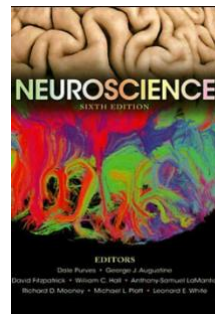


PSYC 2324: Introductory Neuroscience – Fall 2022
Synchronous Meeting Times: 1:30-2:50pm, MW mountain time

Professor: Katherine Serafine, Ph.D.
E-mail: kmserafine2@utep.edu
Office: 216B Psychology Building
Office Hours: Email me to schedule a virtual or audio appointment M-F
Social Media: [@SerafineLab](#) (twitter); [@Serafine_Laboratory](#) (instagram);
[Facebook.com/BehavioralPharmacologyLab](https://www.facebook.com/BehavioralPharmacologyLab) (facebook)

Required Text:



Purves, Augustine, Fitzpatrick, Hall, LaMantia, Mooney, Platt & White (2018). **Neuroscience 6th edition**, Oxford University Press. ISBN: 9781605353807. **All required chapters will be provided at no cost to students in PDF form on Blackboard.** If you prefer a hardcopy of the text, you can purchase from the bookstore or online retailers. Note that you won't get all the chapters as free PDFs, just the ones that are required reading (outlined in the schedule below). *Note that the hard copy, loose leaf, or ebook version are all fine as long as it is 6th edition. Access code is not required. Supplemental required reading will be provided on Blackboard.

Course Description:

This course begins with the study of neuronal structure and function, and the propagation of nerve impulses and the transfer of information between cells. We then move to the sensory systems such as olfaction, hearing, and vision and discuss how physical energy such as light is converted into neural signals, where these signals travel in the brain, and how they are processed. Next we study the control of voluntary movement. Finally, we cover higher brain functions and homeostasis, including the neurochemical bases of brain diseases and the systems which control motivation, emotion, learning and memory. The knowledge gained in this course will provide an appropriate background for students planning to pursue careers in neuroscience research, medicine or the allied health fields, or education.

Prerequisites: Undergraduate student in good standing. Psychology 1301 or Biology 1305 and 1107 with a C or better.

Learning Objectives:

This course will provide a broad introduction to nervous system structures and functions. At the end of the academic term, students who successfully complete this course will be able to: 1) define the organization of the central and peripheral nervous system; 2) explain the properties of nervous system cells including the propagation of electrical signals and cell-cell communication; 3) describe the various neurotransmitter systems and how they operate within systems or circuits; and 4) demonstrate an understanding of the diagnostic and research methods used in neuroscience research and medicine.

Accommodations and Support Services:

If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass. The instructor must be notified by CASS by the end of the first week of classes

to facilitate accommodations support implementation. However, if an emergency arises later in the semester, contact CASS ASAP.

Blackboard:

Everything you need for this class can be found on Blackboard. Please check Blackboard for announcements at least once per week. Blackboard is also where you will find online quizzes and other supplemental materials relevant to the course. Make sure you check your email regularly for updates from me via Blackboard. If you are not receiving emails from Blackboard, reach out to UTEP tech support (number provided below).

Virtual Attendance (synchronous and asynchronous options):

To do well in this course, **you are required to watch every lecture video and stay on top of the course videos.** Lectures will be presented live when possible on Monday and Wednesday afternoons from 1:30-2:50pm mountain time. If you cannot attend live, the recorded lecture will be online by 9pm (mountain time) the same day, so you can tune in later. You are encouraged to watch the Monday lectures on Monday, and so on, so that you do not fall behind. Respondus Lockdown pop quizzes will occur randomly throughout the semester and will be based on the lecture material (and are worth extra credit, see below). Watching lectures (live or recorded) is the key to success in this course, and historically – students that don't miss lectures end up performing better in Dr. Serafine's online courses than those who do not.

Grades:

Exams: 400pts

- There will be 4 exams, each worth 100 points during the course of the semester (dates below).
- Combinations of multiple choice, short answer and/or essay, matching, true/false, labeling or fill in the blank questions will be included.
- **No test scores will be dropped. No make-up exams will be administered under any circumstances, no matter how compelling.**
- The majority of the exam will be focused on lecture material, but 10-20% will be from the book (and most of the book questions will be *very* similar to the Blackboard textbook quizzes). Note that the final is 50% cumulative.
- **Exams will take only 90 minutes and are timed.** If you require any additional time or accommodation you must provide appropriate documentation at least one week prior to the first exam.
- All exams will be available on Blackboard for a 48-hour window, during which you can take the exam at your convenience; however, be advised that if you run into technical issues in the middle of the night, I won't be able to assist you until the next day.
- **No make-up exams will be administered under any circumstances, no matter how compelling. You must take the exam during the allotted 48-hour window.** The 48-hour windows always include one scheduled class period (e.g., 1:30-2:50pm on a Monday or Wednesday) which you should have free in your schedule since you registered for this as a synchronous course.
- Exams require you to use Respondus Lockdown, a program that will "lock" you out of being able to use other websites or items to take the exam. No notes, books, power points, electronic devices, devices that transmit audio or materials are allowed during the exams. You are also prohibited from discussing the exam with each other during the 48-hour exam window. However, you are strongly encouraged to study together virtually before the window begins and you can do this virtually on Slack.

You should download Respondus Lockdown and install it on your computer ASAP:

https://www.utep.edu/technologysupport/Files/docs/MM_Respondus-Student.pdf

Assignments: 100pts

- **Individual Homework Worksheets (25pts each)**

- A large part of this course involves reading and thinking critically. To facilitate this, you will have 4 opportunities to do some additional reading and learn about specific topics in neuroscience.
- Homework worksheets are to be completed independently. Students are NOT permitted to work together on the homework. However, once the assignment deadline has passed if you want to discuss the homework with your classmates or compare answers that will be ok as long as it is done in a space where the instructor can see the conversation (e.g., discussion boards hosted by the instructor such as on Blackboard or Slack – details on Blackboard).
- Homework will be due at 11:59pm on dates specified in the course schedule below.

Extra Credit:

- **Asynchronous Textbook Quizzes (5pts)**

- A total of 14 quizzes will be available on Blackboard throughout the semester. These will consist of multiple choice and true false questions. *Quiz questions will come from the reading assignments NOT from the lecture.* They will only be available during the week corresponding to that reading assignment (so if you are supposed to read chapter 2 by the end of the first week, the chapter 2 quiz will expire on Friday of the first week of classes, etc). The quizzes will expire at 11:59pm each week on Friday.
- I will also provide a syllabus quiz, which will expire on census day (**September 7th**). If you take the syllabus quiz it will replace your lowest quiz grade at the end of the semester.
- Quiz bonus points will be calculated as follows: (points earned divided by 140) multiplied by 5. The quiz total for each individual will be added to your total grade once the other 500 points have been completed. The maximum possible points you can earn for all quizzes if they are all perfect, is 5 total points added to your total out of 500.

- **Respondus Lockdown Lecture Pop Quizzes (??)**

- Occasionally there will be unannounced pop quizzes, and you will have the opportunity to earn extra credit based on performance on these quizzes. These will typically only be open for 24 hours at the most. There will be 2.5-5pts possible via in class pop quizzes between each exam, and points will be added to the exam that follows the quiz. For example, a quiz occurring after Exam 1 will mean that any points earned get added to the Exam 2 grade.
- The goal of these is to familiarize you with the Respondus program, and allow you to check for any technical issues with your wifi/internet service.
- You are not permitted to use other devices, the internet or your book/notes during these pop quizzes. These quizzes are designed to help you prepare for the test environment.

- **Extra Credit Independent Work – (up to 20pts)**

- Throughout the semester there will also be extra credit homework assignments you can do to earn additional points. These are designed to provide you with independent opportunities to gain new information in relevant topics, historical information, science communication/current events or career development in neuroscience.

- There will be approximately 4 of these optional assignments (worth up to 5 points each) that taken together will be worth up to 20 points extra credit (added to your total out of 500 at the end of the semester). These have specific due dates outlined in the calendar below and on Blackboard. Late assignments will not be eligible for extra credit.
- Students are not permitted to work together on independent assignments but you can discuss them AFTER the due date has passed in public spaces the instructor can view (e.g., Blackboard or Slack – see details on Blackboard about class discussion).
- **Exam Extra Credit (??)**
 - There are typically 1-2 extra credit questions on each exam. These are extra, and if you get them wrong you will not be penalized but answering them correctly will get you full or partial extra credit points. They are typically more difficult than the rest of the exam questions and will usually be worth 2.5-5pts extra added to each exam grade.

Academic Dishonesty: Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student or possessing unauthorized materials during a test. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another person's as one's own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Violations will be taken seriously and will be referred to the Dean of Students Office (Office of Student Conduct and Conflict Resolution) for possible disciplinary action. Students may be suspended or expelled from UTEP for such actions.

Important Contact Information

University Counseling Center	202 Union West 747-5302
Center for Accommodations and Support Services	106 Union East 747-5148
University Career Center	103 Union West 747-5640
Department of Psychology	112 Psychology 747-5551

Final Grade Calculation: Final grades will be calculated as follows (points earned + extra credit/500) x 100.

Grading scale:

A = 90.0-100.0%
B = 80.0-89.9%
C = 70.0-79.9%
D = 60-69.9%
F < 60.0%

Please note that grades will not be "rounded up". Therefore a 79.5% will be entered as a "C". **As such, "rounding up" will not occur in this class. No exceptions will be made.**

If you have any questions or disputes regarding grades, you must raise these in writing within ten days of the grade being released. Grades will only be changed in cases of administrative error. The instructor does not hand back exams, if you wish to see your exam after it has been graded, you must schedule an appointment to come meet with the instructor (or if facilitated by the instructor, a meeting with the TA). Students should not contact the TA directly.

If you have a problem with the grading policies outlined above, you should consider dropping the course before the drop deadline. If you disagree with your final grade in this course, despite the clear outline above of the way grades are calculated, you are welcome to file a complaint to the Chair of the Psychology Department or the UTEP grievance committee. Note that there is already information about extra credit written above. Do not ask for additional extra credit opportunities beyond what is provided on the syllabus or in class to the entire group.

Class Schedule:

Lecture title bold, reading (to be completed prior to class time italicized), RED indicates assignment deadlines. Yellow highlight indicates Exams.

M	08/22	Course overview State of the Field <i>Chapter 1</i>
W	08/24	The neuron: structure and function <i>Chapter 1&2</i>
M	08/29	Membrane Potential <i>Chapter 2&3</i>
W	08/31	Action Potential <i>Chapter 3&4</i>
M	09/05	no class- Labor Day
W	09/07	Neurochemistry: Synaptic Transmission <i>Chapter 5&6</i> Census day – Syllabus Quiz Expires at 11:59pm
M	09/12	Neurochemistry: Neurotransmitter Systems <i>Chapter 6&7</i>
W	09/14	Flex/Exam Review
S	09/18	Homework 1: Nernst Equation & Synaptic Structure due at 11:59pm via Blackboard Assignments
M	09/19	Virtual Office Hours & Optional Independent Work Day Extra credit Independent Assignment 1 Due on Blackboard by 11:59pm
W	09/21	Exam 1 Window covering chapters 1-7 Exam 1 opens at 5pm Tuesday 09/20 and closes at 5pm Thursday 09/22
M	09/26	Vision & Olfaction <i>Chapter 11&12</i>

- W 09/28 **Hearing & Vestibular Systems**
Chapter 13&14
- M 10/03 **Somatic Sensory System & Pain Processing**
Chapter 9 & 10
- W 10/05 **Spinal & Brain Control of Movement**
Chapter 17&18
- M 10/10 **Flex/ Exam Review**
- T 10/11 **Homework 2: Reflex & Spinal Cord due at 11:59pm via Blackboard Assignments**
- W 10/12 **Virtual Office Hours & Optional Independent Work Day**
Extra credit Independent Assignment 2 Due on Blackboard by 11:59pm
- M 10/17 **Exam 2** covering chapters 9-14, 17-18
Exam 2 opens at 5pm Sunday 10/16 and closes at 5pm Tuesday 10/18
- W 10/19 **Motivation, Feeding & Sex**
Supplemental Reading: <http://nobaproject.com/modules/drive-states>
- M 10/24 **Emotion & Stress**
Chapter 31
- W 10/26 **Language**
Chapter 33
- F 10/28 **Drop /Withdrawal Deadline**
- M 10/31 **Alterations of Consciousness, including sleep and addiction**
Chapter 28
Supplemental Reading <http://nobaproject.com/modules/psychopharmacology>
- W 11/02 **Flex/ Exam Review**
- S 11/06 **Homework 3: Addiction & Imaging Techniques due**
by 11:59pm via Blackboard Assignments
- M 11/07 **Virtual Office Hours & Optional Independent Work Day**
Extra credit Independent Assignment 3 Due on Blackboard by 11:59pm
- W 11/09 **Exam 3** covering chapters 28, 31, 33 and supplemental readings
Exam 3 opens at 5pm Tuesday 11/08 and closes at 5pm Thursday 11/10

M	11/14	Synaptic Plasticity <i>Chapter 8 and 25</i>
W	11/16	Learning & Memory Evolution of Cognitive Functions <i>Chapter 30 and 34</i>
M	11/21	Learning & Memory Evolution of Cognitive Functions <i>Chapter 30 and 34</i>
W	11/23	Mental Illnesses <i>Supplemental Readings:</i> <ul style="list-style-type: none">• http://nobaproject.com/modules/history-of-mental-illness?r=NDY5NjlsNDE5Nzq%3D• http://nobaproject.com/modules/schizophrenia-spectrum-disorders?r=NDY5NjlsNDE5Nzq%3D
M	11/28	Flex/Exam Review
T	11/29	Homework 4: LTP & Connectomics due at 11:59pm via Blackboard Assignments
W	11/30	Virtual Office Hours & Optional Independent Work Day Extra credit Independent Assignment 4 Due on Blackboard by 11:59pm
TBD		FINAL EXAM TIME AND DATE TBD 50% of the final exam will be on material covered after Exam 3 (chapters 24-25, 30, 34 and supplemental readings). The other 50% of the exam will be cumulative information from the rest of the course. ANY material from lecture or reading might appear on the final exam, but material from lectures are more likely to appear on the final. Exam 4 will be open for 48 hours like all other exams, date/times TBD.

****Please note: The syllabus is subject to change during the semester. Please make sure I have your best email contact information, to insure you always have the most up to date version of the syllabus. I will also always post the most recent version to Blackboard.**

Virtual Classroom Courtesy

Please adhere to the following:

1. Be mindful of your behavior and language online. Remember that members of the class and the instructor will be reading any postings.
2. Respect and courtesy must be provided to classmates and to instructor at all times. No harassment or inappropriate postings will be tolerated.
3. When reacting to someone else's discussion board post or in class questions, address the ideas, not the person. Post only what anyone would comfortably state in a F2F situation.
4. Blackboard is not a public internet venue; all postings to it should be considered private and confidential. Whatever is posted on these online spaces is intended for classmates and professor only. Please do not copy documents and paste them to a publicly accessible website, blog, or other space. If students wish to do so, they have the ethical obligation to first request the permission of the writer(s).
5. No solicitations. This includes "note takers for hire" and similar paid for tutoring services.

Other Resources

- [UTEP Library](#): Access a wide range of resources including online, full-text access to thousands of journals and eBooks plus reference service and librarian assistance for enrolled students.
- [Help Desk](#): Students experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus.
- [University Writing Center \(UWC\)](#): Submit papers here for assistance with writing style and formatting, ask a tutor for help and explore other writing resources.
- [Math Tutoring Center \(MaRCS\)](#): Ask a tutor for help and explore other available math resources.
- [History Tutoring Center \(HTC\)](#): Receive assistance with writing history papers, get help from a tutor and explore other history resources.
- [Military Student Success Center](#): UTEP welcomes military-affiliated students to its degree programs, and the Military Student Success Center and its dedicated staff (many of whom are veterans and students themselves) are here to help personnel in any branch of service to reach their educational goals.

COVID-19 Information

Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you are feeling unwell, please [contact CASS](#) and let your instructors know as soon as possible, so that we can work on appropriate accommodations. If you have tested positive for COVID-19, you are encouraged to report your results to covidaction@utep.edu, so that the Dean of Students Office can provide you with support and help with communication with your professors. The [Student Health Center](#) is equipped to provide COVID-19 testing.

The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. **If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on the UTEP campus during the first week of classes.** For more information about the current rates, testing, and vaccinations, please visit epstrong.org.