PSYCHOLOGY 4136-100: JUDGMENT AND DECISION MAKING
http://psych.colorado.edu/~vanboven/teaching/psyc4136/psyc4136.html
Monday, 1:00-3:30, Muenzinger D156B

Instructor
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Description
This course is an introduction to the scientific study of judgment and decision making. How much should I pay for this? Should I take this course? Will the treatment succeed? Which job should I accept? Why did he say that? This course will examine how--and how well--people make such judgments and decisions in everyday life. The core idea is that judgments and decisions are often based on simplifying heuristics rather than more formal and extensive algorithmic processing. Although these "mental shortcuts" typically yield accurate judgments and good decisions, they sometimes produce biased judgments (overestimating the risk of kidnappings and terror attacks), erroneous beliefs (in UFOs and astrology), and bad decisions (unprotected sex and excessive drug use). There are weekly laboratories in addition to lectures and classroom discussions. Students will take part in all aspects of judgment and decision-making research including participating in, designing, conducting, analyzing and presenting studies.

Objectives, Expectations, and Requirements
Objectives. This course has three objectives: (a) To provide students with an understanding of basic processes involved in judgment and decision making; (b) to sharpen students’ ability to think critically about psychological research; and (c) to enhance students’ ability to conduct and analyze their own research.

Expectations. Students are expected to participate in class discussion. Students are expected to obtain, read and bring to class a copy of the assigned readings, which can be downloaded from the course website. Most of the readings are empirical journal articles. Although students are not expected to understand all of the statistical analyses in the readings, they should grasp the methods and conceptual analyses.

The course requires a considerable time commitment. Following University of Colorado guidelines, for each credit hour students should plan to spend three hours of class-related activities (studying, research, writing) per week. Given that the class is a four-credit course, plan to spend 12 hours per week outside of class and laboratory.

Requirements. The prerequisites for this course are Introduction to Psychology (PSYC 1001), Social Psychology (PSYC 2606), and Introduction to Statistics (PSYC 3101). Students are expected to have a working knowledge of descriptive statistics such as measures of central tendency (mean, median), variability (standard deviation, standard error), and association (correlation). Students will be expected to use inferential statistics such as t-tests, z-tests, and chi-squares to analyze the results of experiments.
Grades

Examinations. There will be a midterm and a cumulative final examination. Both will be closed-book exams. Students will be provided with a list of 15-20 study questions one week before the midterm and approximately two weeks before the final. The exams will combine multiple choice, short answer, and essay questions. No make up exams will be given, except in the case of medical emergency or conflict with religious holidays.

Assignments. There will be several homework and in-class assignments. Some weeks, there will be homework assignments announced in class for the following week. Other weeks, there will be assignments to be done in class.

Lab Reports. There will be two lab reports written with a lab partner. Each report will describe the hypotheses under investigation, the methods, data analysis, and conclusions.

Research Project. Students will form lab groups of four to five people. Each group will design and conduct an experiment to test a hypothesis regarding judgment and decision-making. The research will be presented in a poster format during undergraduate research day (26 April, 3:00-5:00), presented orally during the last class meeting, and written up in a final paper. Groups must discuss and have their project approved by the Instructor before conducting research.

Participation. Participating in discussions is critical to your learning in this course. Active participation can “bump” borderline grades.

Final Grades. Students earn points according to the following distribution:

<table>
<thead>
<tr>
<th>Assignment Type</th>
<th>Points</th>
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<tbody>
<tr>
<td>Assignments</td>
<td>50</td>
</tr>
<tr>
<td>Lab reports</td>
<td>100 (50 each)</td>
</tr>
<tr>
<td>Midterm exam</td>
<td>100</td>
</tr>
<tr>
<td>Research project</td>
<td>125</td>
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<tr>
<td>Final exam</td>
<td>125</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>500</strong></td>
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Final grades in the course will be based on students’ points in comparison with a “reference score,” defined as the top 5% of the class. The use of a reference score means that fellow students set performance standards. Grades will be assigned as follows:

- A ➔ 95% of the reference score
- A– ➔ 90% of the reference score
- B+ ➔ 87% of the reference score
- B ➔ 84% of the reference score
- B– ➔ 80% of the reference score
- C+ ➔ 77% of the reference score
- C ➔ 74% of the reference score
- C– ➔ 70% of the reference score
- D+ ➔ 67% of the reference score
- D ➔ 64% of the reference score
- D– ➔ 60% of the reference score
- F ➔ ≤ 60% of the reference score
LECTURE CALENDAR AND READINGS

I. Introduction and Overview

Jan 23, Course overview


Homework: statistics review assignment, due beginning of class Jan 30.

Student survey: to be completed and turned in beginning of class Jan 30

Jan 30, Normative decision analysis


Feb 6, Rationality, non-conscious processes, and two systems of reasoning


II. Judgmental Heuristics

Feb 13, Availability and representativeness


Feb 20, Anchoring and adjustment


**Feb 27, Emotion and motivated reasoning**


**Mar 6, Prediction and confidence**


**Mar 13, Midterm examination, in class**

### III. Choices, Values, and Frames

**Mar 20, Prospect Theory**


**Mar 27, Spring Break, no class**

**Apr 3, Risk and uncertainty**


**Apr 10, Constructed preference and reason based choice**

Tversky, A., Sattath, S., & Slovic, P. Contingent weighting in judgment and choice. In D. Kahneman and A. Tversky (Eds.), *Choices, values, and frames* (pp. 503-517). Cambridge University Press.

**IV. Applications**

Apr 17, Conflict and negotiation


Apr 24, Counterfactual thinking, regret, and happiness


**V. Research presentations**

May 1, Research Presentations

FINAL EXAMINATION: 4:30-7:00, Tue May 9, 2005, Muenzinger D156
LAB CALENDAR

Section 4136-101: Tuesday, 3:30–5:20, Muenzinger D156  
Section 4136-102: Wednesday, 3:30–5:20, Muenzinger D156

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Jan 17 &amp; 18</td>
<td>No lab</td>
</tr>
<tr>
<td>Jan 24 &amp; 25</td>
<td>No lab</td>
</tr>
<tr>
<td>Jan 31 &amp; Feb 1</td>
<td>Stats &amp; method review</td>
</tr>
<tr>
<td>Feb 7 &amp; 8</td>
<td>Study 1 data collection</td>
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<tr>
<td>Feb 14 &amp; 15</td>
<td>Study 1 data analysis</td>
</tr>
<tr>
<td>Feb 21 &amp; 22</td>
<td>Study 1 write up</td>
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<tr>
<td>Feb 28 &amp; Mar 1</td>
<td>Study 2 data preparation/collection</td>
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<tr>
<td>Mar 7 &amp; 8</td>
<td>Study 2 data collection/analysis</td>
</tr>
<tr>
<td>Mar 14 &amp; 15</td>
<td>Study 2 data analysis/write up</td>
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<tr>
<td>Mar 21 &amp; 22</td>
<td>Group project</td>
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<tr>
<td>Mar 28 &amp; 29</td>
<td>Spring break, no lab</td>
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<tr>
<td>Apr 4 &amp; 5</td>
<td>Group project</td>
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<td>Apr 11 &amp; 12</td>
<td>Group project</td>
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<tr>
<td>Apr 18 &amp; 19</td>
<td>Group project</td>
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<tr>
<td>Apr 25 &amp; 26</td>
<td>No lab</td>
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<td>April 26, 3:00-5:00</td>
<td>Undergraduate research day presentation</td>
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<td>May 2 &amp; 3</td>
<td>No lab</td>
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FINAL PAPERS DUE: Friday, May 5, 5:00