Psychology 394 - Research in Cognition and Perception - Winter 2012

Instructor: Nadia Martin
E-mail: n6martin@uwaterloo.ca **Office:** PAS 4048
Location: HH 373 **Time:** 8:30-10:20 Monday/Wednesday

Office Hours: Instead of office hours, I prefer to have you make an appointment with me whenever you feel you need to meet. However, you can always knock on my door if your question is short and can be handled in the time it would take to write an email.

Course Objectives

This course will expose the student to a range of primary research from various areas in cognition and perception. I've designed the course with four principal objectives in mind:

1. To develop students' skill at critically reading the (often very difficult) source research papers. Those are at the core of the psychological sciences.
2. To develop the students' communication skills by having them present in an informative and concise manner the content of a research paper.
3. To increase the students' knowledge of methods used for research in the area of cognitive psychology. This will be achieved by lectures, students' presentations, and hands-on assignments.
4. To develop an aptitude for critical thinking by challenging the ideas presented in research papers and by proposing original ways to extend the research.

To this end, multiple papers from various research areas within cognition and perception for in-class discussion. For most of those papers, one student will be responsible for presenting the material, and everyone will be expected to contribute to the critical discussion.

Course Components and Grading Scheme

1. Quizzes

Every two weeks, there will be a short quiz in class. Each quiz will cover the material covered in class, lab, presentation, since the last quiz. The content of the quizzes is not cumulative.

2. Presentations

We will examine, in class, a number of published journal articles. Each student will present two of those articles. You are expected to give a considerable amount of care and attention to the preparation of your presentations. It should be concise, but you are the resource expert for the paper that you are presenting. You should know the details of your assigned articles (number of subjects, which factors were controlled for, etc…), however, avoid reporting every detail during your presentation. **These are the questions the class should be able to answer based on your presentation:**

(1) What is the key question the researcher wants to answer? Why?
(2) What is the design of the experiment (and how will that answer the question)?
(3) What did they predict?
(4) What were the data? (Please be sure to show the data on one of your slides, e.g., as a graph or table.)
(5) What were the (important) statistical results? (No need for F-values or t-values, just "significant", "marginal", "not significant" will do.)
(6) What are the conclusions (and how do the results support it)?

You will be expected to send me your answers to the questions above prior to your presentation. It will allow me to verify that you have understood the article prior to presenting it. (*This means no later than Thursday afternoon for the Monday presentations, and no later than Monday morning for the Wednesday presentations.*) If needed, we can also set up a meeting to discuss any issue and review the quality of your PowerPoint slides. The first presentation should take no more than 30-35 minutes to present (approximately 15-18 minutes to present; 10-15 minutes to lead discussion), and the second presentation should take no more than 40-45 minutes to present (approximately 20-25 minutes to present; 15-20 minutes to lead discussion). As a rough guideline, you can assume 1 minute per slide. **Grading** will be based on the *clarity* of your slides and presentation, the *correctness* of the information, as well as your *ability to guide discussion*, but not the length – so don't worry if you don't think you can fill 18 or 25 minutes.

However, going over the allotted time will be considered a lack of clarity. You should assume that the other students in the class have read the article and are ready to discuss it, but do not assume that they have understood it – making sure they understand the article is the goal of the presentation. Following your presentation, you will guide the class in a discussion of the article. You may bring questions for the class to discuss, or provide demonstrations. Your goal is to get people talking about the article: bring up criticisms, suggest potential extensions, or highlight questions that are left unanswered by the article. The key is to engage the class.

3. Participation

By "class participation" I mean being responsive to what is going on in the class. For instance, texting, emailing, ordering shoes online, etc… is not considered appropriate class participation. You are expected to contribute to the group activities throughout the term. Especially, you are expected to listen attentively when students are presenting so that you can answer questions about what they are saying and offer your own ideas about the research papers. The presenter is counting on you to participate in the discussion, just as you will be counting on them to participate when it is your turn to present. The better you prepare for the class (by reading the articles in advance), the more you will be able to participate. To help facilitate your participation, you will be required to hand in two questions/comments for each article covered in class. These will need to be submitted on LEARN prior to the start of the class.

3. Thought Paper and Term Assignment

For the thought papers, you will have to choose four papers among the ones presented in class. The thought paper will be one page (single-spaced) in length. The first half will be dedicated to a short summary of the article. A guide will be provided on LEARN for reference. The second half of the paper will allow you to propose an extension to the paper. Each submission will be graded out of 10, with 5 marks assigned to the summary, and 5 to the proposal. Use 1-inch margins on all sides, and a 12 pt. font. Title pages, titles, and headings are not necessary. Include your name and student ID number in the header. You may not trade space in the summary section for more space in the extension section, or vice versa. You will submit your assignments at the **beginning** of class on the day the article you have chosen to work on is being presented. Please also submit an electronic copy on LEARN.

For the term assignment, you will provide a **maximum four or five-pages (double-spaced)** response. Pages 1 & 2 will be a summary, in your own words, of the article (see the Presentation section for the 6 questions that you should emphasize in this summary). Pages 3 & 4 will outline a new experiment that extends or clarifies the study results. Your proposal should cover the following:

(1) What is the new question you want to answer, and why?
(2) How do you propose to answer it (what are the experimental manipulations and procedure you plan to use)?
(3) What is your prediction about the results, and why?
(4) How would you interpret a different pattern of results?

For this assignment, you can choose among four papers, or choose one and submit it for approval no later than March 5th. This term assignment will be graded out of 15. Late penalties will be one point per day. Use 1-inch margins on all sides, and a 12 pt. font. Title pages, titles, and headings are not necessary. Include your name and student ID number in the header. You may not trade space in the summary section for more space in the extension section, or vice versa. Please submit an electronic copy on LEARN. The deadline is **April 2nd, 4pm.**

4. E-Prime Lab Assignment

E-Prime is a software commonly used in cognitive psychology. It allows setting up experiments without prior programming experience. However, it can be intimidating if you have never been in contact with it before. To allow you to gain some valuable hands-on experience, we will spend some time in the laboratory (PAS 1237) to get familiarized with E-Prime. You will watch some online tutorials prior to setting up your own experiment. The specifications of your experiment will be given to you at the beginning of the first lab. At the end of the labs, you will be able to set-up a simple E-Prime procedure, organize lists and stimuli, provide feedback for each response, as well as merge data and provide some summary statistics.

Grading Scheme:

N.B.: Extensions will not be granted except under the most serious circumstances. Proper documentation will be necessary in those cases.

Component	Specifications	**Weight**	Nota Bene
Quizzes	Best 5 out of 6	35%	No rewrites allowed.
Thought Papers	4 in the term - Two before reading week - Two after reading week	10%	One page single-spaced maximum: Summary + research extension - half a page each. Must be handed in during class, the day of the presentation of the paper you are extending.
Weekly questions /comments (2-3 questions per paper)	Each set coded: 2- Good 1- Sufficient 0 - Insufficient	5%	One copy must be handed in at the beginning of class.
E-Prime assignment		5%	Completed during lab sessions.
Term Assignment		15%	Similar to the thought papers, except that is should be longer (4-5 pages – double-spaced). *1 mark deducted for each day late.
Presentations - Content - Clarity - Delivery - Discussion	A – Paper 1 (15-18 min) B – Paper 2 (20-25 min) C – Short: Method (5-7 min)	A- 5% B- 15% C- 5%	For the Short presentation, please include these columns in a table: - General description - Example - Advantage - Limitation - One article that uses this method (in APA format)
Participation		5%	In class discussions
TOTAL		100%	

LEARN

LEARN (https://learn.uwaterloo.ca) will be very important to this course. I will post all of the necessary materials there, along with your grades. You will use LEARN to post your presentation(s) for the other students to download. You will also have access to dropboxes to hand in your assignments. Most importantly, however, this is where I will post announcements. Please be sure to check LEARN regularly to be sure you don't miss anything important. (I will also make announcements in class when possible.)

***A few notes from the Undergraduate Office:

The 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 UW-ACE, the outline on UW-ACE will be deemed the official version. Outlines on UW-ACE may change as instructors develop a course, but they become final as of the first class meeting for the term.

Accommodations for Students with Disabilities

The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, 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 OPD at the beginning of each academic term.

Concerns About the Course or Instructor (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 (Dr. Colin Ellard) is available for consultation and to mediate a resolution between the student and instructor. Dr. Ellard's contact information is as follows:
Email: cellard@uwaterloo.ca
Ph 519-888- 4567 ext 36852
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 71 below for further details.

Academic Integrity, Academic Offenses, Grievance, and Appeals
To protect course integrity, as well as to provide appropriate guidance to students, course outlines in the Faculty of Arts must include the following note on avoidance of academic offenses:
Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. [Check http://www.uwaterloo.ca/academicintegrity/ for more informaton.]
Discipline: A student is expected to know what constitutes academic integrity [check http://www.uwaterloo.ca/academicintegrity/] , to avoid committing academic offenses, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about 'rules' for group work/collaboration should seek guidance from the course instructor, 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, http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm
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, http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm
Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read Policy 72 - Student Appeals, http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm