SYLLABUS - Spring, 2010

Topic I: The Structure of the Brain: Neuroanatomy & Neurophysiology
   a. Introduction: intriguing facts about the brain, the alien structure: 1/19
   b. The neuron: morphology, types, ion channels, graded potentials & action potentials; synaptic transmission: 1/21
   c. Structure & functional pathways of CNS: 1/26 thru 1/28
      1. spinal cord-ascending (sensory)/descending (motor) pathways:
         pyramidal tract; brainstem nuclei (medulla, pons, midbrain).
   d. thalamus: sensory gateway to cortex: 2/4

Quiz #1A : 50 pts  Feb 9th

   e. cerebellum: anatomy & functional role in motor control: 2/11 & 2/16
   f. basal ganglia: caudate, putamen, globus pallidus; mechanism of motor control: 2/18
   g. cerebral cortex: anatomy/physiology: 2/23 thru 2/25
      visual/auditory systems
      cortical columns: somatotopic, retinotopic, tonotopic maps
      cortical plasticity
      binding problem

Quiz # 1B:  50 pts March 2nd

Topic II: Language Representation Theories, Historical Roots, Research Methods
   a. Historical background- holist & localizationist philosophies on language representation in the human brain: 3/4
      (i) cortical stimulation, (ii) cortical evoked response,
      (iii) brain imaging: rCBF; PET scans; fMRI

Quiz # 2: 100 pts: March 30th

Topic III: Neuropathology & Language Break downs:
   A. The Aphasiases:
      a. etiology of strokes: 4/1
      b. classical descriptions: Broca's, Wernicke's, Conduction aphasia: 4/1 & 4/6
      c. agrammatism and asyntactic comprehension; 4/8
      d. semantic deficits 4/13
      e. polyglot aphasia, aphasia in the deaf: 4/13

Quiz # 3: 100 pts April 15th
Topic IV: Hemispheric Specialization for Language
   a. anatomical evidence for laterality: 4/20
   b. behavioral experimental techniques to assess lateralization: 4/20
   c. split-brain studies: Sperry’s work; acallosals: 4/22
   d. role of right hemisphere in language/spatial processing: 4/22
   d. animal lateralization studies: 4/27
   e. hemispheric processing of prosody & morphology: 4/27- 5/4

Quiz #4 (last class day): 100 pts: May 6th

Student Evaluation

Grading will be determined by five exams, one per major topic area. Quiz #1 will be given in two parts, worth 50 points each. All exams will be objective, scantron type (multiple choice, T/F), worth 100 points each. Course packet (required) available at Speedway Copy
Final grades will be determined by the total point accumulation from all exams:

   A = 360 to 400 points  C = 280 to 319  F = below 240
   B = 320 to 359          "     D = 240 to 279

Pass/Fail grades: need a D to receive credit (minimum = 240 points )

“The University of Texas provides upon request appropriate accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-6441 TTY”