

CMPT 866 – TOPICS IN HUMAN COMPUTER INTERACTION

Course Outline – 2014/2015 Term 1

1. COURSE DESCRIPTION

This course examines the use of game design techniques for use in playful and serious computer applications and interfaces. The emphasis will be on including game elements into interfaces and applications to provide playful experiences, to motivate behaviour, to connect people, or to crowdsource work; and evaluating the efficacy and experience of gameful systems.

2. COURSE OBJECTIVE

Course components and the evaluation criteria are designed to reflect the learning objectives of the course. The objectives of the course are as follows. That students:

- *Read* and *critique* the seminal and recent research on game motivation, game design, gameful design, gamification, serious and persuasive games, and evaluating player experience.
- *Lead* a seminar discussion on the topic of the week.
- *Discuss* the advantages and drawbacks of the varying game science readings.
- *Measure* game efficacy and player experience via subjective and objective measures, using statistical tools and models.
- *Implement* a gamified system, gameful interface, or game for research purposes.
- *Present* their system through a project report, project presentation, and project video – similar to how computer game research is presented in the community.

3. COURSE ENROLLMENT

The course will be limited to 15 students so that the discussion aspect of the seminars is supported.

4. INSTRUCTOR

- **Name:** Dr. Regan Mandryk
- **Office:** 373.1 Thorvaldson Bldg
- **Office Hours:** by appointment
- **email:** regan@cs.usask.ca

5. TEXTBOOK AND LECTURE NOTES

There are no required textbooks for this course. All required readings for the course will be posted in PDF format on the course website or handed out in class. The heavy emphasis on discussion means that class attendance is essential to success in this course.

6. COURSE WEBSITE

The course website is hosted using moodle and accessible through the CS website: <http://www.cs.usask.ca/classes/>. Course announcements regarding assignments as well as other information will be communicated to the class via moodle. The student is responsible for reading this website regularly.

7. LECTURE TOPICS

Please see the schedule for a list of topics and dates. The following topics may be covered but are subject to change:

- Foundations of game science
- The motivational pull of games
- Player types and personalization
- Serious games
 - Crowdsourcing work through games
 - Motivating behaviour through games
 - Persuasive games
 - The science of gamification
- Social play
 - Connecting people through play
 - Balancing play
 - Matchmaking
 - Competition
- Gameful design in non-game contexts
- The post-BLAP world of games
- Evaluating player experience

8. COMPUTING FACILITIES

The project for this course could be completed using a variety of languages. All tools can either be downloaded or are available on the computers in the Spinks labs or in the HCI lab.

9. STUDENT EVALUATION

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|-----------------------|-----|
| • Assignments | 10% |
| • Reading Critiques | 25% |
| • Discussion Seminars | 15% |
| • Project | 50% |

10. ASSIGNMENTS

A series of small assignments will be completed throughout the course to teach the practical skills need for the final project. Assignments will be available via the course website and will be graded by the course instructor. Whether assignments are completed in groups or individually will be specified in the assignment instructions.

Absolutely no late assignments will be accepted for credit. Absolutely no extensions will be provided for assignment due dates.

11. READING CRITIQUES

Readings will be used as tool to reinforce concepts learned in class and there will be weekly reading assignments over the course. All reading assignments must be completed individually, unless otherwise stated.

Weekly readings will consist of two or three papers, depending on paper length. I expect you to carefully read and reflect on the papers. The critiques are not intended to be summaries, or in-depth reviews, but are a tool to help guide your reading of the papers.

11.1. CRITIQUE FORMAT:

Each critique should follow this format:

- Two to three sentences describing the paper
 - Point out what you think is the main contribution; do not simply copy from the abstract
- Two to Four paragraphs of critique
 - Potential topics for consideration include:
 - What idea or innovation enabled this research?
 - Is there more to be had from that idea or innovation?
 - What new questions or research agendas are suggested by this research?
 - What would you have done differently with approximately the same resources available to the original authors?
 - What would you have done differently with twice or half the resources available to the original authors?
 - How might this research have informed some other research you've seen?
 - How does this research relate or compare to other research you have seen?
 - What are the limitations of the research?
 - Note that these topics are only suggestions; please also explore other topics and ideas.
 - **Focus both on what was done well in the research and what could have been improved.**
- List of 3 questions.
 - These questions can be things which you would like clarified or aspects of the paper that you did not understand. If the paper was self-explanatory, the questions might instead be related to things you would like to ask the authors. For example, you may want to ask them to justify their choice of some treatment of the data, or why they chose a specific game. Imagine that you are listening to the conference presentation of the paper and consider what some good questions regarding the work might be.

Each critique should be approximately a page in length (somewhere in the range of 300-700 words but this isn't a firm requirement). Your grades will be based on your demonstrated understanding of the content, the depth of your insight, and the intellectual effort made. Improvement over the semester could be considered when calculating the final grade. Keeping the critiques short is an intentional choice. I'm not interested in you filling up pages with 'filler'. Short and focused opinions and demonstration of understanding is key.

11.2. GRADING CRITIQUES:

Grades will be given for each critique on the following scale:

- **Excellent:** You exceeded the expectations of the assignment, showing original thought and interesting insights.
- **Great:** You demonstrated an understanding of the paper and made some solid points.

- **Good:** You completed the critique, but failed to show much original thought or insight.
- **OK:** You summarized the paper without giving your own thoughts or opinions.
- **Poor:** You failed to meet expectations.

Absolutely no late reading assignments will be accepted for credit. Absolutely no extensions will be provided for reading assignment due dates. The grading scheme does map well to A through F. The default grade will be good... you will have to earn the greats and excellent.

12. SEMINAR DISCUSSIONS

Students will be required to lead multiple seminar discussions based on the weekly readings. Quality of leadership of the discussion and preparedness for the discussion will contribute to the discussion component of the final grade. The course instructor will assign the week of your seminar discussion leadership.

13. CLASS PARTICIPATION

Class time will be used for content presentation, examples, case studies, design exercises, and group interaction. The visual nature of the course content, combined with the interactive nature of the content presentation, means that class attendance is essential to success in this course. All in-class activities are improved when there is sufficient class participation. As such, the discussion seminar portion of the final grade will depend on class participation and will be assigned by the instructor.

14. PROJECT

This course requires completion of a project which has several marked deliverables throughout the term. The goal is to provide students with experience in research in Computer Games.

There are multiple stages to the project, each with a milestone and deliverable. Please consult the course schedule (early and often) for timing of components and for details on the deliverables.

14.1. PROJECT GRADING SCHEME

Each project component will be graded and given a weight of the total project grade (50% of grade).

1. Proposal (10%)
2. Implementation and Testing (30%)
3. Project Report (40%)
4. Project Presentation/Video (20%)

Submission instructions for projects will be given in the descriptions of individual project components. Programming components will be submitted using moodle.

Absolutely no late project components will be accepted for grading. As the project components build upon each other, feedback will be provided on late projects, but the grade for the late component will be zero.

Absolutely no extensions will be given for project components.

15. DEPARTMENT POLICY ON ACADEMIC HONESTY

Students are expected to be academically honest in all of their scholarly work, including course assignments and examinations. Academic honesty is defined and described in the Department of Computer Science Statement on Academic Honesty (<http://www.cs.usask.ca/undergrad/honesty.php>) and the University of Saskatchewan Website (<http://www.usask.ca/secretariat/student-conduct-appeals/StudentAcademicMisconduct.pdf>).

Please note that new policies and procedures governing Non-Academic Misconduct have come into effect: <http://www.usask.ca/secretariat/student-conduct-appeals/StudentNon-AcademicMisconduct.pdf>.