PSYCO 403: Research In Cognitive Science
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COURSE EVALUATION INFORMATION

This term there are three major sources of evaluation, each worth 30%, as well as a grade for participation:

Final Paper, due at end of term:	**30%**
Idea Log, due three times in term:	**30%**
Robot Exploration Project:	**30%**
Class participation:	**10%**

The purpose of this document is to briefly describe the three main requirements that will determine your final grade in the course.

The Idea Log

Throughout the term, students will be expected to maintain an idea log. This amounts to a diary or journal in which students record their ideas, reactions, objections, and other sundry stuff to what they are reading and learning about in class. Students are encouraged to go beyond assigned class readings to search for material related to their research; the idea log is an excellent excercise for those students who are starting to do reading related to their theses, or are working through a reading list for their candidacy. In general, idea logs can start by students writing down short summaries of the main points of material that they are reading (course texts, other papers, whatever). As students become more comfortable with this style of writing, I will expect them to be including more and more of their analysis of/reactions to the ideas that they are reading.

Idea logs are graded in terms of content, and often evolve into a written communication medium between individual students and myself. Anything goes -- if you like an idea, say so, and if you don't like an idea, say so. My only restriction is that the log be kept in diary format, with an entry at least every other day, and each entry dated. Entries need not be very long -- a short paragraph or two per entry would suffice.

Idea logs are submitted to me three times during the term. The entire log will be submitted every time, so keep your log in a format that will permit you to keep adding entries while I have your log in my possession for grading. (Hint: keep it electronically).

When I mark an idea log, it is graded out of 10 marks, with up to 2 marks given for each of the following 5 categories:

> *Reading assigned and non-assigned material?*
> *How detailed are comments, questions, summaries?*
> *Is the student placing readings into course context?*
> *Is the student relating new comments to old?*
> *Overall judgement (effort, clarity, thoughtfulness)*

The Robot Exploration Project

The robot exploration project is designed to provide students with hands-on experience with the synthetic approach. In this project, students build a robot, observe its behaviour, document any surprises or key observations (e.g., with video tape), and provide a short write up (5-6 pages) to provide an overview of the key points of their project. All of the material required to perform this project will be supplied, including LEGO Dacta components, computer resources for programming (and possibly documenting construction), digital video cameras, and book resources related to working with these sorts of robots. Many of the basic aspects of working with the robots will be introduced in the lectures, so this should be a fairly straightforward project to do. Students will have to work in groups of 2 or 3 because of some limitations on robot components. The group as a whole can hand in the project, or each group member can hand in their own on the basis of group work.

In terms of the project, the most straightforward approach would be to take one of the robots that we work with in class, and modify it either in terms of hardware or software. The paper that you create should describe what your modification was, and provide some reason for exploring it. Then, you observe the behaviour of the robot after it has been modified, noting what it does, and perhaps noting how its behaviour differs from the robots that we will be exploring in class. Digital video of your robot can be converted into a short video clip that can be provided on the web. I would like to be able to put some of these projects on the course website at the end of the term.

I will be more than happy to act as a consultant on your project, and you should probably discuss it with me before your group starts to work on it.

The Final Paper

All students will be required to hand in a final essay. The paper can be a review paper, a simulation study, a report on pilot research being conducted by the student -- I don't care about the specific topic, as long as the paper is constructed in a fashion to relate it to issues that have been raised in class.   I would encourage picking a topic that is a) related to course content and b) related to some area of interest to the student. For instance, perhaps you are working on some honours thesis topic right now. You could write a paper that explored that topic from the synthetic perspective being developed in our course.

Papers last year ranged from being 15 to 20 pages in length, and will be marked in terms of both content and writing style. I would encourage you to talk to me about your topic; I can often provide information about where to look to find "synthetic psychology" sources that are related to the topic that you have chosen. I also can help students narrow down their topic to one that is manageable.