

PSYC 3145-002  
Cognitive Processes Laboratory  
Spring 2008  
Life Sciences Room 428  
Wednesday, 5:30 - 8:20 PM

Instructor: Tony Coker

Office Hours: Wednesday 4-5pm or by appointment  
Office: LS 409  
Email: coker@uta.edu  
**Email is the best way to reach me**

### **COURSE DESCRIPTION**

This course provides you with experience discussing and answering questions concerning a variety of methods and procedures commonly used in conducting research in cognitive psychology, analyzing the data collected in such research, and communicating the results of the project to the scientific community. In order to take this course you must have already taken and passed PSYC 2444, and you must either have already taken and passed PSYC 4334 or be enrolled in it this semester.

You will participate in experiments and each week you will take a quiz on the previous week's readings and activities. You will design, program, and conduct your own experiment, and for one or two weeks all of you will be participating in each other's experiments. The class will end with all students presenting to others the results of the experiments they designed.

### **WEEKLY READINGS**

Each week at least one student will be randomly selected to present the assigned readings from the previous week to the class and help lead the class in a detailed discussion of that reading. It is the responsibility of every student to be prepared every week for this assignment!

### **FILE PRESERVATION**

At the end of each lab period it is your responsibility to email the instructor the materials you were working on during that lab period. Do not save anything to the local computers. Make use of thumb drives and your j drives to save all files.

### **ATTENDANCE**

**PUNCTUAL ATTENDANCE IN LAB IS MANDATORY!** For each absence and for each tardiness by more than 10 minutes, ten points will be deducted from your lab grade.

### **CELL PHONE POLICY**

All cell phones must remain OFF during lab time. No talking on the phone or text messaging is to occur during the time allotted for this lab. The instructor reserves the right to remove the cell phone from your possession for the remainder of the lab period if you do not comply with this policy.

### **COURSE OBJECTIVES**

The objectives of the course are for you to be able to perform the tasks stated in the course description.

### **GRADING/ASSIGNMENTS**

9 Quizzes (5 points)  
9 Summary Sheets (5 points)  
Leading discussion 20 points  
Paper 1 30 points  
Paper 2 30 points

Original Experiment & Paper 100 points  
Poster Presentation 50 points  
Refer to grading rubric for papers and projects

### **QUIZZES AND SUMMARY SHEETS:**

Graded summary sheets will be provided for you to focus on the design of the experiments discussed in your assigned readings. The quizzes will be given on the weeks outlined below following an assigned reading. These will test knowledge regarding theoretical concepts relevant to the current article, as well as related ones covered in the assigned reading.

### **ORIGINAL EXPERIMENT:**

By the end of the semester, you will also design, run, and write up your own experiment. Be sure to start thinking early about ideas that interest you. For the experiment, you will work with your teammate(s) as a group, but you are going to turn in an **individually** written paper; in other words, this original paper will show your own personal work, not that of your team or information from internet. The papers **must be** in APA format. Late papers will not be accepted.

### **PRESENTATION:**

Each team presents their experiment. Make sure you present your experiment clearly including: Introduction (background), Design, Method, Data Analysis (Results), Interpretation and Future Direction. You need to prepare to answer the questions from our class and the instructor. It is imperative that each person be capable of making the entire presentation. It is each person's responsibility to be fluent with the details of their project.

**TENTATIVE LAB SCHEDULE:** schedule subject to change as the semester progresses

**Week 1**            **1/16**            Introduction  
Introduction to E-Prime  
Stroop Experiment Design

#### Assigned Readings:

Roediger, H. L., & Gallo, D. A. (2004). How to read a journal article in cognitive psychology. In D. A. Balota & E. J. Marsh (Eds.), *Cognitive Psychology: Key Readings*. (pp. 723-734). New York, NY: Psychology Press.

Clifasefi, S. L., Takarangi, M. K. T., & Bergman, J. S. (2006). Blind drunk: The effects of alcohol on inattentive blindness. *Applied Cognitive Psychology, 20*, 697-704.

**Week 2**            **1/23**            Quiz (Assigned readings)  
Article Presentation & Discussion over assigned readings  
Statistical Analysis Refresher (t-test and ANOVA)  
SPSS review  
Method & Results sections

#### Assigned Reading:

Pickel, K. L., Ross, S. J., & Truelove, R. S. (2006). Do weapons automatically capture attention? *Applied Cognitive Psychology, 20*, 871-893.

**Week 3**            **1/30**            Quiz (Assigned Readings)  
Article Presentation & Discussion  
IRB Paperwork & Background  
psycINFO  
Title Page, Introduction, & citations  
Literature Review Refresher  
Find articles  
Begin experimental design

Assigned Reading:

Loftus, E. F. & Palmer, J. C. (1974). Reconstruction of automobile destruction: An example of the interaction between language and memory. *Journal of Verbal Learning & Verbal Behavior*, 13, 585-589.

**Week 4**            **2/6**            Quiz (Assigned Readings)  
Article Presentation & Discussion  
Discussion section  
Paper 1 due  
Experimental Design Development (in teams)

Assigned Reading:

Bjork, R. A. & Whitten, W. B. (1974). Recency-sensitive retrieval processes in long-term free recall. *Cognitive Psychology*, 6, 173-189.

**Week 5**            **2/13**            Quiz (Assigned Readings)  
Article Presentation & Discussion  
Run Brown-Peterson program  
Meet with instructor about design

Assigned Reading:

Craik, F. I. M. & Tulving, E. (1975). Depth of processing and the retention of words in episodic memory. *Journal of Experimental Psychology: General*, 104, 268-294.

**Week 6**            **2/20**            Quiz (Assigned Readings)  
Article Presentation & Discussion  
Levels of Processing Demo  
Paper 2 Methods & Results Due  
Proposed methods due

Assigned Reading:

Clark, S.E., & Loftus, E.F. (1996). The construction of space alien abduction memories. *Psychological Inquiry*, 7, 140-143.

**Week 7**            **2/27**            Article Presentation & Discussion  
Work on final project

Assigned Reading:

Weldon, M. S., & Roediger, H. L. (1987). Altering retrieval demands reverses the picture superiority effect. *Memory and Cognition*, 15, 269-280.

**Week 8**            **3/5**            Quiz (Assigned Readings)  
Article Presentation & Discussion  
Picture Superiority effect Demo  
Paper 2 due  
Work on final project

Assigned Reading:

Meyer, D.E., & Schvaneveldt, R.W. (1971). Facilitation in recognizing pairs of words: Evidence of a dependence between retrieval operations. *Journal of Experimental Psychology*, 90, 227-234.

**Week 9**            **3/12**            Quiz (Assigned Readings)  
Article Presentation & Discussion  
Lexical Decision Demo  
Rough Introduction Due

Assigned Reading:

Tversky, A., & Kahneman (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185, 1124-1131.

**Week 10**          **3/19**            **Spring Break**

<b>Week 11</b>	<b>3/26</b>	Quiz (Assigned Readings) Article Presentation & Discussion Finalize Program
<b>Week 12</b>	<b>4/2</b>	Run Experiments
<b>Week 13</b>	<b>4/9</b>	Analyze Results
<b>Week 14</b>	<b>4/16</b>	Analyze and Write-up Rough draft and Rough poster due
<b>Week 15</b>	<b>4/23</b>	Final poster due Revise final paper
<b>Week 16</b>	<b>5/2</b>	3-5pm Poster session; Final paper due

### **OTHER INFORMATION**

Major assignments must be typewritten **and follow APA format.**

Effective communication of scientific work is not always easy and takes long practice to master. Make sure to ask questions of the lab instructor as you are working on your papers.

The computers in room 314 are available for your use outside of class, (except when other classes are using them). Please check the schedule posted on the door for class schedules.

**Americans with Disabilities Act (ADA):** If you are a student who requires accommodations in compliance with the ADA, please consult with me at the beginning of the semester. As a faculty member, I am required by law to provide reasonable accommodation to students with disabilities, so as not to discriminate on the basis of that disability. Your responsibility is to inform me of documentation authorizing the specific accommodation. Student services at UTA include the Office for Students with Disabilities (located in the lower level of the University Center) which is responsible for verifying and implementing accommodations to ensure equal opportunity in all programs and activities.

**Student Support Services:** The University supports a variety of student success programs to help you connect with the University and achieve academic success. They include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.

**Academic Honesty:** Academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form at The University of Texas at Arlington. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University. Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. (Regents: Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2., Subdivision 3.22).

**Bomb Threats:** If anyone is tempted to call in a bomb threat, be aware that UTA will attempt to trace the phone call and prosecute all responsible parties. Every effort will be made to avoid cancellation of presentations/tests caused by the bomb threat. Unannounced alternate sites will be available for these classes. Your instructor will make you aware of alternate class sites in the event that your classroom is not available.