CPSC 444: ADVANCED METHODS IN HUMAN-COMPUTER INTERACTION

Lecture 1 – Introduction

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includes slides from Jessica Dawson
COURSE STAFF: INSTRUCTOR

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https://www.cs.ubc.ca/~cs444/
COURSE STAFF (CONT’D)

TAs:
- Izabelle Janzen (L2B: 10am – 12pm)
- Francesco Vitale (L2A: 2pm – 4pm)

  – lead on workshops
  – almost everything to do with project
  – staffing workshops & monitoring discussion group
  – scheduling (design reviews, etc.)
  – ...lots of other stuff
LEARNING GOALS FOR TODAY

- familiarity with 444, so you know what to expect (structure, website, particulars, etc.)
- understanding of similarity/differences with 344
- brief introduction to the course project
- *time permitting (unlikely this year)*, a historical look at some HCI foundations and visions
FIRST DAY SURVEY/QUIZ

• not graded 😊
• but will be collected

• discussion about workshop registration to follow
• should have you registered by end of Mon (Jan 8)
MAIN COURSE COMPONENTS

• lectures
• pre-class readings and prep assignments
• weekly workshop
• final exam (no midterm)

PROJECT

– ~4-person teams, self-formed with facilitation
– design competition at end of term
– peer evaluation

... more on each of these
Grade Breakdown - Tentative

- Online Prep Assignments (10%)
- Team project (50%)
- Teammate peer evaluation (5%)
- Final exam (30%)
- Discretionary (5%) - attendance and participation in workshop/lecture
- Project grade scaling based on individual contribution (similar to CS310)
HOW IS THIS COURSE SIMILAR TO 344?

• structurally very similar

• project based: hands-on user-centered design (structurally very similar)

• team-oriented

• interactive and discussion based problem-based learning

• heavy demands on your ingenuity, your time and your people skills.
HOW DOES THIS COURSE DIFFER FROM 344?

• builds on 344, methods are more advanced
• somewhat less total material covered, less lecture time
• project
  – topic more creative???
  – higher expectations for depth/quality of work + use of advanced methods
  – milestones are less scaffolded
• much greater emphasis on reading papers from the research literature
What previous 444 students said...

• Will post end-of-term survey from 444 last year to Piazza, so you can read for yourself

• Notable:
  – Workload – about the same as other CS courses (but heavier than other non-CS courses); “about right” for what is learned
  – Generally very well liked: project, interactive lectures
  – Mixed: one two-hour lecture block; readings (“The pre-reading, while tedious, did actually help when learning the concepts - and it was helpful that the lectures reiterated what we answered for the discussion questions for the prep assignment.”)
WHO IS THIS CLASS FOR?

those who are...

– interested in HCI as a career option (UX researcher, UX designer, web designer, ...)

– would like to pursue a bachelor's thesis or graduate study in HCI or UI design

– simply interested in gaining deeper knowledge and/or hands on experience in HCI
TOPICS COVERED

• Module 1: Course Intro
• Module 2: Field Studies & Experiments
• Module 3: Laboratory Experiments
• Module 4: Models of the user
• Throughout: Video
Course E-tools

• Hybrid/transition approach this year – many thanks for your patience in advance 😊

• Course website http://www.cs.ubc.ca/~cs444
  – Overview / syllabus
  – Weekly schedule, includes lecture slides & readings
  – Project overview and milestone descriptions
  – Resources (such as ethics protocol)

• Canvas
  – Prep assignments
  – Hopefully all submissions (project etc.)

• Piazza for discussion
X360 WILL BE HEAVILY USED

• Room schedule: https://www.cs.ubc.ca/bookings/classlab/ICCS X360

• But, 444 is the only scheduled class using x360 this term... yah!
  – Have priority access over others using the room (e.g. some grad students who use the workbench)
  – Occasionally non-class things will be scheduled in room; I will try to alert you in advance
COURSE COMMUNICATION

• discussion groups
  – for all course content related questions
  – course staff will check daily (and once on weekend)
  – Piazza (sign-up link on course page)

• private piazza posts to all course staff
  – only for things that won’t be of interest to other students

• confidential communication only: email instructor
**Pre-Class Readings**

- Most available online *(hopefully all this year)*
  - some need pay wall access through UBC
  - To download from home: Library proxy
    [http://services.library.ubc.ca/off-campus-access/connect-from-home/](http://services.library.ubc.ca/off-campus-access/connect-from-home/)
  - or the VPN
    [https://it.ubc.ca/services/email-voice-internet/myvpn/setup-documents](https://it.ubc.ca/services/email-voice-internet/myvpn/setup-documents)
**Pre-Class Prep Assignments**

- Weekly prep assignment(s) on *Canvas*
  - Due before lectures @ 2:00pm
  - Sometimes split into multiple parts

- Includes mix of questions to:
  - test your understanding of the readings
  - apply your knowledge to new problems
  - some closed (immediate feedback), some open (TA marked)

- Occasionally will be more of an ‘online tutorial’
  - e.g., how to do ANOVA analysis in R

- To be done *individually*
  - but encouraged to discuss with other students
LECTURES

• more seminar like in style
  – mix of lecturing and hands-on activities or discussion
  – participation mark based on random attendance checks / random collection of worksheets

• lecture content will regularly start from the prep assignments
  – prep is meant to be your first pass at learning the material
  – In-class, we will focus on tying concepts together and discussing tougher questions
workshops

- less structured than in 344
  - but still important, *attendance will be taken*

- depending on the week, will consist of:
  - formal design reviews with course staff
    (Friday after major project deliverables due)
  - dedicated time to *meet with your team* and the TA
to advance your project
  - occasionally some new content will be taught
EXPECTATIONS

1. Attend all lectures and participate in activities
   • Exam will cover all material discussed in lecture, not just posted slides

2. Do assigned reading and prep assignment before class
   • Material as it relates to learning goals (even if not specifically covered in a prep assignment) will also be testable

3. Be a considerate team member
   • do your share of the work, do it well and on time

4. Abide by the university academic honesty guidelines.
Do you think you are good at Multitasking?

Try this!

- write this series FAST: 10, 9, 8, 7,...1
- write this series FAST: a, b, c, d,...j
- write this series FAST: 10, a, 9, b, 8, c,...j
My policy

Don't Use Laptops in Class

Don't Distract Others!
The Effect of Peer Distraction on Comprehension of Lecture Content

Proportion Correct

View to Multitasking       No View to Multitasking
 Affordable Score_{NO PHONE} - Affordable Score_{PHONE USERS} = 4.7 \pm 1.4 \%
In other words …

Students who report using their cell/mobile phones in class score nearly half a letter grade lower, on average, than students who report never using their phones.
• Laptops – students tend to transcribe lectures verbatim
• Hand writing – process information and reframe into own words and therefore perform better on conceptual questions
BREAK TIME – 5 MIN
BRIEF INTRODUCTION TO PROJECT

- 5 milestones (MS) that culminate in a design competition
- will exercise all 3 advanced methods taught in course (field work, experiments, video)
  - imperfect fit
- MS I is the proposal
- teams will be formed around selected project ideas from MS I
PROJECT - MSI

• MSI - Proposal is available on website
  – *Individual Assignment*
  – read it and get started now!
  – due Mon Jan 15th
  – more thinking than writing; you’ll need time to let ideas percolate
  – post questions to Piazza, bring questions to Tuesday’s lecture and to workshop next Fri

• Idea MAY form the foundations of your project
  – what are you motivated to work on all term???
PREVIOUS 444 PROJECT IDEAS

- Safety monitoring app (video shown first class)
- Health and wellness app (video shown first class)
- StickIt - ubiquitous notes
- Crowdsourcing avalanche condition data
- Social network tool to increase physical fitness activity among friends
- Mobile museum guide
- Friend finder
PROJECT VIDEOS

For each video, answer the following questions:

- What is the motivation for the interactive system introduced?
- What was the design methodology used?
- How does the interactive system work? (What are its primary features?)
- How was it evaluated?
- Does the video capture the essence of the overall project?
- What is the production quality?
- Are you engaged?
SOME AREAS WITH STRONG DESIGN POTENTIAL

- **Equalizing society** – tech solutions to build an equal opportunity society
- **Health** – smart devices to monitor and improve health in a meaningful way
- **Collaboration** – interfaces to richly support working/being together, even when apart
- **Local community** – technologies to help build our local community (rather than online social networks)
- ... and many others
FINAL NOTES

• think about ways that interactive technology could
  – better support an existing human activity,
  – enable a new human activity

• needs to be something you can actually prototype

• BUT the technology is not the main focus, the human activity is the focus
RECAP: LEARNING GOALS FOR TODAY

- familiarity with 444, so you know what to expect (structure, website, particulars, etc.)
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HOMEWORK + ON DECK:

• Read through course website
• Read MSI – start brainstorming!
• Jan 9th lecture
  • pre-class reading (posted)
  • prep assignment (available already)