1 Instructor

Instructor: Dr. Timothy J. Pleskac

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Office Hours: Tu/Th 10:30 AM to 12:00 PM, or by appointment

2 Course Resources

Course Website: Angel. All class materials, including this syllabus, will be posted there. Please use ANGEL to upload your lab reports and final projects.

3 Course Description & Goals

This course focuses on how individuals think, categorize, judge, and decide. What that means is that we will study thinking from the point of how information is stored, represented, and then used and manipulated to achieve a goal or a set of goals.

- Increase your understanding of cognitive science.
- Learn basic principles and methodology useful for studying cognition across a wide range of situations.
- I would like you to gain a fuller appreciation of formal cognitive models.

4 Prerequisites

In day to day activities, I will assume that you have a background equivalent to

1. Mastery of the content of a graduate statistics and experimental design course.

2. Comfort with advanced topics in algebra and basic principles of probability theory. If you feel uncomfortable with these topics and wish to take the course please see me.

3. Either an undergraduate course in cognitive psychology or serious experience with cognitive issues in another discipline, such as neuroscience, animal behavior and cognition, artificial intelligence, linguistics, philosophy of mind, cultural anthropology, behavioral accounting, or education.

If you do not have this particular necessary background, I recommend that you drop the course, acquire the prerequisite background, and take the course another time. I like to have a wide range of backgrounds among the students. However, a student who has an otherwise interesting background but no understanding of cognitive science will not be able to apply his or her background in an effective way and will always be trying to catch up on the fundamentals that I am taking for granted.
5 Grading

Exams 50% There will be 2 exams. The first exam will be in class. The second exam will be a take home exam.

Quizzes 25% At the beginning of each class, there may be a pop quiz. I expect there will be 6 to 8 quizzes of this nature. The quiz will be 3 or 4 short answer questions based on last weeks class, the readings for the current class, as well as past readings and classes. At the end of the semester, I will drop the lowest quiz score.

Class Participation 25% Everybody will be expected to come to class having read the relevant research articles and being prepared to participate in class. Students are expected to participate energetically in all class activities. Don’t sit there like a lump its boring! Reading assignments are listed in the course schedule below. Complete each reading assignment before the date for which it is listed. It is absolutely imperative that you keep current in your reading (better yet, keep ahead read early, read often).

6 Make-up exam/quiz policy

I give make-up exams only for University sanctioned reasons. Please consult the University Student handbook. Notes from doctors and funeral homes are required when applicable (these are easily obtainable if your excuse is legitimate). No make-ups will be given for quizzes and in class assignments.

7 Note to Disabled Students

Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact me personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

8 Academic Misconduct

Honesty is a fundamental precept in all academic activities and those privileged to be members of a university community have a special obligation to observe the highest standards of honesty and a right to expect the same standards of others. Academic misconduct in any form is inimical to the purposes and functions of the university and therefore is unacceptable and rigorously proscribed. If you have questions about what constitutes academic misconduct, contact me.
# Class Schedule

Readings may be adjusted or changed based on the progress of the class.

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings</th>
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<tbody>
<tr>
<td>9/11/2012</td>
<td>Similarity &amp; Generalizability</td>
<td>(Shepard, 1987; Tversky, 1977; Sloman &amp; Rips, 1998)</td>
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<tr>
<td>9/25/2012</td>
<td>Concepts &amp; Categories</td>
<td>(Rosch &amp; et al., 1976; Medin et al., 2006; Love &amp; Gureckis, 2007)</td>
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<td>10/2/2012</td>
<td>Induction &amp; Structure of Knowledge</td>
<td>(Anderson &amp; Schooler, 1991; Kemp &amp; Tenenbaum, 2008; Holyoak, 2008)</td>
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<td>10/9/2012</td>
<td>Bayesian Models of Cognition</td>
<td>(Tenenbaum, Kemp, Griffiths, &amp; Goodman, 2011; Griffiths, Chater, Kemp, Perfors, &amp; Tenenbaum, 2010; Jones &amp; Love, 2011)</td>
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<tr>
<td>10/16/2012</td>
<td>Exam I (in class)</td>
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<td>10/30/2012</td>
<td>Judgment: Process</td>
<td>(Sloman, 1996; Dougherty, Gettys, &amp; Ogden, 1999; Erev, Wallsten, &amp; Budeescu, 1994)</td>
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<tr>
<td>11/6/2012</td>
<td>Judgment: Inference</td>
<td>(Gigerenzer, 2004; Griffiths &amp; Tenenbaum, 2006; Schooler &amp; Hertwig, 2005; Goldstein &amp; Gigerenzer, 2002)</td>
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<tr>
<td>11/20/2012</td>
<td>no class</td>
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<td>12/11/2012</td>
<td>Exam II Due (5 pm) (take home)</td>
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References


