

# Tomorrow is created here.

# HUMAN BRAIN & BEHAVIOUR





AN INTRODUCTION TO HUMAN NEUROPSYCHOLOGY

Instructor Zachariah Campbell Teaching Assistants Laurie Hamel & Achala Rodrigo Lecture Details Wednesdays 11-2 PM (SY110) | Blackboard (WebOption) Contact psyb65@utsc.utoronto.ca

# **COURSE OBJECTIVE**

Neuropsychology is the study of the relationship between human behaviour and brain function. In this course, we will explore the structure and function of the human nervous system while contrasting between both normal behaviour and pathological presentations (neurological and psychiatric). In addition to structural/functional neuroanatomy, specific areas of coverage will include a history of neuropsychology, brain evolution, neurophysiology, psychopharmacology, neuroimaging techniques, neuropsychological assessment, and neurocognitive rehabilitation. Contributions from clinical and experimental neuropsychology will also be explored in depth.

## **REQUIRED MATERIALS**



WORTH DI IBI ISHEDS Kolb, B. & Whishaw, I. Q. (2014). *An Introduction to Brain and Behavior* (4th ed.). New York, NY: Worth Publishers.

The course will also utilize the **Neuroscience Tool Kit** which is an online learning tool that will be used to enhance and evaluate your ability to comprehend fundamental concepts through the use of interactive media.

The textbook (hardcover & looseleaf) and access codes for the NTK are available in the UTSC bookstore as a package or separately.

# **COURSE MATERIALS**

All course materials including links to the recorded lectures, additional readings, links to media, and midterm grades will be made available exclusively on the **Blackboard Learning Portal**. Please be sure to check this site regularly to keep up with announcements made for this course.

## **IMPORTANT NOTES**

#### **Contact Information**

Course related inquiries are to be directed to **psyb65@utsc.utoronto.ca**. Office hours will be held weekly throughout the term on two alternative dates. Please refer to the calendar on the course Blackboard page for specific details.

#### **Required Pre-Requisites**

Both Introductory Psychology: Part I (PSYA01H3) and Introductory Psychology: Part II (PSYA02H3) must be successfully completed to officially enrol in this course. Please note that there are no exceptions.

#### **Required Pre-Requisite for other Courses**

This course is a required pre-requisite for the following: Clinical Neuropsychology (PSYC31H3), Clinical Neuropsychology Laboratory (PSYC32H3), Cognitive Neuroscience (PSYC55H3), Diseases of the Brain and Mind (PSYC68H3), Clinical Psychopharmacology (PSYD35H3), and Current Topics in Human Brain and Behaviour (PSYD66H3).

## **Academic Integrity**

The **Code of Behaviour on Academic Matters** outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to: 1) using/possessing unauthorized aids or looking at someone else's answers during an exam or test; 2) misrepresenting your identity or falsifying/altering any documentation required by the University such as doctor's notes.

#### **AccessAbility Resources**

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 as soon as possible. AccessAbility Services staff (located in Room SW302, Science Wing) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email: ability@utsc.utoronto.ca.

# **EVALUATIVE COMPONENTS**

#### **Midterm Tests**

There will be two (2) term tests (multiple-choice format) that will contribute approximately 50% towards the final grade. They will each be based on untested lecture content and assigned or associated readings (i.e., the second midterm is not cumulative). Both midterms will be scheduled by the Office of the Registrar and due to the size of the class, they will be held outside of the lecture.

**Important:** The first midterm may take place as early as **Friday, October 1st** or two to three weeks beyond. The second midterm may take place as early as **Friday, October 30th** or two to three weeks beyond. Scheduling of the both midterm tests is determined solely by the Office of the Registrar. Once the Registrar confirms the date and time for each test, an announcement will be made on Blackboard.

## **Final Examination**

The final examination (multiple-choice format) will be administered during the UTSC Final Examination Period (December 8-22). It will be worth approximately 40% towards the final grade. A smaller portion of the exam will be based on cumulative content that is general in both breadth and depth.

## Neuroscience Tool Kit

An online and interactive learning program (i.e.,

NTK) worth 10% will be utilized that has three specific objectives. First, through the viewing of animations, models, and interacting with responsive elements, challenging brain-behaviour concepts will be better understood. Second, by completing the modules and assigned quizzes, students will be able to easily improve their mark beyond what they earn across term tests and the final examination. Finally, material from the NTK will be used to construct a small portion of questions that will be included in the midterm tests and the the final examination.



# **EVALUATIVE COMPONENTS (continued)**

#### **Missed Examinations**

If a student is absent from a midterm examination due to illness or other extenuating circumstance, they are to submit an explanatory message to the **course email account** as soon as feasible. For medical reasons, students are to utilize the **UTSC Medical Certificate**. For approved absences from either midterm, students will write an extended cumulative final examination that covers untested content from either or both midterms. There will be no make-up examinations for either term test. Absences from the final examination are dealt with solely by the Registrar's office.

## **SESSIONAL DATES**

Dates	Detail
September 3	Classes begin in F and Y courses
September 17	Last day to add F and Y courses
October 12	Thanksgiving (University closed)
October 13-17	Reading Week
November 19	Last day to drop F courses without academic penalty and add or remove CR/NCR mode of assessment for F courses
December 3	Last day of classes and term assignments for F courses
December 4-7	Study Break
December 7	Last day to drop F courses with a LWD transcript indication
December 8-22	Final examinations in F courses
December 23	Beginning of December Break (University closed)

\*Regarding the Lecture Schedule, every effort will be made to maintain the posted lecture schedule but some deviation may occur depending on the content and delivery of the material. Further, additional readings may be posted on the Blackboard.

## LECTURE SCHEDULE

Lecture Date	Lecture Topic	Textbook Readings
September 9	History of Neuropsychology Evolution and overview of the Nervous System	Chapters 1-2
September 16	Intracellular Neurophysiology and Neuroanatomy Neuroscience Tool Kit	Chapter 3
September 23	Neuroinvestigative Techniques Nervous System Development	Chapters 7-8
September 30	Midterm 1 Review	
October 7	Intracellular neurophysiology Synaptic Transmission	Chapters 4-5
October 14	Reading Week (no lecture)	
October 21	The Actions of Drugs and Hormones in the Nervous System	Chapter 6
October 28	Sensory Systems: Vision and Audition	Chapters 9-10
November 4	Midterm 2 Review	
November 11	Somatosensory & Motor Systems	Chapter 11
November 18	Neurological Basis of Emotions, Homeostasis, and Sleep Behaviour	Chapters 12-13
November 25	Higher Neurocognitive Functions	Chapters 14-15
December 2	Neurological Injury/Disorder: Assessment and Rehabilitation Final Examination Review	Chapter 16