

## **Psychology 5360I: Cognitive Neuroscience Fall 2015**

Tuesdays & Thursdays, 3:30-4:50 p.m., room UAC 205

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<b>OFFICE HOURS:</b>	Wed 1:00 pm – 6:00 pm, or by appt.		

### **COURSE OBJECTIVES:**

PSY 5360I provides a comprehensive introduction to cognitive neuroscience; the study of the biological basis of human cognition. Contemporary scientific study of the biological structures and processes that support perception, attention, memory, language, executive functions, and decision-making will be covered. This is a seminar course that will include lectures on background information as well as discussions of recent research that pertains to each topic. Prerequisite: C or better in PSY 3322 or equivalent.

### **LEARNING OUTCOMES:**

After completing this course, students will have mastery of:

- The methods used to examine relationships between the brain and cognition
- The anatomy and physiology of biological processes that give rise to cognition
- The ability to comprehend and evaluate current research in cognitive neuroscience

The Department of Psychology has adopted expected student learning outcomes for the graduate major. These expected student-learning outcomes are available for your review at the following website: <http://www.psych.txstate.edu/assessment/>.

### **TEXTBOOK:**

Purves, D., Cabeza, R., Huettel, S.A., LaBar, K.S., Platt, M.L., & Woldorff, M.G. (2013). *Principles of Cognitive Neuroscience, 2<sup>nd</sup> Edition*. Sunderland, MA: Sinauer Associates, Inc. ISBN: 978-0-87893-573-4. Assigned readings are listed in the course outline below, and material from these readings will be tested on exams.

### **STUDENTS WITH SPECIAL NEEDS:**

If you are a student with a disability who will require an accommodation(s) to participate in this course, please contact me as soon as possible. Adaptations of methods, materials, or testing may be made as required to provide for equitable participation. You will be asked to provide documentation from the Office of Disability Services. Failure to contact me in a timely manner may delay your accommodations (<http://uweb.txstate.edu/academicaffairs/pps/PPS4/4-01.doc>).

### **ATTENDANCE POLICY:**

Attendance is not required but is strongly encouraged. Lectures will include material not covered in the textbook, and exams will test material from both the lectures and the textbook. Discussion points are also awarded on designated days. Failure to attend a discussion day will result in a loss of points for the day.

**TRACS:**

All assignments, handouts, lecture slides, announcements, grades, and other information will be posted on TRACS. Access TRACS using your netID at <https://tracs.txstate.edu/portal/login/>.

**ACADEMIC HONESTY STATEMENT:**

The following information is directly quoted from the policy statement of the Texas State University System (<http://www.txstate.edu/effective/upps/upps-07-10-01.html>).

Honor Code: As members of a community dedicated to learning, inquiry, and creation, the students, faculty, and administration of our University live by the principles in this Honor Code.

*We are conscientious.* We complete our work on time and make every effort to do it right. We come to class and meetings prepared and are willing to demonstrate it. We hold ourselves to doing what is required, embrace rigor, and shun mediocrity, special requests, and excuses.

*We are respectful.* We act civilly toward one another and we cooperate with each other. We will strive to create an environment in which people respect and listen to one another, speaking when appropriate, and permitting other people to participate and express their views.

*We are honest.* We do our own work and are honest with one another in all matters. We understand how various acts of dishonesty, like plagiarizing, falsifying data, and giving or receiving assistance to which one is not entitled, conflict as much with academic achievement as with the values of honesty and integrity.

Violation of the Honor Code includes, but is not limited to, cheating on an examination or other academic work, plagiarism, collusion and the abuse of resource materials.

*Cheating* means engaging in any of the following activities: (1) copying from another student's test paper, laboratory report, other report, or computer files, data listings, or programs; (2) using, during a test, materials not authorized by the person giving the test; (3) collaborating, without authorization, with another person during an examination or in preparing academic work; (4) knowingly, and without authorization, using, buying, selling, stealing, transporting, soliciting, copying or possessing, in whole or in part, the contents of an unadministered test; (5) substituting for another student or permitting another person to substitute for oneself in taking an examination or preparing academic work; (6) bribing another person to obtain an unadministered test or obtain information about an unadministered test; and (7) purchasing, or otherwise acquiring and submitting as one's own work any research paper or other writing assignment prepared by an individual or firm.

*Plagiarism* means the appropriation of another's work and the unacknowledged incorporation of that work in one's own written work offered for credit.

*Collusion* means the unauthorized collaboration with another person in preparing written work offered for credit.

*Abuse of resource materials* means the mutilation, destruction, concealment, theft or alteration of materials provided to assist students in the mastery of course materials.

*Academic penalty* means one or more of the following sanctions which may be imposed in cases involving violation of academic honesty: (1) a requirement to perform additional academic work not required of other students in the course; (2) a reduction to any level of the grade in the course, or on the examination, or other academic work affected by violation of the Honor Code; and (3) a requirement to withdraw from the course with a grade of “F” or a “W”.

### **GRADING:**

Grades will be based on your performance on four essay exams, three article presentations, participation in class discussions, and an article review.

Grades will be determined as follows:

<u>Item</u>	<u>% of final grade</u>	<u># of points</u>
Essay exams (3 of 4)	60% (20% each)	90 (30 pts. each)
Article presentations	15% (5% each)	30 (10 pts. each)
Discussion participation	15% (2.5% per day)	30 (5 pts. per day)
Article review	10%	20

The following grading scale will be used:

90-100%:	A
80-89%:	B
70-79%:	C
60-69%:	D
<60%:	F

**Essay exams:** Four essay exams will be given throughout the semester. Missing an exam day is strongly discouraged. Your three highest scores will count towards your final grade; the fourth score will be discarded. *There are no make-up exams. If you miss an exam, regardless of the reason, the scores from the other three exams will automatically be counted. No exceptions.*

**Article presentations:** Six days during the semester (see outline below) the class will discuss recent articles in cognitive neuroscience, corresponding to the lecture topic from the previous class day(s). Each student will lead class discussion of an article three times during the semester, once during each of three segments of the course (A, B, & C), corresponding to exams 2, 3, & 4.

**Discussion participation:** Each student is expected to actively participate in class discussions of recent articles in cognitive neuroscience. Up to 5 points will be awarded for your participation in the discussions. Students are required to read each article to be discussed in class and generate two discussion questions based on each article in advance. These questions should be handed in via dropbox on the course TRACS site BEFORE the start of the class period. Failure to do so will result in a loss of discussion points. Students do not need to generate questions for the articles they are presenting to the class. If you miss an article discussion day, an alternative assignment may be completed to make up the lost points.

**Article review:** One written review of a current journal article in cognitive neuroscience is required. Instructions for the review will be distributed separately during class.

## COURSE OUTLINE

<b>Date</b>	<b>Topic</b>	<b>Assigned Reading</b>
Tu 25-Aug	Introduction to Cognitive Neuroscience	Chapter 1
Th 27-Aug	Introduction to Cognitive Neuroscience II	Chapter 1
Tu 1-Sept	Methods in Cognitive Neuroscience I	Chapter 2
Th 3-Sept	Methods in Cognitive Neuroscience II	Chapter 2
Tu 8-Sept	Methods III and Exam 1 Review	Chapter 2
Th 10-Sept	<b>Exam 1</b>	
Tu 15-Sept	Visual Perception I	Chapter 3
Th 17-Sept	Visual Perception II	Chapter 3
Tu 22-Sept	Article Discussion #A1	
Th 24-Sept	Attention I	Chapter 6
Tu 29-Sept	Attention II	Chapter 7
Th 1-Oct	Article Discussion #A2 & Exam 2 Review	
Tu 6-Oct	<b>Exam 2</b>	
Th 8-Oct	Memory I	Chapter 8
Tu 13-Oct	Memory II	Chapters 8,9
Th 15-Oct	Memory III	Chapter 9
Tu 20-Oct	NO CLASS	
Th 22-Oct	Article Discussion #B1	
Tu 27-Oct	Emotion I	Chapter 10
Th 29-Oct	Emotion II	Chapter 10
Tu 3-Nov	Article Discussion #B2 & Exam 3 Review	
Th 5-Nov	<b>Exam 3</b>	

Tu 10-Nov	Language I	Chapter 12
Th 12-Nov	Language II	Chapter 12
Tu 17-Nov	Article Discussion #C1	
Th 19-Nov	Executive Functions <b>**Article Review due</b>	Chapter 13
Tu 24-Nov	NO CLASS THANKSGIVING	
Th 26-Nov	NO CLASS THANKSGIVING	
Tu 1-Dec	Decision Making	Chapter 14
Th 3-Dec	Article Discussion #C2 & Exam 4 Review	

**FINAL EXAM (Exam 4):** Tuesday, 8-Dec 5:00 p.m.