

Cognitive Neuroscience

PSYC 4140

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Office: Room 438, Psychology Building

Office Hours: MWF by appointment

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

General Course Description: This course will deal with the origins and principles of cognitive neuroscience and the types of research that are conducted in the field. Some classic and seminal, but mostly current studies on how the brain performs various tasks (e.g., language, memory, attention, perception) will be discussed. Also, the variety of different brain imaging techniques available to scientists in the field of neuroscience (e.g., MRI, fMRI, PET, CT, EEG and MEG) will be reviewed.

Course Pre-/Co-Requisites: PSYC 2980 or PSYC 3980; PSYC 2990 or PSYC 3990

Required Materials: Ward, J. (2010). *The Student's Guide to Cognitive Neuroscience* (2nd ed.) London: Psychology Press.

Course Objectives: The main objective of this course is to inform you of the imaging modalities currently used in cognitive neuroscience, and to present you with the current state of knowledge regarding brain function across varied aspects of cognition.

Course Format: This course will follow a seminar/discussion model. The purpose behind this is to get you actually involved in thinking about what you are being taught. Because cognitive neuroscience is not a simple and straightforward topic, I believe it will be greatly beneficial to format the class in such a way that discussion and questioning of the material is emphasized. Furthermore, such a format will aid in developing your overall critical thinking skills.

Readings: It is your responsibility to read the assigned reading before the day on which it will be covered. I aim to have you go through both book chapters and journal articles. The journal articles will build on the chapter readings, therefore it is necessary that you keep up with the readings. It is especially important that you keep up with the articles as you will be expected to participate in the class discussion.

Articles to be read for class will be posted on eLC.

Comportment: When entering class please remember that you are in a college class, and in this case, a 4000 level class. Also remember that you are considered an adult at your age, so if you would like to be treated like one, then act accordingly. What does this mean?

- If you find it necessary to use a laptop to take notes, do not spend your time surfing the internet or on social networking sites. Not only will this greatly detract from your learning experience and those of others, but if I see you doing so I will ask you to leave.

- Do not text while you are in class. Whatever you are texting about is probably not relevant to the class. If you are expecting an important phone call, please let me know before class begins.
- Be respectful to the instructor and others in the class. Try not to come in late, don't leave early (unless you tell me you are going to do so), etc. The class is only 50 minutes, so we don't have time for unnecessary distractions.

Grading Policy: There will be a total of 4 exams. The first 3 exams will be non-cumulative, but it is possible that the final may be cumulative as we will only be covering one topic after the 3rd exam. The exams will be a combination of multiple choice, short answers, and maybe an essay. Therefore, to prepare you will have to do a little bit more than just rote memorization. You will be allowed to drop your lowest grade from the first 3 exams. Aside from the tests you will also have a GROUP PRESENTATION on one of the articles. You will be responsible for not only redacting the information from the article, but also leading a discussion and answering questions that other students or I may have.

Since you will of course be prepared when you come to class, it is possible that I may give you the occasional quiz on the material you have read for class.

The exams will count for 70% of your grade, while both participation and the presentation will count for 15% each.

Your scores will be computed as a *percentage* and grades assigned as follows:

X > 92	A
90 > X > 92	A-
88 > X > 90	B+
82 > X > 88	B
80 > X > 82	B-
78 > X > 80	C+
72 > X > 78	C
70 > X > 72	C-
60 > X > 70	D
Below 60	F

Attendance: Attendance is not required per se, but participation in class will constitute a significant part of your grade. If you feel that you will not be attending class often, then it is probably a good idea to drop the class as your grade will suffer accordingly. Additionally, this would make room for someone who is actually interested in taking the course.

If you know that you need to miss class for a specific reason, please let me know ahead of time. Do not ask me to recap for you what we discussed in class unless you have a valid, excused absence.

Attendance at exams is MANDATORY. If you miss an exam for whatever reason (e.g. car trouble, jury duty, illness, family emergency), that will be your drop exam. Remember, you get to drop only one of the first three exams, with your final grade being based on the remaining three exams. There will be no exceptions to this policy and no make-up exams will be given.

University policy requires that final examinations be held for a course as scheduled and list in the University final exam schedule for each semester. University policy indicates that time and date departures from the examination schedule require prior approval of the Dean of the school or college and the Vice President for Instruction. It is highly unlikely, therefore, that departures from the final examination schedule will occur.

Tentative Course Schedule

*Please note, this is a tentative schedule and is therefore subject to change.

Date	Topic	Chapter or Article
08/15/11	Course Introduction	
08/17/11	Introduction to Cog Neuro	Chapter 1
08/19/11	Introducing the Brain	Chapter 2
08/22/11	Introducing the Brain	Chapter 2
08/24/11	Introducing the Brain	Chapter 2
08/26/11	The Electrophysiological Brain	Chapter 3
08/29/11	The Electrophysiological Brain	Chapter 3
08/31/11	Brain Imaging Techniques	Chapter 4
09/02/11	Brain Imaging Techniques	Chapter 4
09/05/11	Labor Day- NO CLASS	
09/07/11	Brain Imaging Techniques	Chapter 4
09/09/11	Exam 1	
09/12/11	BIRC TOUR	
09/14/11	The Lesioned Brain	Chapter 5
09/16/11	The Lesioned Brain	Chapter 5
09/19/11	The Lesioned Brain	Article
09/21/11	The Lesioned Brain	Article
09/23/11	The Lesioned Brain	Article
09/26/11	Visuo-spatial abilities	Chapters 6 & 7
09/28/11	Visuo-spatial abilities	Chapters 6 & 7
09/30/11	Visuo-spatial abilities	Article
10/03/11	Visuo-spatial abilities	Article
10/05/11	Visuo-spatial abilities	Article
10/07/11	Video Day	
10/10/11	Exam 2	
10/12/11	Memory: STM, LTM, & WM	Chapter 9
10/14/11	Memory: STM, LTM, & WM	Chapter 9

10/17/11	Memory: STM, LTM, & WM	Chapter 9
10/19/11	Memory: STM, LTM, & WM	Article
10/21/11	Memory: STM, LTM, & WM	Article
10/24/11	Memory: STM, LTM, & WM	Article
10/26/11	TBA	
10/28/11	Fall Break – NO CLASS	
10/31/11	TBA	
11/02/11	Executive Functioning	Chapter 14
11/04/11	Executive Functioning	Chapter 14
11/07/11	Executive Functioning	Chapter 14
11/09/11	Executive Functioning	Article
11/11/11	Executive Functioning	Article
11/14/11	Executive Functioning	Article
11/16/11	Video Day	
11/18/11	Exam 3	
11/21/11 – 11/25/11	Thanksgiving – NO CLASS	
11/28/11	The Social and Emotional Brain	Chapter 15
11/30/11	The Social and Emotional Brain	Chapter 15
12/02/11	The Social and Emotional Brain	Article
12/05/11	The Social and Emotional Brain	Article
12/06/11	The Social and Emotional Brain	Article
12/09/11	Exam 4 / Final	3:30 – 6:30

University of Georgia Honor Code: As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at: www.uga.edu/honesty. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

Students with Disabilities: If any student has circumstances requiring special attention or accommodation, please contact me as soon as possible. Your information will be held confidential.