

## Course Syllabus

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### Course Information

Course Number/Section	NSC 3361.0U1 ( <b>On-Line Course</b> )
Course Title	Introductory Neuroscience
Term	Spring 2020
Days/Times/Room	MW 10:00-12:15 (This is an Online course. Live class sessions will be held during the day and time shown)

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### Professor Contact Information

Professor	Dr. Steve McWilliams
Office Phone	972-883-6785 (do <b>NOT</b> leave messages- See email information below)
Email Address	<b>ALL course-related communication must be sent via email through eLearning/official UTD email- I am the 'section instructor.'</b> <b>When emailing, please include your course in subject line, so that I know who you are...</b>
Office Location	GR 4.714
Office Hours	-Please email to set up an individual online meeting, if necessary-
Other Information	Course Web Site: UTD eLearning

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Teaching Assistant	TBD
Email	@utdallas.edu
Office hours	

Supplemental Instructional	TBD
Email	@utdallas.edu
Office hours	

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### 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.

*In order to understand and communicate about the nervous system, there will be a lot of new vocabulary that you will need to learn!*

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### 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 (2<sup>nd</sup> or 3<sup>rd</sup> 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 good source of information and can be very helpful if you are having trouble in the class with regard to understanding the material. Teaching Assistants (TA) are graduate students with a good degree of knowledge about the material you are being given; it's 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.

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### **Assignments and Grading Policy**

**Exams (90%):** There will be three exams during the course and one writing assignment. No exam grades will be dropped. All exams are weighted equally. Exams will cover the material preceding the exam; the exams are not comprehensive. SEE BELOW REGARDING MISSED EXAMS. Students will submit completed exams -using the requested format- by the due date. Exams will be completed individually by students outside of regularly scheduled class hours. Exams turned in late will be deducted a letter grade for each day late including weekends- unless preapproved by the instructor. Any answer left blank will be counted wrong.

**Writing Assignment (10%):** Each student will write 2- to 3-page paper over a course related topic to be assigned at a later date. Papers must be typed and submitted through Turnitin via eLearning by the due date. Papers will be graded for completion, content, organization, and grammar.

**Final Grades:** The plus/minus grading system is used in this course. A+ (97–100), A (94<97), A- (90<94), B+ (87<90), B (84<87), B- (80<84), C+ (77<80), C (74<77), C- (70<74), D+ (67<70), D (64<67), D- (60<64), F (< 60). Final grades are based on in-class exams and the writing assignment only. No extra credit work will be given or accepted.

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### **Course & Instructor Policies**

## Course information

All course information including lecture PowerPoints will be posted on eLearning. However, I do not own the copyright to the diagrams and pictures that I use in my lectures/PowerPoints, so NO PORTION OF CLASSROOM MATERIAL INCLUDING ALL POWERPOINT SLIDES OR AND 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.

## Late and Make-up Exams

Students are expected to complete all exams by the due date. Late exams will be deducted a letter grade for each day late including weekends- unless preapproved by the instructor. An exam not submitted by the end of last official day of class will be assigned a grade of zero- unless preapproved by the instructor. Prior notification of instructor, for example just sending me an email, does not itself imply approval. No other make-up exam will be given.

## Reviewing Past Exams

Students will not be able to review past exams in person given the safety policies now set forth by the University for Summer 2020 classes. All concerns regarding any exam should be addressed directly to the course instructor.

## Attendance, Class Participation, and Readings

Learning about neuroscience can be a challenge even for the most studious student. I strongly suggest that you attend regular online class sessions. Your performance in this course will probably be affected by your attendance and participation during online class sessions. However, you will not be deducted points for missed attendance.

## eLearning and UTD email

To comply with FERPA regulations, **all email discussions to and from me MUST be through eLearning.** 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.

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## UT Dallas Syllabus Policies and Procedures

The information below is contained in the following link and constitutes the University's policies and procedures segment of this course and the course syllabus. Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

**Students should be informed as to the policies of the University concerning the Sharing of Confidential Information, Student Conduct and Discipline, Social Media Use, Academic Integrity, Copyright Notices, and Email Use.**

## Sharing Confidential Information

Students considering sharing personal information in email, in person, or within assignments or exams should be aware that faculty members and teaching associates/assistants and graduate/research assistants are required by UT Dallas policy to report information about sexual misconduct to the UT Dallas Title IX Coordinator. Per university policy, Sexual Misconduct Policy - [UTDBP3102](#), faculty have been informed that they must identify the student to the UT Dallas Title IX Coordinator. Students who wish to have confidential discussions of incidents related to sexual harassment or sexual misconduct should contact the Student Counseling Center (972-883-2575 or the 24/7 Crisis Hotline at 972-UTD-TALK or 972-883-8255), the, a health care provider in the Student Health Center (972-883-2747), a clergy person (or other legally recognized religious advisor) of their choice, or an off-campus resource (e.g., rape crisis center, doctor, psychologist). Students who are sexually assaulted, harassed, or

are victims of sexual misconduct, domestic violence, or stalking, are encouraged to directly report these incidents to the UT Dallas Police Department at 972-883-2222 or to the Title IX Coordinator at 972-883-5202. Additional information and resources may be found at <https://www.utdallas.edu/institutional-initiatives/title-ix/resources/>.

## **Student Conduct and Discipline**

The University of Texas System ([Regents' Rule 50101](#)) and UT Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the Student Complaints Resources in the online UT Dallas Undergraduate Catalog, <https://catalog.utdallas.edu/now/undergraduate/resources/student-complaints> and the Graduate Catalog, <https://catalog.utdallas.edu/now/graduate/resources/student-complaints>.

UT Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the Student Code of Conduct, UTDSP5003 (<https://policy.utdallas.edu/utdsp5003>). Copies of these rules and regulations are available to students in the Office of Community Standards and Conduct, where staff members are available to assist students in interpreting the rules and regulations (SSB 4.400, 972-883-6391) and online at <https://www.utdallas.edu/conduct/>.

A student at the University neither loses their rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating its standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

## **Social Media Use**

The Student Code of Conduct includes behaviors conducted via any digital platform. Students may not use any digital platform to seek or provide unauthorized assistance for any assignment done for academic credit. Students may not use any digital platform to impersonate or represent any person other than themselves. Please consult with your instructor regarding authorized assistance.

## **Academic Integrity**

The faculty expects from its students a high-level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrates a high standard of individual honor in his or her scholastic work. See <https://www.utdallas.edu/conduct/integrity/>.

*Academic Dishonesty:* Academic dishonesty can occur in relation to any type of work submitted for academic credit or as a requirement for a class. It can include individual work or a group project. Academic dishonesty includes plagiarism, cheating, fabrication, and collaboration/collusion. In order to avoid academic dishonesty, it is important for students to fully understand the expectations of their professors. This is best accomplished through asking clarifying questions if an individual does not completely understand the requirements of an assignment.

Additional information related to academic dishonesty and tips on how to avoid dishonesty may be found here: <https://www.utdallas.edu/conduct/dishonesty/>.

## **Copyright Notice**

It is the policy of UT Dallas to adhere to the requirements of the United States Copyright Law of 1976, as amended, (*Title 17, United States Code*), including ensuring that the restrictions that apply to the reproduction of software are adhered to and that the bounds of copying permissible under the fair use doctrine are not exceeded.

Copying, displaying, reproducing, or distributing copyrighted material may infringe upon the copyright owner's rights. Unauthorized distribution of copyrighted material, including unauthorized peer-to-peer file sharing, may subject students to appropriate disciplinary action as well as civil and criminal penalties. Usage of such material is only appropriate when that usage constitutes "fair use" under the Copyright Act. For more information about the fair use exemption, see <https://guides.lib.utexas.edu/fairuse/home>. As a UT Dallas student, you are required to follow UT Dallas' copyright policy (UTDPP1043 at <https://policy.utdallas.edu/utdpp1043>) and the UT System's policy, UTS107 at <https://www.utsystem.edu/board-of-regents/policy-library/policies/uts107-use-copyrighted-materials>.

## **Email Use**

UT Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. All official student email correspondence will be sent only to a student's UT Dallas email address and UT Dallas will only consider email requests originating from an official UT Dallas student email account. This allows the University to maintain a high degree of confidence in the identity of each individual corresponding via email and the security of the transmitted information. UT Dallas furnishes each student with a free email account that is to be used in all communication with university personnel. The Office of Information Technology provides a method for students to have their UT Dallas mail forwarded to other email accounts. To activate a student UT Dallas computer account and forward email to another account, go to <https://www.utdallas.edu/oit/netid/self-service>.

## **Class Attendance**

Regular and punctual class attendance is expected. Students who fail to attend class regularly are inviting scholastic difficulty. Absences may lower a student's grade where class attendance and class participation are deemed essential by the instructor. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes.

## **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](mailto: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).

## **Student Success Center**

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.

## Comet Creed

*This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:*

*“As a Comet, I pledge honesty, integrity, and service in all that I do.”*

*I want very much for you to succeed!*

## Lecture/Exam Schedule, Chapter Readings, and Assignments Calendar

Week Of	Day	Topic	Reading
May 25	M	NO CLASS- Classes start Tuesday the 26th	
	W	<i>Course Introduction/Introduction to the Brain</i>	Chapter 1
Jun 1	M	Cells and Structures	Chapter 2
	W	Neurophysiology	Chapter 3
Jun 8	M	Neurophysiology	Chapter 3
	W	The Chemistry of Behavior	Chapter 4
Jun 15	M	The Sensorimotor System	Chapter 5
	W	<b>Exam I / Paper assigned</b>	
Jun 22	M	<i>TEST TAKING SKILLS: How do I Learn? (Hindsight is 20/20!)</i>	
	W	Hearing, Balance, Taste, and Smell	Chapter 6
Jun 29	M	Vision	Chapter 7
	W	Hormones and Sex	Chapter 8
Jul 6	M	Homeostasis	Chapter 9
	W	Biological Rhythms and Sleep	Chapter 10
Jul 13	M	<b>Exam II / Paper due</b>	
	W	Emotions, Aggression, and Stress	Chapter 11
Jul 20	M	Psychopathology	Chapter 12
	W	Memory, Learning, and Development	Chapter 13
Jul 27	M	Attention and Consciousness	Chapter 14
	W	Brain Asymmetry, Spatial Cognition, and Language	Chapter 15
Aug 3	M	<b>Exam III</b>	
	W	<i>(Aug 4, last official day of class: final exams Aug 5-7)</i>	

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