

NSC 3361.02 Introduction to Neuroscience

Fall
2016

Date	Topic
------	-------

Instructor

Christa McIntyre Rodriguez, Ph.D.

Email: christa.mcintyre@utdallas.edu

Office Hours: Mondays and Wednesdays 4:00-5:00 and by appointment.

Location: BSB 14.102E

Graduate TA

Hye Bin Yoo

Email: hxy140630@utdallas.edu

Course Description

This is an introductory course that explores the basic structure and function of the nervous system. The course includes an overview of neuroanatomy, cellular neuroscience, neuropharmacology, sensory and motor systems, cognitive neuroscience, behavioral neuroscience, and disorders of the nervous system.

Student Learning Objectives/Outcomes

After completing the course, students should be able to:

1. Identify and describe basic neuro-anatomical structures and their major functions
2. Describe the differences between specific types of cells in the nervous system
3. Describe the physiological processes associated with neuronal conduction, and the transfer of information in the nervous system
4. Display a basic understanding of neurochemistry and basic neuropharmacology as it relates to neuronal function and mental disorders
5. Describe the etiology of neurological and psychiatric disorders

Elearning

You may take advantage of Discussion Boards here. Grades will be posted here and Announcements about study sessions, changes to the syllabus, etc., will be made here.

Office of Student Affairs/Student AccessAbility

If you think you may be eligible for accommodations because of a disability, please contact the Office of Student Affairs www.utdallas.edu/studentaccess to make a request.

Textbooks

"The Mind's Machine: Foundations of Brain and Behavior", by Watson and Breedlove.

Available in soft cover, looseleaf, or eBook at www.sinauer.com

Assessment

Exams: Four cumulative exams (33.33% each) will be based on reading material and mostly class lectures. The lowest exam grade will be dropped. Please bring scantron form 229630 or 229634 and sharpened pencils to each exam.

Grading scale: 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.

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 more information about the days, times and locations for SI sessions, refer to www.utdallas.edu/studentsuccess/leaders/si.html.

*
Syllabus is
subjective
to changes.

		MODULE I: Neurophysiology and Neurochemistry
Week 1	8/22	Introduction
	8/24	Basic Neuroanatomy
Week 2	8/29	Cells in the brain
	8/31	Action potential
Week 3	9/5	<i>LABOR DAY – NO CLASS</i>
	9/7	Synaptic transmission
Week 4	9/12	Neurotransmitters and Neuropharmacology
	9/14	Neuroscience Methods
Week 5	9/19	Exam 1
		MODULE II: Sensorimotor Systems
	9/21	Hearing and Language
Week 6	9/26	Hearing and Language
	9/28	Vision and Visual Perception
Week 7	10/3	Vision and Visual Perception
	10/5	Pain
Week 8	10/10	Motor System
	10/12	Motor System
Week 9	10/17	Exam 2
		MODULE III: Higher Cognition
	10/19	Motivation and Regulation of Internal States
Week 10	10/24	Hormones and Sex
	10/26	Emotion
Week 11	10/31	Learning and Memory
	11/2	Drug Addiction
Week 12	11/7	Intelligence
	11/9	Sleep and Consciousness
Week 13	11/14	Exam 3
		MODULE IV: Disorders of the Brain
	11/16	Mental illness
Week 14	11/21	<i>THANKSGIVING WEEK – NO CLASS</i>
	11/23	<i>THANKSGIVING WEEK – NO CLASS</i>
Week 15	11/28	Neurological disorders
	11/30	Neurodevelopmental disorders and aging
Week 16	12/5	Neurodevelopmental disorders and aging
	12/7	Exam 4