

## Fall 2023 | Zoology 4395 (CRN 15221) | Cellular Neuroscience

*Lectures: Tue/Thu, 1:30–2:50 pm, UGLC 126. Optional Discussion: Tue 5–6 pm via Zoom*

### Instructors

Principal instructor of record: Dr. Arshad M. Khan (*amkhan2 [at] utep.edu*), Office hours by appt.

Teaching assistant: Mr. Long Jiao (*ljiao [at] miners.utep.edu*)

### Definitions and Objectives

*Cellular Neuroscience* is the study of nervous system function often taught from a perspective that emphasizes operations at the cellular level and also from seminal discoveries made from work involving diverse model organisms, both invertebrate and vertebrate. This course honors both of these traditions; first, by presenting an overview of basic nerve cell function, including, most importantly, the mechanisms that make neurons capable of transmitting and receiving electrical signals to and from other cells. Second, in learning this material, we will examine classic pioneering studies, performed in the last century, that identify fundamental neural mechanisms in molluscs, insects, crustaceans, amphibians, reptiles, birds and mammals.

### Course Organization and Grading

**Attending lectures is the key to your success in this class.** Attendance however, will not be graded. You are also encouraged to attend the class discussions each week where we will help answer any questions you have on class material, but you are not required to attend them. There are no exams in this course, but online workbooks in Blackboard for you to complete. Of your total grade, Workbook 1 = 25%, Workbook 2 = 25%, Workbook 3 = 25%, and Workbook 4 = 25%. The workbooks will be open-book and open-note, and we will **not** be using a lockdown browser. The workbooks are strictly based on the slides and in-person lectures, so taking notes is strongly recommended. You will have 5–7 days to complete each workbook (usually over a weekend). Note that there is no “final exam”, just four workbooks, each non-overlapping and non-cumulative. Grading is strictly on a % scale: A (90–100), B (80–89), C (70–79), D (60–69), F (below 60).

### Text

*Neuroscience, 6th Edition* by Dale Purves, *et al.*; Sinauer Publishers. (Fifth edition is acceptable) (E-book version available for approx. \$100 at the bookstore online: <https://www.bkstr.com/texaselpasostore/home>)

### Prerequisites

Students must be undergraduates in good standing, and the completion of *ZOOL 2406/4380* or *Biol 1108/1306* is required.

### UTEP Policy on Academic Dishonesty

Any student who commits an act of scholastic dishonesty is subject to discipline and will be reported to the Dean of Student Affairs. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person or to an artificial intelligence system (e.g., ChatGPT), taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

### Accessibility

If you have or suspect you have a disability and need accommodations, contact the Center for Accommodations and Support Services (CASS) at (915) 747-5148, e-mail their office at [cass@utep.edu](mailto:cass@utep.edu), or go to the CASS AIM portal to request accommodations online (<https://www.utep.edu/student-affairs/cass/>). You are responsible for ensuring that Dr. Khan receives any CASS accommodation letters and instructions.