

Cognitive Psychology
Psychology 4420
Spring, 2009
Tuesdays and Thursdays
1:30pm – 2:45pm in AGSCI 202

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Department of Psychology

Course Syllabus

Course Description

This course in cognitive psychology examines topics such as perception, memory, general knowledge, language, problem solving, and decision making. The course requires a fairly sophisticated background in psychology, and it is one of the advanced level courses in our psychology department. As the Undergraduate Course Descriptions state, you must have completed PSY 1010 as a prerequisite. *This means that you must finish this course before our first day of class, Tuesday, January 6.*

As the course instructor, I hope each of you will be able to accomplish the following goals during the course of this semester:

1. To appreciate the basic information in cognitive psychology, including both research and theory, acknowledging the complexity of cognitive processes.
2. To understand relevant research-methods issues in cognitive psychology, together with the ability to critically evaluate the research in this area.
3. To know how to conduct cognitive experiments via computer simulations. This will be accomplished by your simultaneous enrollment in PSY 4430, the required laboratory that accompanies PSY 4420. Here, you will improve your ability to understand research in cognitive psychology by engaging in this research first-hand--including the collection, synthesis, and interpretation of data.
4. To develop an understanding of your own cognitive processes, and to improve your cognitive skills even further—for example, when you study for exams and when you solve problems.
5. To apply the information you learn to professional areas such as education, communicative disorders, law, public health, clinical psychology, and social relationships.

You will need to understand the textbook material in order to do well in the course. You will not be able to obtain this perspective by reading the chapters superficially. For example, you should master the terminology and concepts in the textbook. The lectures and class discussion will assume that you are familiar with this information, so that we can emphasize additional topics during our class time together. However, if any part of the textbook is not clear, please let me know. Then we can arrange a time to meet and discuss that topic!

Because the textbook covers the relevant background information, we often will not review all of the same material in class. Instead, we will use class time for related lectures, discussions, demonstrations, active-learning exercises, videos, and so forth. I hope to have some lively discussions on topics such as divided attention, memory-improvement techniques, bilingualism, creativity, and your own decision-making strategies about important life events. I am hopeful that you will be equally committed to making this course a participatory experience!

READING MATERIAL:

The required textbooks will be:

Reisberg D. (2007). *Cognition: Exploring the Science of the Mind* (3rd edition). New York: Norton.

Francis G., Neath I., & VanHorn D. (2008). *CogLab 2.0 On a CD*. Thomson Wadsworth.

You can use the online version of the *CogLab* book if you would prefer.

OFFICE HOURS: By appointment (this usually turns out to be the most flexible and convenient for students, from my experience). This means that whenever you need to meet with me, please email me a few times you would be available to meet that week, and we can usually work out a time to meet within a day or two after that! My office is EDUC 473.

My email address is <kerry.jordan@usu.edu>. Before contacting me, please check to make sure that the answer to your question is not in the course material that you've already received. When you send an email, please be sure to include the phrase "Cognitive Psychology" in the subject portion. Then proofread your email to me, so that I can be clear about your message. This way, I can quickly locate your email and provide the assistance you need! If you would prefer to leave a brief message on my voicemail, the number is (435) 797-1111. However, I don't check voicemail as frequently as my email.

The email address for Cindy Ollis, the graduate teaching assistant for the course and the instructor for PSY 4430 labs, is c.ollis@aggiemail.usu.edu.

LABS: You must attend a PSY 4430 lab section each week and complete relevant assignments in order to do well in this course. Your lab textbook/CD, CogLab, is a bank of classic cognitive psychology experiments that I will ask you to complete throughout the course. Your graduate teaching assistant, Cindy, will run the lab sessions and will be able to access the class data from CogLab and compile it so that you can talk about the class results during lab sections. This will give you first-hand experience with some of the experiments we will be discussing in lecture, as well as see how our class results might differ from the findings of others. In addition, a couple of the lab sections will not focus on CogLab but will instead ask you to read journal articles

on current Hot Topics and come prepared to discuss them. Such readings will be posted on Blackboard.

CogLab Assignments

You will complete 11 CogLab experiments throughout the semester. The assignments and weeks they are due are listed near the end of this syllabus. Assignments are due at 9am the Monday of the weeks they are listed on the syllabus. It is your responsibility to find a computer with a CD drive and learn how to use CogLab *prior* to the due dates. Each assignment consists of the following:

- To get a better grasp of some phenomena that we cover in class, you will run various experiments on yourself using a computer. Experiments are available on the CogLab CD. To pass in an experiment, send the data to the lab instructor by Monday 9am before your section meets (by email): Cindy Ollis: c.ollis@aggiemail.usu.edu
- Write a CogLab summary (1-2 pages each) based on your data and the textbook questions that your instructor assigns that week. This due in hard copy DURING LAB SECTION to Cindy.

Your lab instructor, Cindy, will analyze the data you send her on Monday as a group, and will then present in your lab section later that week the group data of each CogLab experiment. Through discussions, you will see whether you can observe cognitive psychology phenomena in your own responses.

Each study requires approximately 20-30 minutes and can be completed at any computer with a CD drive. Cindy will compile the data and use it as a basis for discussion in the 4430 labs. Because she will discuss the findings in lab sections, all experiments must be completed on time. The fact that these experiments are CD-based means that you can participate in these studies at any hour, day or night. Therefore, **NO LATE ASSIGNMENTS WILL BE ACCEPTED**. It is to your advantage to complete every experimental assignment, not only because you earn points for each experiment, but also because the content of the studies may be covered on your exams. These are very simple assignments to complete – so do them!

Cindy will provide further details about the assignments during your lab sections.

EXAMINATIONS: You will have two midterm examinations, on February 3 and March 31. Each of these examinations will include multiple-choice questions and possibly some short essays. Your final exam will not be comprehensive and will be on April 30; it will have a similar format as the other exams. The midterm exams and the final exam all include material from both the lectures and the textbooks.

GRADING: In determining your final grade in the course, I add up the total points you have earned throughout the semester. The two examinations and the final exam are each worth 25 points. The eleven lab experiments you complete in PSY 4430 (1 point each), along with your written assignments you hand in during labs (1 point each) and your reading of assigned journal articles for certain lab sections (3 points total), will be worth another 25 points. Grades will be assigned according to percentages. People near the boundaries will receive pluses and minuses. Students whose grades are

within .5% of the next highest grade will be considered at the end of the semester for being “bumped up” to the next highest grade if they have attended and actively participated in class. Here is the grade distribution:

A = 90 - 100%
B = 80 - 89.9%
C = 70 - 79.9%
D = 60 - 69.9%
F = below 60%

I don't allow extra credit in this course. Assignments not turned in or exams not taken at the class during which they are due will not be accepted. Please be sure that you understand this policy.

VERY IMPORTANT: Occasionally a student approaches me to request that I raise his or her grade (because she or he will be placed on probation, because she or he won't make it into graduate school...or whatever). Try your hardest, starting from the very first exam, and come to my office to discuss learning strategies. However, don't ask me to raise your grade. *I have never raised a student's grade for reasons like these; changing your grade would not be fair to your classmates.* Also, if your performance on the first exam is poor, please come to see me immediately. Then we can work together to think of some effective study strategies for you. After all, memory and memory improvement constitute a major portion of our course content!

NOTICE ABOUT DISABILITY SERVICES: Utah State University will make reasonable accommodations for persons with documented physical, sensory, emotional or medical disabilities. Students should contact the Disability Resource Center (DRC) in Room 101 of the University Inn, 797-2444 voice, 797-0740 TTY, or toll free at (800) 259-2966. Alternate format materials (Braille, large print or digital) are available with advance notice. If you need additional accommodations for your learning experience, please let the instructor know as soon as possible. I am glad to make any necessary accommodations, but expect you to let me know what those needs are prior to lecturing, assignments, or exams.

SCHEDULE OF TOPICS

| LECTURE DATE | LECTURE TOPIC | BEFORE LECTURE READ TEXT | CHAP | BY MON 9am COGLAB |
|--|---|----------------------------------|-------------|---|
| Tuesday, January 6 & Thursday, January 8 | Introduction: The Science of the Mind | | 1 | GO TO LAB SECTIONS |
| Tuesday, January 13 & Thursday, January 15 | Perception: Visual and Auditory Recognition | | 2-3 | NO LAB SECTIONS |
| Tuesday, January 20 & Thursday, January 22 | Perception: Attention and Consciousness | | 4 | Spatial Cuing (p. 20) Partial Report (p. 55) |
| Tuesday, January 27 & Thursday, January 29 | Working Memory | | 5 | Phonological Similarity Effect (p.78) |
| Tuesday, February 3 | EXAM #1 on Chapters 1 through 5 | | | Hot Topic Article: Animal Cognition |
| Thursday, February 5 & Tuesday, February 10 | Long-Term Memory | | 6 | Encoding Specificity (p. 81) |
| Thursday, February 12 & Thursday, February 19 | Memory Strategies and Metacognition | | 7-8 | False Memory (p. 93) |
| Tuesday, February 24 & Thursday, February 26 | Mental Imagery and Cognitive Maps | | 11 | Mental Rotation (p. 105) |
| Tuesday, March 3 & Thursday, March 5 | General Knowledge | | 9 | Prototypes (p. 126) |
| Monday, March 9-Friday March 13 | | Spring Break - No classes | | |
| Tuesday, March 17 & Thursday, March 19 | Language Comprehension | | 10 | Categorical Perception-- Identification (p.108) |
| Tuesday, March 24 & Thursday, March 26 | Language Production and Bilingualism | | 10 | Word Superiority (p. 117) |
| Tuesday, March 31 | EXAM #2 on Chapter 6 through 11 | | | |
| Thursday, April 2 | Guest Lecture: Cindy Ollis | | | Hot Topic Article: Music and Cognition |

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| Tuesday, April 7 &Thursday, April 9 | Problem Solving and Creativity | 14 | Monty Hall (p. 129) |
| Tuesday, April 14 &Thursday, April 16 | Deductive Reasoning and Decision-Making | 12-13 | Risky Decisions (p. 134) |
| Tuesday, April 21 &Thursday, April 23 | Cognitive Development Throughout the Lifespan | | Hot Topic Article: Infant Cognition |

Thursday, April 30, 1:30pm – 3:20 pm. FINAL EXAM on Chapters 12-14/lectures.