Designing Healthcare (1 cr course)

What does it mean to design for individual patients or healthcare systems? What are common problems patients encounter as they traverse the healthcare system and what unique solutions and creative inspirations can we propose? In Designing Healthcare students will experience 4 patient case scenarios that intimately illustrate patient disease onset, initial interaction with the healthcare system, hospital stay, surgical encounters and post operative or post treatment course. Each patient case presentation will be followed by discussion of observations and identification of inspirations, problems and design opportunities. Students will then identify a single design they would like to execute as their final project. This class will take place on two Saturdays spaced 1 month apart (~5 hours each Sat). Final project options will be broad and might manifest as code, an interface or medical device prototype, hacking the interior design of a healthcare space, a systems design proposal or art inspired by a patient case.

Objectives

1. Students will develop an understanding of the healthcare system through the lens of four patient presentations and associated class readings
2. Students will have an opportunity through class discussion and their final project process to learn what healthcare inspirations and problems they find most interesting
3. Students will utilize and hone known design, artistic and building skills (or learn a new one) to complete their final project
4. Students will keep a web based documentation log of their final project process

Syllabus

Saturday Day 1 (12-5)

Introductions/expectations
   -Get to know each other (15 mins)
   -Class outline/expectations (15 mins)

Case 1 (55 mins)
   67 year old male with osteoarthritis who undergoes a total knee arthroplasty

5 min break

Case 2 (55 mins)
   45 year old female with poorly controlled diabetes and hypertension
5 min break

Case 3 (55 mins)
87 year old female who falls at her care facility breaking her left hip

5 min break

Case 4 (55 mins)
22 year old male polytrauma patient who is involved in a motor vehicle collision suffering multiple fractures and internal organ injuries

5 min break

Wrap-up
- Closing thoughts
- Discuss final project expectations

Interim project period
5 week interim time period to work on final projects. Finalize final projects with instructor and subsequently iterate on designs. Instructor will be available as needed for questions, feedback, and project critiques.

Saturday 2 (12~4)
Final project presentations
Class feedback

Class Reading Resources


2. The Innovators Prescription, a recommended book to provide detailed background on the many opportunities present for new solutions in healthcare
http://www.amazon.com/The-Innovators-Prescription-Disruptive-Solution-ebook/dp/B001FA0NS8
3. Technique guides: These guides help the reader to understand the multitude of steps required to complete a surgical procedure.


http://www.wmtemedia.com/ProductFiles/Files/PDFs/011941_EN_LR_LE.pdf

4. Are we more honest with our healthcare providers or our phones?

http://mobile.nytimes.com/2016/03/27/magazine/were-more-honest-with-our-phones-than-with-our-doctors.html?referer=&_r=0