NEU 201 Introduction to Neuroscience

Dr. Austin Lim

**Instructor contact information**

Austin Lim, Ph. D.

[@DocAustinLim](https://twitter.com/docaustinlim)

Student hours: W 2:00 - 3:00

Or by appointment

**Textbook**

[Neuroscience Online](https://nba.uth.tmc.edu/neuroscience/toc.htm)

[Open Neuroscience Initiative](http://www.austinlim.com/open-neuroscience-initiative)

[The Brain from Top to Bottom](http://thebrain.mcgill.ca/index.php)

**Course objectives - students will be able to**

Summarize the anatomy and physiology of the nervous system

Understand and evaluate the methods by which we learn about the brain and behavior

Explain how the nervous system communicates using electrical and chemical signals

Describe the biological basis of behaviors

**Evaluation**

Reading quizzes (20%)

In-class assignments (10%)

Midterm exam 1 (20%)

Midterm exam 2 (20%)

Final exam (cumulative, 30%)

**Success in NEU 201**

* Read the assignment before class and bring questions to 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.
* Utilize student hours. I’m here to help.

**Syllabus**

|  |  |  |
| --- | --- | --- |
| Week | Lecture Topic | Assignment |
| 1 | Intro: What is “Neuroscience”? |  |
|  | Anatomy of the Nervous System | [Open Neuroscience Initiative: Anatomy of the Nervous System](http://www.austinlim.com/s/Open-Neuroscience-Initiative-Chapter-2-Anatomy-of-the-Nervous-System.pdf) |
| 2 | Cells of the Nervous System | [Open Neuroscience Initiative: Cellular Anatomy of the Nervous System](http://www.austinlim.com/s/Open-Neuroscience-Initiative-Chapter-3-Cellular-anatomy-of-the-nervous-system-Draft.pdf) |
|  | Electrical Properties of Neurons | [Open Neuroscience Initiaive: Electrical Properties of Neurons](http://www.austinlim.com/s/Open-Neuroscience-Initiative-Chapter-4-Electrical-Properties-of-Neurons.pdf) |
| 3 | **MLK Jr. Day – No class** |  |
|  | Signaling between Neurons | [Open Neuroscience Initiative: Signaling Between Neurons](http://www.austinlim.com/s/Open-Neuroscience-Initiative-Chapter-5-Signaling-Between-Neurons.pdf) |
| 4 | Methods of Neuroscience | [Whole Brain Imaging](https://www.sciencedirect.com/science/article/pii/B9780128005118000010) |
|  | **Exam 1** |  |
| 5 | Neuropharmacology | [Open Neuroscience Initiative: Neuropharmacology and Drug Abuse](http://www.austinlim.com/s/Open-Neuroscience-Initiative-Chapter-11.pdf) |
|  | Drug Abuse |  |
| 6 | Sleep | [Open Neuroscience Initiative: Sleep](http://www.austinlim.com/s/ch-12-sleep-draft.pdf) and the Circadian Rhythm |
|  | The Circadian Rhythm |  |
| 7 | Sensation and Perception: Visual | [Ch 14.1, 14.3 – 14.4](https://nba.uth.tmc.edu/neuroscience/s2/chapter14.html), [Chapter 15.2](https://nba.uth.tmc.edu/neuroscience/s2/chapter15.html) |
|  | Sensation and Perception: Other | [Chapter 12](https://nba.uth.tmc.edu/neuroscience/s2/chapter12.html), [Chapter 9](https://nba.uth.tmc.edu/neuroscience/s2/chapter09.html) |
| 8 | **Exam 2** |  |
|  | Motor System + Somatosensation | [Chapter 4.2,](https://nba.uth.tmc.edu/neuroscience/s1/chapter04.html) [Chapter 2](https://nba.uth.tmc.edu/neuroscience/s2/chapter02.html).2, [Chapter 1.1 – 1.6](https://nba.uth.tmc.edu/neuroscience/s3/chapter01.html), [Chapter 6.3](https://nba.uth.tmc.edu/neuroscience/s3/chapter06.html) |
| 9 | Learning and Memory | [Chapter 7](https://nba.uth.tmc.edu/neuroscience/s4/chapter07.html) |
|  | Lateralization and Language | [Chapter 8 intro, 8.6, 8.8 – 8.10](https://nba.uth.tmc.edu/neuroscience/s4/chapter08.html) |
| 10 | Brain Disorders | [Chapter 10.3 – 10.4](https://nba.uth.tmc.edu/neuroscience/s4/chapter10.html), 10-7 |
|  | Emotions | None |
| 11 | **Final Exam** |  |

**Grading**

Assignment Points

In-class assignments 100

Exam 1 (1/5th of grade) 100

Exam 2 (1/5th 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**

Please communicate with me if you are unable to attend prior to a class; make-up assignments may 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).

**University counseling services**

DePaul University offers psychological counseling services in case you find yourself struggling with excessive workload, anxiety, concentration, family issues, or interpersonal relations. Here is their website: <https://offices.depaul.edu/student-affairs/about/departments/Pages/ucs.aspx>.

**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](mailto: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 notes or internet access. 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.