BIOS/PSCH/PHIL 485: NEUROSCIENCE II SPRING 2011 MWF 1:00 – 1:50 205 GH

COORDINATOR:

David Wirtshafter Psychology, 2010 BSB 312-413-2631 davew@uic.edu

INSTRUCTORS:

Bioengineering John Hetling jhetli1@uic.edu David Hilbert hilbert@uic.edu Philosophy John Larson jrlarson@uic.edu Psychiatry mlamar@psych.uic.edu Psychiatry Melissa Lamar mikel@uic.edu Psychology Mike Levine little@uic.edu Neurology Deborah Little

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TEACHING ASSISTANT: Mary Clare Kane <u>mkane1@uic.edu</u>

OFFICE HOURS: Students should contact the teaching assistant, coordinator or instructor to arrange for an appointment at a mutually convenient time.

TEXT: Neuroscience 4th Edition, by Purves et al, Sinauer Associates Press 2008.

GOALS AND OBJECTIVES: To explore in depth brains and nervous systems and present current information on how they are studied.

ATTENDANCE:

Attendance is expected at all scheduled lectures; each exam will be based on material discussed in class.

Attendance is required at all scheduled exams, except in cases of illness, mandatory religious obligations or official University activities. To be excused from attending an exam an official medical certificate or an affidavit is required.

Students are able to drop a course without penalty through Friday of the second week of the semester. Late drops are subject to the College of LAS rules (Consult with the College advisor, 996-3366).

GRADING: There will be a total of three exams which will stress material discussed in class. Eighty-five percent of the total points will come from exams (two "hour exams" worth 25% of your grade each, and a comprehensive final worth 35%). The remaining 15% of points will from a poster presentation, tentatively scheduled for 3/18/10. Details of this assignment will be provided in class.

Week/Topic

1.	Somatosensory Sys Thomas Park	stems 1/10/11 1/12/11 1/14/11	Sensory Coding Mechanosensory Function Vertebrate Somatosensory System
2.	Audition Thomas Park	1/19/11 1/21/11	Cochlea Auditory Processing in the CNS
3.	Vision Mike Levine Paul Malchow	1/24/11 1/26/11 1/28/11	Retina I Retina II Retinal Physiology
4.	Vision II / Philosoph Mike Levine	1/31/11 2/2/11	Higher Visual Processing I Higher Visual Processing II
	Dave Hilbert	2/4/11	Philosophy of Perception
5.	Motor Control I A. Don Murphy	2/7/11 2/9/11 2/11/11	The Mechanism of Muscular Contraction Neural Control of Muscle Contraction Spinal Cord Mechanisms
6.	Motor Control II David Wirtshafter	2/14/11 2/16/11 2/18/11	Cortical Control of Movement Cerebellum and Basal Ganglia First Hour Exam
7.	Neuroethology A. Don Murphy	2/21/11 2/23/11 2/25/11	Neuroethology I Neuroethology II Neuroethology III
8.	Smell, Taste, and M David Wirtshafter	Motivation 2/28/11 3/2/11 3/4/11	Chemical Senses I Chemical Senses II Motivated Behaviors

9. Motivation Continued

David Wirtshafter 3/7/11 Ingestive Behavior I
3/9/11 Ingestive Behavior II
3/11/11 Reward/Reinforcement

10. Learning and Memory

Kara Morgan-Short 3/14/11 Neural Basis of Language

3/16/11 Neural Basis of Second Languages

3/18/11 Poster Session

11.

Mitchell Roitman 3/28/11 Limbic System & Learning I

3/30/11 Limbic System & Learning II

4/1/11 Second Hour Exam

12. Neuropsychology / Hormonal Influences

Melissa Lamar 4/4/11 Neuropsychology

Pauline Maki 4/6/11 Estrogen, Cognition & Brain Function

4/8/11 Testosterone Cognition and the Aging Male

13. Theoretical and Human Neuroscience

Deborah Little 4/11/11 Cognitive Neuroscience I
4/13/11 Cognitive Neuroscience II
David Wirtshafter 4/15/11 Interhemispheric Connections

14. Neuroengenering and Philosophical Perspectives on Neuroscience

David Wirtshafter 4/18/11 Interhemispheric Connections II
John Larson 4/20/11 Diseases of the Nervous System
4/22/11 Disorders of Thought & Mood

15. Philosophy and Disturbances of the Human Nervous System

Dave Hilbert 4/25/11 Historical Perspectives on Consciousness

4/27/11 Modern Views of Consciousness

4/29/11 Free Will