

**Cognitive Neuropsychology**  
**Psyc6343 - Fall 2010**  
**Life Science 102**  
**TH 2:00 – 4:50**

**Instructor:** Heekyeong Park, Ph.D.  
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**I. Course Description**

*Cognitive Neuropsychology* is a three-credit course that focuses on the relations between the brain and human behavior and how to study those relations. It is primarily intended for, but not limited to students of psychology. The preferred prerequisites are Introductory Psychology, Cognitive Psychology and Behavioral Neuroscience.

**II. Course goals**

The major goal of this course is to examine the relations between the brain and behavior in order to have a better understanding of how complex cognitive behavior is mediated by the underlying neural substrate at the cortical level. While the emphasis of the course is on the neural correlate of cognitive functions with normal subjects, we will also look at lesion and animal studies. Further, we will consider studies using a range of recent neuroscientific methods. The course covers topics such as perception and object recognition, attention, memory, and language. The questions to keep in mind throughout the course are how behavior is mediated by the brain, and how we can design experiments which will enhance our knowledge of brain and behavior.

**III. Textbook & Readings**

- Main Text book- Gazzaniga, M., Ivry, R. & Mangun, R. (2009). *Cognitive neuroscience* (3<sup>rd</sup> edition) New York: Norton.
- Supplementary book- Kolb, B. & Whishaw, I. Q. (2009) *Fundamentals of human neuropsychology*. (6<sup>th</sup> edition) New York: Freeman-Worth
- Additional reading will be assigned for each topic. These papers will be placed on the WebCT.

**IV. Overall Structure of the Course**

The typical class session will consist of:

- Lecture/discussion corresponding to the text and readings to the experiment
- Discussion of methodology
- Question/answer session

## **V. Course Requirements**

Students are required to present two class presentations (based on assigned readings), to participate in class discussion, and to take two examinations (mid, final). Students are expected to attend class, complete the weekly readings before class and to ask questions.

### **Examinations**

The midterm will cover material from the first half of the course. The final exam will be comprehensive and may take the total time allotted for a class session.

## **VI. Course Policies**

The examinations must be taken as scheduled on this syllabus and as announced in class. There is no make-up exam except the circumstances that the university-policy specifies.

Students who have disabilities requiring special arrangements for class participation or test administration should notify the instructor of the need for such arrangements at the beginning of the semester.

## **VII. Assessment and Grading**

Students will be evaluated on two examinations, a term paper, and class participation. Grades will be assigned using the following weights:

Midterm Exam	30%
Final Exam	40%
Presentations	<b>25%</b>
Class Participation	5%

Grades will be assigned as follows:

90%	A
80%	B
70%	C
60%	D

## VIII. Course Outline

Topics for each class meeting are listed below. However, circumstances may call for a departure from this schedule. Assigned reading list for each topic will be distributed during class.

<u>DATE</u>	<u>TOPIC</u>	<u>READINGS</u>
Aug 26	<u>Introduction to Cognitive Neuroscience</u> Cognitive Neuroscience and neuropsychology Functional anatomy	K Chapter 2 & 10 G Chapter 3
Sep 2	<u>Methods of Cognitive Neuroscience</u> Methodology	G Chapter 4 & 6 K Chapter 6
Sep 9	<u>High-level vision/ Cognitive Control</u> Visual system: Perceptions Object recognition	G Chapter 5 & 7 K Chapter 9 13 14 15 21
Sep 16	<u>Attention &amp; Consciousness</u> Spatial representation & parietal lobes Selective attention & frontal lobe	G Chapter 12 K Chapter 14, 22
Sep 23	<u>Cognitive Control</u> Working Memory Frontal lobe function	G Chapter 13 K Chapter 16
Oct 7	<u>Memory I</u> Semantic vs. Episodic memories Amnesic patient studies	G Chapter 8 K Chapter 18
Oct 14	Midterm Exam	
Oct 21	<u>Memory II</u>	

	Encoding vs Retrieval Aging & Memory	G Chapter 8 K Chapter 18
Oct 28	<u>Emotion</u>	G Chapter 13 K Chapter 15
Nov 4	<u>Language</u>	G Chapter 9 K Chapter 20
Nov 11	<u>Hemispheric Specialization</u>  Class will meet 9am-12:0m (tentative schedule)	G Chapter 11 K Chapter 11 12 17
Nov 18	sfn & Psychonomic meetings	NO CLASS
Nov 25	Thanksgiving Holiday	
Dec 2	<u>Social Judgment &amp; Cognition</u> Decision making	G Chapter 14
Dec 9	Wrap-up /Review	

## University of Texas at Arlington

### Americans With Disabilities Act:

The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 92112 -The Rehabilitation Act of 1973 as amended. With the passage of federal legislation entitled *Americans with Disabilities Act (ADA)*, pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens. As a faculty member, I am required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty of their need for accommodation and in providing authorized documentation through designated administrative channels. Information regarding specific diagnostic criteria and policies for obtaining academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability). Also, you may visit the Office for Students with Disabilities in room 102 of University Hall or call them at (817) 272-3364.

### Academic Integrity:

It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. 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. "Scholastic 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, Series 50101, Section 2.2)

### Student Support Services:

The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve academic success. These programs 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.

### Final Review Week:

A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabi. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final

Review Week. Classes are held as scheduled during this week and lectures and presentations may be given.

E-culture Policy:

The University of Texas at Arlington has adopted the University email address as an official means of communication with students. Through the use of email, UT-Arlington is able to provide students with relevant and timely information, designed to facilitate student success. In particular, important information concerning registration, financial aid, payment of bills, and graduation may be sent to students through email. All students are assigned an email account and information about activating and using it is available at [www.uta.edu/email](http://www.uta.edu/email). New students (first semester at UTA) are able to activate their email account 24 hours after registering for courses. There is no additional charge to students for using this account, and it remains active as long as a student is enrolled at UT-Arlington. Students are responsible for checking their email regularly.