

## Department of Psychology Human Neuropsychology

## Psychology 479 (Winter 2007)

Instructor: Dr. R. S. Sainsbury E-mail: sainsbur@ucalgary.ca

Lecture Day/Time: MWF-0900-0950 Room KNBO128

THIS COURSE EXAMINES THE COGNTIVE DEFICITS ASSOCIATED WITH BRAIN DAMAGE IN HUMANS. THERE IS A STRONG EMPHASIS ON NEUROANATOMY

#### **University of Calgary Curriculum Objectives:**

The lectures are designed to maximize student participation. This includes exercising in critical and creative thinking. All exams are in essay format which will provide experience in written communication.

#### **Texts:**

Kolb, B & Wishaw I. Fundamentals of Human Neuropsychology (5<sup>h</sup> ed.). Freeman.

Pinel and Edwards (1998). A Colorful Introduction to the Anatomy of the Human Brain. Allyn & Bacon.

Vanderwolf and Cooly (1990). The Sheep Brain: A photographic series. A.J. Kirby C.

**Tests:** One Midterm 25% Time TBA

One Final 50% (scheduled by Registrar's Office)

Labs 25%

#### **Course Outline:**

- A. Introduction and Basic Anatomy
- B. Assessment of Cognitive Deficits in the Brain-Injured Patient (Overview)
  - I. The Nature of Neuropsychological Deficits
  - II. Localized vs. Nonspecific Deficits
  - III. Lateralizing and Localizing Signs and Deficits
  - IV. Left Parietal Lobe Disorders
  - V. Symptoms of Right Hemisphere Disorder
  - VI. Frontal lobe Signs
  - VII. Amnesic Syndromes
  - VIII. Agnosias
  - IX. Tests
- C. Developmental Neuropsychology
  - I. Protoreptilian Brain

- II. Paleomammalian Brain
- III. Neomammalian Brain
- IV. Implications of the Triune Concept of Brain Development
- V. Developmental Neurology
- VI. Abnormal Neuropsychological Development

#### D. Frontal Lobes

- I. The Orbitofrontal Cortex and Emotion
- II. Psychiatric Surgery
- III. Major Motor and Processing Deficits of Frontal Lobe Damage in Man and Animals

#### E. Parietooccipital Lobes

- I. Constructional Apraxia
- II. Asferognosia
- III. Finger Agnosia
- IV. Spatial Agnosia
- V. Visual Agnosias
- VI. Agraphia

### F. Temporal Lobes

- I. Integration of Temporal Lobe with Other Association Areas
- II. Temporal Lobe Epilepsy
- III. Motor Sensory Function
- IV. Temporal Lobes and Emotion

#### G. Cerebral Dominance

- I. Embryogeny of Left-Right Differences
- II. Survey of CNS Anatomical Asymmetries in Animals and Man
- III. Left-Right Asymmetries in Primates
- IV. Functional Asymmetries in Man

#### H. Disorders of Learning and Memory

- I. The Temporal Lobe Syndrome
- II. Cerebral Anoxia
- III. Senility
- IV. ECT
- V. The Animal Model of Memory

#### I. Long-term Effects of Cerebral Lesions

- (a) Focal Brain Injury
  - I. Language Disorders
  - II. Motor Disorders
  - III. Visual-perceptual Deficits
  - IV. Memory Disorders
  - V. Sensory Deficits and Complex Motor Tasks
- (b) Diffuse Brain Damage

#### **Reappraisal of Grades**

A student who feels that a piece of graded term work (term paper, essay, test, etc.) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor within fifteen days of being notified about the mark or of the item's return to the class. If not satisfied, the student shall immediately take the matter to the Head of the department offering the course, who will arrange for a reassessment of the work within the next fifteen days. The reappraisal of term work may cause the grade to be raised, lowered, or to remain the same.

If the student is not satisfied with the decision and wishes to appeal, the student shall address a letter of appeal to the Dean of the faculty offering the course within fifteen days of the unfavourable decision. In the letter, the student must clearly and fully state the decision being appealed, the grounds for appeal, and the remedies being sought, along with any special circumstances that warrant an appeal of the reappraisal. The student should include as much written documentation as possible.

#### Plagiarism and Other Academic Misconduct

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. Consequently, plagiarism or cheating on any assignment is regarded as an extremely serious academic offense. Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Students should examine sections of the University Calendar that present a Statement of Intellectual honesty and definitions and penalties associated with Plagiarism/Cheating/Other Academic Misconduct.

#### **Academic Accommodation**

It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and **have not** registered with the Disability Resource Centre, please contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

#### **Absence From A Test**

Make-up exams are NOT an option without an official University medical excuse (see the University Calendar). You must contact the instructor <u>before</u> the scheduled examination or you will have forfeited any right to make up the exam. At the instructor's discretion, a make-up exam may differ significantly (in form and/or content) from a regularly scheduled exam. Except in extenuating circumstances (documented by an official University medical excuse), a makeup exam is written within two (2) weeks of the missed exam.

A completed Physician/Counselor Statement will be required to confirm absence from a test for health reasons. The student will be required to pay any cost associated with the Physician Counselor Statement.

## **Student Organizations**

Psychology students may wish to join the Psychology Undergraduate Students' Association (PSYCHS). They are located in the Administration building, room 170 or may be contacted at 220-5567.

Student Union VP Academic: Phone: 220-3911 <a href="mailto:suvpaca@ucalgary.ca">suvpaca@ucalgary.ca</a>

Student Union Faculty Rep.: Phone: 220-3913 <u>socialscirep@su.ucalgary.ca</u>

# **Important Dates**

The last day to drop this course and **still receive a fee refund** is January 19, 2007. The last day to withdraw from this course is April 13, 2007.