IAT 882 TANGIBLE COMPUTING

Antle
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IAT 882 Tangible Computing

- Introductions
- Sneak Peak: What is Tangible Computing?
- Course syllabus/schedule
- What course is about
- Assessment
- How course relates to Educational Goals for SIAT graduate program (i.e. what you will learn and why)
- Expectations
- Academic integrity

- Workshop #1
Introductions

- Alissa Antle (Instructor)
- Elgin McLaren (TA)
- You: Name, degree/year, thesis topic, supervisor, why IAT 882? What do you hope to learn?
Tangible Computing

- Tangible, physical and embodied computing is about using physical objects to interact with digital computation …
- Hybrid/mixed physical-digital interfaces, representations and forms
- Utilize a wide range of human abilities
- Tends to rely on embodied perspective on cognition
- Tend to be objects, surfaces, or environments out in the world
Peləwkw' - belongings
Come in all sorts of shapes and forms

- Each prototype addresses a specific research question(s) that solves a research problem
- Each is based on theories of how and why embodied interaction matters to cognition, learning, felt experience, emotion, values ... in humans.

- You’re going to make a tangible research prototype ...
Course Syllabus/Schedule

- Schedule: http://www.antle.iat.sfu.ca/courses/iat884/
- Workshops: http://www.wiki.iat.sfu.ca/IAT884/index.php

- Emailed links to students registered in course yesterday afternoon.

If didn’t receive it:

1. You are not registered
2. Get it from someone in class
What’s in the course

- **Seminar**: theories, frameworks, concepts, methodologies for designing and evaluating, exemplars, mine and other people research.
  - Based on readings, lectures, discussions, videos, prototype deconstructions, Q&A
  - Based on student analysis/presentations of papers

- **Workshops**: learn and practice technical skills in electronics, microprocessors, sensors, motors, communications etc
  - Based on readings, hand-outs, tutorials, exercises
What’s in the course

- Project Proposal: a tangible prototype that is designed to (1) specifically address a research problem and a research question taken from the literature and (2) that is designed based on one or more concepts/theories of how humans think/perceive/feel/act according to embodied cognition

- Prototype: build, test, document (video)

- Paper: Argue why your prototype is a viable research instrument to address the research problem and question and how/why it is based on embodied cognition
Assessment

- Workshop exercises 10%
- Paper presentation 15%
- Prototype (and video) 40%
- Paper 35%
Educational Goals & 882

Educational Goals for IAT 882 (SIAT Graduate Program)

A. Research, Scholarship and/or Creative Production

Students will be able to:

- Master the substantive constituents of the chosen field of knowledge and/or creative practice [field: Tangible Computing and Embodied Interaction]
- Identify and conduct independent and original research, scholarship and/or creative practice
- Draw from and apply scholarly and artistic reference material
B. Methodological Tools and Processes

Students will be able to:

• Conduct their work using research methodological tools and processes appropriate to their disciplinary and/or interdisciplinary field

• Use iterative and integrative creative methods and processes where appropriate
C. Critical Thinking, Problem Solving, Oral and Written Communication and Dissemination

Students will be able to:

• Think critically and creatively, and identify and solve problems in their/this field of study.

• Demonstrate excellent communication skills in their field of study through scholarly writing, creative exhibitions and presentations.
D. Technical proficiency

Students will be able:

• To demonstrate their computational literacy through the use of a programming language and/or electronic prototyping frameworks [882: physical-digital prototypes]

• Choose and use technical tools and processes appropriate to their field of research and/or creative production.
Expectations

- Come to class prepared
- Come to class on time
- Turn off all external communications
- Take responsibility for your own learning
- Leverage your peers
- Do readings/ask questions about readings
- Be engaged, be polite, be curious!
- Advance notice if not at class
- Don’t hand in things late – just don’t.
Academic Integrity

- Plagiarism — if you borrow/copy ideas, words, designs, code, images, forms you must cite references, use quotes, and provide copyright information.
- Only use images/videos under CC or with permission.
- Doubling up — no submitting work for two courses
- Copying/cheating — do your own work
- Gear — Don’t take anyone else’s gear. If you lose/break gear tell us and replace it. Return gear at end of course in same condition. If you sign out gear return it.
- Speak/write respectfully to others — no matter what!
- Authorship — discuss/give credit .. Vancouver convention
SFU Policy

- Expect you to read and be familiar with SFU policy on Academic Honest and Integrity

https://www.sfu.ca/policies/gazette/student/s10-01.html

(google it and read it).