



UNIVERSITY OF  
**TORONTO**  
SCARBOROUGH

DEPARTMENT OF PSYCHOLOGY



# Clinical Neuropsychology

PSYC31H3

Tuesdays 5-7 PM, SW 143

Professor Konstantine Zakzanis

Office Hours: by appointment

Teaching Assistant:

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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 this course we will comprehensively explore the science and practice of clinical neuropsychology.

### Important Notes

- A. All course related inquiries are to be directed to the Teaching Assistant course E-Mail addresses as provided on the first page.
- B. Every enrolled student must ensure that they have access to the course website via the UTSC BLACKBOARD. All course related content will be posted here (e.g., lecture slides, important announcements, and midterm grades).
- C. All students need to ensure that they have the necessary prerequisites for this course. If this course is taken without having completed the prerequisites, the registrar will not allow you credit for this course at the time of graduation. This can jeopardize the completion of your degree.
- D. The prerequisites are Psychological Research Methods (PSYB01H), Abnormal Psychology (PSYB32H), Human Brain & Behaviour (PSYB65H), and any of the following statistics courses: PSYB07H, SOCB06H, STAB22H. The only exclusion for this course is PSYC32H, which is reserved for co-op students in the Behavioural Disorders Stream.
- E. If a lecture is cancelled because of an unforeseen circumstance (e.g., snow-storm cancellation, unexpected illness), students are still responsible for the material that was to be presented in the lecture that day. I will do what I can to cover the missed material the following week as time permits.
- F. If a student is absent from a midterm examination due to illness or other extenuating circumstance, they must contact the Teaching Assistant via the course e-mail addresses as soon as possible. For medical reasons, students must use the University of Toronto Student Medical certificate. Matters concerning the final examination are dealt with solely by the Registrar's office. Any medical documentation that you provide must indicate the date(s) that you needed to

be excused from coursework, which must include the date of mid term exam that you missed. You are advised to see your physician within one day of a missed examination. Only documentation from a member registered with the College of Physicians and Surgeons of Ontario will be accepted. You must contact your Teaching Assistant within one week of a missed exam (or as soon as is reasonably possible).

The University of Toronto's *Verification of Student Illness or Injury* form is located at the following web address:

[http://www.utsc.utoronto.ca/~registrar/resources/pdf\\_general/UTSCmedicalcertificate.pdf](http://www.utsc.utoronto.ca/~registrar/resources/pdf_general/UTSCmedicalcertificate.pdf)

G. Make-up midterm examination details will be listed on BLACKBOARD.

H. For all examinations, you must bring your UTSC student ID cards. You are also encouraged to bring a pencil and eraser to allow for making answer changes.

I. Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services Office as soon as possible. We will work with you and AccessAbility Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. The UTSC AccessAbility Services staff (located in S302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations (416) 287-7560 or [ability@utsc.utoronto.ca](mailto:ability@utsc.utoronto.ca).

J. For reasons of privacy as well as protection of copyright, unauthorized video or audio recording in classrooms is prohibited. This is outlined in the Provost's guidelines on *Appropriate Use of Information and Communication Technology*. Note, however, that these guidelines include the provision that students may obtain consent to record lectures and, "in the case of private use by students with disabilities, the instructor's consent must not be unreasonably withheld."

K. Grade Scales and Meaning of Grades

NUMERICAL MARKS	LETTER GRADE	GRADE POINT VALUE
90 - 100%	A+	4.0
85 - 89%	A	4.0
80 - 84%	A-	3.7
77 - 79%	B+	3.3
73 - 76%	B	3.0
70 - 72%	B-	2.7
67 - 69%	C+	2.3
63 - 66%	C	2.0
60 - 62%	C-	1.7
57 - 59%	D+	1.3
53 - 56%	D	1.0
50 - 52%	D-	0.7
0 - 49%	F	0.0

L. Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's *Code of Behaviour on Academic Matters* (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

**In papers and assignments:**

- Using someone else's ideas or words without appropriate acknowledgement.
- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Obtaining or providing unauthorized assistance on any assignment.

**On tests and exams:**

- Using or possessing unauthorized aids.
- Looking at someone else's answers during an exam or test.
- Misrepresenting your identity.

**In academic work:**

- Falsifying institutional documents or grades.
- Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (see <http://www.utoronto.ca/academicintegrity/>).

## Readings

Lezak, M.D., Howieson, D.B., & Bigler, E. D., & Tranel, D. (2012). *Neuropsychological Assessment* (5<sup>th</sup> Edition). New York: Oxford University Press.

## Grading Scheme

Your grade will be determined by three examinations and one paper assignment.  
All exams are multiple-choice in format.

### 1<sup>st</sup> Midterm

- Administered in-class (February 3)
- Will consist of 60 multiple-choice questions
- Worth 30% of your final grade

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

- Administered in-class (March 10)
- Non-Cumulative
- Will consist of 60 multiple-choice questions
- Worth 30% of your final grade

### Final Exam

- UTSC final examination period
- Cumulative (but representative of entire course learning)
- Will consist of 60 multiple-choice questions
- Worth 30% of your final grade

### Paper Assignment

- Worth 10% of your final grade

For this assignment, students will be presented with a Clinical Case demonstration that will unfold throughout the academic term in class. You will be provided with brief background information, referral documentation from the family physician, and neuropsychological test score data. In addition, you will be provided with weekly in-class demonstrations which will reflect the patient's disease/disorder. Your assignment will require you to write up your diagnostic impression and treatment recommendations for the fictitious patient. You will be expected to outline a clinical diagnosis and why you have made it. For example, you should speak to what symptoms were evident and how they fit into the clinical diagnosis you come up with (e.g., behavioral observations, test findings; behavioral relationship to brain and disorder) and moreover, what other clinical diagnoses you ruled out and why (i.e., state your differential diagnosis if there is one to make, and select your clinical diagnosis and state why). The maximum length of this assignment is ONE page, double spaced using 12 point font - anything longer and you will be given a grade of 0% on this assignment. All submissions will go through blackboard.

**This assignment will be worth 10% of your final grade in the course and is due exactly 5 days after the last lecture.**

## Important Dates

Monday, January 5	Classes begin in S courses and resume in Y courses.
Sunday, January 11	Last day for students writing deferred examinations in April to adjust their current course load (on ROSI only).
Sunday, January 18	Last day to add S courses (on ROSI only).
Friday, February 13	Last day to confirm intention to graduate at the 2015 Spring Convocation.
Monday, February 16	Last day to drop Y courses (on ROSI only) without academic penalty and have them removed from the transcript.
Monday, February 16	Last day to add or remove the CR/NCR mode of assessment for an Y section course (on ROSI only). (Note: For details go to <a href="http://www.utsc.utoronto.ca/registrar">www.utsc.utoronto.ca/registrar</a> )
Monday, February 16	Family Day holiday -> University closed.
Tuesday, February 17 - Saturday, February 21	Reading Week -> No classes held.
Monday, February 23	Classes resume in S and Y courses.
Sunday, March 22	Last day to drop S courses without academic penalty and have them removed from the transcript (on ROSI only).
Sunday, March 22	Last day to add or remove the CR/NCR mode of assessment for an S section course (on ROSI only). (Note: For details go to <a href="http://www.utsc.utoronto.ca/registrar">www.utsc.utoronto.ca/registrar</a> )
Friday, April 3	Good Friday – University Closed
Monday, April 6	UTSC Friday: Last day of classes and last day for submission of term assignments in S and Y courses that normally meet on a Friday.
Tuesday, April 7 - Thursday, April 9	Study Break.
Tuesday, April 7 – Saturday, April 25	2014 Fall deferred examinations
Thursday, April 9	Last day to drop UTSC S and Y courses (on eService only) and have them remain on the transcript with a grade of LWD indicating withdrawal without academic penalty. After this date grades are assigned whether or not course work is completed (with a '0' assigned for Incomplete work) and they are calculated into GPAs. <b>(Note:</b> See <a href="http://www.utsc.utoronto.ca/registrar">www.utsc.utoronto.ca/registrar</a> for LWD dates for courses on other campuses.)
Friday, April 10 - Saturday, April 25	Final examinations in S and Y courses.
June TBA	2015 Spring Convocation. Check "Ceremony Dates" at <a href="http://www.convocation.utoronto.ca/">www.convocation.utoronto.ca/</a> for the date of the UTSC ceremonies.

# Lecture Dates and Readings

January 6

Lecture:

Welcome & Introduction

*History, Theory and Practice of Neuropsychological Assessment*

Chapter 1

January 13

Lecture:

*Basic Concepts*

Chapter 2

Demonstration:

*The Neuropsychological Examination: Procedures*

Chapter 5

January 20

Lecture:

*The Behavioural Geography of the Brain*

Chapter 3

Demonstration:

*Orientation and Attention*

Chapter 9

## Lecture Dates and Readings (continued)

January 27

Lecture:

*The Rationale of Deficit Management*

Chapter 4

Demonstration:

*Perception*

Chapter 10

February 3

First Mid-Term Examination

The examination will cover chapters 1, 2, 3, 4, 5, 9 & 10

February 10

Lecture:

*The Neuropsychological Examination: Interpretation*

Chapter 6

Demonstration:

Memory I: Tests

Chapter 11

February 17

No class (Reading week)

February 24

Lecture:

*Neuropathology for Neuropsychologists*

Chapter 7

Demonstration:

*Verbal Functions and Language Skills*

Chapter 13

March 3

Lecture:

*Neuropathology for Neuropsychologists, Continued*

Chapter 7

Demonstration:

*Construction*

Chapter 14



## Lecture Dates and Readings (continued)

March 10

Second Mid-Term Examination

The examination will cover chapters 6, 7, 11, 12 & 14

The examination is non-cumulative

March 17

Lecture:

*Neurobehavioral Variables and Diagnostic Issues*

Chapter 8

Demonstration:

*Concept Formation and Reasoning*

Chapter 15

March 24

Lecture:

*Neurobehavioral Variables and Diagnostic Issues Continued*

Chapter 8

Demonstration:

*Executive Functions and Motor Performance*

Chapter 16

March 31

Demonstration:

*Testing for Response Bias and Incomplete Effort*

Chapter 20

Overall Review of the Neuropsychological Examination

### End of the Term

The final examination will be scheduled by the registrar's office approximately midway through the term. Details will be provided in class and on the intranet once known. The final examination will cover Chapters 8, 15, 16, and 20 and is cumulative although do note that the exam questions will be most representative chapters 8, 15, 16, and 20.