Course Information

Course Number/Section	NSC 3361 Section 004
Course Title	Introductory Neuroscience
Term	Spring 2023
Days/Times/Room	TR 10:30am-11:15 FN 2.102
Method of Instruction	Class sessions will be held "live" on campus, in-person, on the days/times shown above. There is NOT an online/asynchronous option for this particular class section. Live lectures will NOT be recorded or posted.

Professor Contact Information

Professor	Dr. Steve McWilliams
Email Address	steven.mcwilliams@utdallas.edu ALL course-related communication must be sent via email through eLearning/official UTD email- I am the 'section instructor.' (When emailing, please include your course in subject line, so that I know who you are…)
Office Location	GR 4.714
Office Hours	TR 11:30am-12:30 -or email to set up an individual meeting-
Other Information	Course Web Site: UTD eLearning

Teaching Assistant

To Be Announced Email: *TBA*

I WANT VERY MUCH FOR YOU TO SUCCEED!

College-level classes require, even demand, a certain level of maturity and responsibility on the part of the student. This means you the student take your classes and your education seriously. This typically means you attend class regularly and you put the time in needed to study- even if your social life must be put on pause sometimes. Students who come to class and study on a regular basis tend to do better than students who do not. I, as a teacher, can only teach you what you want to learn. Help me, help you, reach your goals!

Dr. SM

Class Participation

Regular class participation is expected- regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. This class requires active participation during regularly scheduled class times as a way of learning the material. Student feedback and class discussion are critical to success in the class. Successful participation is defined as consistently adhering to university requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Technical Requirements

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the Getting Started with eLearning webpage.

Course Access and Navigation
This course can be accessed using your UT Dallas NetID account on the eLearning website. Please see the course access and navigation section of the Getting Started with eLearning webpage for more information. To become familiar with the eLearning tool, please see the Student eLearning Tutorials webpage. UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The eLearning Support Center includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Communication
This course utilizes online tools for interaction and communication. Some external communication tools such as regular email and a web conferencing tool may also be used during the semester. For more details, please visit the Student eLearning Tutorials webpage for video demonstrations on eLearning tools. Student emails and discussion board messages will be answered within three working days under normal circumstances.

Distance Learning Student Resources
Online students have access to resources including the McDermott Library, Academic Advising, The Office of Student AccessAbility, and many others. Please see the eLearning Current Students webpage for more information.

Server Unavailability or Other Technical Difficulties
The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and contact the online eLearning Help Desk. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

Academic Support Resources
Students should visit https://go.utdallas.edu/academic-support-resources for a list of resources to help students succeed.

Course Pre-requisites, Co-requisites, and/or Other Restrictions
None

Course Description
This course explores the nature of the brain processes underlying basic neurobiology and behavior, including basic neurophysiology, the physiology of movement and sensation, learning and memory, emotion, and behavioral disorders. This course is designed to introduce students to the brain and behavior as well as to provide a foundation for those pursuing degrees in the various areas of neuroscience, including psychology, cognition, and child development. In this course, we will briefly examine nerves cells and the transfer of information from one neuron to another. This will include a survey of basic neuroanatomy and the chemistry of the brain. This will be followed by a study of the different sensory systems, hormones, biological rhythms, cognitive processes, and psychopathology.

Student Learning Objectives/Outcomes
After completing the course, students should be able to:

1. Identify and describe basic neuro-anatomical structures, lobes of the brain, and their major functions
2. Describe the differences between neurons and glia, their primary functions, and their physiological processes
3. Describe the physiological processes associated with neuronal conduction, communication, and the transfer of information from neuron to neuron

4. Display a basic understanding of neurochemistry and basic neuropharmacology as it relates to neuronal function and mental disorders
5. Identify and describe basic neurochemistry as well as specific neurotransmitters and their functions
6. Describe the anatomical structures and mechanisms associated with both sensory and motor systems at both the cellular level and system level
7. Describe the anatomical structures and associated mechanisms involved with cognition, behavior, and some psychiatric disorders

Required Textbooks and Materials
Mind's Machine by Watson & Breedlove (2nd or 3rd edition is okay)

Optional Course Materials (Not required!)
If you desire additional sources of information -*because you just can't get enough to read*- you can look at (1) Foundations of Behavioral Neuroscience by Carlson, and/or (2) Neuroscience by Bear. Again, THESE TEXTBOOKS ARE NOT REQUIRED!

Academic Support/Tutoring
See the Student Success Center (http://www.utdallas.edu/studentsuccess/leaders/si.html) concerning Supplemental Instruction (SI) for this course.

Your class TA -if assigned- is a useful source of information and can be very helpful if you are having trouble in the class regarding understanding the material. Teaching Assistants (TA) are graduate students with a good degree of knowledge about the material you are being given; it is likely he or she has taken this class. Please feel free to email your TA at any time during the semester or to speak with him/her before or after class. His or her contact information is listed above.

Course information
Course information including lecture PowerPoints will be posted on eLearning. However, I do not own the copyright to the diagrams and pictures that I often use in my lectures/PowerPoints, SO NO PORTION OF THE MATERIAL INCLUDING ALL POWERPOINT SLIDES AND/OR LECTURES MAY DUPLICATED, REPOSTED, RETRANSMITTED, SOLD, OR OTHERWISE USED WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE AUTHOR. Lectures may be recorded for audio needs only- they should not be posted via any public forum.

eLearning and UTD email
To comply with FERPA regulations, ALL EMAIL DISCUSSIONS TO AND FROM ME MUST BE THROUGH eLearning. That is, all correspondence between instructor and student must be through your official UTD email. This is to protect your privacy! Discussion boards and Chat rooms are available for your use. I will not routinely monitor them unless I receive complaints about inappropriate posting. Grades will be posted as soon as they are available. Announcements may be made from time to time regarding lecture schedule and exam dates.

Exams, Quizzes, Missed Exams or Quizzes, Grading and Course Policies
IMPORTANT- PLEASE READ!

Exams (80%): There will be four exams during the course. All exams are weighted equally. Exams will cover the material preceding the exam, and therefore are not comprehensive. No exam grade will be dropped. You will have 75 minutes to complete each 50-question (multiple-choice/true-false) exam. ALL EXAMS WILL BE COMPLETED IN CLASS DURING NORMAL CLASS DAYS AND TIMES. **YOU WILL NEED TO BRING A LAPTOP TO CLASS ON EXAM DAYS TO ACCESS THE ONLINE EXAM.** YOU ARE NOT ALLOWED TO BE ON ANY ADDITIONAL ELECTRONIC DEVICE SUCH AS A PHONE DURING THE EXAM. YOU ARE NOT ALLOWED TO LEAVE THE CLASSROOM DURING THE EXAM, UNLESS PREAPPROVED BY THE INSTRUCTOR.

Quizzes (20%): A 10-question weekly quiz will be posted at the end of each week that will cover the material for that week. You will have 10 minutes to complete each online quiz. Quizzes will be posted and made available on the eLearning Course Homepage. QUIZZES ARE NOT TAKEN IN THE TESTING CENTER. Your highest ten quiz grades will be totaled and averaged into your final course grade. Quizzes must be completed within the allotted time window- no exceptions!

Please make sure your computer device is functioning properly before an exam or before completing an online quiz. Since I have no way to confirm any computer issue you may have had during the quiz, I cannot allow a retake of any quiz already seen by the student. However, issues that might arise with eLearning during a quiz will be managed accordingly.

REGARDING MISSED EXAMS AND QUIZZES

Students showing up late to class for an exam MUST complete the exam by the time the class normally ends- unless preapproved by the instructor. (Plan ahead for possible delays such as traffic issues.) Students are expected to complete all exams/quizzes within the allotted time posted. No makeup exam will be given unless preapproved by the instructor. Prior notification of instructor, for example just sending me an email, does not itself imply approval. **The only possible excuse for missing an exam (without prior notification and approval) is that you were either hospitalized at the time of the exam (with an IV in your arm or are unconscious) or jailed the day of the exam** (I probably don't want to know why). Prior approval for missing an exam is typically only given for (1) the need to attend an official UTD event for which you are an official UTD member (proof required), or (2) the loss of an immediate family member or emergency involving an immediate family member- proof of emergency is typically required (An immediate family member is defined as a spouse, parent, sibling, or your children.) If granted a makeup exam, instructor reserves the right to use a different exam from that given to the class. **There are no makeup quizzes!** An exam not completed within the allotted time will be given a grade of zero. No other make-up exams will be given.

ILLNESS RELATED TO MISSING EXAMS

Although we all wake up at times not feeling well, missing a scheduled exam will only be excused if the illness is documented that day by a physician and the illness is deemed sufficient to miss the exam. Such documentation must include a clinic/hospital visit (that day), a note from a physician stating/confirming the illness (that day), and if covid, a positive confirmed covid test which must be reported to UTD via www.utdallas.edu/covid. When confirmed, UTD will notify your instructors/professors as to the current status of your particular situation. (This cannot be done in a single day)

Final Grades: The plus/minus grading system is used in this course. A+ (97–100), A (94-96), A- (90-93), B+ (87 - 89), B (84 - 86), B- (80 - 83), C+ (77 - 79), C (74 - 76), C- (70 - 73), D+ (67 - 69), D (64 - 66), D- (60 - 63), F (59 or below)

Accommodations for Students with Disabilities

It is the policy and practice of UT Dallas to make reasonable accommodations for students with properly documented disabilities. If you are a student with a disability and believe you will need academic accommodations for this class, you are encouraged to register with the Office of Student AccessAbility (OSA). Some aspects of the course, the assignments, the in- class activities, and the way the course is typically taught may be accommodated to facilitate your participation and progress. OSA will assist you in determining academic accommodations that are appropriate for your situation. Any information you provide is private and confidential and will be treated as such. To avoid any delay, please contact OSA as soon as possible. **Please note that accommodations are not retroactive and disability accommodations cannot be provided until an OSA Letter of Accommodation has been given to the instructor.** Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact OSA for a confidential discussion. OSA is located in the Student Services Building, AD 2.224 They can be reached by phone at 972-883-2098, or by email at studentaccess@utdallas.edu.

The **Student Counseling Center** offers confidential services to students either for individual appointments or as part of groups. Initial appointments must be made in person in the Student Counseling Center, which is located in SSB 4.600, on the fourth floor of the Student Services Building. Their main number is 972-883-2575 and the 24/7 Crisis Hotline is 972-883-8255 (972-UTD-TALK).

The **Student Success Center (SSC)** offers assistance to students in the areas of writing, mathematics, communication, multiple science fields, study skills, and other academic disciplines. These services are available through individual appointments, small group appointments, drop-in labs, workshops, and weekly reviews. All undergraduate students enrolled at UT Dallas are eligible to participate in these services. Not all courses will be supported by all services. Please check the website at the beginning of each semester to find out which courses are supported by which services.

Lecture and Exam Schedule

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.

Week Of	Day	Topic	Reading
Jan 16	T	Orientation	
	R	A Basic Science Review for the Neuroscience Student	PPT Postings
Jan 23	T	A Basic Science Review for the Neuroscience Student	PPT Postings
	R	Neurons and The Nervous System	Chapter 2/PPTs
Jan 30	T	Neurons and The Nervous System	"
	R	Basic Neuroanatomy and Neurodevelopment	Chapter 2 and 13 part III
Feb 6	T	Basic Neuroanatomy and Neurodevelopment	"
	R	**Exam I**	
Feb 13	T	(Let's Talk: Learning and Test-Taking Skills)	
	R	Neurophysiology (What are membrane potentials)	Chapter 3/PPTs
Feb 20	T	Neurophysiology (How do neurons do what they do)	"
	R	Neurophysiology (What are action potentials)	"
Feb 27	T	The Chemistry of Behavior (Basic neurochemistry)	Chapter 4/PPTs
	R	The Chemistry of Behavior (Neurotransmitters)	"
Mar 6	T	The Chemistry of Behavior (Pharmacology)	"
	R	**Exam II**	
Mar 13	T	<SPRING BREAK>	
	R	<SPRING BREAK>	
Mar 20	T	The Sensorimotor System (Converting sensations into action potentials)	Chapter 5/PPTs
	R	The Sensorimotor System (Spinal and brain control of movement)	"
Mar 27	T	The Senses (Converting sensory stimuli into action potentials)	Chapter 6/PPTs
	R	Vision (Eye anatomy/Converting light energy into action potentials)	Chapter 7/PPTs
Apr 3	T	Vision (Visual Processing)	"
	R	Hormones (The hypothalamus and pituitary gland)	Chapter 8/PPTs
Apr 10	T	Homeostasis	Chapter 9/PPTs
	R	**Exam III**	
Apr 17	T	Biological Rhythms and Sleep	Chapter 10/PPTs
	R	Emotions, Aggression, and Stress	Chapter 11/PPTs
Apr 24	T	Psychopathology	Chapter 12/PPTs
	R	Memory and Learning	Chapter 13/PPTs
May 1	T	Attention and Consciousness	Chapter 14/PPTs
	R	**Exam IV**	
May 8	T	**UTD Final Exam Week**	