Attention!

This is a representative syllabus.

The syllabus for the course when you enroll may be different.

Use the syllabus provided by your instructor for the most up-to-date information. Please refer to your instructor for more information for the specific requirements for a given semester.

Feel free to contact the Psychology Advising Office for any questions regarding psychology courses either by email (psychadvising@osu.edu) or phone (614.292.5750).

Thank you!
Syllabus
FALL 2017 PSYC 3513: Cognitive Neuroscience

Course Readings:


Note: I have found that the 3rd edition is a suitable, relatively inexpensive substitute. If you buy the 3rd edition, please make sure to consult the “note about textbooks” that is posted on the course page.

2. Additional readings from the primary research literature will be posted on CANVAS.

Course Description: Cognitive Neuroscience is a rapidly expanding scientific discipline that probes classical questions of human cognitive psychology via a broad array of cutting-edge methodological approaches, which include but are not limited to brain imaging (e.g., functional MRI and electroencephalography), lesion studies, single-cell recording, and examinations of brain injuries and other neurological disorders. This course will survey the results of these approaches, which have thus far generated fundamental insights about perception, object recognition, attention, memory, and many other cognitive processes.

Enrollment Requirements and Information:

1. 1100 (100) or 1100H (100H). Not open to students with credit for 513.

Tasks:

Exams (72%): There will be three exams, including two midterms (each 24% of the final grade) and a final (also 24% of the final grade). The final exam will be cumulative. Each of these exams will be comprised of multiple choice questions.

Online Discussion (8%): We will spend a portion of 4 lectures in class going over articles from the primary research literature (each are listed in the syllabus). These articles will sometimes be challenging, and I have learned that discussion greatly facilitates comprehension. While our class is too large to hold discussions in which everyone can participate during class time, online discussions can be quite valuable. Therefore, we will activate the discussion board for our class on Canvas. The format for these discussions is very informal, and all we ask is that each student participate to some extent. You must post at least two substantive questions or
comments in these discussion groups prior to the class meeting listed in the syllabus. You can start new threads with a comment, but at least one of your two comments must be a response to another thread. This facilitates interaction and debate. The cutoff time is 6pm the day before the class meeting (this is so that I can read your comments and integrate them into my slides for the class meeting). It's best to post 1-2 days before the cutoff so that not everyone is posting at the last minute. Substantive participation in each discussion will earn you 2% per article discussed.

Reaction papers (10%): You will be asked to submit reaction papers to the 2 of the 4 articles of your choosing that are listed in the syllabus (not to chapters of the textbook). These papers should be 1-2 pages (double-spaced), and they should: 1) summarize the article, 2) describe potential drawbacks, 3) provide recommendations for how to address the criticisms you have raised. Reaction papers must be uploaded to Canvas (specific instructions will follow) before they are discussed in class before 2:00pm. No exceptions!

Quizzes (10%): Before covering each of the 4 articles during class time, brief multiple choice quizzes will be administered. The goal of these quizzes is to test your basic knowledge of the article. Really, these quizzes are designed so that you can score highly if you made a good effort to read the article and follow the discussions on Canvas, even if you didn’t understand the finer details. Focus on the following questions if you want to do well: 1) what was the general question the authors attempted to address? 2) what cognitive neuroscience technique did they use? 3) roughly how many participants were included in the study? 4) how many experiments were there? 5) what kind of task did the participants have to do? 6) what general conclusions did the authors reach? Participation in the online discussion will greatly enhance your ability to perform well on the quizzes.

As a note: Ultimately, the exams will ask deeper questions about the articles. We’ll prepare for these questions when I cover the articles during class time. Following each class in which an article is covered, we will produce a list of 4-5 “What We Learned” (WWL) points from the article. These WWL points will be posted on Canvas and will form the basis for the exam questions on the articles.

Course grades will be determined as follows:

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>93-100%</td>
<td>A</td>
</tr>
<tr>
<td>90-92.99%</td>
<td>A-</td>
</tr>
<tr>
<td>87-89.99%</td>
<td>B+</td>
</tr>
<tr>
<td>83-86.99%</td>
<td>B</td>
</tr>
<tr>
<td>80-82.99%</td>
<td>B-</td>
</tr>
<tr>
<td>77-79.99%</td>
<td>C+</td>
</tr>
<tr>
<td>73-76.99%</td>
<td>C</td>
</tr>
<tr>
<td>70-72.99%</td>
<td>C-</td>
</tr>
<tr>
<td>67-69.99%</td>
<td>D+</td>
</tr>
<tr>
<td>63-66.99%</td>
<td>D</td>
</tr>
<tr>
<td>60-62.99%</td>
<td>D-</td>
</tr>
<tr>
<td>&lt;60%</td>
<td>E</td>
</tr>
</tbody>
</table>

Class attendance policy:

Attendance is not mandatory.

HOWEVER, people who come to class do better. I once randomly took attendance on two days prior to the exam. Check out the figure on the next page: the people who attended both
days scored 13% higher on average than the ones who did not attend on either day. Correlations are always difficult to interpret, but plenty of other research supports this claim: **the most efficient way to ace this course is to come to class.**

Also, here is an incentive to not skip: any day that attendance drops below 50%, I will award 1% extra credit on the next exam to those who arrive within the first 10 min of start time (no exceptions!). I will do this up to 4 times during the semester. Only students who arrive on time can earn the EC. If attendance never dips below 50%, then every student will earn 1% toward the final exam.

Cell Phones and Electronic Devices in Class:

An increasing amount of research has pointed to negative cognitive effects of excessive electronic device use, something that will likely come up in class. Many of us find it hard to resist texting or even surfing the web during class. And there is evidence that it dramatically worsens performance for you and your neighbors (see lecture slides from Class 1).

I believe that everyone should be able to choose whether to expose themselves to the negative consequences of electronic device usage, but I cannot permit people to distract others who come to class to focus on the lecture. As a result, I have developed the following policies:

1. If you bring a laptop to class, it can be used only to take notes. Do not use it for web surfing or engaging in social media. Students found to be surfing the web or otherwise using their computers in a manner that is distracting to their classmates will be asked to close their laptops. If a student continues this inappropriate laptop use, he/she will be asked to leave the classroom.
2. If you receive a text during class time, you may read it to ensure it is not an emergency. If you need to respond to a text, or if you need to read many texts, you must excuse yourself from the classroom to ensure you do not distract others.

Academic Integrity:

ALL SUSPECTED CASES OF ACADEMIC MISCONDUCT, INCLUDING CHEATING AND PLAGIARISM WILL, ACCORDING TO UNIVERSITY RULES, BE SUBMITTED TO THE COMMITTEE ON ACADEMIC MISCONDUCT AND MAY LEAD TO A FAILING GRADE IN THE COURSE OR DISMISSAL FROM THE UNIVERSITY. IGNORANCE IS NOT AN EXCUSE!

"It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever
committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct at http://studentconduct.osu.edu"

Computerized Plagiarism Detection: Please be aware that every assignment you turn in on Canvas will be compared via advanced software to a vast database of past assignments and those of your current peers. If you plagiarize, the detection software will alert us! See example from Class 1 lecture slides.

Missed Classes:

If you miss a class, please contact fellow students for relevant notes and handouts. The instructor or course assistants are available to meet with you after you have reviewed the notes and readings to answer additional questions. It will help to get the contact info of some fellow students.

Disability Services:

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Sexual misconduct/relationship violence:

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at http://titleix.osu.edu or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at titleix@osu.edu

Class Schedule (subject to change):

Week 1
8/22 Welcome/Introduction
8/24 Lecture: History of Cognitive Neuroscience
Chapter 1: A Brief History of Cognitive Neuroscience

Week 2
8/29 Lecture: History of Cognitive Neuroscience (cont’d)
8/31 Lecture: Neuroanatomy

Chapter 2: Structure and Function of the Nervous System

Week 3
9/5 Lecture: Cognitive Neuroscience Methods
9/7 Lecture: Cognitive Neuroscience Methods (cont’d)

Chapter 3: Methods of Cognitive Neuroscience

Week 4
9/12 Lecture: Cognitive Neuroscience Methods (cont’d)
9/13 **DUE Wednesday by 6pm: Discussion board participation**

QUIZ 1 in class

Response papers for the McCabe article must be submitted no later than 2pm

Chapter 5: Sensation and Perception

Week 5
9/19 Lecture: Perception
9/21 Lecture: Object Processing

Chapter 6: Object Recognition

Week 6
9/25 **DUE Monday by 6pm: Discussion board participation**
9/26 Class Discussion of Object Processing: Kanwisher et al. (1997)

QUIZ 2 in class

Response papers for Kanwisher article must be submitted no later than 2pm

9/28 Lecture: Object Processing (cont’d)

Week 7
10/3 Exam 1
10/5 Lecture: Action

Chapter 8: Action

Week 8
10/10 Lecture: Action (cont’d)
10/12 FALL BREAK – NO CLASS

Chapter 9: Memory

Week 9
10/17 Lecture: Learning and Memory
10/19 Lecture: Learning and Memory (cont’d)

Chapter 10: Emotion
Week 10
10/24 Lecture: Emotion
10/26 Lecture: Language

Chapter 11: Language


Week 11
10/30 DUE Monday by 6pm: Discussion board participation
10/31 Happy Halloween!!
   Class Discussion of Emotion: Greene et al. (2001)
   QUIZ 3 in class
   *Response papers for the Greene article must be submitted no later than 2pm*

11/2 Lecture: Attention
Chapter 7: Attention

Week 12
11/7 Lecture: Attention (cont’d)
11/9 Exam 2
Chapter 7: Attention

Week 13
11/14 Lecture: Cognitive Control
11/16 Lecture: Cognitive Control (cont’d)
Chapter 12: Cognitive Control


Week 14
11/20 DUE Monday by 6pm: Discussion board participation
11/21 Class Discussion of Attention: O’Craven et al., (1997)
   QUIZ 4 in class
   *Response papers for the O’Craven article must be submitted no later than 2pm*
11/23 THANKSGIVING – NO CLASS

Week 15
11/28 Lecture: Social Cognition
11/30 Lecture: Social Cognition (cont’d)

Week 16
12/5 Wrap up & Conclusions

**Cumulative Final Exam:**
The official date/time for the final exam will be listed in Buckeyelink by Fall Break. As far as I can tell, it will be as follows (but we will confirm when the official time is posted):
   Friday, Dec 8th, 4:00pm-5:45pm, in our normal meeting location

Sorry, but the exam must be taken at the official date/time, and we cannot schedule makeups.