

**Cognition Lab (306:06) – Syllabus**  
**Instructor: Min Zhao**  
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**Spring 2013**

This course has been certified as satisfying four of the Writing and Communication Learning Outcome Goals (including WCR and WCD) of the SAS Core Curriculum.

**General Plan.** The aim of this course is to provide hands-on experience and training in some of the methodologies, experimental designs, and analytical methods that are common in research in cognitive psychology. Most of the course will be devoted to running some simple in-class experiments, analyzing the data, and interpreting the results. Upon successful completion of this course, students will

- have a basic understanding of the methods and techniques related to research design
- be able to use basic statistics and statistical software to analyze data
- be able to interpret the results of the statistical analyses
- produce an APA-style empirical paper.

The schedule of units is as follows:

<b>Date</b>	<b>Subjects</b>
Jan 31	Lab 1a: Perception - Numerical estimation - data collecting, background review
Feb 07	Lab 1b: Perception - Numerical estimation - data analysis, report writing (Method section)
Feb 14	Lab 2a: Memory – Working Memory - data collecting, background review
Feb 21	Lab 2b: Memory – Working Memory - data analysis, report writing (Results section)
Feb 28	Lab 3a: Image – Mental Rotation - data collecting, background review
Mar 07	Lab 3b: Image – Mental Rotation - data analysis, report writing (Introduction section)
Mar 14	Lab 4a: Category – Category Typicality - data collecting, background review
Mar 21	Spring break. No Class
Mar 28	Lab 4b: Category – Category Typicality - data analysis, report writing (Discussion section)
Apr 04	Lab 5a: Learning –Category Learning - data collecting, background review
Apr 11	Lab 5b: Learning –Category Learning - data analysis, report writing (Abstract section)
Apr 18	Lab 6a: Final project - data collecting, background review
Apr 25	Lab 6b: Final project - data analysis, report writing (whole paper)

**Manual.** You can get it on Sakai website (in Resources section), or at the following website [ruccs.rutgers.edu/~jacob/Psych306/lab.htm](http://ruccs.rutgers.edu/~jacob/Psych306/lab.htm)

**Schedule.** The labs generally follow a two-week cycle. During the first week of each unit, students will act as subjects in an experiment. The TA will give some of the theoretical background and motivations of the week's experiment, and explain the experimental design. During the second week, the class will analyze and interpret the results. The TA will discuss the relevant statistical methods, both in general and as they apply to the results at hand.

**Grading.** Each unit will include a writing assignment, usually a lab report (or part of a lab report) on the experiment conducted in class. The assignment will be explained in the manuals and discussed in class. Grade will be based on these assignments.

#Lab	Points
Lab 1	10+2
Lab 2	10+2
Lab 3	10+2
Lab 4	10+2
Lab 5	10+2
Final	40
Total	100

**Attendance.** Attendance is mandatory because so much of the class depends on the hands-on experience of running in the experiments.

**Plagiarism.** All work that students turn in must be their own work. Student should not work collaboratively on lab report assignments without prior approval from the TA. Any outside sources (including help from other people) must be appropriately referenced in all written work. Turning in someone else's work as your own is completely unacceptable. Any student who plagiarizes will, at the very least, receive a failing grade for the course.