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University of Toronto at Scarborough College Division of Life Sciences

# Clinical Neuropsychology

## PSYC32 (Laboratory)

PsyC32 Lecture: Tuesdays, 5-7 PM, SW 128 Laboratory: Tuesdays, 7 to 8 pm, SW128 Instructor: Dr. Paul Comper <u>Paul.comper@utoronto.ca</u> Office Hours: Tuesday 3:00-4:45pm (or by appointment) Office Location:PL103, #1 Clinical Psychology Laboratory Teaching Assistants/Lab Instructors: Stephanie Bass: <u>Stephanie.bass@utoronto.ca</u> Sarah Uzzaman: <u>Sarah.uzzaman@utoronto.ca</u>

## **Brief Description of Clinical Neuropsychology:**

**Neuropsychology** is the research discipline that seeks to understand brain and behavior relationships through the study of both healthy and damaged central nervous systems. It seeks to identify the biological substrates of behaviors, from creative genius to mental illness, which account for intellectual processes as well as personality.

**Clinical Neuropsychology** is an *applied science* that is concerned with the behavioural expression of brain dysfunction (Lezak et al., 2004). The clinical neuropsychologist uses

standardized tests to tie the biological and behavioral aspects together. Inferences are made on the basis of accumulated research. Overall, the clinical neuropsychologist interprets every aspect of the examination (both quantitative and qualitative components) to ascertain the relative cognitive strengths and weaknesses that a patient with suspected or known neuropathology. Findings from a neuropsychological examination can be used to make diagnoses, inform rehabilitation strategies, and direct various aspects of patient care.

In the laboratory component of this course you will learn how to administer, score and interpret a wide variety of neuropsychological 'tests' and measures. By the end of this term, each student should be capable of performing the psychometry for a complete neuropsychological evaluation competently.

## **Important Notes:**

- A. All course related inquiries are to be directed to the Teaching Assistants course e-Mail addresses as provided on the first page (stephanie.bass@utoronto.ca; sarah.uzzaman@utoronto.ca).
- B. Every enrolled student must ensure that they have access to the course website via the UTSC intranet. All course related content will be posted here (e.g., lecture slides, important announcements, and midterm grades). The only format that will be used for all posted documents is Adobe PDF. Free reading software is available at <u>www.adobe.com</u>.
- C. Students enrolled in PSYC32 are also required to be enrolled in the Behavioural Disorders Stream of the Co-op Program in Psychology and its Applications. The only exclusion for this course is PSYC31.

## **Textbooks/Readings:**

Lezak, M.D., Howieson, D.B., & Loring, D.W. (2004). Neuropsychological assessment (4<sup>th</sup> Edition). New York: Oxford University Press.

\*Available in the UTSC Bookstore.

Strauss, E., Sherman, E. & Spreen, O. (2006). A compendium of neuropsychological tests: Administration, norms and commentary (3rd ed.). Oxford University Press.

\*This book may be purchased at Amazon.ca

Various other readings and handouts will be made available by the lab instructors.

## **Grading Scheme:**

## 1. Lecture Component: - Worth 70% of your final grade

1st Midterm

Administered in class on February 2, 2010 Will consist of 50 multiple choice questions Worth 20% of your final grade

2nd Midterm

Administered in class March 9, 2010 Non-cumulative Will consist of 50 multiple choice questions Worth 20% of your final grade

#### Final Exam

Held during UTSC final examination period Non-cumulative (but representative of entire course learning) Will consist of 50 multiple choice questions Worth 30% of your final grade

## 2. Laboratory Component - Worth 30% of your final grade

Lab take home test Due January 26, 2010 Will consist of short answer and practical (scoring related) questions from lab-assigned readings Worth 5% of your final grade

<u>Presentation - Administration/scoring of neuropsychological tests</u> Dates to be determined in class by the lab instructors and will be added to the presentation schedule (please see last section of syllabus for schedule) Worth 5% of your final grade

<u>Final In-vivo Examination</u> (1 hour) Date to be determined in class (usually prior to OTSC final exam period) Will involve in-vivo testing (~30 min) and scoring/behavioural observation summaries (~30 minutes) Worth 20% of your final grade

## Laboratory Schedule:

#### January 5

Lab 1

Topic: Neuropsychological Evaluation and & History Taking Readings: Lezak, Chapter 5

#### January 12

Lab 2

Topic: Scoring Procedures Readings: Provided in lab

#### January 19

Lab 3

Topic: Attention & Working Memory; Perception
Tests: Digit Span, Judgment of Line Orientation, Visual Form Discrimination, Face Discrimination
Note: Take Home test handed out. This test covers assigned readings, lecture notes and scoring procedures

#### January 26

Lab 4

**Topic: Verbal Memory** 

Tests: California Verbal Learning Test-III; Wechsler Memory Scale-III (WMS-III) Story Recall Note: Take Home Test due today

#### February 2

Midterm Test #1 - No Lab today

#### February 9

Lab 5

Topic: Visual Memory Tests: Rey Complex Figure Test, WMS Faces

#### February 16

Reading Week - No Lab today

#### February 23

Lab 6

Topic: Language Tests: Boston Naming Test; Controlled Oral Word Association Test

### March 2

Lab 7 Topic: Construction Tests: Rey Complex Figure Test; WASI Block Design

#### March 9

Midterm Test #2 - No Lab Today

#### March 16

Lab 8

Topic: Executive Function Tests: Wisconsin Card Sorting Test; Trail Making Test

#### March 23

#### Lab 9

Topic: Motor Performance Tests: Grooved Pegboard, Finger Tapping Test, Grip Strength Test

#### March 30

Lab 10

Topic: Intelligence Tests: Wechsler Abbreviated Scale of Intelligence (WASI)

#### Final In-Vivo Exam: Date TBA in lab

## **Presentation Schedule**

Date	Tests	Presenter (s)
January 19	<ul> <li>Attention &amp; Working Memory</li> <li>Digit Span</li> <li>Judgment of Line Orientation Test</li> <li>Visual Form Discrimination</li> <li>Face Discrimination</li> </ul>	
January 26	<ul> <li>Verbal Memory</li> <li>California Verbal Learning Test - II</li> <li>WMS-III Story Recall (Logical Memory)</li> </ul>	
February 9	<ul> <li>Visual Memory</li> <li>Rey Complex Figure</li> <li>WMS-III Faces</li> </ul>	
February 23	<ul> <li>Language</li> <li>Boston Naming Test</li> <li>Controlled Oral Word Association Test</li> </ul>	
March 2	<ul> <li>Construction</li> <li>Rey Complex Figure Test</li> <li>Block Design subtest of the WASI</li> </ul>	
March 16	<ul><li>Executive Functions</li><li>Wisconsin Card Sorting Test</li><li>Trail Making Test</li></ul>	
March 23	Motor Performance <ul> <li>Grooved Pegboard Test</li> <li>Finger Tapping Test</li> <li>Grip Strength</li> </ul>	
March 30	Intelligence Wechsler Abbreviated Scale of Intelligence (WASI) • Vocabulary • Similarities • Matrix Reasoning • Block Design	