

**PSYCHOLOGY – COGNITIVE PSYCHOLOGY, SPRING 2007  
BC 1113 (Lecture & Lab) & 1115 (Lecture Only)**

**Lecture: M, W 9:10-10:25 am  
Laboratory Sections: T 9-12, R 1-4**

<b>Lecturer: Lisa K. Son</b> lson@barnard.edu Office: 415F Milbank Phone: 854-0114 OH: M 10:30-12:30	<b>Lab Instructor: Jen Pardo</b> jsp2003@columbia.edu Office: 403C Schermerhorn Lab: 410 Milbank Hall OH: W 2:00-4:00	<b>TAs:</b> T: Yael Oelbaum yo2108@barnard.edu Th: Rachel Mistur rm2251@barnard.edu

***About the Course***

The purpose of this lecture/laboratory course is to introduce you to human cognition: Our ways of coming to know about the world and about each other. This course will concentrate on classic and up-to-date topics in adult cognition: pattern recognition, knowledge representation, attention, memory, language, problem solving, reasoning, decision-making, and consciousness. Additionally, the course will cover chapters on the biological foundations of cognitive development, and on the breakdown of cognitive processes. The goals of this course are to introduce students to the workings of the mind, that is, how the mind processes sensations and perceptions, how the mind categorizes information, how creativity complements thinking and problem solving, the nature of consciousness, etc. At the end of the semester, students will have gained insight on how research in cognitive psychology is conducted, on how normal brain functioning works, and on how abnormal brain functioning affects daily tasks. As theoretical ideas are discussed during lecture, some experimental evidence related to them will be surveyed and analyzed in the laboratory sections of the course.

***Required Texts***

The textbook that we will use is the 3<sup>rd</sup> edition of “*Cognition*” by Daniel Reisberg. This will be the basic text that will cover the fundamental topics that I will follow in lecture and should not be too difficult. You can purchase the text at Labyrinth, located on 112<sup>th</sup> St. between Broadway and Amsterdam. I advise that you read each week’s text readings prior to the class lecture on that particular topic. For those of you in the laboratory course, there will be a lab manual as well.

***Lecture Assignments***

This is a lecture (and lab) course. Because this course will cover a large amount of material, it is crucial to keep up with the material. You should expect a minimum of 10 hours a week reading the text and reviewing lecture notes. If you fall behind in the readings, it will be very difficult to catch up because concepts and techniques that appear later in the course will be built almost completely upon those that were presented earlier. The lectures will cover most of the information from the text and readings, but may also cover information not covered in the text and readings. Therefore it is important to attend all of the classes. If for some legitimate reason you are unable to attend class, you are advised to make arrangements with another student to acquire and review the lecture notes.

### ***Lecture Exams and Grading***

There will be 3 midterms and a final exam. The dates of the midterm are Feb 14, Mar 19, and Apr 9. They will be worth 20% of your grade and will not be cumulative. The date of the final will be announced. The final exam will be cumulative and will make up 40% of your grade. You must be present for all exams, for their scheduled times. In *real emergency situations* (illness, death of a family member, etc.) you may be excused from taking a test when scheduled. However, to be excused from taking a test on schedule, you must arrange the time and location of the makeup test with me *before* the time normally scheduled for the test. Each exam will consist of multiple choice and/or short-answer questions. Your final grade will be determined by your standing on the exams and lab grade (for those of you in the lab), which will make up 30% of your final grade. For students not registered for the lab course, your final grade will be determined wholly by your exams. Make sure to pay attention to your grade and come and see either the lecturer or the lab instructor during office hours if you are concerned with your progress in the course.

### ***Lab Course***

In the lab, we will focus on experiments about how humans think about information in our environment, and how to process information. We will use these experiments as a basis to examine the essential elements of scientific inquiry, and to apply these principles in the development of an original research project. The laboratory is designed to give students experience in conducting and participating in traditional cognition experiments. Weekly assignments will involve conducting experiments, analyzing data, and writing reports based on the information provided in lab. The final laboratory assignment will require students, working in groups, to conduct an experiment. During the last laboratory section, students will be required to give an oral and visual presentation of the introduction, methodology, results, and conclusions of their experiment. Late assignments will be accepted only with legitimate (instructor-approved) excuses. Because the assignments are based on the experiment conducted during the lab, students must be present in order to complete the assignment—i.e. ***Lab Attendance is mandatory***. Labs start at 9:00 AM Tuesday and 1:00 PM Thursday. Consistent late arrival will negatively impact your grade. If a student is absent on his/her assigned lab date, they will not have the information needed to complete the assignment. No make-up labs will be given. If a lab is missed (under only extreme circumstances), the instructors will decide how to handle the situation based on each circumstance. Students will be required to withdraw from the course after more than 2 absences (excused or unexcused).

There are 100 points to be earned in the laboratory component of the course. These are broken into small portions of the APA report, a full APA report, and a research project. Assignments are due the week after the exercise in class, unless otherwise noted on the syllabus. Assignments are due at the beginning of lab (don't be late for lab to try to finish a report!). Assignments are penalized each day until turned in. You may arrive early to print a finished lab report in the lab classroom.

### ***Lab Information and Grading***

In the lab, you will conduct and participate in several of the classic cognition experiments that have been critical in moving the field. For each week, check your lab notebook and syllabus to see which lab report is assigned. For example, for one lab you may need to write up an introduction section, while for another lab you may need to write up a results section. Your graded lab report assignments should help you when you write up your final full lab reports.

**The full schedule for the semester**

<b>Date</b>	<b>Lecture Topic</b>	<b>Assignment</b>	<b>Lab Topic</b>	<b>Lab Assignment</b>
Jan 17	Overview	Preface	No Lab	
Jan 22	Behaviorism	3-11	Lab I: Introduction	No assignment
Jan 24	Cognitive Revolution	11-14		
Jan 29	Neural Basis	23-41	Lab II: Implicit Learning	Introduction
Jan 31	Vision	41-58		
Feb 5	Recognizing Objects	61-73	Lab III: Stroop Effect	Methods
Feb 7	Recognizing Words	73-101		
Feb 12	Discussion	Questions	Lab IV: Visual Search	Results
Feb 14 Midterm I				
Feb 19	Attention	102-137	Lab V: Serial Position	Discussion
Feb 21	Working Memory	14-22		
Feb 26	Modal Model	141-177	Lab VI: False Memory	Introduction & Methods
Feb 28	Retrieval	178-190		
Mar 5	Implicit Memory	190-212	Lab VII: Mental Rotation	Results & Discussion
Mar 7	Discussion	Questions		
Mar 19 Midterm II			Lab VIII: Lexical Decision	Full Lab Report
Mar 21	Memory Errors	213-237		
Mar 26	Neural Nets	251-287	Labs IX-XII: Final Project	Initial Proposal due 3/27, 3/29; Revised Proposal due 4/3, 4/5; Data Collection 4/10, 4/12.
Mar 28	Concept Learning	288-322		
Apr 2	Imagery	364-399		
Apr 4	Discussion	Questions		
Apr 9 Midterm III				
April 11	Language	323-363		
Apr 16	Judgments and Decisions	403-435	Lab XIII: Presentation	Full Lab Report due 4/24, 4/26
Apr 18	Reasoning	436-472		
Apr 23	Problem Solving	473-499	No Lab	
Apr 25	Creativity and Consciousness	499-509		
Apr 30	Discussion	510-529 Questions		

<b>TBA</b>	<b>Final Exam</b>
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