NSC 3361 Introduction to Neuroscience
Spring 2018 Syllabus

Cristina Wohlgehagen, MD

NSC 3361.003
28152

Monday & Wednesday
4:00pm - 5:15pm
JO 3.908

Office Hours: M*W 3:15-3:50 PM and other times by agreement*
Email cri021000@utdallas.edu *For course-related communication, email should be sent through elearning*

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

1.1 Describe the historical development of neuroscience as a cross-disciplinary science.
1.2 Describe and analyze the contributions of anatomical, physiological, behavioral, pharmacological, developmental, and cell and molecular biological studies to the bases of neuroscience.
1.3 Integrate pathological findings from psychology, psychiatry, physiology, and neurology with basic scientific work in the neurosciences.
2.1 Identify and explain why research questions rather than methods ideally drive advances in the neurosciences.
3.1 Compare textbook, popular and peer-reviewed scholarly reports in the neurosciences.
5.1 Apply neuroscience concepts, theories, and research findings to issues in everyday life.
5.2 Identify appropriate applications of neuroscience knowledge in health, service, education, or business professions.
30.1 Describe basic components of the laws of nature as related to the brain.
30.2 Setup neuroscience problems in feasible and solvable ways.
30.3 Make reasoned arguments about major issues related to the nervous system.

Textbook
Recommended: *The Mind's Machine* 2/e by Watson and Breedlove: ISBN13: 978-1605352763
FYI: nearly all test questions come from lecture; use the book with this in mind. Do not overlook the web site for the textbook: https://2e.mindsmachine.com

Tutoring, Extra help
Supplemental Instruction (SI) is offered for this course. SI sessions are free group study opportunities, scheduled three times per week. Sessions are facilitated by an SI Leader, who has recently taken the course and received a high final grade. Attendance is voluntary. For information about the days, times, and locations for SI sessions, refer to www.utdallas.edu/studentsuccess/leaders/si.html

NSC 3361 Section 001 SI Leader:
Nishi Patel njp150030@utdallas.edu

Individual review: You are welcome to meet with me during office hours to go over difficult concepts and discuss learning strategies.

Course Content
This course has a strong 'clinical' orientation, as I am a neurologist. Lecture will include examples from real patients with real neurological disorders. Class time is intended to supplement book chapters and review more difficult concepts via lecture and other interactive formats (including but not limited to small group sessions). 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, attention, sleep, mental illness, emotion, learning and memory.

Elearning

The syllabus and any course handouts are posted on Elearning. I follow the textbook closely and require it for the class, therefore most slides will not be posted. For class lecture slides and documents that are posted on elearning: No portion of these slides may be sold, retransmitted, reposted, duplicated or otherwise used without the express written approval of the author. Discussion boards and Chat 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 will be made from time to time. In event of classroom emergencies, such as lecture cancellations I will send emails to all in the class.

Assessment
Exams: There will be three exams during the course, plus a cumulative final exam. Each exam will be worth 33.3% of your final grade and will cover the material from the third of the course preceding the exam. Thus, you may drop your lowest exam, even the final if desired. Material covered on the exams will be taken from the assigned readings and mostly from class lectures, as well as any additional material that I may provide. Exams will consist of multiple choice questions. Missed exams may be made up by taking the final. You will need your Comet card and a pencil for each test. We will supply the scantron sheet.

Extra-credit: There will be opportunity for extra credit points added to your final course grade in the form of "pop"-quizzes during class. Scoring 100% on the quiz = 1 point toward your final course grade. 50% = 0.5 points toward your final grade, etc.

Final Grades: A final grade will be submitted: A+: 97-100%, A: 93-96.9%, A-: 90-92.9%, B+:87-89.9%, B: 83-86.9%, B-: 80-82.9%, C+: 74-79.9%, C: 68-73.9%, C-: 60-67.9%, D: 50-59.9%, F < 50.

Class attendance: Your class participation affects your grade.

NSC 3361 Spring 2018 Lecture Schedule

		Lecture Topic	Class	*Mind's Machine*
M 1/8	Week 1	Introduction to the brain	1	Chapter 2
W 1/10			2	Chapter 2
M 1/15	Week 2	Membrane Properties of Neurons; The Action Potential	X	*Holiday*
W 1/17			4	Chapter 3
M 1/22	Week 3	Neuropharmacology	5	Chapter 4
W 1/24			6	Chapter 4
M 1/29	Week 4	Brain Development	7	Chapter 13
W 1/31			8	Chapter 13/Review
M 2/5	Week 5	**Exam 1**	9	
W 2/7		Hormones and Sex	10	Chapter 8
M 2/12	Week 6	Hunger, Thirst, Homeostasis	11	Chapter 9
W 2/14		Emotions, Stress and Aggression	12	Chapter 11
M 2/19	Week 7	Pain and Touch	13	Chapter 5
W 2/21			14	Chapter 5
M 2/26	Week 8	Audition and Language	15	Chapter 6
W 2/28			16	Chapter 15
M 3/5	Week 9		17	Chapter 15/Review
W 3/7		**Exam 2**	18	
M 3/12	Week 10		X	*Spring Break*
M 3/19	Week 11	Visual System	20	Chapter 7
W 3/21			21	Chapter 7
M 3/26	Week 12	Motor control	22	Chapter 5
W 3/28			23	Chapter 5
M 4/2	Week 13	Rhythms of the Brain (Sleep)	24	Chapter 10
W 4/4		Psychopathology	25	Chapter 12
M 4/9	Week 14	Psychopathology	26	Chapter 12
W 4/11		Learning and Memory	27	Chapter 13
M 4/16	Week 15		28	Chapter 13
W 4/18			29	Chapter 13
M 4/23	Week 16	Attention	30	Chapter 14/Review
W 4/25		**Exam 3**	31	
W 5/2		**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.