SYLLABUS: COGNITIVE NEUROSCIENCE

IB’s Office: HNB 316, Ext. 0-6094, bieder@usc.edu. Email me for appointments.

Time: Class meets: Mon, 2:00-5:50 PM. We will have a 10-min break at the end of each hour. Instead of the 5-5:50 hour we will have individual meetings over the course of the semester.

Room: HNB 120F

Required Text: Gazzaniga, M.S., Ivry, R. B., & Mangun, G. R. (201). Cognitive Neuroscience: The Biology of Mind. Fourth Edition. New York, N.Y.: WWNorton. [ISBN: 978-0-393-91348-4] [GIM]. *Required chapters are preceded by an *. There is a fifth edition that is now out but although it has some new content, the organization and clarity of exposition is wanting so we will use the fourth edition (which should be somewhat less expensive). Journal articles listed on the syllabus are for background edification and will not be explicitly tested. A reading or two might be added during the semester.

Evaluation: Evaluation will be based on two midterms (35% each) and class participation (see below). A large pool of questions will be distributed prior to each exam, a sample of which will compose the exam. There will be a choice on the exam as to what questions need be answered (e.g., 160 points of questions of which only 100 need be answered.) The exams will consist of questions that can be answered in ½ to 1 page in a large page Blue Book (which you are to bring to the exam). Much of exam will consist of questions that will be covered in class lectures/discussions but some will be testing material from the text.

Class Participation (30%): Class comments or questions that serve to illuminate the discussion or informed criticism (but not mere attendance). On the last class (Apr. 22) there will student presentations (~20 min each) in which a topic from the course material is discussed/analyzed with respect to the student's own research or their interest in a particular topic.

Topics: Roughly corresponding to weeks. There will be some reordering/rescheduling of topics and possibilities of additions/subtractions of readings.

   GIM Chapters 1 Brief History. (Skim.)
   GIM Chapter 2 Structure and Function of the Nervous System. (We will not cover the specifics of the molecular biology, e.g., of the cell membrane, ion channels, and neurotransmitters on pp. 28-36 but do understand the general principles).
   GIM Chapter 4. Methods of Cognitive Neuroscience. Rather than discuss methods devoid of substantive issues, we will consider them as they arise in particular domains.
   *GIM Chapter 5. Sensation and Perception.

3. Jan 21nd. No Class. MLK day.


5. Feb 4th. Higher Level Vision II: Gabor filtering, Faces, Subordinate-Level Recognition; Scenes; Prosopagnosia vs. Phonagnosia

   *GIM. Chapter 7. Attention
   GIM. Chapter 8. Action

7. Feb 18th. President’s Day. No class.

   *GIM Chapter 9. Memory.

10. Mar 4. First Midterm (35%)


12. Mar 18th: Emotion
   *GIM. Chapter 10. Emotion.

   *GIM. Chapter 11. Language.

   *GIM. Chapter 12. Cognitive Control.


16. April 15: 2nd Midterm (35%)

17. April 22. (Last Class). Student Presentations (30%, including general class participation).

--------
Students requesting academic accommodations based on a disability are required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP when adequate documentation is filed. Please be sure the letter is delivered to me as early in the semester as possible. Their phone number is (213) 740-0776.