#### PSYC 317-004 COGNITIVE PSYCHOLOGY GEORGE MASON UNIVERSITY FALL 2007, TR 12.00PM – 1:15 PM ROBINSON HALL B205

Instructor: Dr. James Thompson Office: David King 2056, 703-993-9356 Email: jthompsz@gmu.edu Office hours: Tuesdays, 1.30pm-2.30pm (right after class) or by appointment.

#### **Course Objectives**

Cognitive psychology is the scientific study of how we perceive, attend, remember, imagine, speak, reason and problem solve about the world around us. This course will introduce some of the major issues, theories, and experimental findings in cognitive psychology. By the end of this course you should be able to:

• Understand well established theories cognitive domains such as perception, attention, memory, language, problem-solving, reasoning and decision-making.

• Discuss current empirical research relevant to theories of cognition.

• Appreciate the logic of research design and the interpretation of findings as they relate to relevant theories of cognition.

• Understand how the traditional methods of cognitive psychology (e.g., reaction time, error analysis) can be used as tools to understand mental events.

• Understand how the established theories of cognitive psychology relate to the brain

• Discuss how research and theory in cognitive psychology have been applied to "real world" problems.

#### **Textbook** (required)

Goldstein, E. B. (2008). Cognitive Psychology: Connecting Mind, Research, and Everyday Experience. 2<sup>nd</sup> Edition. Belmont, CA: Thomson Wadsworth.

#### **Examinations and Grading**

<u>Exams</u>: A number of studies have shown that regular testing actually helps you learn and remember material better than no testing. This course will include three (3) non-cumulative exams, including the final, based on readings and lectures. Your three exam scores will count towards 60% of your grade. The exams will consist of multiple-choice and short answer questions. The exams will test your knowledge and understanding of the material covered in both the lectures and the text. To receive a high grade in this course you will need to demonstrate understanding of the key concepts from both the lectures and the text. Mere memorization of the "facts" presented in the course will not be sufficient to receive a high grade in the course. There will be material presented during

the classes that will not be found in the lecture notes, so it is important to make sure you attend class. If you are having any difficulties with the material, be sure to get in touch with me.

Make-up exams will not be given unless there is a documented emergency and will consist of exam questions.

<u>Article Review and Literature Search:</u> The goal of this exercise is to get you to a) find out how to search for psychology articles using PubMed or PsychINFO; b) read and understand research articles; and c) relate them to things that happen in the real world. This paper will contribute 30% to your final grade.

- 1. You will choose one research article from recent the cognitive psychology literature (I will provide a list of journals from which to choose).
- 2. Write a three page (double spaced, 12 font) summary of the article in which you a) identify the research question, (b) identify the independent and dependent variables, (c) summarize the results, and (d) summarize the researcher(s)' conclusions.
- 3. Then write two pages (double spaced, 12 font) relating the research question and findings from this article to a "real world" example from an event that happened to you, someone you know, or someone from a book or TV show.
- 4. Lastly, take the keywords from the article and perform a search for similar articles using either PubMed (www.pubmed.com) or PsychINFO (http://furbo.gmu.edu/dbwiz/psy). Generate a list of five *relevant* articles, print this out including your search terms, and include this with your article review. If you have any difficulties using PubMed or PsychINFO, finding the keywords (quick tip they are usually on the first page so look there first) or determining what other articles are relevant in your search (yes, this will be part of your grade) come and see me *before* the paper is due. Five percent (5%) will be docked for each day late.

<u>Class Participation</u>: The final 10% of your grade will come from participation in class discussions. Note - this does not just mean attendance – you actually need to contribute in a positive manner to the class to get good grades.

### **Important Dates**

Last day to add: Sep 11. Last day to drop Sep 28. Thanksgiving Nov 21-25. Final Exam Dec 11

### Grades

A (100-90); B (89-80); C (79-70); D (69-60); F (below 59). Please note that the actual grading standard will be based on class performance on each exam and the article critique.

#### **Study Guides**

The book publisher (Thompson Wadsworth) has made online resources available, though I believe only for those who purchase a new textbook. See http://coglab.wadsworth.com

### Extra Credit

Extra credit may be obtained by participating in experiments sponsored by the Psychology Department

Each hour of extra credit will raise your final grade by 0.5%. Students may receive up to 3 additional percent (3%) in their final grade (6 hours max). However, participation in experiments is not a course requirement, and non-participation will not reduce the final grade.

# **Honor Code**

All exams must follow the guidelines of the GMU Honor Code. Students may consult with other students and use books, notes, and other sources in preparing for exams. However, when taking exams, **no books, notes, or student interaction will be allowed**. Cheating and plagiarism of any sort will not be tolerated.

# Attendance

Class attendance is essential, as the lectures will frequently present information not found in the textbooks, and the material for the exams will be drawn from both lectures and readings. The lecture slides will be made available after each lecture via the web. However, please note that having access to the lecture slides is NOT a substitute for attending class AND taking notes. Relying only on the lecture slides will not be sufficient for you to score well on the exams.

# Special Help

If you are a student with a disability and you need academic accommodations, please see me during the first week of class and contact the Disability Resource Center (DRC) at 703-993-2474. All academic accommodations must be arranged through that office.

### Access to Computers

Students must have access to their GMU Email account. Students should feel free to communicate with me via email. Updates and notifications will be sent to the class email list using your GMU email address. If you need to use university facilities, you can find out about location and hours of university facilities at http://www.labs.gmu.edu/ or ask at the information desk at the Johnson Center. I will ONLY use your GMU Email address to contact you. Please use and check this address frequently. You may forward your GMU email to another address if you like, but please ensure that you are receiving the email to your GMU Email address.

### **Course Outline**

Any schedule changes or changes in assignments will be announced in class in advance. After an absence, students are responsible for contacting the instructor to obtain accurate information.

DATE	READING	DESCRIPTION
28-Aug	Chapter 1	Introduction to Cognitive Psychology
30-Aug		Introduction to Cognitive Psychology
4-Sep	Chapter 2	Cognition & the Brain; Methods of Cog Psych
6-Sep		Cognition & the Brain; Methods of Cog Psych
11-Sep	Chapter 3	Perception
13-Sep		Perception
18-Sep	Chapter 4	Attention
20-Sep		Attention
25-Sep	Chapters 1-4	Review for Exam 1
27-Sep		EXAM 1
2-Oct	Chapter 5	Sensory, Short Term, & Working Memory
4-Oct		Sensory, Short Term, & Working Memory
9-Oct	NO CLASS	COLUMBUS DAY MONDAY
11-Oct	Chapter 6	Long Term Memory
16-Oct		Long Term Memory
18-Oct	Chapter 7	Everyday Memory & Memory Errors
23-Oct		Everyday Memory & Memory Errors
25-Oct	Chapter 8	Knowledge
30-Oct		Knowledge
1-Nov		Review for Exam 2
6-Nov		EXAM 2
8-Nov	Chapter 9	Visual Imagery
13-Nov		Visual Imagery <b>PAPER DUE</b>
15-Nov	Chapter 10	Language
20-Nov		Language
22-Nov	NO CLASS	THANKSGIVING
27-Nov	Chapter 11	Problem Solving
29-Nov		Problem Solving
4-Dec		Special Topic: Cognitive Neuroscience
6-Dec		Review for Final Exam
11-Dec		FINAL EXAM

Dates & readings are subject to change – any changes will be communicated in class.