

Cognitive Science 101B: Learning, Memory, and Attention

WINTER, 2018

Lecture: Monday, Wednesday, Friday
9– 9:50 in Peterson 108

TEACHING TEAM

<i>Name</i>	<i>Role</i>	<i>Office Location</i>	<i>OH Time</i>	<i>Contact Information</i>
Drew E. Hoffman, PhD	Instructor	CSB 245	Friday 10-12pm	cogs101b.ucsd@gmail.com
Josh Davis	Teaching Assistant	SSRB 204	Mon 10-11am	jdd001@ucsd.edu
Carson Miller	Teaching Assistant	CSB 235	Fri 3:30-4:30pm	carsongmr@ucsd.edu
Emily Provenzano	Teaching Assistant	CSB 225	Wed 10-11am	eprovenz@ucsd.edu
Ahrad Nathan	Instructional Assistant	Audrey' s Caf� (Geisel)	Mon 2-3pm	anathan@ucsd.edu
Tamar Esserman	Instructional Assistant	Audrey' s Caf� (Geisel)	Wed 10-11AM	tesserma@ucsd.edu
Alice Lee	Instructional Assistant	Audrey' s Caf� (Geisel)	Mon 3-4pm	ayl064@ucsd.edu
Brendon Taing	Instructional Assistant	Audrey' s Caf� (Geisel)	Mon 12-1pm	btaing@ucsd.edu

If you have a question please email your section IA or either graduate TA, they will forward your email to me (Prof. Hoffman) if I am needed to answer the question.

DISCUSSION SECTIONS

<i>Section</i>	<i>Location</i>	<i>Day/Time</i>	<i>Instructor</i>
A01	CSB 005	Monday 10-10:50am	Carson Miller
A02	CSB 005	Monday 11-11:50am	Josh Davis
A03	CSB 005	Wednesday 4-4:50pm	Emily Provenzano
A04	CSB 005	Wednesday 5-5:50pm	Tamar Esserman
A05	CSB 005	Friday 1-1:50pm	Brendon Taing
A06	CSB 005	Friday 2-2:50pm	Alice Lee

Website: <http://triton.ed.ucsd.edu/> (There will be a link to COGS 101B in your course list if enrolled)

Use your UCSD email username and password to sign into TritonEd. You can find instructions here:
<http://students.ucsd.edu/my-tritonlink/tools/tool-help/about-ted.html>

About this Class

In this class we will survey the major topics in the experimental study of learning, memory, and attention. We will cover conditioning, attention, memory systems, and the nature of mental representation. By the end of this course you should be able to:

Discuss key concepts, phenomena, theories and debates in learning, memory, and attention

Critically examine empirical studies in learning, memory, and attention

Interpret the results of experiments and evaluate findings:

(1) empirically: what was actually done in the experiment/study?

(2) Conceptually: how does the specific behavior measured in the study map on to real-world behavior that researcher care about?

(2) Theoretically: why do we think this happens? What do the results tell us about how our minds work?

You will need

ZAPS 2.0 Online Psychology Labs (mandatory, can be purchased separately from the non-mandatory book on the Norton website here: <https://digital.wwnorton.com/cognition6>)

i>clicker 2, or i>clicker, i>clicker (mandatory if you opt-in to participation)

Available new and used in the university bookstore and online (I'd check online first!)

Cognition: Exploring the Science of the Mind, 6th Ed. by Reisberg

Clickers

We will be using i>Clickers (*i>clicker, i>clicker 2, or i>clicker +*) for this class. No other brand of clicker will work with this system. Clickers are a wonderful way for class to be more interactive, implement peer instruction (e.g. students learning from each other), as well as for you to check your understanding during lectures.

You must register your clickers on TritonEd by 1/12/2017

Attendance

Attendance in this course is important for your success, and you will receive points for participating in class.

If you must miss class it is your responsibility to find out what you missed with regard to lecture notes and announcements by asking a classmate and checking TritonEd. It is possible (even probable) that the schedule will change, so it is important you stay updated. We will not recap lecture in office hours, section or via email

Slides

Lecture slides will be posted on the course website at least 1 hour before class. You will still need to attend lecture in order to understand the slides fully. You may be tested on information given in lecture that will not necessarily be included in the lecture slides

Grade Breakdown

Class Participation-----	6%
Zaps Online Labs-----	7% (one dropped)
Mini-labs-----	7% (one dropped)
Midterm 1-----	25%
Midterm 2-----	25%
Final-----	30%
SONA EC-----	1%

A+ 98-100%	B+ 87-89%	C+ 77-79%	D 60 -69%
A 93-97%	B 83-86%	C 73-76%	F Below 60%
A- 90-92%	B- 80-82%	C- 70-72%	

Class Participation

Participation is an essential part of this class. I expect and look forward to your participation. We encourage you to ask questions whenever you are confused! If you are confused we promise you are not the only one, and it is helpful to everyone if you ask for clarification! You will get credit for responding to questions asked in using clickers each lecture.

Each class you attend and participate in starting the **third day** (1/12) earns you **1/3%**, totaling **up to 6%** for the quarter. There are 24 participation lectures in all (starting with the third day, excluding exam days) and you need to attend and participate in 18 to earn the 6% ($18 \times 1/3\% = 6\%$). **This means you can miss, without missing any points, 6 classes for whatever reason.** The purpose for making only a proportion of classes mandatory for full credit is to give you an ample cushion to miss class due to illness or emergencies, and I therefore will not excuse you from participation even if you are ill or have a documented emergency.

For each class, you need to answer 70% of the questions to be counted as being present. For example, if during a lecture there are 10 questions, you need to answer at least 7. If there are 5 questions, you need to answer 3 (3.5 to be exact, but in these non-integer cases we will round down). Questions are not graded for accuracy but only for participation.

Although it is not recommended, **you may opt-out of the participation component** of the course. If you choose this option the 6% will be distributed evenly among your midterms and final exam. You must inform TA Josh Davis (jdd001@ucsd.edu) via email by Friday of week 2 (1/19) if you choose this option.

Online (ZAPS) Experiments

To develop a deeper understanding of some of the experimental procedures we will discuss in class, you will complete several classic experiments online throughout the quarter. These experiments will be run through a system called ZAPS (provided by the textbook). You will participate in online experiments at home using the ZAPS software. These assignments are due roughly once a week **at midnight on the assigned day** (see schedule). These experiments are short: they each take less than 30 minutes (most considerably less, more like 5-10 minutes). You must finish them before the deadline—late completion will receive no credit. ZAP labs are worth 6% of your final grade. You can miss one lab and still receive full credit. If you have any issues with ZAPS please contact TA Carson Miller (carsongmr@ucsd.edu) or IA Ahrad Nathan (anathan@ucsd.edu).

Mini-labs Assignments

In order to encourage you to think more deeply about the questions ask, and experimental methods used in cognitive science, you will complete five mini-lab assignments. In these mini-labs you will propose a modification to an experiment we have learned about a class in order to test a related, but novel, question. You will work with a group of 3 other students in class, and turn the assignment in as a group at the end of class. If you have concerns about mini-labs/grades please contact TA Emily Provenzano (eprovenz@ucsd.edu)

Exams

There will be two in-class midterms during the quarter and one cumulative final exam. All exams will consist primarily of multiple-choice questions and will be based on lecture, the online experiments, and the mini-labs. The midterms will focus primarily on material since the previous exam, and the final will be cumulative, with a focus on the material in the last third of the course. I will not test you on text book material that was not covered in lecture.

A note of caution: Exams in this class will require you to have thought about the content deeply. Do not try to study everything the night before because this will not give you enough time to really think about the material.

Makeup Policy

If you miss an exam, class, online experiment, or mini-lab assignment, you cannot make it up later.

Under special circumstances (e.g. you have a doctor's note for a serious ailment), we will work with you. This policy is strictly enforced. If you miss an exam and we allow you to make it up, it will be an essay exam instead of multiple choice. Additionally, if you cannot make the final exam time (see schedule), you should not take this class; final exams cannot be given at another time (having multiple exams in one day does not count as a special circumstance).

Discussion Sections/TA Office Hours

Discussion sections are *optional*, but attendance is highly encouraged. The TAs are extremely knowledgeable, patient and approachable, and thus a wonderful resource that should be utilized. Discussion sections provide a great forum in which to seek detailed clarification on material presented in class or in the textbook.

SONA (research participation)

Spend 1 hour being a research participant in an experiment here at UCSD. To sign up visit:

<https://ucsd.sona-systems.com>

You must assign your credit to this class before the final exam. No changes can be made after the final.

If you do not wish to participate as a research subject you may contact me and ask me for alternative options.

Academic Integrity

Please don't cheat. Cheating undermines the success of every other student who has worked hard and honestly for their knowledge/grade. I therefore take academic dishonesty very seriously and all instances will be reported to the UCSD Academic Integrity Office. Some examples of academic dishonesty include, but are not limited to, copying from another student, unauthorized use of cheat-sheets, or asking another student to respond to clicker questions for you (or vice versa). It is your responsibility to familiarize yourself with UCSD academic integrity policies.

<http://academicintegrity.ucsd.edu/>

Class Schedule

This is my best approximation, and topics are likely to change a bit

Week 1

Day	Date	Topic	Readings and Assignments
Monday	1/8	Introduction, Syllabus and class organization	Due: read syllabus
Wednesday	1/10	Overview and history of cognitive psychology	Read Chapter 1 Zaps: Split brain
Friday	1/12	Modern approaches to studying the mind Neural basis of cognition	Chapter 2 Due: Register clicker

Week 2

Day	Date	Topic	Reading & Assignments
Monday	1/15	Martin Luther King, Jr. – No Class	
Wednesday	1/17	Learning: habituation, sensitization	Medin pdf, Chapter 2
Friday	1/19	Learning: Classical conditioning	Medin pdf, Chapter 2 Opt-out deadline

Week 3

Day	Date	Topic	Reading & Assignments
Monday	1/22	Learning: Operant conditioning	Medin pdf, Chapter 2 Zaps: Face Perception
Wednesday	1/24	Perception and Categorization Mini lab: Word superiority (#2)	Chapter 3,4
Friday	1/26	Perception and Categorization	Chapter 3,4

Week 4

Day	Date	Topic	Reading & Assignments
Monday	1/29	Midterm 1	Zaps: Attentional blink
Wednesday	1/31	Attention Mini-lab: Stroop effect (#3)	Chapter 5
Friday	2/2	Attention	Chapter 5

Week 5

Day	Date	Topic	Reading & Assignments
Monday	2/5	Attention	Chapter 5 Zaps: Serial Position Effect
Wednesday	2/7	Short-term memory & working memory Mini-lab: Levels of processing (#4)	Chapter 6
Friday	2/9	Short-term memory & working memory	Chapter 6

Week 6			
Day	Date	Topic	Reading & Assignments
Monday	2/12	Long-term memory: structure	Chapter 6
Wednesday	2/14	Long-term memory: structure	Chapter 6
Friday	2/16	Long-term memory: encoding, retrieval, consolidation	Chapter 6 Zaps: Memory bias

Week 7			
Day	Date	Topic	Reading & Assignments
Monday	2/19	Presidents Day – No Class	
Wednesday	2/21	Long-term memory: encoding, retrieval, consolidation	Chapter 6 & 7
Friday	2/23	Long-term memory: encoding, retrieval, consolidation	Chapter 6 & 7

Week 8			
Day	Date	Topic	Reading & Assignments
Monday	2/26	Midterm 2	Zaps: False Memory
Wednesday	2/28	Everyday memory and memory errors Mini-lab: Context-dependent memory (#5)	Chapter 7 & 8
Friday	3/2	Everyday memory and memory errors	Chapter 7 & 8

Week 9			
Day	Date	Topic	Reading & Assignments
Monday	3/5	Everyday memory and memory errors	Chapter 7 & 8 Zaps: Sentence Verification
Wednesday	3/7	Knowledge Mini-lab: Prototypes and Exemplars (#6)	Chapter 9
Friday	3/9	Knowledge	Chapter 9

Week 10			
Day	Date	Topic	Reading & Assignments
Monday	3/12	Knowledge	Chapter 9 Zaps: Image scanning
Wednesday	3/14	Visual knowledge Mini-lab: Analogical representation (#8)	Chapter 11
Friday	3/16	Visual knowledge	Chapter 11

Week 11			
Wednesday	3/21	Final Exam (Cumulative) 8-11am	

