

## COGNITION IN PRACTICE AND POLICY

### Psychology 362

Fall 2009

**Class time:** Tuesday and Thursday, 9:30 – 10:35

**Location:** Linderman Library 400








**Instructor:** Prof. Barbara Malt  
**Office:** Chandler-Ullmann 333  
**Phone:** (610) 758-4797  
**Email:** barbara.malt@lehigh.edu  
**Office Hours:** Wed 1-2 or by appointment

### Description:

We will take the study of cognition from principle to practice by examining how basic research and theory has informed understanding of human performance in real-world settings. We will also consider public policy implications of these findings. Course activities will include reviewing basic research in cognition, analyzing real-world problem domains based on your own observations, reading about and discussing applications of cognitive research to real-world problems, learning about careers of people working on these problems, and formulating and debating policy implications of the research.

### Objectives:

- Develop an appreciation of how human interactions with the world are guided and constrained by cognitive processes
- Develop an appreciation of how basic research on these processes can help understand and improve human performance in everyday settings
- Learn about several real-world domains of application and the current research in these areas
- Develop an appreciation for how applied cognitive research can inform public policy
- Learn about career paths in applied cognitive psychology
- Gain experience reading, assessing, and writing about research in applied cognitive psychology

<b>DATE</b>	<b>UNIT</b>	<b>ASSIGNMENTS</b> <i>Additional readings to be announced &amp; posted on BB!</i>
Aug 25, 27	Introduction	<i>INCP: 1-10</i>
Sept 1, 3, 8	 Transportation Safety	<i>INCP: 44-58</i> <i>Careers: Nasa Research Scientist</i> <b>Sept 1 - hwk #1 due</b>
Sept 10, 15, 17, 22	 Reality Monitoring and Distortions in Memory	<i>INCP: 59-62, 71-83</i> <b>Sept 22 - Congressional Testimony</b>
Sept 24, 29, Oct 1, 8	 Decision-Making in the Real World	<i>INCP: 121-136</i> <i>Careers: Medical Decision-making; Medical Imaging</i> <b>Oct 8 - Congressional Testimony</b>
Oct 13, 15, 20	 Human-Technology Interaction	<b>Oct 13 - hwk # 2 due</b> <b>Oct 13 - paper topic due</b> <i>INCP: 85-98</i> <i>Careers: Microsoft</i>
Oct 22, 27, 29	 The Spatial Environment	<i>Careers: Beh Geography</i> <b>Oct 29 – Congressional Testimony</b>
Nov 3, 5, 10	 Expert Performance	<i>INCP: 116-120, 184-195</i> <b>Nov 3 - hwk # 3 due</b> <b>Nov 5 - paper ref list due</b>
Nov 17, 19, 24, Dec 1	 Breakdown of Cognition	<i>INCP: 59-62 (review), 63-70</i> <b>Dec 1 - Congressional Testimony</b>
Dec 3	<b>Paper Presentations</b>	
Dec 11	<b>Final Paper due by 5:00</b>	

**Blackboard Course Site:** Announcements and readings for this course will be posted on Blackboard, the electronic course resource. To reach our course on Blackboard, go to <https://ci.lehigh.edu/> and click on “Login.”

**Readings:**

**Required text:** Andrade, J. & May, J. (2004). *Instant notes in cognitive psychology*. New York, NY: BIOS Scientific Publishers.

We will use this text to provide a brief review of basic principles and findings in cognitive psychology as background for the applied research.

**Supplementary readings (also required):** We will typically have 2-3 articles or other readings per class addressing the applied topic at hand. These readings will be specified a class or two ahead of time and will be made available on Blackboard for you to download and print.

**Class participation:** Because this is a seminar, it is essential that you **attend all classes and come prepared for discussion by having completed the readings and other assignments**. To encourage and reward good preparation and participation, a significant portion of your grade is reserved for class participation. (See note at end of syllabus regarding H1N1 flu.)

**Assignments:**

**Homeworks.** There will be short homework assignments at the beginning of three topic units. They will involve reflecting on your own experience with the domain at hand (e.g., driving a car, using an iPod, becoming an expert about something), analyzing the cognitive processes that seem to be involved in performing within the domain, and pinpointing potential problem spots for human performance in the domain. You will turn in a brief written report (~2-3 pp.), and the reports will be used to begin class discussion of the topic.

**Congressional Testimonies.** For three units we will end with a “congressional testimony” prepared by one class member. Testimonies will follow the model of expert testimony to House and Senate committees and will involve reading several additional papers on a particular issue and preparing a statement on the topic, including a policy recommendation. The testimony will be presented to the rest of the class who will act as members of Congress and evaluate and debate the recommendation. Each student will prepare testimony once during the semester.

**Final paper.** Every student will choose a topic to explore in more depth in a final paper. The paper will be written in the model of papers in *Psychological Science in the Public Interest* (except much shorter!) -- it will not \*just\* be a review of the literature but will draw conclusions about how the research can be used to promote improved human functioning within the domain.

Your topic may fall within any of the areas we cover in class or within additional applied cognitive areas on a list to be provided, or another area of your choice (to be approved by me). The constraints are that the topic must be cognitive and there must be a good research literature on the topic for you to draw on. You will need to turn in a list of about 6-8 references in advance of writing the paper, and you will give a brief presentation of your paper to the class in the last week of classes.

**Other points to note:**

***Academic Integrity:*** Students are expected to uphold the University Code of Conduct (see the Student Handbook for details). Inappropriate behavior in completing assignments (such as sharing answers) or **plagiarism** (using material from a source without acknowledging the source) may be referred to the Committee on Discipline. All violations will at minimum result in a zero grade for the assignment.

***Late Penalties:*** Late assignments will be penalized **3% per day or part day late**, for up to a week past the due date. (Each weekend day and holiday day **counts** as a day.) Late assignments must have the date and time of submission clearly marked on the front page. Assignments turned in more than a week late will not be graded on an individual basis; they will be assigned a grade of 50% if of acceptable quality; otherwise 0%. (If you have a compelling reason why you need an extension, I may be willing to grant one, but only if you talk to me *before* the due date.)

***Accommodation for Disabilities:*** If you think you may need special accommodations for a disability, please inform the instructor and contact Academic Support Services in the Dean of Students office for evaluation as early as possible in the semester. The Dean of Students office will provide a letter specifying what accommodations, if any, are appropriate. Accommodations cannot be made without this letter.

***Extended Illness due to H1N1 Virus:*** If you experience flu-like symptoms, please stay in your room and contact the Health Center. Do not come to class! **Email me as soon as you know that you are ill and will miss one or more class meetings.** You must obtain a letter verifying your illness from the Office of Academic Support in the Dean of Students Office when you come back to class **if your flu-related absence caused you to miss more than two class meetings, if you have more than one period of absence due to the flu during the term, or if your absence is within three days of Pacing Break or Thanksgiving break.**

**GRADING:**

<b>Assignment</b>	<b>Percent of Final Grade</b>
Class participation	20
Homeworks (3)	10 each = 30
Congressional testimony	20
Final paper reference list	5
Final paper presentation	5
Final paper	20
<hr/>	
Total	100