PSYC58: Cognitive Psychology Laboratory

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Office hours: Tuesday 2-3, Thursday 1-2, and Friday 12-1, (or by appointment).

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Class Times and Locations:

Tuesday:	12-2	B469
Thursday:	12-1	B469

Prerequisites: PSYB01H & [PSYB07H or SOCB06H or STAB22H] & [PSYB51H or PSYB57H]. PSYC08 is recommended, but not required.

Course Website: http://intranet.utsc.utoronto.ca

Required Materials:
There is no assigned textbook for this course. Readings and materials will be posted on the intranet. All software required for completing assignments (E-Prime, PDP++, Excel, SPSS, etc.) is installed in the B-wing computer labs, and some of it can be acquired for free from either Prof. Cree (E-Prime) or the internet (PDP++).

Course Objectives:
1. To develop a deep understanding of modern methodological techniques used by cognitive psychologists to study the mind.
2. To familiarize students with the computer software required for designing reaction time based cognitive psychology experiments and running computer simulations of mental phenomena.
3. To provide students with hands on experience collecting, manipulating, and analyzing data, and reporting methods and results in APA format, with the ultimate goal of preparing students to conduct their professional, research-grade experiments.

Topics:
Week 01: Introduction and Reference Management
Week 02: Overview of E-Prime
Week 03: E-Studio and E-Run
Week 04: Paradigm Wizard and E-Prime Trouble-Shooting
Week 05: E-Merge, E-DataAid, and SPSS
Week 06: Stroop Design
Week 07: Run Stroop and Analyze Data

Week 08: Individual Meetings about Final Projects
Week 09: Review of Statistical Concepts and Programming in E-Prime
Week 10: Introduction to PDP Modeling
Week 11: Introduction to PDP Models of Semantic Memory
Week 12: Implementing and Testing the Rumelhart Model of Semantic Memory

Course Evaluation

There are four evaluative mechanisms in this course:

Assignments:

1. **Worksheets. (14%)**
   All worksheets are due at the beginning of the Tuesday class for the week in which they are listed as due, unless otherwise noted.
   Worksheets: 1% each. 14% in total.
   i. Reference Page Worksheet. (Due Week 2.)
   ii. E-Prime Tour Worksheet. (Due Week 2 in class.)
   iii. Design Worksheet 1 (Due Week 3).
   iv. E-Studio/E-Run Worksheet (Due Week 3 in class.)
   v. Design Worksheet 2. (Due Week 4.)
   vi. Design Worksheet 3. (Due Week 4.)
   vii. Paradigm Wizard Worksheet (Due Week 4 in class.)
   viii. E-Merge/E-DataAid Worksheet (Due Week 5 in class.)
   ix. SPSS Worksheet (Due Week 6.)
   x. Paradigm Wizard Assignment (Due Week 6 in class)
   xi. Stroop Worksheet (Due Week 7 in class.)
   xii. ANOVA Worksheet (Due Week 9 in class.)
   xiii. Backpropagation Worksheet (Due Week 10 in class).
   xiv. Rumelhart Model Worksheet (Due Week 12 in class).
2. **Short APA Methods and Results Paper 1. (15%)**
   a. Students will write a short report in APA format which will consist of a methods, results, and reference section for a replication of a classic experiment that we will conduct in class. Format will be discussed in class, with examples. The goal of this assignment is to make it clear to students the steps involved in converting a description of an experiment, and raw data, into a polished, comprehensible report, written in APA format.
3. **Final E-Prime Experiment and Short APA Format Paper 2. (36%)**
   a. Students will implement their own original experiment in E-Prime and write a short report in APA format outlining the hypotheses of the experiment, the methods, and the results. The goal of this assignment is to gain experience in converting an idea into a comprehensible report of an implemented scientific research project.

Exams:

4. **Final Exam. (35%)**
   The final exam will take place during the December exam period. The exam will be designed to test your knowledge of theoretical and practical issues related to experiment design, E-Prime, PDP modeling, and APA format. It will be a mix of formats (e.g., multiple choice, short answer, true/false, etc.).

Policies on Late Assignments:
A penalty of 10% will be deducted for each calendar day that an assignment is late, beginning once class has started (so, for example, if you arrive 30 minutes late to class, the maximum grade you will receive is 90%; or if you hand it in 24 hours and 1 minute after class begins, the maximum grade will be 80%). I do not have jurisdiction to extend deadlines for assignments beyond the last day of classes, so be sure to submit all materials by that time. If necessary, students may petition the Registrar's office for permission to submit assignments or write midterm exams after the last day of classes. Such petitions are not automatically granted, and indeed, will likely be denied without a valid reason. Such petitions must be submitted by the last day of the final examination period of the term.

Policies on Missed Exams:
The only reasons considered valid for missing an exam are (1) you are not in an appropriate physical condition to write an exam as verified by a medical professional, (2) you are not in an appropriate mental condition to write an exam as verified by a medical professional or registered clinical psychologist, or (3) it is a University of Toronto recognized religious holiday for a religion you are part of as verified by documentation from an appropriate religious leader.

If you miss the final exam I cannot provide a make-up. Instead you will have to petition to be allowed to write a deferred final exam during the next exam period (up to four months away).

Policies on academic integrity
Please review the Code of Student Conduct, a copy of which can be found on pages 378-397 of the official print version of the UTSC 2005-2006 Course Calendar.

A number of the assignments in this course require that you work in pairs. I encourage you to work with one student driving the computer, and the other writing down the answers. You will only be required to hand in one copy of the assignment. This does not extend, however, to the longer written assignments – you must complete these on your own, and hand in your own copy. Plagiarism will not be tolerated, and will be dealt with appropriately. Assignments may be compared to our electronic archive of past student projects if we suspect cheating or plagiarism.

Access*Ability*
Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the Access*Ability* Services Office as soon as possible. The UTSC Access*Ability* Services staff are available by appointment to assess specific needs, provide referrals, and arrange appropriate accommodations (416) 287-7560 or ability@utsc.utoronto.ca. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

The above schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances