

F25 Syllabus
NSC 3361.001 Introduction to Neuroscience

Tuesday, Thursday

10:00am-11:15am

ECSW 1.315

Van Miller MD PhD

Office: JO3.204

Office Hours: *times by agreement. I am usually open for business M-Th ~7:00-8:15 AM, if you rise early. If not, then M and W at 10-11 AM. Send me an email if you want to meet and we will find a time.*

Email van.miller@utdallas.edu

Textbook None required

Recommended: *Mind's Machine*, by Neil V. Watson and S. Marc Breedlove, **any edition**. 5th edition is 978-0197666081. Many used paperback copies should be available, if you remember those. FYI: nearly all test questions come from lecture; use the book with this in mind.

Weekly lecture reviews are a resource for you. These apply to that week's lectures - student TAs will discuss them and answer your questions. The review session immediately after each test will be a test review.

Individual review: You are welcome and indeed encouraged to meet with me or one of the student TAs during office hours to go over difficult concepts and discuss learning strategies. You must help us to help you. The day before the test is too late; make it a regular weekly thing.

Course Content

This course has a strong 'clinical' orientation, as I am a pediatric neurologist. Every lecture will try to include examples from real patients (children and adults) with real neurological disorders. There is a **lot of new vocabulary** we need to learn to talk about the brain and behavior. The course begins with the study of nerve cells: their structure, the propagation of nerve impulses and transfer of information between nerve cells, the effects of drugs (legal and otherwise) on this process. We also examine the overall structure of the nervous system and its development. We will see how sensory systems such as vision, hearing, and motor systems control behavior. Finally, we will study sex, hunger and thirst, language, sleep, mental illness, emotion, learning and memory. In one semester! Whew! Come to class. Wear your seatbelt. Really. Also in your car.

Elearning

Class lecture slides are posted on elearning. No portion of these slides may be sold, retransmitted, reposted, duplicated or otherwise used without the express written approval by me. Announcements will be made from time to time. In event of classroom emergencies, such as lecture cancellations for March Madness, nice golfing weather, or World Cup matches, I will send emails to all in the class.

Assessment

Exams: There will be 3 exams during the course. An optional cumulative final exam will also be offered. The total of the 3 best of these 4 exams will be worth 75% of your final grade. So you see I will drop the lowest of your 4 possible test grades. If you miss a test during the semester, no worries – take the optional final and

replace it. Material covered on the exams will be taken from class lectures. Exams will consist of multiple-choice questions, and no, you can't use AI.

Students who have University-approved academic accommodations will take the exams at the Testing Center. It is imperative that such students make TC reservations at least 3 days before the test.

Weekly Quizzes: On Friday a short 5-question quiz is available from 8AM-10PM on-line via elearning. You may use your notes. The total of the best 10 of these tests counts for 25% of your grade.

400 points is the maximum; (300 exam + 100 quiz)

Final Grade	points		Final Grade	points
A+	387.1		C+	300.1
A	374.1		C	280.1
A-	360.1		C-	240.1
B+	347.1		D	200
B	334.1		F	<200
B-	320.1			

Class attendance: Recall the wisdom of Woody Allen and others: 'Ninety percent of life is just showing up'. Your class participation affects your grade.

Teaching Assistants

For routine questions outside of class, please email the student TAs. They are good sources for reviews of tests, and other appropriate academic help. The student TAs are also the best sources for questions about course content, how to use elearning, the lecture slides, inside information about tests, etc.

The student TAs have taken the approx. same tests as you will be given. And I am available as well, either during office hours or by appt. We are your resource: use us!

NSC 3361 Schedule

Date		Lecture Topic	Class		Friday Quiz
1/21	Week 1	Introduction	1		
1/23		Neuroanatomy – Just the basics	2		Quiz 0, 1
1/28	Week 2	Membrane Properties of Neurons; Action Potential	3		
1/30		Synaptic Transmission (Snap, Crackle, Pop)	4		Quiz 2
2/4	Week 3	Neuropharmacology ('Drugs, Man')	5		
2/6		"	6		Quiz 3
2/13	Week 4	Brain Development (From Little Acorns ...)	7		
2/15		" (... Big Oaks Grow)	8		Quiz 4
2/18	Week 5	Hormones and Sex (XXX)	9		
2/20				Exam 1	
2/25	Week 6	Hunger, Thirst, Homeostasis (Eat, Drink, be Mellow)	10		
2/27		Stress and Aggression (I'm Gonna Hurt You!)	11		Quiz 5
3/4	Week 7	Pain and Touch ('This Might Hurt a Little Bit')	12		
3/6		"	13		Quiz 6
3/13	Week 8	Audition and Language (Listen Up!)	14		
3/15		"	15		Quiz 7
3/25	Week 9	"	16		
3/27		Cognition (Ergo Sum)	17		Quiz 8
4/1	Week 10	Rhythms of the Brain (You are Getting Sleepy...)	18		
4/3				Exam 2	
4/8	Week 11	Vision (You Can See a Lot by Looking)	19		
4/10		"	20		Quiz 9
4/15	Week 12	Motor Control (Why Tiger is Still So Much ...)	21		
4/17		...Better at Golf than You and Me)	22		Quiz 10
4/22	Week 13	Psychopathology (Xtreme Brains)	23		
4/24		"	24		Quiz 11
4/29	Week 14	Learning and Memory (Don't forget. Forget what?)	25		
5/1		"	26		Quiz 12,13
5/6	Week 15	"	27		
5/8				Exam 3	
TBD				Final Exam	

Syllabus may be changed at any time during the course, as needed.

UT Dallas Syllabus Policies and Procedures

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