

Tomorrow is created here.

# HUMAN BRAIN & BEHAVIOUR





AN INTRODUCTION TO HUMAN NEUROPSYCHOLOGY

Instructor Zachariah Campbell Teaching Assistants Laurie Hamel & Sath Thavabalasingam Lecture Details 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**





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).

Important: The first midterm may take place as early as the week of May 23rd (or two to three weeks beyond). The second midterm may take place as early as the week of July 4th (or two to three weeks beyond).

Once the Registrar confirms the date and time for each test, an announcement will be made on Blackboard which includes the exact material coverage required for both midterms and the final exam.

Absences from either midterm require students to follow new departmental policy (see the next page) to receive approval from the instructor to write an extended cumulative final exam.

## **Final Examination**

The final examination (multiple-choice format) will be administered during the Summer Final Examination Period (August 6-20). 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 final examination.



# **EVALUATIVE COMPONENTS (continued)**

### Missed Term Work due to Medical Illness or Emergency

All students citing a documented reason for missed term work must bring their documentation to Course Coordinator, Ainsley Lawson as soon as possible upon return to campus (and within 3 business days from the date of term test or assignment due date). All documentation must be accompanied by the department Request for Missed Term Work form. In the case of missed term work due to illness, only an original copy of the official UTSC Verification of Illness Form will be accepted. Forms are to be completed in full, clearly indicating the start date, anticipated end date, and severity of illness. The physician's registration number and business stamp are required as is the course information. In the case of emergency, a record of visitation to a hospital emergency room or copy of a death certificate may be considered. Forms should be dropped off in SW427C between 9 AM - 4:30 PM, Monday through Friday. Upon receipt of the documentation, both you and your instructor will receive email notification within 2 business days, containing a stamped departmental document detailing the affected date(s), along with a copy of the original document(s). The stamped departmental form should be brought to the make-up exam or submitted with late assignments. The course instructor reserves the right to decide what accommodations (if any) will be made for the missed work.

## SESSIONAL DATES

Dates	Detail	
May 2	Classes begin in F and Y courses	
May 23	Victoria Day (University closed)	
June 14-18	Reading Week	
July 1	Canada Day (University closed)	
July 18	Deadline to drop Y courses without academic penalty and	
	have them removed from your transcript	
August 2	Last day of classes and term assignments for Y courses	
August 3-5	Study Break	
December 7	Last day to drop F courses with a LWD transcript indication	
August 6-20	Final examination period	

## LECTURE SCHEDULE

Week	Lecture Topic	Readings
Week 1	History of Neuropsychology Evolution and overview of the Nervous System	Chapter 1
Week 2	Overview of the Nervous System	Chapter 2
Week 3	Nervous System Development Cellular Neuroanatomy	Chapters 8 & 3
Week 4	Neuroinvestigative Techniques Term Test 1 Review	Chapter 7
Week 5	Intracellular neurophysiology Synaptic Transmission	Chapters 4-5
Term Test 1	This may occur as early as the week of May 23 and as late as the week of June 6. Coverage of material will be based on the date we are assigned (an announcement will be made on Blackboard once this date is known).	
Week 6	The Actions of Drugs and Hormones in the Nervous System	Chapter 6
Week 7	Sensory Systems: Vision	Chapter 9
Week 8	Sensory Systems: Audition Term Test 2 Review	Chapter 10
Week 9	Somatosensory & Motor Systems	Chapter 11
Week 10	Neurological Basis of Emotions, Homeostasis, and Sleep Behaviour	Chapters 12-13
Term Test 2	This may occur as early as the week of Ju week of July 18.	ly 4 and as late as the
Week 11	Higher Neurocognitive Functions	Chapters 14-15
Week 12	Neurological Injury/Disorder: Assessment and Rehabilitation	Chapter 16