BIO 365R Spring 2011 VERTEBRATE PHYSIOLOGY

Meeting Time, Place: T, Th 8 – 9:30 am, PAI 3.02
Discussion Sections: Monday
Prerequisite: BIO 325 or 325H with a grade of at least a C or instructor's permission.

Grading: Midterm = 25%, final = 50%, weekly quizzes and homework =20%, class participation = 5%. The midterm and final exam will be 30- 50% multiple choice and 50% - 70% short answer or essay. The regularly-scheduled quizzes on Monday will be short answer or multiple choice and will usually cover assigned reading in textbooks for the lectures to be given that week. Quizzes cover the major points in each chapter. At least two of the lowest quiz or homework grades will be dropped. No make-ups given without permission in advance or written permission from the Dean. The final exam is comprehensive, i.e., it covers material from the entire course. Grading policy: 81-100% = A, 80% = A-, 79% = B+, 71-78% = B, 70% = B-, 69% = C+, 61 – 68% = C, 60% = C-, 59% = D+, 51 – 58% = D, < 50% = F. Please note that, "The University of Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-6441 TTY."

Instructors: George D. Bittner, PAT 321, 923-3735 (cell), 346-4392 (home). Office hours: immediately before and after class or by appointment. bittner@mail.utexas.edu
Research interests: biophysics of synaptic plasticity, nerve regeneration and nerve/glial interactions.

Learning Objectives: Working Knowledge of Molecular, Cellular, Systems, and Behavioral Physiology of Nervous Systems

Required Readings: Textbook: *Neuroscience: Purves et al, 4th Edition;* **Handouts** on Blackboard
Quizzes typically cover material to be covered in class in the next couple of days. Lectures typically cover topics listed for the quiz taken just prior to those lectures. **BRING TEXTBOOK AND HANDOUTS TO CLASS**

Assigned Reading in Textbook
(QUIZZES COVER MATERIAL TO BE COVERED THAT WEEK.)

Week of	Topic	Chapter(s)
	Cellular/Molecular Neuroscience	
Jan 17	Overview of nerve cells and behavior; Membrane potentials	1,2,4 Handout
24	Membrane potentials, Action potentials, Myelin,	3,6 (First Quiz)
31	Synaptic transmission	5 - 7
Feb 7	Synaptic plasticity	8
14	Axonal transport, Nerve regeneration	25, handout
Feb 21	Review	
22	**Midterm in Class**	

Systems/Behavioral Neuroscience

Feb 24	Introduction to Sensory Systems,	
28	Somatosensory, Pain, Vision	9-11, Appendix
Mar 7	Vision	12
14	**SPRING BREAK**	
Mar 21	Development of Neural Circuits	22–25
28	Audition, Vestibular, Chemoreception	13-15
Apr 4	Muscles and their spinal control	16
Apr 11	CNS Motor control	17-20
18	Autonomic, Limbic Systems , Emotions, Gender Issues	21,29,30
25	Sleep, Circadian Rhythms	28
May 2	Language, Intelligence, Memory	26,27,31
May 17	Comprehensive Final Exam, 9am – 12 noon	

All students should arrange to take the final exam at the time and place determined by the Registrar. Any exceptions to be determined at least two weeks prior to the date of the final exam.