BIOL 3700 Neuroscience Spring 2024

Dr. Gannon
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Syllabus

The objective of this course is to provide students with the knowledge of how the brain functions at the cellular level. We will examine how the nervous system operates while completing routine tasks such as maintaining posture or more sophisticated skills such as communicating with language. This course will also introduce students to some of the extremely sophisticated technology used by neuroscientists to explore the functions of the brain. Finally, this course will contrast the function of the nervous system in normal and pathological states in order to demystify the etiology of neurological diseases.

Topics will be divided into four general areas: neural signaling, sensory input, motor output, and modification of neural circuits in complex brain functions. The accompanying lecture schedule provides a more detailedW*nhded into f

Required Non-Discrimination and Title IX Statement:
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The designated Title IX Coordinator for VSU is Ms. Selenseia Holmes. To view the full policy or to report an incident visit: https://www.valdosta.edu/administration/student-affairs/title-ix/

Required Accommodations Statement:
Students with disabilities who are experiencing barriers in this course may contact the Access Office (https://www.valdosta.edu/student/disability/) for assistance in determining and implementing reasonable accommodations. The Access Office is located in University Center Room 4136 Entrance 5. The phone numbers are 229-245-2498 (V), 229-375-
email: access@valdosta.edu. To request reasonable accommodations for pregnancy and childbirth, contact Ms. Myia Miller, Title IX Compliance Officer, at maburden@valdosta.edu

Required Text: *Neuroscience*, by Augustine et al., 7th Edition

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Tentative Lecture Schedule

Date	Topic	*Neuroscience* Augustine et al., 7th Ed Chapter
1/11	Introduction General Anatomy	1, App.
1/16	Neurons and Glia Brain Imaging Techniques	1
1/18	No Class	
1/23	Ionic Generation of Electrical Impulses	2-3
1/25	Channels, Transporters, Synaptic Transmission	4-5
1/30		
2/1	Neurotransmitters, Receptors & 2nd Messengers	6-7
2/6		
2/8	**Exam I**	
2/13	Somatic Sensory System & Pain	12, 13
2/15	Vision	9
2/20		
2/22	Central Visual Pathways	9, 20
2/27	Auditory & Vestibular System	10, 11
2/29		
3/5	Chemical Senses	14,15
3/7	**Exam II (last day to withdraw, grade available in pm)**	
3/19	Spinal Cord & Motor Control	16
3/21	Spinal Cord & Brainstem	16, 17
3/26	Upper Motor Neuron Control of Brainstem & Spinal Cord	17
3/28	Basal Ganglia	18