

PSYC58: Cognitive Psychology Laboratory -- Fall 2011

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Class Times and Locations: Monday 12-3 in SW316

Prerequisites: PSYB01H & [PSYB07H or SOCB06H or STAB22H] & [PSYB51H or PSYB57H]

Course Website: Blackboard (note that course evaluations will be conducted on the intranet)

Course Objectives:

1. To develop a deep understanding of traditional and modern methodological techniques used by cognitive psychologists to study the mind.
2. To familiarize students with the computer software (E-Prime) required for designing reaction time based cognitive psychology experiments.
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 own professional, research-grade experiments.

Lecture Schedule

Week 1: Designing a Cognitive Psychology Experiment
Week 2: Implementing a Cognitive Psychology Experiment on a Computer
Week 3: Preparing your Data for Analysis
Week 4: Interpreting Your Findings
Week 5: Classic Cognitive Psychology Paradigms
Week 6: Assignment: Design an Experiment in E-Prime
Week 7: Introduction to PDP Modeling
Week 8: Case Study: PDP Models and Semantic Memory
Week 9: Case Study: PDP Models and Semantic Memory
Week 10: Introduction to Working Memory and fMRI
Week 11: Brain Tutor and Brain Examiner
Week 12: Discuss Implications of fMRI findings for Theories of WM

Readings

No textbook is required for this course. All required readings will be posted on BlackBoard. Please check the weekly lecture notes for suggestions as to when you should read each of the assigned papers/manuals, and for guidance as to the level of depth at which you are expected to understand the various materials.

- E-Prime Manual (selected chapters)
- E-Prime Getting Started Guide
- PDP++ Manual (selected chapters)
- Rumelhart, D. E., & Todd, P. M. (1993). Learning and connectionist representations. In D.E. Meyer and S. Kornblum (Eds.), *Attention and performance XIV* (pp. 3-30).
- Chein, J.M. & Fiez, J.A. (2001). Dissociation of verbal working memory system components using a delayed serial recall task. *Cerebral Cortex*, 11 (11), 1003-1014.

Course Evaluation

Assignment 1: E-Prime	10%
Assignment 2: PDP Modeling	10%
Assignment 3: BrainExaminer	10%
Research Project	30%
Final Exam	40%

Late Assignments

A penalty of 5% (out of 100%) will be deducted for each 24 hour period that an assignment is late. I do not have jurisdiction to extend deadlines for assignments beyond the last day of classes (Dec. 1st, 2011), so be sure to submit all materials by that time. If necessary, students may petition the Registrar's office for permission to submit assignments 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.

Other Important Information

The University of Toronto is dedicated to fostering an academic community in which the learning and scholarship of every member may flourish, with vigilant protection for individual human rights, and a resolute commitment to the principles of equal opportunity, equity and justice.

AccessAbility

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 AccessAbility Services Office as soon as possible. I will work with you and AccessAbility Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. The UTSC AccessAbility Services staff (located in S302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations (416) 287-7560 or ability@utsc.utoronto.ca.

Academic Integrity

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

- **Papers and Assignments:** Using someone else's ideas or words without appropriate acknowledgement. Submitting your own work in more than one course without the permission of the instructor. Making up sources or facts. Obtaining or providing unauthorized assistance on any assignment.
- **Tests and Exams:** Using or possessing unauthorized aids. Looking at someone else's answers during an exam or test. Misrepresenting your identity.
- **Other Academic Work:** Falsifying institutional documents or grades. Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (see: <http://www.utoronto.ca/academicintegrity/resourcesforstudents.html>).

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