Introduction to COGNITIVE NEUROSCIENCE

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Psychology
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Text:
Cognition, Brain and Consciousness: An Introduction to Cognitive Neuroscience
Edited by Bernard J. Baars and Nicole M. Gage 2007 Academic Press

Course Requirements:

Participation: Students are expected to attend and participate in class. Participation will count 20% of your grade.

Tests
Midterm--30% of your grade, multiple choice and short answer
Final--50% of your grade multiple choice and short answer

Cognitive Neuroscience is a highly interdisciplinary field focused on the computations of brain tissue that arise in mental states and cognitive processes. It draws basic data and theory from Cognitive Psychology, Neuroscience, Linguistics, and Computational modeling while synthesizing these fields into an integrative field. New tools such as neuroimaging methods, fMRI, EEG etc.. as well as computational models are used to explore and elucidate the nature of the cognition and perceptual processing as they may be implemented in the brain. In this course we will study these basic experimental and theoretical results that define our understanding of brain function and structure as they relate to mental states and cognitive processing.
Class Topics (week of):

01/23: Introduction. no reading
01/28: Brain function and Structure  Chapter 1-2
02/04: Neurons: Units of Computation Chapter 3
02/11: Neuroimaging Tools  Chapter 4
02/18: The Brain  Chapter 5
02/25: Visual Processing  Chapter 6
03/03: Auditory  Chapter 7
03/10: Attention & Consciousness  Chapter 8
03/12: MIDTERM
03/17 SPRING BREAK
03/24 Learning & Memory  Chapter 9
03/31 Thinking & Cognition  Chapter 10
04/07 Language  Chapter 11
04/14 Executive Control & Action  Chapter 12
04/21 Emotion  Chapter 13
04/28 Computational Models  Appendix I
05/05 REVIEW

Date TBA FINAL