

Psychology 260: Cognitive Neuroscience

Fall 2008

Prof. Rebecca Compton
Sharpless 403, x1309
rcompton@haverford.edu
Office hours: Tues-Thurs 2:30-4 or by appt.

Course Description:

Examines the neural basis of higher mental functions, including brain systems supporting vision, object recognition, attention, memory, spatial functions, language, and decision-making. Major themes include mind/brain relationships, localization of function, and plasticity of the brain. Material will include studies of people with focal brain damage as well as neuroimaging studies of neurologically normal people. Cognitive neuroscience approaches to disorders such as autism, schizophrenia, and Alzheimer's disease will also be explored. Prerequisite: one semester of introductory psychology.

Main Text:

Banich, M.T. (2004). *Cognitive Neuroscience and Neuropsychology, 2nd Edition*.
Houghton-Mifflin.

This text is available for purchase at the bookstore.
Additional readings can be downloaded through Blackboard (BB).

Course Requirements:

100 pts midterm exam (October 12)
100 pts final exam (during finals period)
100 pts research paper OR class presentation; paper due Dec. 11
20 pts attendance/participation

Please note: Students who think they may need accommodations in this course because of the impact of a disability are encouraged to meet with me privately early in the semester. Students should also contact Rick Webb, Coordinator, Office of Disabilities Services (rwebb@haverford.edu, 610-896-1290) to verify their eligibility for reasonable accommodations as soon as possible. Early contact will help to avoid unnecessary inconvenience and delays.

Course Schedule

Date	Topic	Reading assignment
Sept. 2	Introduction to course	
Sept. 4	History & methods	Banich Ch. 3
Sept. 9	Anatomy review	Banich Ch.1, 2 (skim)
Sept. 11	Vision- From retina to cortex	Kolb & Wishaw (BB)
Sept. 16	Vision- Color perception	Snowden (BB)
Sept. 18	Vision- Object recognition	Banich Ch. 6 (pp. 185-198); Sacks (BB)
Sept. 23	Vision- Face recognition	Banich Ch. 6 (pp. 199-215)
Sept. 25	Vision- Spatial aspects	Banich Ch. 7
Sept. 30	Auditory perception	Gazzaniga (BB); Banich pp. 215-217
Oct. 2	Midterm Exam (take-home in lieu of class; self-scheduled between Oct. 2 and 6)	
Oct. 7	Auditory & multimodal perception	
Oct. 9	Plasticity in sensory systems	Draganski (BB); Elbert (BB)

FALL BREAK

Oct. 21	Hemispheric specialization	Banich Ch. 4; Ogden, Ch. 18 (BB)
Oct. 23	Language- Speech and Comprehension	Banich Ch. 9 (pp. 286-301); Ogden Ch. 5 (BB)
Oct. 28	Language- Reading and Writing	Banich Ch. 9 (pp. 301-320)
Oct. 30	Memory	Ogden Ch. 3 (BB) Banich Ch. 10 (pp. 323-342)
Nov. 4	Memory	Banich Ch. 10 (pp. 342-362)
Nov. 6	Attention	Banich Ch. 8
Nov. 11	Attention; Guest lecture: Dr. Ken Nakayama, Harvard	TBA
Nov. 13	Motor functions	Banich Ch. 5
Nov. 18	Motor functions	
Nov. 20	Executive functions	Banich Ch. 11
Nov. 25	Executive functions	Ogden Ch. 9 excerpts (BB)
Nov. 27	THANKSGIVING	
Dec. 2	Development and its disorders	Banich Ch 13 (pp. 431-457)
Dec. 4	Aging & degenerative disorders	Banich pp. 470-474; 485-506
Dec. 9	Psychiatric disorders	
Dec. 11	Wrap up course	Final paper due in class

Final exam: self-scheduled during finals period.