

# PSYU612: COGNITION LABORATORY

Fall 2007

Wed 1:35-4:30 PM

274 Nightingale

Instructor: Prof. Neal Pearlmutter  
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TA: Maureen Gillespie  
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Office Hours: Tues & Thurs 1-2, or by appointment

By appointment

## Readings

1. Course packet (at Gnomon Copy, 325 Huntington Ave., (617) 536-4600)
2. Rosnow, R. L. & Rosnow, M. (2006). *Writing papers in psychology* (7th ed.). Belmont, CA: Thomson Wadsworth. (at campus bookstore)
3. Additional readings on reserve in Snell Library

## Course Requirements

1. **Class Attendance.** Because this is a laboratory course, it is critical that you attend ALL class meetings. Much of the material will be covered only in class, and if you are absent, you will definitely miss material that you will need in order to write the research reports. If you cannot avoid missing class, you **MUST** discuss your absence with the instructor or the teaching assistant beforehand.
2. **Participation in Experiments.** During the course, you will participate in 4 cognitive psychology experiments (conducted primarily during class meetings). Your participation in the experiments is critical, because you will generate the data that we will analyze and report. When data are missing, the experiment is less likely to show clear or interesting results. Your individual data are due in class the session after they are collected.
3. **Four Research Reports.** You will write a research report for each of the 4 experiments, in the form of a journal article consistent with APA style (discussed in class and described in the readings). You will have the option to rewrite the first three reports, and the grade for each report will be the higher of the original and the rewrite. The fourth report cannot be rewritten.

Please note: You are encouraged to discuss the material with your classmates, but you **MUST** write your report **ON YOUR OWN** and **IN YOUR OWN WORDS**.

4. **TA Meeting(s).** You **MUST** meet with the TA before rewriting each of the first three research reports. The TA will help to clarify what parts of the report need to be improved, etc.

## Grading

Research Report 1: 15% of final grade  
Research Report 2: 25%  
Research Report 3: 30%  
Research Report 4: 30%

Late reports are penalized 3 points/day (reports are graded on a 100 point scale).

Borderline final grades are determined on the basis of participation in the experiments and in class.

All graded research reports will be available, with final grades, by 2 PM on Monday, December 17. Materials will be mailed to you if you include a self-addressed stamped envelope with Research Report 4.

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### Course Goals

My goals for this course include that, by the end, you will be able to:

1. Understand the basics of experimental design and methodology in cognitive psychology.
2. Understand how cognitive performance is quantified, how cognitive data are used to answer questions, and how behavioral data and experimental results are connected to hypotheses and theories about underlying cognitive processes.
3. Think critically about questions and issues in cognitive psychology.
4. Write clearly and logically about research findings in psychology.
5. Apply the above not just to (cognitive) psychology specifically, but also to scientific research in general.

### Class Schedule

Date	Topic/Activity	Reading
9/5	Course Mechanics & Overview	
9/12	RUN Experiment 1 (Natural Concepts)	Sheridan ch1, Experimental Psychology... Sheridan ch3, Measurement and Observation... APA Style handout <i>Writing Papers in Psychology</i> , ch1, ch4, ch7
9/19	Exp 1 Background & Analysis  BRING: Exp 1 raw data Exp 1 mean RTs by condition A calculator	Lab Manual ch13, Natural Concepts Snodgrass et al. ch9, Semantic Memory Reed ch8, Categorization (Snell reserve) Smith & Medin ch3, The Classical View
9/26	Exp 1 Results & Discussion How to write Report 1	Rosch & Mervis, Family Resemblances... <i>Writing Papers in Psychology</i> , ch6, ch8, appx A
10/3	RUN Experiment 2 (Working Memory)  BRING: <b>Research Report 1</b>	
10/10	Exp 2 Background & Analysis Return & discuss Report 1 Schedule TA meeting to discuss Report 1  BRING: Exp 2 raw data Calendar to schedule appointment	Lab Manual ch6, Retrieval from Working Memory Snodgrass et al. ch5, Mental Chronometry Sternberg, High-Speed Scanning...

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Date	Topic/Activity	Reading
10/17	Exp 2 Results & Discussion How to write Report 2  BRING: <b>Rewritten Research Report 1</b> (optional) Exp 2 data and slope/intercept computation homework	
10/24	RUN Experiment 3 (Feature Detection) Return rewrites of Report 1  BRING: <b>Research Report 2</b>	
10/31	Exp 3 Background & Analysis Return & discuss Report 2 Schedule TA meeting to discuss Report 2  BRING: Exp 3 raw data Calendar to schedule appointment	Lab Manual ch4, Feature Detection Reed ch2, Pattern Recognition (Snell reserve) Neisser ch3, Pattern Recognition (Snell reserve)
11/7	Exp 3 Results & Discussion How to write Report 3  BRING: <b>Rewritten Research Report 2</b> (optional) Exp 3 data and ANOVA analysis homework	
11/14	RUN Experiment 4 Return rewrites of Report 2  BRING: <b>Research Report 3</b>	
11/21	(THANKSGIVING BREAK)	
11/28	Exp 4 Background & Analysis Return & discuss Report 3 Schedule TA meeting to discuss Report 3  BRING: Exp 4 raw data Calendar to schedule appointment	Lab Manual ch7, Activation of Long-Term Memory Anderson ch6, Human Memory... Meyer & Schvaneveldt, Facilitation in Recognizing...
12/5	Exp 4 Results & Discussion How to write Report 4  BRING: <b>Rewritten Research Report 3</b> (optional) Exp 4 data and analysis homework	
12/10	(Mon) Rewrites of Research Report 3 available for pickup in Psychology office (125 NI)	
12/12	(FINALS WEEK) DROP OFF: <b>Research Report 4</b> in Psychology office (125 NI)	