

307 Human Neuropsychology – Fall 2005

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*** Tuesdays and Thursdays 8:30 - 9:50 a.m. AL 211 ***

Teaching Assistant t.b.a.

Course Web Page: http://www.arts.uwaterloo.ca/~jdanker/hum_npsy/hnpsy_index.htm

Lecture slides are available in powerpoint (large files to download), html (to read on-line) and in pdf notes form (these are also large but can be downloaded prior to class)

Course Description and Aims

This course will provide you with a broad understanding of methods in human neuropsychological research including functional imaging and group and single case lesion studies, as a means of providing a broad understanding of human neuropsychology. Both basic research and clinical examples will be used to explore the brain - behaviour relationships inherent in motor control, language, vision and attention, memory, emotion and executive control. The course will be run in three separate sections with each section examined in class (exams will not be cumulative).

Assessment

Each section's exam will be a mixture of multiple choice, fill-in-the-blanks diagrams and short answer questions. Each exam will be worth 25% of the final grade (total of 75%).

The final 25% will be in the form of a written assignment. The assignment will require you to find a newspaper article (an on-line article is fine) that deals with a topic related to human neuropsychology (there is no shortage of these – look for key words such as 'stroke', 'Alzheimer's Disease', 'epilepsy', 'memory', 'rehabilitation', 'researchers', and anything 'brain' related). You will then be required to write a two page (one and half spaced minimum) critique of that article in terms of how well it represented the topic of interest. This will necessitate reading the original source material (e.g., journal articles) that formed the basis of the newspaper article. The article you critique should be submitted with your write-up.

Due date for the assignment is November 17th.

Course Text

Banich, M. T. *Cognitive Neuroscience and Neuropsychology*, (2003) Houghton Mifflin Co. New York.

Course Outline

Section 1

Sep 13th Lecture 1 Introduction to Human Neuropsychology
Sep 15th Lecture 2 History of Neuropsychology (no reading)
Sep 20th Lecture 3 Basic Neuroanatomy (Banich Ch 1)
Sep 22nd & 27th Lecture 4 and 5 Methods in Human Neuropsychology (Banich Ch 2)
Sep 29th & Oct 4th Lecture 6 and 7 Hemispheric Specialization (Banich Ch 3)

***** Section 1 exam – Oct 6th *****

Section 2

Oct 11th Lecture 8 Neural Basis of Motor Control (Banich Ch 4)
Oct 13th Lecture 9 Disorders of Motor Control (Banich Ch 4)
Oct 18th Lecture 10 Visual Perception - from eye to brain (no reading)
Oct 20th Lecture 11 What vs. How - Perception vs. Action
Oct 25th Lecture 12 Object Recognition and Visual Agnosia (Banich Ch 5)
Oct 27th Lecture 13 Spatial Processing and Optic Ataxia (Banich Ch 6)
Nov 1st Lecture 14 Attention (Banich Ch 7)
Nov 3rd Lecture 15 Unilateral Neglect

***** Section 2 exam – Nov 8th *****

Section 3

Nov 10th Lecture 16 Language and Aphasia (Banich Ch 8)
Nov 15th & 17th Lecture 17 and 18 Memory and Amnesia (Banich Ch 9)
Nov 22nd Lecture 19 Neural Basis of Emotion (Banich Ch 11)
Nov 24th Lecture 20 The Frontal Lobes and Executive Function (Banich Ch 10)
Nov 29th Lecture 21 Psychoses and Dementias (Banich Ch 14)

***** Section 3 exam – Dec 1st *****