BIOS/PSCH/PHIL 485: NEUROSCIENCE II
SPRING 2014
MWF 1:00 – 1:50
210 DH

COORDINATOR:
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INSTRUCTORS:
John Hetling jhetli1@uic.edu Bioengineering
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TEACHING ASSISTANT: George Michael (gmicha3@uic.edu)

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


GOALS AND OBJECTIVES: To explore the functioning of the central nervous system and present
current information on how it is 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
religions 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 3/21/14. Details of this assignment will be provided in class.
1. Somatosensation
   Thomas Park 1/14/14  Sensory Coding
   1/15/14  Mechanosensory Function
   1/17/14  Somatosensory System

2. Audition
   Thomas Park 1/22/14  Cochlea
   1/24/14  Auditory Processing in the CNS

3. Chemical Senses Etc
   David Wirtshafter 1/27/14  Chemical Senses I
   1/29/14  Chemical Senses II
   David Hilbert 1/31/14  Philosophy of Perception

4. Philosophical Perspectives/ Vision I
   David Wirtshafter 2/3/14  Exotic Sense Systems
   Mike Levine 2/5/14  Retina I
   2/7/14  Retina II

5. Vision II
   Paul Malchow 2/10/14  Retinal Physiology
   Mike Levine 2/12/14  Higher Visual Processing I
   2/14/14  Higher Visual Processing II

6. Motor Control I
   David Wirtshafter 2/17/14  Muscle Contraction
   2/19/14  Spinal control of Movement
   2/21/14  First Hour Exam

7. Motor Control II
   David Wirtshafter 2/24/14  Cortical Control of Movement
   2/26/14  Cerebellum
   2/28/14  Basal Ganglia

8. Motivation
   David Wirtshafter 3/3/14  Motivation I
   3/5/14  Motivation II
   3/7/14  Motivation III
9. **Motivation & Language**  
   David Wirtshafter 3/10/14  Reward/Reinforcement  
   Kate Brill-Schuetz 3/12/14  Neural Basis of Language  
   3/14/14  Neural Basis of Second Languages

10. **Commissures**  
    David Wirtshafter 3/17/14  Interhemispheric Connections I  
    3/19/14  Interhemispheric Connections II  
    3/21/14  Poster Session

11. **Hormonal Influences**  
    Pauline Maki 3/31/14  Estrogen, Cognition & Brain Function  
    4/2/14  Testosterone Cognition and the Aging Male  
    4/4/14  Second Hour Exam

12. **Neural Basis of Learning and Memory**  
    David Wirtshafter 4/7/14  Learning and Memory I  
    4/9/14  Learning and Memory II  
    4/11/14  Learning and Memory III

13. **Human Neuroscience**  
    Melissa Lamar 4/14/14  Neuropsychology of Aging  
    John Larson 4/16/14  Diseases of the Nervous System  
    John Hetling 4/18/14  Bioengineering and the Nervous System I

14. **Disturbances of the Human Nervous System**  
    John Hetling 4/21/14  Bioengineering and the Nervous System II  
    John Larson 4/23/14  Disorders of Thought & Mood  
    David Hilbert 4/25/14  Mind and Brain

15. **Philosophical Perspectives on Neuroscience**  
    David Hilbert 4/28/14  Historical Perspectives on Consciousness  
    4/30/14  Modern Views of Consciousness  
    Marya Schechtman 5/2/14  Free Will