Basic Issues in Cognition: Spring 2013  
Psychology 120 / Cognitive Science 100  
3 units

Basic Information

Course web page: Available through http://bspace.berkeley.edu

* Please note that the contents of this syllabus are subject to change. Check the website for the most up-to-date information.

Course Description
This course introduces basic issues and methods in cognitive psychology. We will address questions central to cognitive science, such as the nature and structure of representations and the processes that underlie inference and learning. Topics include perception, memory, language, categorization, reasoning, and problem solving. The course integrates key findings and theories from cognitive psychology with insights from linguistics, philosophy, computer science, and cognitive neuroscience.

Materials
The course requires two books:

Cognitive Psychology and Its Implications, 7th edition, by John R. Anderson

CogLab Online with Access Code, Version 2.0, G. Francis & I. Neath
As of this writing, the Anderson textbook is available at the campus bookstore but CogLab is not. Copies of *Cognitive Psychology* are also available for use in the Education / Psychology Library in Tolman Hall. Note that CogLab comes with an access code that is required to complete on-line experiments. You can also purchase an access code and view the manual on-line ($23.49) by following the link below:

http://www.cengagebrain.com/shop/isbn/978-0-495-50296-8

The access code cannot be re-used, so you must buy a new copy of the book or purchase your own access code. In addition to these books there will be assigned articles available through the course website.

**Requirements & Grading**

**Midterms and final exam.** There will be 3 midterms (10% of final grade each) scheduled during class times, and a final exam scheduled during the exam period (20% of final grade). The final exam will consist of two parts: a non-cumulative portion covering the material in the final quarter of the course (you can think of this as a 4th midterm) and a cumulative exam that will cover themes and skills from the entire semester. These exams will be primarily multiple-choice with a few short-answer questions. You will receive exam study guides at least one week before scheduled exams.

**Pop quizzes.** Attendance at lectures and discussion sections is required. To monitor attendance, there will be 12 short “pop quizzes” throughout the semester, 6 in class and 6 in sections. The quizzes will be graded pass/fail and will be restricted to questions that help us improve the course (e.g., what you’ve found most interesting or confusing so far). Only 10 of these will count towards your grade, so you can miss 2 without penalty.

**Course paper proposal and course paper.** You will write a paper for the course in which you review existing research and propose a novel experiment to address a research question of your choosing. You can find details in the paper guide on the course website.

**CogLab experiments.** Throughout the semester you will participate in on-line experiments using your CogLab Access Code. You must complete a total of 10, each worth 1% of your course grade. To receive credit for a given experiment you must complete it by the deadline for that experiment; no credit will be given for late completion. Note that there are 18 CogLabs listed in the syllabus, so you can skip 8 of them without losing points in the course. You will not receive any additional credit for completing more than 10, although of course you are encouraged to do so.
**RPP participation.** Three hours of participation in the psychology department's research participation pool (RPP) are required and worth 6% of your course grade (2% per RPP credit). If you do not want to participate in RPP, speak to the instructor during the first two weeks of the semester for an alternative assignment.

In order to learn how to create an RPP account and start participating in experiments, please go to the following link: [http://psychology.berkeley.edu/undergraduate-program/research-participation-program](http://psychology.berkeley.edu/undergraduate-program/research-participation-program) and click on "Important Information for Students." If you have any questions, you can contact RPP at rpp@berkeley.edu.

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<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Midterms (3 total, 10 points each)</td>
<td>30%</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Pop quizzes (10 total, 1 point each)</td>
<td>10%</td>
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<tr>
<td>Course paper proposal</td>
<td>4%</td>
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<tr>
<td>Course paper</td>
<td>20%</td>
</tr>
<tr>
<td>CogLab experiments (10 total, 1 point each)</td>
<td>10%</td>
</tr>
<tr>
<td>RPP participation (3 hours)</td>
<td>6%</td>
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Final letter grades will be determined on a curve. Grades that are exactly at the boundary between two letter grades may receive a boost based on section participation.

**Course Policies**

**Waitlist.** Admission to the course will be determined through the course waitlists, with that for Psych 120 administered by the Psychology Student Services Office and that for CogSci 100 through the Group Major in Cognitive Science. In order to be admitted to the course lectures, you must be placed in a section. Neither the instructor nor the GSIs can override the priority system determined by the university. In the past, many students on the waitlist have been admitted to the course, but the number has varied from year to year.

**Appealing grades.** If you believe an assignment, paper, or exam has received a grade in error, you may submit an appeal. To do so, write a cover letter explaining your concern, and deliver it to the instructor or a GSI along with the assignment or exam in question. An appeal must be submitted within 48 hours after the graded assignment, paper, or exam is returned to the class. Please note that documents submitted for an appeal will be regraded in their entirety. As a result your grade may increase, but it can also decrease.

**Academic honesty.** Cheating, plagiarism, and academic dishonesty of any kind will not be tolerated. Any evidence of cheating or plagiarism will result in a zero on that assignment or midterm. Plagiarism on the final paper or cheating on the final exam will result in an ‘F’ for the course. Any breaches in academic honesty will be
reported to Student Judicial Affairs, which may administer additional punishment. If you have any uncertainty about whether an action constitutes academic dishonesty, consult your GSI.

**Late paper.** The final paper is worth 20% of your final grade. The late penalty is 10% of the paper grade per day (2% of your total course grade!!), where a day is defined as 24 hours following the time and date of the deadline. The same holds for the paper proposal, with 10% (.4% of your course grade) as the penalty per day. Submissions received more than 3 days late will receive a zero and not be graded. Exceptions to this policy will only be considered under exceptional circumstances, such as a medical emergency, and will require documentation.

**Missed exams.** Alternative accommodation for missed exams will only be made under exceptional circumstances, such as a medical emergency, and will require documentation. If you will miss an exam due to religious observance or extracurricular activities, please see the policies that follow.

**Accommodation of disabilities.** If you need accommodation for a physical, psychological, or learning disability, please see the instructor during office hours or by appointment to make any necessary arrangements. Please discuss this with the instructor as early in the semester as possible, and no later than 2 weeks before an exam for which accommodation will be required.

**Accommodation of religious creed.** In compliance with Education code, Section 92640(a), it is the official policy of the University of California at Berkeley to permit any student to undergo a test or examination, without penalty, at a time when that activity would not violate the student's religious creed, unless administering the examination at an alternative time would impose an undue hardship that could not reasonably have been avoided. Requests to accommodate a student's religious creed by scheduling tests or examinations at alternative times should be submitted directly to the faculty member responsible for administering the examination by the second week of the semester.

Reasonable common sense, judgment and the pursuit of mutual goodwill should result in the positive resolution of scheduling conflicts. The regular campus appeals process applies if a mutually satisfactory arrangement cannot be achieved. The link to this policy is available in the Religious Creed section of the Academic Calendar webpage: [http://registrar.berkeley.edu/DisplayMedia.aspx?ID=Religious%20Creed%20Policy.p df](http://registrar.berkeley.edu/DisplayMedia.aspx?ID=Religious%20Creed%20Policy.p df)

**Accommodation of conflicts between extracurricular activities and academic requirements.** The Academic Senate has established Guidelines Concerning Scheduling Conflicts with Academic Requirements to address the issue of conflicts that arise between extracurricular activities and academic
requirements. They specifically concern the schedules of student athletes, student musicians, those with out-of-town interviews, and other students with activities (e.g., classes missed as the result of religious holy days) that compete with academic obligations. The guidelines assign responsibilities as follows:

- It is the instructor's responsibility to give students a schedule, available on the syllabus in the first week of instruction, of all class sessions, exams, tests, project deadlines, field trips, and any other required class activities.
- It is the student's responsibility to notify the instructor(s) in writing by the second week of the semester of any potential conflict(s) and to recommend a solution, with the understanding that an earlier deadline or date of examination may be the most practicable solution.
- It is the student's responsibility to inform him/herself about material missed because of an absence, whether or not he/she has been formally excused.

The link to the complete guidelines is available on the Academic Senate website: [http://tinyurl.com/schedconflictguidelines](http://tinyurl.com/schedconflictguidelines).

A useful checklist to help instructors and students comply with the policy is available on the Center for Teaching and Learning website: [http://teaching.berkeley.edu/sites/teaching.berkeley.edu/files/SyllabusComponents_0.pdf](http://teaching.berkeley.edu/sites/teaching.berkeley.edu/files/SyllabusComponents_0.pdf).

### Schedule

*Sections will begin the second week of class.*

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings</th>
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</thead>
<tbody>
<tr>
<td>Mtg 1</td>
<td>Lecture: Course Overview</td>
<td>Ch 1</td>
</tr>
<tr>
<td>Mtg 2</td>
<td>Lecture: Studying Cognition</td>
<td>Supplement 1</td>
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<tr>
<td>Mtg 3</td>
<td>Lecture: Perception I</td>
<td>Ch 2</td>
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<td>Mtg 4</td>
<td>CogLabs by 4pm: Apparent Motion, Muller-Lyer Illusion</td>
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<tr>
<td>Mtg 5</td>
<td>Lecture: Perception II</td>
<td>Supplement 2</td>
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<tr>
<td>Mtg 6</td>
<td>Lecture: Mental Imagery</td>
<td>Ch 4</td>
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<tr>
<td>Mtg 7</td>
<td>CogLabs by 4pm: Mental Rotation</td>
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<tr>
<td>Mtg 8</td>
<td>Lecture: Attention I</td>
<td>Ch 3</td>
</tr>
<tr>
<td>Mtg 9</td>
<td>Videos: Attention II (no lecture)</td>
<td>Supplement 3</td>
</tr>
<tr>
<td>Mtg 10</td>
<td>CogLabs by 4pm: Stroop Effect, Visual Search, Change Detection</td>
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<tr>
<td>Mtg 11</td>
<td>HOLIDAY</td>
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<tr>
<td>Mtg 12</td>
<td>Midterm 1</td>
<td></td>
</tr>
<tr>
<td>Mtg 13</td>
<td>Lecture: Scripts &amp; Schemas</td>
<td>Ch 5</td>
</tr>
</tbody>
</table>
Mtg 14  Lecture: Concepts & Categories  Supplement 4
Mtg 15  CogLabs by 4pm: Prototypes

Mtg 16  Lecture: Similarity & Theories  Supplement 5
       Lecture: Memory I  Ch 6
Mtg 17
Mtg 18  CogLabs by 4pm: Partial Report, Memory Span, Levels of Processing

Mtg 19  Lecture: Memory II  Ch 7
Mtg 20  Lecture: Memory III  Supplement 6
Mtg 21  CogLabs by 4pm: Encoding Specificity, False Memory, Forgot It All Along, Implicit Memory

Mtg 22  **Midterm 2**
Mtg 23  Guest: Julia Galef on Rationality  Supplement 7

Mtg 24  HOLIDAY
Mtg 25  HOLIDAY

Mtg 26  Lecture: Problem Solving  Ch 8
Mtg 27  Lecture: Expertise & Creativity  Ch 9

Mtg 28  **Paper proposal due by 4pm**

Mtg 29  Lecture: Reasoning I  Ch 10
Mtg 30  Lecture: Reasoning II  Ch 11
Mtg 31  CogLabs by 4pm: Wason Selection, Monty Hall, Risky Decisions, Typical Reasoning

Mtg 32  Lecture: Reasoning III  Supplement 8
Mtg 33  **Midterm 3**

Mtg 34  Lecture: Language I  Ch 12
Mtg 35  Lecture: Language II  Ch 13

Mtg 36  Lecture: Final Review  Supplement 9
Mtg 37  Peer Paper Workshop (2 pt. extra credit!)

Mtg 38  **Final paper due by 4pm**

Mtg 39  **Final exam** (8am-11am)