## COGNITIVE PROCESSES PSYCHOLOGY 327 SPRING SEMESTER 2005

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## Required text

Ashcraft, M. H. (1998). Fundamentals of cognition. New York: Longman.

Honeck, R. P. (Ed.) (1998). Introductory readings for cognitive psychology (3rd ed.). Guilford, CT: Dushkin/McGraw-Hill.

# **Purpose**

The psychology of human cognition is currently the dominant field in experimental psychology. There is an enormous amount of research that has been (and is currently being) conducted in this area. Such research addresses questions and ideas that are inherently interesting -- how we learn, reason, understand, and remember (just to name a few). Hopefully, you will leave the course with an introductory knowledge of a broad spectrum of theories and issues in cognitive psychology. Specifically, we will cover topics such as language, text comprehension, reasoning, and problem solving.

There is an important distinction that you will need to learn in this course: The difference between (a) unfortified opinion and attitude and (b) scientific knowledge and principled argumentation. Psychology is a science, not merely a body of folk wisdom. Our claims and theories are fortified by scientific research. Opinions and attitudes tend to become less prominent as one's exposure to scientific material increases. This statement is not intended to discourage your expression of opinions during classroom lectures. Such opinions are greatly encouraged and often prompt interesting classroom discussions.

#### **Grade evaluation**

You can earn a total of 1000 points in this course. The breakdown of these points is as follows:

Exam 1		100 points	
Exam 2		100 points	
Exam 3		100 points	
Final Exam		300 points	
Weekly Quiza	zes	100 points (	10 points each, 10 total)
Research write-ups		300 points (	100 points each, 3 total)
	Grading scale		
940 - 1000	Α	733 - 766	С
900 - 939	A-	700 - 732	C-
867 - 899	B+	667- 699	D+
833 - 866	В	633 - 666	D
800 - 832	B-	600 - 632	D-
767 - 799	C+	0 - 599	F

- 1. Exams. There will be three in-class examinations (1.25 hours) and a comprehensive final exam (2.5 hours). The exams will consist of one section of multiple-choice questions and one section of short essay questions. The in-class exams are worth 100 points each and the final exam is worth 300 points. The exams will include material from lectures, student presentations, the Ashcraft textbook, the Honeck readings book, and other assigned readings.
- 2. **Quizzes**. There will regular unannounced quizzes on the reading assignments, lecture material, and student presentations. The quizzes will include short-answer questions and/or multiple-choice questions. Quizzes will be taken at the **beginning** of the class period; therefore, it is important that you are on time. If you miss or are considerably late for a quiz (regardless of the reason), you will not be given a make-up quiz. Please do not ask me before class whether or not we are having a quiz.
- 3. **Experiment write-ups.** You will conduct three experiments, each of which tests some cognitive principle or previous research finding. You will be given a detailed methodology for each of the experiments. Each write-up should be written in APA format and include the following sections: introduction, methods, results, discussion, and references.

### **Additional Requirements**

- 1. <u>Written work</u>. All written work must be typed (double-spaced), proofread, saved on a computer diskette, and printed on a printer with adequate toner. You will be penalized for excessive grammatical, spelling, and formatting mistakes.
- 2. <u>Honor code</u>. All students are required to read the Honor Code. The constitution of the Honor Code is provided in the Student Handbook. The following will be considered violations of the Honor Code: (1) copying/using the work of other or previous students (cheating), (2) consulting old tests from my or other professors' classes, (3) failing to properly reference published work, (4) lying in official matters, and (5) stealing.
- 3. <u>Late work</u>. It is in your best interest not to wait until the last minute to write, save, or print your assignments. Ten points will be deducted from each assignment for each day it is late.
- 4. <u>Attendance</u>. I take roll at each class meeting. Although you will not be penalized for excessive absences, students who fail to show up for class generally earn low grades in this course. If you miss class it is your responsibility to contact a **classmate**, not me, to find out what you missed.

# **Schedule and Assignments**

DATE	TOPIC/EVENT	READINGS & ASSIGNMENTS
Jan 18 T	Introduction to Cognitive Psychology	Chapter 1
Jan 20 R	Attention	Chapter 3
Jan 25 T	Memory Overview Short-term memory	Chapter 4, Honeck 1
Jan 27 R	Memory continued	Honeck 3, 29
Feb 1 T	Working memory	Chapter 4, Honeck 14, 23, 27 Experiment write-up 1
Feb 3 R	Current Memory Research	Honeck 23, 27
Feb 8 T	Exam 1	
Feb 10 R	Episodic long-term memory	Chapter 5, Honeck 8, 11, 25
Feb 15 T	Knowledge representation	Chapter 6
Feb 17 R	Knowledge representation cont.	Honeck 9, 15, 26
Feb 22 T	Semantic integration	Chapter 6
Feb 24 R	Other memory phenomena	Honeck 22, 24, 28, 10
Mar 1 T	Memory in natural settings	Chapter 7, Honeck 12, 31, 32 Experiment write-up 2
Mar 3 R	Exam 2 exam	
Mar 8 & 10	Spring Break	
Mar 15 T	Structural and functional features of language	Chapter 8
Mar 17 R	Language acquisition	Honeck 13, 30
Mar 22 T	Language comprehension	Chapter 9
Mar 24 R	Easter break	
Mar 29 T	Text comprehension	Honeck 7, 16, 17
Mar 31 R	Language and learning	TBA
Apr 5 T	Learning technologies	TBA
Apr 7 R	Exam 3	
Apr 12 T	Logic and Reasoning	Chapter 11

May 3 T	Final exam (Tuesday, 1:00 – 3:30 p.m.)		
Apr 28 R	Lecture Wrap-up		
Apr 26 T	Artificial intelligence	TBA Experiment write-up 3	
Apr 21 R	What is cognitive science?	ТВА	
Apr 19 T	Problem solving	Chapter 11, Honeck 20	
Apr 14 R	Logic and Reasoning cont.	Honeck 18, 19	