

NEU / BIO 339 Cellular Neurobiology

Instructor contact information

Austin Lim, Ph. D.

@DocAustinLim

Austin.Lim@depaul.edu

Textbook

Purves, Augustine, Fitzpatrick, Hall et al. Neuroscience (sixth or fifth edition). This textbook is also used by BIO 340 Behavioral Neuroscience.

Course objectives

Understand cellular and molecular anatomy of the nervous system

Understand the electrical properties of neurons

Understand communication between neurons

Understand how cellular communication contributes to behavior

Examine the processes of memory and addiction

Evaluation

2 midterm exams (20% each)

Final exam (cumulative, 40%)

Assignments (20%)

- In class: 50 points (10% of final grade)
- Paper discussion, Park, 2017: 25 points (5% of final grade)
- Paper discussion, your choice: 25 points (5% of final grade)

Success in NEU / BIO 339

- Read the assignments before class.
- Take notes. You may use your notes during some in-class assignments.
- Don't be afraid to ask questions in class (most preferred), at office hours, or by email. If you are confused about a topic, odds are good that others may be confused as well.
- Be curious. Ask yourself "what if..." These types of test questions challenge your recollection of course material and push you to think on a higher level.

Syllabus

Lecture	Lecture Topic	Assignment	Notes
1	Intro: What is "Neuroscience"?		
2	Cells of the Nervous System and Circuits	Ch 1	
3	Passive Properties of Neurons	Ch 2	
4	Passive Properties – Nernst and GHK		
	<u>MLK Day</u>		
5	Active Properties of Neurons - Action potential	Ch 3	
6	Ion channels	Ch 4	
	Exam 1	Ch 1-4	
7	Synapses and vesicles	Ch 5	
8	Synaptic release		<u>Article selected</u>
9	Neurotransmitters and receptors I	Ch 6	
10	Neurotransmitters and receptors II		<u>Article selection revision</u>
11	Intracellular signaling	Ch 7	
12	Intracellular signaling, review		
	Exam 2	Ch 5-7	
13	Learning and memory	Ch 8	
	In-class paper discussion	Park, 2017	<u>HW due</u>
	Student paper discussion	TBD	<u>HW due</u>
	Review for final		
	Final Exam: 2:30 – 4:45		

Grading

Assignment	Points
In-class assignments	100
Exam 1 (1/5 th of grade)	100
Exam 2 (1/5 th of grade)	100
Final Exam	200

Grading scale

A	465 - 500	C	365 - 384
A-	450 - 464	C-	350 - 364
B+	435 - 449	D+	335 - 349
B	415 - 434	D	300 - 334
B-	400 - 414	F	299 or below
C+	385 - 399		

Assignments, lateness policy, make-up exams

Make up in-class assignments will not be given. In the event of serious personal illness or a family emergency, given notice prior to the exam date, an alternate time schedule can be arranged. Send an email with appropriate documentation, and we will work it out.

Students with disabilities

Please meet with me to discuss how accommodations can be made. You are not required to register with the Center for Students with Disabilities (CSD), but if you would like for accommodations to be made, you will have to register. The CSD will provide the services that will assist your success. The CSD can be found at DePaul's Lincoln Park Campus Student Center Room 370 (773 - 325 - 1677).

Sexual and relationship violence reporting

Students may reach out to faculty as a source of help and support. Faculty are required to report information reported to them about experiences with sexual or relationship violence to DePaul's Title IX Coordinator. Students should also know that disclosing experiences with sexual or relationship violence in course assignments or discussion does not constitute a formal report to the University and will not begin the process of DePaul providing a response. Students seeking to report an incident of sexual or relationship violence to DePaul should contact Public Safety (Lincoln Park: 773-325-7777; Loop: 312-362-8400) or the Dean of Students and Title IX Coordinator (Lincoln Park: 773-325-7290; Loop: 312-362-8066; TitleIXCoordinator@depaul.edu).

Statement on academic dishonesty

DePaul University has a zero tolerance policy on academic dishonesty. All exams are to be completed without the use of any outside materials. Academic dishonesty on an assignment or exam will result in receiving a zero for said assignment, and the student in question will be reported for appropriate disciplinary measures.