

CS499R/PSYCH482/CS798
Games for Health—Winter 2016
Administrivia
Course Objectives, Schedule, and Grading

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Course Objectives

- Review of current major applications of games in healthcare.
- Reading seminar and game design course.
- Case studies of representative health-related games: from “best-practices” to still pretty terrible.
- By the end of this course students should have:
 - Good understanding of current major topics in health-related games.
 - Appreciation of what makes for good “gamification” in healthcare.
 - Ability to apply good game design principles in healthcare applications.



Schedule of Topics

- Characteristics of serious games.
- Games versus gamification (panel).
- Board and card games.
- Exergaming.
- Cognitive and mental health—***SPECIAL THEME***.
- Games for children and youth/the elderly.
- Narrative and storytelling—***SPECIAL THEME***.
- Social and virtual reality games.
- Personalization in games
- Final discussion: Serious games on sensitive subjects.



Canonical Reference—“Games for Good”

- Jane McGonigal, Reality is broken: Why games make us better and how they can change the world, Penguin Books, 2011.
- Individual copies on loan. Inexpensive to buy.
- Also see: <http://janemcgonigal.com>



References—Games for Health

- S. Arnab, I. Dunwell, and K. Debattista (eds), Serious games for healthcare: Applications and implications, 2013.
- K. Bredl and W. Bosche (eds), Serious games and virtual worlds in education, professional development, and healthcare, 2013.
- B. Schouten, S. Fedtke, T. Bekker, M. Schijven, and A. Gekker (eds), Games for health: Proceedings of the Third European Conference on Gaming and Playful Interaction in Health Care, 2013.
- Two copies of each reference – short-term loan from course coordinator.



References and Resources—Game Design

- In-class workshops led by Games Institute research associates.
- Jesse Schell, *The art of game design: A book of lenses*, 2014.
- Jesse Schell, *The art of game design: A deck of lenses*, 2014.
(Cards to accompany the book)
- Individual copies on loan.



Course Delivery

- Each session addresses a different genre of health game:
 - Case studies of representative games.
 - Research papers. Evaluations.
 - Individual or two-person presentations. Promoting discussion.
- Series of in-class workshops on game design:
 - Choosing a game design project idea. Forming teams.
 - In-progress: Developing the game prototype.
 - Games Institute mentoring.
- Final deliverables:
 - Game prototype (board, card, paper, digital) and walk-through.
 - Design document.
 - Poster.



Grading Breakdown ***UPDATED***

- 60% Course project—Game prototype (1–4 person team):
 - (5%) Project proposal (one page)—due Friday February 5
 - (10%) In-class design workshops—Jan 29, Feb (TBA), March 11
 - (10%) Poster presentation—(TBA)
 - Draft project design document—for feedback only
 - (35%) Final project design document—due Friday April 1
- 30% Presentations of papers and case studies:
 - **Graduate students:**
 - 5 presentations are required (25% of the final grade)
At least 2 presentations must be done individually.
3 additional individual or team presentations are also required.
 - Additional essay (5% of the final grade)
An in-depth individually written “thinkpiece” on some aspect of games for health that presents interesting medical, technical, business, ethical, or other challenges (1000–1500 words).
 - **Undergraduate students:**
 - 3 team presentations are required.
 - Optional Bonus “thinkpiece” essay
(1000–1500 words, up to 5% of the final grade)



Required Background

- No formal requirements. Interest in learning and critiquing state-of-the-art of health games: Challenges, successes, failures.
- **Course themes:** Games for mental health/Narrative in games
 - Collaboration with Centre for Addiction and Mental Health (CAMH). CAMH interested in designing games to address difficult health issues for young people (problem drinking; mental health).
 - Prof. Raymond Mar (Psychology, York University) and Lab. Effects of narrative on the brain.
 - Miriam Verburg, Director, Bloom Digital Media. Narrative in games. Games for young people.
- **Projects:** Address various issues in CAMH game prototypes:
 - Gamifying sensitive subjects.
 - Good game mechanics for serious (health) games.
 - Better models of interactive narrative for health games.
 - Modelling persuasive language (health rhetoric) in games.
 - Interactions between narrative and game mechanics.
 - Integrating cognitive behaviour therapy into gameplay.
 - ... and more.



More Details

- Chrysanne Di Marco, DC1308, cdimarco@uwaterloo.ca
- Workshop leaders: TBA
- Course website:
<http://www.cs.uwaterloo.ca/~cdimarco/cs798w16>
- Getting started:
 - Jane McGonigal, *Reality is broken: Why games make us better and how they can change the world*, Penguin Books, 2011.
 - Also see: <http://janemcgonigal.com>
- Excellent introduction to game studies on www.coursera.org:
 - “Understanding Video Games”, new session started Sept 1.
 - Thorough coverage of various aspects of game studies and design.
 - Extremely well-researched—extensive readings and references by game scholars and game designers.
 - History of videogames—huge number of case studies, demos.
 - **Note: Access soon will be closed.**

