

BIBB 109/ PSYC109/BIOL109  
Introduction to Brain and Behavior  
Fall 2019  
Lecture MWF 10-10:50 am: Levin Auditorium  
Laboratory/Recitation: Leidy 104

**Course Director:** Judith McLean, Ph.D.

Office: 467 Levin Building

Email: [jmclean@sas.upenn.edu](mailto:jmclean@sas.upenn.edu)

Office Hours: Monday and Wednesday 11-12 or by appointment

**Lab Coordinator:** Dr. Michael Kaplan, Ph.D. [mkap@sas.upenn.edu](mailto:mkap@sas.upenn.edu)

**Head TA:** Kyra Levy                      [kyral@penmedicine.upenn.edu](mailto:kyral@penmedicine.upenn.edu)

**Teaching Assistants:**

**Recitation/Lab**

Barnes Jannuzi	<a href="mailto:barnes.g.l.jannuzi@gmail.com">barnes.g.l.jannuzi@gmail.com</a>	Tuesday 9-10:30
Delaney Fischer	<a href="mailto:delaneyfischer@gmail.com">delaneyfischer@gmail.com</a>	Tuesday 10:30-12
Leah Middleton	<a href="mailto:leahjmiddleton@gmail.com">leahjmiddleton@gmail.com</a>	Tuesday 12:00-1:30
Melanie Schaffler	<a href="mailto:mdschaffler@gmail.com">mdschaffler@gmail.com</a>	Tuesday 1:30-3:00
Emma Janke	<a href="mailto:emma.janke11@gmail.com">emma.janke11@gmail.com</a>	Thursday 9-10:30
Xiaomao Ding	<a href="mailto:xiaomaoding1@gmail.com">xiaomaoding1@gmail.com</a>	Thursday 10:30-12
Luigim Vargas	<a href="mailto:luigimvargas@gmail.com">luigimvargas@gmail.com</a>	Thursday 12:00-1:30
Greer Prettyman	<a href="mailto:greer.prettyman@gmail.com">greer.prettyman@gmail.com</a>	Thursday 1:30-3:00

**Synopsis:**

Introduction to the structure and function of the vertebrate nervous system. We begin with the cellular basis of neuronal activities, then discuss the physiological bases of motor control, sensory systems, motivated behaviors, and higher mental processes. This course is intended for students interested in the neurobiology of behavior, ranging from animal behaviors to clinical disorders.

**Textbook:**

Bear, Connors, Paradiso. Neuroscience: Exploring the Brain (4<sup>th</sup> ed). Philadelphia, PA. : Wolters Kluwer, 2016

**Canvas** <https://courseweb.library.upenn.edu/>

Lecture slides, quizzes and announcements will be posted on this site. Please be sure to set your **notifications** so that you receive **Announcements** in a timely manner, as this will be the primary mode of communication in this course.

### **Recitations/Labs:**

Goals: Answer questions, clarify material. Ask questions during recitation or email TA topics before coming to recitation.

All recitations/labs will meet in room 104 Leidy Labs. Six of these weekly recitations will be a lab. You may not attend a recitation that you are not signed up for without the permission of the Head TA or the Lab Coordinator.

Lab 1: computer simulation

Labs 2 and 3: Sheep brain dissection.

Lab 4: Sensory Perception/Motor reflexes

Lab5: Electrodermal Response

Recitation/Lab absences: Recitations/labs can only be missed for last minute excused absences, such as illness or severe inclement weather. If you have a conflict with the recitation/lab due to curricular or extracurricular activities, personal obligations, or religious holidays please let the TA and Lab Coordinator know as soon as possible to make arrangements to attend a different section or make up the recitation/lab with your TA

### **Grading:**

The final grade will be based on:

Highest two scores on 3 midterm exams. We will drop the lowest midterm grade. Two exams each worth 25%,

1 cumulative final exam 35%

Lab Quiz, Weekly Assignments and class participation, each worth 5% (15% total). Lowest assignment grade will be dropped

The University recognizes religious holidays. If you need to miss an exam for a legitimate reason (e.g., religious holiday) please let the Course Director know within the first week of class or as soon as you know about a conflict. If there are students who have a problem with the schedule date for an exam, they must schedule a make-up exam *before the scheduled examination date*. No makeup exams will be given unless the student presents a *bona fide* excuse. Regrading – it is within your right to request that an exam question be regraded. Requests for regrades should be given in writing to the Head TA within one week after an exam is returned, explaining why you believe it should be regraded. Any such request will result in the regrading of the entire exam, using scanned copies we will have on file.

### **Students with Disabilities:**

Students with a documented disability from Student Disability Services will receive all necessary accommodations. Students should make an exam request to the SDS office. *They need to be notified at least 7 days prior to the exam.*

### **Academic Integrity:**

I expect you to act with academic integrity in accordance with the University of Pennsylvania's Code of Academic Integrity

<https://provost.upenn.edu/policies/pennbook/2013/02/13/code-of-academic-integrity>

Any act of academic dishonesty will be reported to the Office of Student Conduct

**Email Etiquette:**

Your TAs and I will do our best to respond to emails within 24 hours, although over the weekends and holidays it may be longer. Course content questions are best asked in recitation, at office hours, or in tutoring, not through email.

**How to do well in this course:**

Do the reading (skim for the big ideas and read for important details after class)

Participate in class and recitations

Use weekly assignments to identify what you don't understand

Test yourself. There are many online resources for self-assessment from the book

Come to office hours

Go to tutoring at the Tutoring Center and weekly sessions

Seek academic support at the Weingarten Resource Center

Study with a partner

Keep up! Don't fall behind, there is a lot of information.

Date	Lecture	Chapter	Lab/Rec
Aug	8/28	Introduction	1
Sep	8/30	Neurons and Glia	2
	9/2	<b>Labor Day – No Class</b>	Recitation 9/3, 9/5
	9/4	Membrane Potential	3
	9/6	Membrane Potential/Action Potential	4
	9/9	Action Potential	4
	9/11	Action Potential/Synaptic Transmission	5
	9/13	Synaptic Transmission	5
	9/16	Synaptic Transmission	6
	9/18	Synaptic Transmission (Time Out. Ms. Kalafsky)	6
	9/20	Review	6
	9/23	<b>EXAM 1 Levin Auditorium</b>	<b>Lab 2 9/24, 9/26</b>
	9/25	Organization of the Nervous System	7
	9/27	Chemical Senses (Dr. Yali Zhang)	8
Oct	9/30	<b>NO CLASS</b>	<b>Lab 3 10/1, 10/3</b>
	10/2	Vision I	9
	10/4	Vision II	10
	10/7	Vision III	10
		<b>DROP PERIOD ENDS</b>	<b>No Recitations</b>
	10/9	Auditory I	11
	10/11	<b>Fall Break – No Class</b>	
	10/14	Auditory II and Vestibular	11
	10/16	Somatosensory	12
	10/18	Spinal Control of Movement	13
	10/21	<b>No Class Neuroscience Meeting</b>	<b>No Recitations</b>
	10/23	<b>No Class Neuroscience Meeting</b>	
	10/25	Brain Control of Movement	14
	10/28	Basal Ganglia/Cerebellum	14
	10/30	Review	14
	11/1	<b>EXAM 2 Levin Auditorium</b>	<b>Lab 4 10/29, 31</b>
	11/4	Chemical Control of Brain and Behavior	15
		<b>LAST DAY TO WITHDRAW</b>	Recitation 11/5, 11/7
	11/6	Motivation	16
	11/8	Emotion	18
			Assignment 8 Due

11/11	Sleep	19	Recitation 11/12, 11/14
11/13	Circadian Rhythms	19	
11/15	Language	20	Assignment 9 Due
11/18	Attention	21	<b>Lab 5 11/19, 11/21</b>
11/20	Mental Illness	22	
11/22	Synaptic Plasticity	23	Assignment 10 due
11/25	Synaptic Plasticity	23	<b>No Recitations</b>
11/27	<b>NO CLASS</b>		
11/29	<b>Thanksgiving Break</b>		
12/2	Learning and Memory	24	Recitations 12/3, 12/5
12/4	Learning and Memory	25	
12/6	Review		Assignment 11 Due
12/9	<b>EXAM 3 Levin Auditorium</b>		
12/19	<b>FINAL EXAM (tentative date) 9-11am</b>		