

PSYCH 461

HONOURS SEMINAR: VIRTUAL REALITY AND CYBERPSYCHOLOGY

Fall 2018

TUESDAY AND THURSDAY, 230-350 PM, HH259

INSTRUCTOR: Dr. Colin Ellard, Office, PAS 4034, Email: [cellard@uwaterloo.ca](mailto:cellard@uwaterloo.ca)

Office Hours: Monday 11-12.

#### COURSE DESCRIPTION:

The new technologies of virtual and augmented reality are beginning to show their potential to exert widespread impact on human behaviour. The ability to generate high-fidelity simulations of “real life” not only provides us with a potent new set of tools for psychological experimentation, but may also transform the way that we understand physical reality and conduct human relationships. In this course, we will begin with a brief exploration of the technologies used to generate virtual environments (including some hands-on exploration in the laboratory). We will then explore the wider implications of this technology by examining the work of thought leaders such as Jaron Lanier and Jeremy Bailenson. Finally we will look in detail at some case studies that show the contributions of VR and AR to the conduct of psychological science.

#### READINGS:

The “textbook” for the course is a very readable trade book by Jeremy Bailenson entitled *Experience on Demand* and available at the bookstore. We will read and discuss some of Bailenson’s book in class, but we will also focus on primary readings to be provided on LEARN. There are a few other good recent books that you might find useful and interesting. I can provide suggestions on demand.

#### FORMAT OF CLASSES:

The course is an honour seminar, which means that we will spend a good deal of our time in group discussion. At times, we will venture over to my VR lab in PAS for demonstrations or hands-on experiences.

#### EVALUATION:

##### **Participation: 20%**

As this is a senior seminar course, all students are expected to come to class prepared to discuss ideas and experiments. This means that you will need to show up to class and I expect you to have completed readings before the class starts. Your grade will be based partly on attendance

but mostly on active participation. For a seminar, the class is on the large side, so there may be times when you don't have a chance to express yourself during our meetings. If this happens, feel free to submit a short, written comment (about 1 page double spaced) related to that class and the readings. If you are absent for a class, you can only substitute a written response along with a VIF for that class.

### **Seminar leader: 25%**

For one of our classes, I will ask each of you to lead a session, working in pairs. Please note that this does not mean preparing an auto-pilot Powerpoint presentation summarizing the week's readings. I'd like you to go a bit beyond this by working to integrate the findings of the week's readings with the greater narrative of the course and also by encouraging participation from the whole group. I'll provide a more detailed rubric outlining my expectations shortly.

### **Research proposal: 30% (10% presentation, 20% written)**

I'd like each student in the class to prepare a research proposal based on a topic from the course. Again, you'll receive a detailed rubric outlining my expectations but the general idea is to become somewhat expert in some area of cyberpsychology and VR research and then design a study in that area. This might sound a little daunting at first, but I'll be on hand to give you lots of guidance (in fact, I'm going to require that you come talk to me about your proposal before you get too far into things so I can help you ensure that you're on the right track). For evaluative purposes, I'd like each of you to give a 15 minute presentation to the class (10 minutes presentation, 5 minutes discussion, strictly enforced). One week following your presentation, and taking into account any feedback that you might have received in class, I'd like you to submit a short-ish written proposal (my definition of short-ish is 1500 words but I won't penalize you for going a little overboard if you are passionate about something).

### **Final paper: 25%**

For the final paper, I'd like you to select a topic of interest related to VR, AR, or cyberpsychology and write a review paper. By now you're expecting me to say that I will provide you with a detailed rubric. And I will. You needn't feel completely constrained by the topics we cover in class, but as with the proposal, I'd like you to come see me (or at least let's chat over email, Twitter, Instagram or something in keeping with the course content...but of course not FB (friends don't let friends use FB)).

### **Rough syllabus for the course**

I would first like to say that this is the first time I've offered this course (and indeed it's the first time this course has been offered in our department, so far as I know). This means that we are as gods. To some extent we can decide together how to spend our time. This said, I have some rough idea of some of the things I would like to cover, and they will include some basic concepts, methods, groundwork, history, theory, and then some applications most (but not all) based on things that I know well because we are working on them in my lab. But I'm also prepared to respond as much as possible to the dynamic of the class. If there are topics that

you'd really like to talk about, we can juggle. In fact, I'd be really pleased if this happens. And I'm totally prepared to take things into mysterious new areas which will require me to do some serious new learning. We just need to keep enough of a spine in the course so that nobody become disoriented, dismayed, or anxious. After all, I know that you're here at UW for all kinds of serious reasons and that much is at stake, but it's important not to lose sight completely of the fact that this is supposed to be fun. If Jaron Lanier, one of the founders of VR, whom you'll soon hear all about, can come to a meeting looking like an octopus, then I think we've got some latitude.

Week of Sept 6 - Introduction

Week of Sept 10. – history and tech basics

Week of Sept 17 – tour of the lab \*\*\* note that I'm away on Thursday Sept 20 so there's no class

Week of Sept 24 – Immersion and presence

Week of Oct 1 – VR for training

Week of Oct 8 – fall break + I'm away again so no class on Oct 11 (\*\*this is the last time this will happen this semester)

Week of Oct 15 (\*\* no class Oct 16) Empathy

Week of Oct 22 Empathy and then spatial navigation

Week of Oct 29 Virtual nature and urban design

Week of Nov 5. Agency

Week of Nov 12 Proposal presentations

Week of Nov 19. Proposal presentations and then Embodiment and Out-of-Body Experiences (yes seriously).

Week of Nov 26. The dark side of cyberpsychology (here's where we can trash FB if you like but most importantly we'll have a visit from Dr. Marcel O'Gorman of the English Department, who will talk to us – I think – about his work on digital sin and abstinence)

### **Late Work**

The final paper is to be completed by 11:55 pm on December 3, and submitted to a dropbox on LEARN. Students submitting late work will be assessed a penalty of 5% per day or partial day (including weekends) up to a maximum of 35% (7 days). Following this, written work will no longer be accepted for grade. Weekly check-ins will not be accepted after the deadline.

### **Information on Plagiarism Detection**

I have chosen not to use plagiarism detection software in this course. You should know, however, that both the teaching assistant and I have an expert eye for cheating developed over many years of experience. Any suspected violations of the University's integrity policy will be treated seriously and reported to the associate dean. As per the note on integrity below, it is the student's responsibility to understand what plagiarism is and to avoid committing it.

### **Electronic Device Policy**

Many students like to use notebook or tablet computers during class. If you choose to do so, please be mindful of the possibility that your use of electronics could be distracting to your classmates. Please restrict your use of such devices to activities related to class content (eg. Note-taking), and keep such devices muted during the lecture.

### **Attendance Policy**

There is ample evidence that students who attend class regularly do better than those who don't. This, and the fact that you're investing a large amount of money to obtain a good education, should make questions about class attendance a no-brainer. You should come to class as often as you can. If you do miss a class, you will need to find a classmate to share notes with you. As much as I like talking about perception, I simply don't have the time to repeat classes for you during office hours or over email.

### **Academic Integrity**

**Academic Integrity:** In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility. See the [UWaterloo Academic Integrity webpage](#) and the [Arts Academic Integrity webpage](#) for more information.

**Discipline:** A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to [Policy 71 - Student Discipline](#). For typical penalties check [Guidelines for the Assessment of Penalties](#).

### **Concerns About a Course Policy or Decision**

**Informal Stage.** We in the Psychology Department take great pride in the high quality of our program and our instructors. Though infrequent, we know that students occasionally find themselves in situations of conflict with their instructors over course policies or grade assessments. If such a conflict arises, the Associate Chair for Undergraduate Affairs (Richard Eibach) is available for consultation and to mediate a resolution between the student and instructor: Email: [reibach@uwaterloo.ca](mailto:reibach@uwaterloo.ca); Ph 519-888-4567 ext. 38790

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. See [Policy 70](#) and [72](#) below for further details.

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70 - Student Petitions and Grievances](#), Section 4. When in doubt, please be certain to contact Richard Eibach, the Associate Chair for Undergraduate Affairs who will provide further assistance; [reibach@uwaterloo.ca](mailto:reibach@uwaterloo.ca).

Appeals: A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances (other than a petition) or Policy 71 - Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to [Policy 72 - Student Appeals](#)

### **Accommodation for Students with Disabilities**

Note for students with disabilities: The [AccessAbility Services](#) office, located on the first floor of the Needles Hall extension (1401), collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.

### **Accommodation for course requirements**

- Students requesting accommodation for course requirements (assignments, midterm tests, final exams, etc.) due to illness should do the following:
  - seek medical treatment as soon as possible and obtain a completed uWaterloo [Verification of Illness Form](#)
  - submit that form to the instructor within 48 hours.
  - (if possible) inform the instructor by the due date for the course requirement that you will be unable to meet the deadline and that documentation will be forthcoming.
- In the case of a missed final exam, the instructor and student will negotiate an extension for the final exam, which will typically be written as soon as possible, but no later than the next offering of the course.
- In the case of a missed assignment deadline, midterm test, or quiz, the instructor will either:
  - waive the course component and re-weight remaining term work as he/she deems fit according to circumstances and the goals of the course, or
  - provide an extension.
- In the case of bereavement, the instructor will provide similar accommodations to those for illness. Appropriate documentation to support the request will be required.
- Students who are experiencing extenuating circumstances should also inform their academic advisors regarding their personal difficulties.

### **Official version of the course outline**

If there is a discrepancy between the hard copy outline (i.e., if students were provided with a hard copy at the first class) and the outline posted on LEARN, the outline on LEARN will be deemed the official version. Outlines on LEARN may change as instructors develop a course, but they become final as of the first class meeting for the term.