

Psychology 106: Behavioral Neuroscience

Winter 2023

Class Meetings: T/Th: 8:00 – 9:20 am, Peterson 110

Podcasted: WEBSITE TO BE PROVIDED LATER

Professor: Karen Dobkins, Ph.D. e-mail: kdobkins@ucsd.edu

Professor Office Hours: W: 8:00 – 9:00 am, Rm 5117 McGill Hall

| <u>TA</u> | <u>e-mail</u> | <u>Office Hours</u> | <u>Where</u> |
|---------------------|--|---------------------|--------------|
| Brendan Prendergast | bprender@ucsd.edu | 2 hours | TBA |
| Maya Carleton | macarleston@ucsd.edu | 2 hours | TBA |
| Xandria Romei | aromei@ucsd.edu | 1 hour | TBA |
| Jackie Garabedian | jgarabed@ucsd.edu | 1 hour | TBA |
| Lance Tui | ltiu@ucsd.edu | 1 hour | TBA |

Textbook (Optional): “Biological Psychology”, 13th edition (earlier editions are fine too)
James W. Kalat. Cengage

- Hardcopy (UCSD Bookstore)
- Ebook (Redshelf, see below)

Study Guide (Optional): “Study Guide to Accompany Kalat’s Biological Psychology”
Packet: Book/Study Guide

Purpose: The goal of this course is to understand *mental processes* and *behaviors* in terms of underlying *biological mechanisms*, using evidence from both human and animal studies. The course covers basic anatomy and physiology of the Nervous System and spans a wide range of interesting topics and methodologies to provide students a well-rounded introduction to Behavioral Neuroscience.

Format: Lectures will be based on material in the textbook as well as from outside sources. Also, there will sometimes be guest lecturers who are particularly knowledgeable about a topic. You will be responsible for the material from these classes. Because I also teach “Learning Sustainable Well-being (Psych 88)” at UCSD, I plan to incorporate some Mindfulness and well-being practices/wisdoms into these lectures. I hope you will enjoy that, especially in these stressful times (but you will not be tested on them).

Slides for each class will be provided on Canvas right before each lecture.

How you are GRADED in this course:

1) Three Multiple Choice Exams (85% of your grade): Exams will be IN PERSON (closed book). The exams will *not* be cumulative. Instead, each will cover one-third of the course materials. Exam 3 will be given during *finals* week.

Note: *There are no make-up exams!! You CANNOT miss ANY of the 3 exams!*

2) Weekly writing assignment (10% of your grade): By the end of Friday each week (11:59 pm), you will turn in a 1 – 2 paragraph (no more than 1 page) summary of what aspect of Neuroscience you enjoyed learning about the most from that week and why. (You can choose from either of the two lectures that week).

Note: *You are only allowed to miss ONE writing assignment for the quarter, without it affecting your grade. If you hand in all 10 assignments, we will drop your lowest grade.*

3) Attendance (5% of your grade): There are 18 lectures to attend. Attendance will be taken by opening up a canvas “sign-in” during class time, which will require a passcode I provide. To get *full* credit, you must enter the passcode during class time (i.e., you are present at the class). To get *half* credit, you must enter the

passcode after class, which you will find by watching the podcast (i.e., you are absent from class but you watch the podcast). If you are neither in class nor watch the podcast, you get NO credit.

Note 1: You are only allowed to miss (i.e., have NO canvas sign in at all) ONE lecture for the quarter, without it affecting your grade. If you sign in for all 18 lectures, we will drop your lowest attendance grade (e.g., if, for one of the 18 lectures, you watched the podcast instead of coming to class).

Note 2: Please let us know if you have a legitimate reason for missing the class IN PERSON (e.g., you were ill) and we will consider giving you full credit for that lecture if you watch the podcast.

Grading will be as per university standards:

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|---------------------|----------------------|----------------------|------------------|--|
| $\geq 96.67 = A+$ | $86.67 - 89.99 = B+$ | $76.67 - 79.99 = C+$ | | |
| $93.33 - 96.66 = A$ | $83.33 - 86.66 = B$ | $73.33 - 76.66 = C$ | $60 - 69.99 = D$ | |
| $90.0 - 93.32 = A-$ | $80.0 - 83.32 = B-$ | $70.0 - 73.32 = C-$ | $< 59.99 = F$ | |

Extra Credit for Participation in Psychology Experiments:

You can increase your final grade by 1 (percentage) point by participating in 3 hours of experiments for the Psychology Department. After you participate, you need to assign the credits to this class! If you sign up and fail to show up without canceling, however, there are negative repercussions. Although you are *not required to take part in these experiments*, your participation can increase your grade from, say, an A- (92.4) to an A (93.4). There is no partial credit (e.g., if you do 0.5 hours)! Sign up through SONA at <https://ucsd.sona-systems.com/>. Detailed instructions for students: <http://www.psychology.ucsd.edu/undergraduate-program/undergraduate-resources/sona/index.html>. NOTE: Alternatively, you can write a research paper to earn extra credit.

Course Schedule

Note: Lecture Notes Available on Canvas (posted before each class)

- 1) Jan 10: **Introduction to Class (Intro)**
- 2) Jan 12: **Major Issues of Biological Psychology (Intro)**
- 3) Jan 17: **Nerve Cells & Neural Communication (Chapter 1)**
- 4) Jan 19: **Synapses & Drugs (Chapter 2). Save “Hormones” section for later in the course**
- 5) Jan 24: **Anatomy of the Nervous System (Chapter 3)**
- 6) Jan 26: **Investigating how the Brain Works (Chapter 3 and throughout the book)**
- 7) Jan 31: **Development & Evolution of the Brain, Intelligence (Chapter 4, and a bit from 3)**

- 8) Feb 2: ***EXAM #1 (Material from Lectures 1 - 7)***

- 9) Feb 7: **Vision (Chapter 5)**
- 10) Feb 9: **Vision, continued, (Chapter 5)**
- 11) Feb 14: **Audition (Chapter 6)**
- 12) Feb 16: **The Mechanical Senses: Vestibular and Somatosensation (Chapter 6)**
- 13) Feb 21: **Circadian Rhythms & Sleep (Chapter 8), Lecturer: Liz Harrison, PhD**

- 14) Feb 23: ***EXAM #2 (Material from Lectures 9 - 13)***

- 15) Feb 28: **Hormones & Sexual Behavior (Chapter 10, and parts of Chapter 2 and 3)**
- 16) Mar 2: **Emotional Behaviors: Fear, Anxiety, Aggression (Chapter 11):**
- 17) Mar 7: **Autonomic Nervous System, Stress and Health (Chapter 11, and part of Chapter 2)**
- 18) Mar 9: **Learning & Memory: Part 1 (Chapter 12)**
- 19) Mar 14: **Learning & Memory: Part 2 (Chapter 12)**
- 20) Mar 16: **Hemispheric Lateralization & Language (parts of Chapter 13)**

FINAL: Thursday, March 23rd, 8:00 – 10:59 am. Exam #3: (Material from Lectures 15 - 20)

Extra Notes:

1) EBOOK: Access to this eBook via Canvas will be delivered by the first day of class. Once logged in your students can choose to opt-in by clicking the **Opt-in Now button**. You will only be charged if you opt-in and stay opted-in past the add/drop deadline (you can opt-out after you opt-in, as long as the opt-out before the add/drop deadline). Students will also receive an email detailing the pricing of this option and additional purchasing options will still be available via the bookstore.

An eBook is available as one of the most cost effective purchasing option for this course. You can access this eBook by clicking the RedShelf tool within Canvas. If you opt-in to this eBook by clicking the Opt-in Now button your student account will be charged directly. You will also receive an email with the exact amount of this charge. Within the add/drop period you may also opt-out of this option if you decide you'd rather use an alternate format.

2) DISABILITIES: Any student with a documented disability will be accommodated according to University policy. For details, please consult the Office of Students with Disabilities (OSD): <http://disabilities.ucsd.edu>. If you require accommodation for any component of the course, please provide the instructor with documentation from OSD as soon as possible. *Please note that accommodations cannot be made retroactively under any circumstances.*

3) ACADEMIC HONESTY: I have zero tolerance for academic dishonesty. This includes, but is not limited to, plagiarism, cheating, copying, collaborating with others on solo assignments (papers), using unauthorized aids during test-taking, falsifying doctor's notes, reusing part or all of an assignment from another class without permission, or any other practice which gives you or any other student an unfair advantage in the course. I am here to help you with any questions you may have. If you feel that the course is moving too quickly or you have additional questions, please come to my office hours or email me and I will do my best to help you. Let's all respect each other and UCSD enough to take this class seriously and honestly.