

# University of Toronto at Scarborough Department of Psychology



# CLINICAL NEUROPSYCHOLOG PSYC32



Zakzanis

Lab Instructor: Eliyas

Jeffay

Course Code: PSYC32H3

Course Instructor:

Lecture: Tuesdays, 5 to 7 pm,

SW128

Laboratory: Tuesdays, 7 to 8 pm,

BV361

Course E-mail:

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# 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 to administer, score and interpret a wide variety of neuropsychological measures. By the end of the term, each student should be capable of performing the psychometry for a complete neuropsychological evaluation with competency and ease.

## Important Notes

- A. All lab related inquiries are to be directed to the course e-mail address as provided on the first page (eliyas.ieffay@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).
- C. Students enrolled in PSYC32 also need 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**

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

\*This is the same book that was used last year.

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

\*The Strauss et al. text can be purchased at Amazon.ca but pertinent pages will be photocopied/provided.

### **Grading Scheme**

#### Lecture Component – Worth 70% of your final grade

#### 1st Midterm

Administered in-class (February 7)
Will consist of 60 multiple-choice questions
Worth 20% of your final grade

#### 2<sup>nd</sup> Midterm

Administered in-class (March 13)
Non-Cumulative
Will consist of 60 multiple-choice questions
Worth 20% of your final grade

#### Final Exam

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

#### Laboratory Component – Worth 30% of your final grade

Laboratory Take-home Test Due on January 31, 2012 Will consist of short-answer and practical (scoring) questions from Strauss et al. and Mitrushina et al.

Worth 5% of your final grade

Presentation – Administration/scoring of neuropsychological tests

Dates to be determined in class and will be added to presentation schedule (please see last section of syllabus for schedule)

Worth 5% of your final grade

Final In-vivo Examination (1 hour)

Date to be determined in class (usually prior to UTSC final examination period)

Will involve in-vivo testing (~30 min) and scoring/behavioural observation summaries (~30 min)

Worth 20% of your final grade

#### LABORATORY SCHEDULE

#### January 10

Laboratory 1

Topic: Neuropsychological Evaluation & History Taking

Assigned Lab Readings: Chapters 1-5 from Strauss et al., 2006

#### January 17

Laboratory 2

Topic: Scoring Procedures

**Practice Questions** 

Assigned Lab Readings: Chapters 1-3 from Mitrushina – readings will

be posted on the intranet

#### January 24

Laboratory 3

Topic: Attention & Working Memory; Perception

Tests: Digit Span, Judgment of Line Orientation, Visual Form

Discrimination, Face Discrimination Test

Take-home test handed out – covers assigned readings, lecture

notes, and scoring procedures

#### January 31

Laboratory 4

Topic: Verbal Memory

Tests: California Verbal Learning Test-II; Wechsler Memory Scale-III (WMS-III) Story Recall

Take-home test due today

February 7

Midterm #1 – No Lab Today

February 14

Laboratory 5

Topic: Visual Memory

Tests: Rey-Osterreith Complex Figure Test, WMS-III Faces

February 21

No Lab Today (Reading week).

February 28

Laboratory 6

Topic: Language

Tests: Boston Naming Test, Controlled Oral Word Association Test

March 6

Laboratory 7

Topic: Construction

Tests: Rey-Osterreith Complex Figure Test (again!); WASI Block

Design

March 13

Midterm #2 – No Lab Today

March 20

Laboratory 8

Topic: Executive Function

Tests: Wisconsin Card Sorting Test, Trail Making Test

March 27

Laboratory 9

Topic: Motor Performance

Tests: Grooved Pegboard, Finger Tapping Test, Grip Strength Test

April 3

Laboratory 10

Topic: Intelligence

Tests: Wechsler Abbreviated Scale of Intelligence (WASI)\*

\*Note: The Block Design subtest of the WASI will have already been covered during Lab #7 (Construction)

# Final In-Vivo Exam: Date(s) to be announced in lab

# PRESENTATION SCHEDULE

| Date        | Tests  | Presenter(s) |
|-------------|--|--------------|
| January 24  | ATTENTION & WM; PERCEPTION  Digit Span  Judgment of Line Orientation Test  Visual Form Discrimination  Face Discrimination           | Eliyas       |
| January 31  | <ul> <li>VERBAL MEMORY</li> <li>California Verbal<br/>Learning Test-II</li> <li>WMS-III Story Recall<br/>(Logical Memory)</li> </ul> |              |
| February 14 | <ul><li>VISUAL MEMORY</li><li>Rey-O Complex Figure Test</li><li>WMS-III Faces</li></ul>  |              |
| February 28 | <ul><li>LANGUAGE</li><li>Boston Naming Test</li><li>Controlled Oral Word<br/>Association Test</li></ul>                              |              |
| March 6     | CONSTRUCTION • Rey-O Complex Figure  |              |

|          | Test • Block Design (WASI)  |  |
|----------|---|--|
| March 20 | EXECUTIVE FUNCTIONS     Wisconsin Card Sorting     Test     Trail Making Test   |  |
| March 27 | MOTOR PERFORMANCE  • Grooved Pegboard  • Finger Tapping Test + Grip Strength  |  |
| April 3  | INTELLIGENCE Wechsler Abbreviated Scale of Intelligence • Vocabulary • Similarities • Matrix Reasoning • (Block Design – already covered) |  |