user interviews which I conducted in late November 2019.

COMMON THEMES IN THE INTERVIEW

Theme / Sentiment	**Frequency**
Disliked the mandatory use of elm lang	19
Disorganized / lack of structure	15
Enjoyed the introduction to design thinking	11
Desired more design work and less programming	10
Wanted more case studies	9
Liked textbook	7
Didn’t like slide presenter	7
Liked guest lectures	7
Wanted to learn more about industry standards in design	6

DISCUSSION ON COMMON THEMES

Complaints With elm

Students felt that in a design course they should not have been restricted to a particular language. If it was mandatory, students wanted to have more support on learning the language integrated in the course. Either by devoting class time or running a series of tutorials to it. This is especially imperative given that there was so little documentation on the language.

- “I have 4 years of experience with JavaScript and would have liked to use that to build a final project, then I could have used it on my resume. Instead I made something I’m not proud of and wasted time learning a language I’m never going to use”
- “I didn’t even learn the language that well, just copy and pasted and did the bare minimum to pass the assignments”
- “If you Google it, elm is listed as the worst programming language to learn in 2019”
- “Elm was a huge barrier, it threw everything off”

Complaints with Course Organization

Many students complained about the lack of clarity/cohesion regarding the work that had to be completed for the course. The TAs often contradicted each other and/or Dr. Anand, the assignments were confusing (especially deadlines), and the lack of a completed course outline were common points of contention among interviewees.

- “I always went to class so I had an idea about what was going on, but I can empathize with people that got fed up”
- “There were a pool of TAs that showed up whenever they could, didn’t seem like there was a schedule. They were late, or just didn’t show up at all, and each gave a different answer to my questions”
- “Often I didn’t know about an assignment until the night it was due -- I was always panicking in this course”
- “The course started out so slow and there was no emphasis on design thinking until the last month -- then everything was incredibly rushed. There was no way to plan ahead and keep on top of the workload”
- “Topics didn’t seem to build on each other, the course didn’t have a plan”

Enjoyed the Introduction to Design Thinking

Most students saw the value in learning design thinking, and believed they would carry the knowledge they learned with them throughout their careers. They were happy they gained a new perspective on the process behind good software design.

- “I wouldn’t have heard about these tools if I didn’t take the class, it’s cool to see different ideas about how to tackle the process of making good stuff”
- “I really liked the principles he talked about in lecture, though I wish he provided a broader view of Design Thinking than just Norman”
- “The method we used to brainstorm was really useful, definitely going to keep using that”
- “I think interviewing is one of the hardest parts of being in software engineering and this course helped me understand how important it is to do that to ensure you’re building the right product from the get-go.”

More Design Work, Less Programming

Students echoed that they took this course because they wanted to learn how to be good designers, and were disappointed that they felt the emphasis was on learning elm. They thought this course was not going to be as programming heavy, and wanted to gain more practical experience

- “It's advertised as a design course, but the majority of the time I was just figuring out how to use elm. I wish we spend more time actually learning about design”
- “There aren’t any courses on UI at McMaster and so I was looking forward to it, really disappointed with how shallow my learning was”
- “Really tough because you want to get a lot out of the design aspects of the course at the same time as you’re learning a very difficult language.”

More Case Studies

Students wanted to have more case studies as a component of the course as a tutorial series, as part of lectures, or for inquiry style assignments.

- “It would be cool if every week we went through amazing or awfully designed technology products to understand what made them what they were. Maybe talk

about the process to get them where they were so we could understand what goes on in industry”
- “It would be a better use of tutorial time to present case studies of well designed tech products in terms of Norman’s Principles”

Liked Textbook

Students liked the textbook in the course. They found it enjoyable to read and full of valuable information. One student complained that he preferred textbooks with a rigid structure that followed the course, and a couple complained that many of the lectures felt like an exact copy of the book -- so there was no need to attend if you read it.

Didn’t Like Slide Presenter

Students found the slide presenter distracting during lectures and wished the professor had used something like Google Slides or Powerpoint.

- “I was waiting for him to give a lecture about the slide presenter and go through iterations of the design until he arrived at something we all liked but that day never came”
- “He should have rolled out the new version of the slide presenter much faster, and had more iterations -- or just use powerpoint, please!”

Liked Guest Lectures

Students derived a lot of value from the guest lecturers. They found their talks engaging and the advice they gave incredibly useful.

Wanted to Learn More about Industry Standards of Design / Practical Experience

Students wanted to gain more practical knowledge about how to apply the design principles they were learning to their future career. They wanted to get a broader understanding of what was going on in industry; the different schools of thought, tools, and frameworks they would use in their jobs.

- “I wanna know how this course maps onto what is done in industry. I know there’s a lot of data collection being done, but I dont know what for and how”

FINAL THOUGHTS / RECOMMENDATIONS

Overall students seemed to enjoy the course, and see value in the topics being covered. Students had a lot of issues with the lack of organization, mandatory use of the elm programming language, lack of creative liberty, and lack of discussion around industry standards. If considerations are made to better prepare, and include the topics students desire, the course will be much better suited for student enjoyment in future years.

1. Include more case studies in the curriculum, make it relevant for the audience
    a. Products students are likely using
    b. Companies students think positively of
        i. Apple, Tesla, Google, etc.
2. Better organization system for communicating with students
    a. Not using avenue announcements for bulk of course information
        i. Use only to reference the addition of new files or changes
    b. Better file names
    c. Logical modules
3. Recommendation for an application to improve quality
    a. With grade school aged students
        i. Application that monitors progress of students, and alerts teacher of students that are falling behind
    b. Show progress in a timeline, including times where they looped back to a previous part of the process to make revisions
    c. Have all the design thinking worksheets in an app that move through a logical flow