

PSYCH 256: Introduction to Cognitive Psychology

Evan D. Bradley, Instructor

Fall 2014, Penn State Brandywine



1 Basics

1.1 Class

day TR

time (section 001) 8:30–9:45am

time (section 002) 10:00–11:15am

place Main 203

1.2 Instructor

email evan.d.bradley@psu.edu

phone 610.892.1458

office Main Hall 207D

hours TR 12:00–2:00pm, or by appointment

www <http://www.evanbradley.net>

1.3 Teaching Assistant

Jacqueline Brown

email jmb6590@psu.edu

office Vairo lounge

hours W 4:30–6:00pm, or by appointment

Instructor or TA

Here is a handy guide to who to contact for various issues.

Instructor

- Registration
- Grades

either

- Content questions
- Assignment help

TA

- Attendance
- Materials

¹This document is released under a Creative Commons Attribution-Noncommercial-Share Alike 3.0 License (<http://creativecommons.org/licenses/by-nc-sa/3.0/>).

2 Course

2.1 Overview

This course introduces the study of mental structures and processes underlying human thought and behavior, including perception, memory, attention, reasoning, and learning. The emphasis will be on the formulation and evaluation of theoretical models of cognition through empirical research, including studying primary research literature and conducting laboratory experiments. The application of principles and methods of cognitive psychology to other areas (*e.g.*, clinical, developmental, neuroscience) will also be discussed.

2.2 Objectives

2.2.1 Learning Goals

After taking this course, you should be able to:

1. Explain the motivations for and approaches used by cognitive psychology, and their relationship to other scientific and applied fields.
2. Identify basic mental processes (*e.g.*, memory, attention) and describe their role in producing complex behaviors (*e.g.*, language, reasoning).
3. Evaluate and compare models of cognitive processes using behavioral, biological, and computational evidence.

2.2.2 Academic Goals

In addition to acquiring specific points of knowledge, it is my hope that by participating in the course, you will improve your academic skills in a number of areas which will benefit you in your future studies. After taking this course, you should improve your ability to:

1. read primary and secondary research literature and interpret the results of experiments;
2. synthesize multiple sources of information into a coherent view of a topic;
3. communicate scientific information to others effectively using a variety of media;
4. apply scientific reasoning to social/behavioral phenomena;
5. skeptically examine folk beliefs about how the mind works.

2.3 Prerequisites

You should have already taken PSYCH 100: Introduction to Psychology before taking this class. If you have not, please see me as soon as possible.

2.4 Materials

The textbook for the course is:

Eysenck, M. W., & Keane, M. T. (2010). *Cognitive psychology: A student's handbook* (6th ed.). Taylor & Francis.

Your primary readings assignments will come from this book, and are outlined in the course schedule. We will also be completing a number of assignments based on this year's Brandywine Common Read:

Brockman, J. (Ed.) (2014). *What Should We Be Worried About?: Real Scenarios That Keep Scientists Up at Night*. HarperCollins.

Both books are available in the campus bookstore and major retailers, and reserve copies are available at the library. **It is important to obtain access to a copy of the books as soon as possible—please see me if you have any problem with this.** Additional materials may be assigned, such as book chapters, journal articles, and multimedia. All materials will be provided to you in class or electronically, or placed on reserve at the library. See the course schedule for preliminary assignments.

2.5 Assignments

Below is an overview of the types of assignments you will complete; specific instructions for each assignment will be provided as they are assigned.

2.5.1 Classwork

Class participation is at the heart of every course I teach, because we will all get the most out of the course by actively engaging with the material. My goal is to keep “lecture” time to the minimum necessary; to that end, we will complete many individual and small-group activities during class time. These may include:

- laboratory exercises
- short writings
- mini-presentations

In-class assignments may be collected, evaluated, and returned in order to assess your progress, and to reward your work by contributing to your grade.

2.5.2 Homework

Homework will be assigned regularly (about once per week). The goal of these assignments is to help you prepare for and/or reflect on what happens in class. Some types of homework which may be assigned include:

Reading Questions These will usually be assigned for supplemental (non-textbook) readings. Before the class for which the reading is assigned, you will either 1. respond to questions designed to guide you through the most important concepts in a reading; or 2. formulate your own questions after reading; these may either be things you remain unclear about, or points of discussion you would like the class to consider.

Lab Reports/Reflections After lab demonstrations, you will summarize the findings demonstrated in the experiment in the form of a short lab report, and synthesize this with concepts discussed in lecture.

Homework Notes:

- You will usually submit homework assignments via the website, but sometimes I will ask you to bring them to class printed or handwritten. If you handwrite any assignments, please make sure they are **legible!**
- You are encouraged to discuss your assignments with other students, but for individual assignments you must turn in your own work.

2.5.3 Tests

Quizzes At the conclusion of each major unit, there will be a short quiz designed to check your recall and understanding of important concepts. Your lowest quiz score will be dropped from your grade.

Exams There will be a cumulative final exam during the exam period.

2.5.4 Common Read project: What should *psychologists* be worried about?

We will complete a series of assignments based on this year’s common read, *What should we be worried about?: Real scenarios that keep scientists up at night*. Many of the essayists in this volume touch on psychological issues. We will read them throughout the term, and complete a variety of assignments, including online discussions and a reflective essay.

2.6 Grades

Assignment Weighting

Each assignment carries a different weight in determining your overall grade:

category	assignment	weight
homework	25%	lab assignments $3 \times 5\% = 15\%$
		other 10%
tests	40%	quizzes $4 \times 5\% = 20\%$
		final 20%
project	25%	discussions 15%
		essay 10%
classwork	10%	10%

Grading Scheme

Your grade for the course will be determined based on a hybrid norm- and criterion-referenced grading scheme. *Criterion* refers to the fact that should you achieve a certain score, you will earn a corresponding grade (see the table below); *norm* refers to the fact that I take the class distribution of scores into account when assigning grades.

score \geq	grade \geq
93%	A
90%	–
87%	+
83%	B
80%	–
77%	+
70%	C
60%	D

This is not grading ‘on a curve’ *per se*, in that it is possible for everyone in the class to get an A, or for everyone to get a C; this simply means that I may adjust the cutoffs for each letter grade at my discretion, depending on the overall distribution of scores. I will only adjust these cutoffs downward—that is, you are guaranteed to receive a grade at least as high as that listed in the table corresponding to your score, but you may receive a higher grade. I also take individual improvement over the course of the semester into account.

Grade Appeals

I am human, and I do make mistakes when grading assignments. If you feel I’ve made a mistake, or been unfair in grading your work, or if you’d just like further explanation so that you can improve your work, please speak to me; **be prepared to justify your appeal.**

Grade cutoffs and improvement adjustments are not subject to appeal!

Missed/Late Work

It is important to stay up-to-date with readings and assignments. I have done my best to design the course to be flexible and manageable, but with the schedule mostly set by design, it is easy to fall behind quickly. Please let me know early on if you are having trouble with any particular assignment, or the workload in general. You must complete all assigned work in a timely fashion in order to receive full credit.

Important guidelines:

- Assignments will be penalized 5% (a half-letter grade) for each 24 hours late.
- Late work will not be accepted more than two weeks after the original due date.
- Some assignments (*e.g.*, preparation for in-class work) will not be accepted late.
- All outstanding assignments at the end of the term (the last day of class) will receive a zero.

3 Policies

3.1 Attendance

Attendance is **required**. That said, I will not routinely record attendance, nor assign any part of your grade just for showing up; however, your understanding of course concepts will surely suffer due to poor attendance, and you will miss the chance to participate in discussion and other graded class activities. If you miss class, please contact the TA (and/or your classmates) as soon as possible to find out what you've missed. Make-up opportunities for in-class work (if possible) will be permitted at my discretion for **approved absences only** (documentation may be required—see <http://www.psu.edu/oue/aappm/classabs.pdf>). **If you know you are going to miss class, it is better to speak to me beforehand to make arrangements than to ask for help after missing something important!**

Sections Please attend the class session for which you are registered. If need to switch sections for an occasional conflict, please discuss this with the instructor first.

Campus Closure In the event of a weather emergency, you may obtain official information on the status of classes by doing one of three things:

1. Sign up for PSUAlert <https://psualert.psu.edu/psualert/>

PSUAlert is Penn State University's emergency messaging system. The system will alert members of weather and other emergencies via text and/or email. Faculty are encouraged to sign up for PSUAlert at <http://psualert.psu.edu/>. Help and FAQs are also located on the PSUAlert website.

2. Check the Penn State Brandywine website for announcement www.bw.psu.edu
3. Follow the Facebook page and watch for alerts www.facebook.com/PennStateBrandywine
4. Tune in to radio station KYW News radio (1060 AM)

The campus radio code is 495 for day classes and 2495 for evening classes. Please be advised that only school closing numbers broadcast on KYW News radio are official. In the past, other stations have monitored, then transcribed KYW's broadcasts and then read this "second-hand" list on the air, sometimes inaccurately.

5. Watch WTXF-Fox 29 TV beginning at 6:00 a.m.

Classes may be announced as canceled, or there may be an opening delay for day classes. Specific make up dates and times will be announced for any missed classes. These may be in person classes, or alternative/online make-up assignments. **The same attendance policies apply to official make-up classes.**

Delayed Opening On days when a delayed opening is appropriate, a two-hour late opening will be announced through the normal emergency announcement procedures. On a Monday, Wednesday, Friday schedule, classes will start with the class scheduled to begin at 10:30am. We will keep the normal class times for the remainder of the day. On a Tuesday, Thursday schedule, classes will start at 10:30, with the 10:00am classes beginning a half hour late. The normal class times will hold for the remainder of the day.

3.2 Academic Integrity

Academic honesty is of the utmost importance in the academic world. Cheating, plagiarism, and other forms of academic dishonesty are serious offenses, and ignorance is no excuse; therefore, I urge you to become familiar with the University's Code of Conduct (<http://studentaffairs.psu.edu/conduct/codeofconduct/>) and statement on academic integrity(<http://www.psu.edu/dept/oue/aappm/G-9.html>). I encourage you to seek my advice if you are unclear about any part of this policy.

All students are expected to act with civility and personal integrity; respect other students' dignity, rights and property; and help create and maintain an environment in which all can succeed through the fruits of their own efforts. An environment of academic integrity is requisite to respect for self and others and a civil community. Academic integrity includes a commitment not to engage in or tolerate acts of falsification, misrepresentation or deception. Such acts of dishonesty include cheating or copying, plagiarizing, submitting another person's work as one's own, using Internet sources without citation, fabricating field data or citations, "ghosting" (taking or having another student take an exam), stealing examinations, tampering with the academic work of another student, facilitating other students' acts of academic dishonesty, etc.

Students charged with a breach of academic integrity will receive due process and, if the charge is found valid, academic sanctions may range from F for the assignment to F for the course, depending on the severity of the offense.

3.3 Academic Accommodations

In accordance with the Americans with Disabilities Act of 1990, it is Penn State's policy to provide reasonable academic adjustments for students with documented disabilities. Any student who thinks he/she may need an accommodation based on a disability should speak to me and contact Sharon Manco at 610.892.1461 or sam26@psu.edu. This notification should occur by the end of the first week of the semester. Please visit www.equity.psu.edu/ods/ for complete information.

3.4 Instructor Availability

The best way to get in touch with me outside of class is by email. My usual policy is to answer student emails within 24 hours; I will, however, do my best to answer emails sent before the close of business (usually 5pm) the same day, but I make no guarantees. Of course, you can always ask questions during or after class, or schedule a time to meet in person. Please reserve phone contact for emergencies.

TA Availability Similar principles apply to the availability of the teaching assistant—please be respectful of her time. Office hours are the best time to seek consultation with the TA.

3.5 Classroom Technology

Please silence your cell phone before entering lecture or discussion, and **please refrain from texting during class!** If you experience an emergency requiring you to receive/make a call/text, please be polite and quietly excuse yourself from the classroom before doing so. Laptop computers should be used for note-taking purposes only. **I reserve the right to limit computer use in the classroom if it becomes disruptive to the learning process.**

References

- Brockman, J. (Ed.). (2014). *What should we be worried about?: Real scenarios that keep scientists up at night*. HarperCollins. Retrieved from
- Byrd, D., & Mintz, T. H. (2010). *Discovering speech, words, and mind*. John Wiley and Sons.
- Eysenck, M. W., & Keane, M. T. (2010). *Cognitive psychology: A student's handbook* (6th ed.). Taylor & Francis. Retrieved from
- Hauser, M. D. (2009). The possibility of impossible cultures. *Nature*, *460*(7252), 190–196. Retrieved from doi: 10.1038/460190a
- Pylyshyn, Z. W. (1999). What's in your mind? In E. Lepore & Z. W. Pylyshyn (Eds.), *What is cognitive science?* (p. 1–25). Malden, MA: Blackwell Publishers.
- Thirteen/WNET. (2010). *The human spark: Brain matters*.
- Zongker, D. (2006). Chicken chicken chicken: Chicken chicken. *Annals of Improbable Research*, *12*(5), 16–21. Retrieved from

Schedule

Below, you will find the preliminary schedule for the course. **The schedule is subject to changes and additions.** I'll alert you to changes in plans, but please check the course website frequently for updates to readings and assignments.

Please read the assigned material before the day for which it is assigned.

week	day	unit	topic(s)	reading(s)	assignment(s) due
1	T 8/26	Introduction	Introduction, Administrivia		
	R 8/28		Cognitive Psychology	E&K 1	Preliminary Survey
2	T 9/2		The Mind	Pylyshyn (1999)	Tri-level Exercise
	R 9/4		The Scientific Method	Byrd and Mintz (2010, ch.4)	Quiz #1
3	T 9/9	Perception & Attention	Sensation & Perception	E&K 2	
	R 9/11		Objects & Faces	E&K 3	
4	T 9/16		Motion & Action	E&K 4	
	R 9/18		<i>Perception Lab</i>		WSWBWA 1
5	T 9/23		Attention & Integration	E&K 5	Lab Assignment #1
	R 9/25				Quiz #2
6	T 9/30	Memory	Learning	E&K 6	
	R 10/2		Memory Systems	E&K 7	Midterm Feedback
7	T 10/7		Memory in Action	E&K 8	
	R 10/9		<i>Memory Lab</i>		WSWBWA 2
8	T 10/14		WSWBWA Discussion/Workshop		Lab Assignment #2
	R 10/16				Quiz #3
9	T 10/21	Language	Perception	E&K 9	WSWBWA Essay Idea
	R 10/23		Comprehension	E&K 10	
10	T 10/28		Production	E&K 11	
	R 10/30		<i>Language Lab</i>		WSWBWA 3
11	T 11/4		WSWBWA Discussion/Workshop		Lab Assignment #3
	R 11/6				Quiz #4
12	T 11/11	Thinking & Reasoning	Problem Solving	E&K 12	WSWBWA Essay Draft
	R 11/13		Decision Making	E&K 13	
13	T 11/18		Reasoning	E&K 14	WSWBWA 4
	R 11/20				Quiz #5
<i>Thanksgiving Break</i>					
14	T 12/2	Comparative Cognition	Emotion & Consciousness	E&K 15–16	
	R 12/4		Film: <i>The Human Spark</i>	Hauser (2009)	WSWBWA 5
15	T 12/9	<i>Flex</i>			WSWBWA Essay
	R 12/11		<i>Final Review</i>		Course Feedback
F	T 12/16	10:30–12:20	<i>Final Exam</i>		Final Exam