

**Faculty of Health**  
**Department of Psychology**  
**PSYC 2240 3.0 Section A: BIOLOGICAL BASIS OF BEHAVIOUR**  
**Thursdays / 11:30am-2:30pm / Curtis Lecture Hall L**  
**F 2024**

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The brain mediates our entire experience. There is a plausible claim that the human brain is the most complex object in the known universe. Throughout our lives, everything we perceive, all of our movements and decisions, our most intimate memories and our deepest emotions, is seamlessly controlled by a mass slightly heavier than 1 kg, consisting mainly of cells, fibers, and fat. The goal of the course is to help you begin to understand how this all takes place, and hopefully ignite a lifelong fascination with the brain and its mysteries, just like it did for me when I took a very similar course as an undergraduate student. I look forward to learning and discovering with all of you.

Lectures will be delivered synchronously in Curtis Lecture Hall E (see below for a list of class dates), and I will try to record them for later viewing. The exams (2 mid-terms, 1 final) will be done in-person, but hosted on eClass. Course schedule is subject to change.

**Instructor and T.A. Information**

Instructor: Peter J. Kohler, PhD (he, him, his)

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Office Hours: By appointment

Email: [pjkohler@yorku.ca](mailto:pjkohler@yorku.ca)

<b>T.A.</b>	<b>Zacchary Nabaee-Tabriz</b>	<b>Tida Kian</b>
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Office	Zoom	Zoom
Hours	TBD (by appointment)	TBD (by appointment)

**Course Prerequisite(s): Course prerequisites are strictly enforced**

HH/PSYC 1010 6.00 (Introduction to Psychology).

**Course Credit Exclusions**

Please refer to [York Courses Website](#) for a listing of any course credit exclusions.

**Course website:** [eClass](#)

**Course Description**

This course provides an introduction to the biological determinants of behavior, drawing upon classic and cutting-edge research in neuroscience. An overview of the central nervous system structure will be provided and how it relates to sensation, perception, movement, emotion, and neurocognitive functions. Relevant research and case studies will be integrated with the material throughout the course to better illustrate brain-behavior relationships in healthy states and in the context of illness and injury.

## Program Learning Outcomes

Upon completion of this course, students should be able to:

1. Demonstrate broad knowledge of biological determinants of behaviour.
2. Describe and evaluate current theory and research in biological psychology.
3. Understand and interpret principles of biological psychology in everyday life.
4. Define biological causes of human behaviour from different perspectives.

## Required Text

**Kolb, Wishaw, & Teskey. (2023). *Introduction to Brain and Behavior* (7<sup>th</sup> edition).**

The textbook will be supplemented with videos and other resources that are relevant to the material. We will use Achieve – MacMillan’s online learning platform that is associated with the required course textbook for activities worth 10% of the grade, so make sure your textbook includes Achieve access.

## Course Structure

This is primarily a lecture-based course, but students may be asked to participate actively at times through small-group discussions, or answering open-ended questions. Videos, podcasts, and/or internet resources may be used by the instructor to facilitate participatory learning. Short breaks will be provided over the course of the 3 hour lecture at times determined by the instructor.

All course communication will take place through eClass, including posting of all course information, and any necessary changes or announcements. Please monitor this regularly. You are encouraged to reach out to your TA for any and all course related questions and this will be your best resource for working through course challenges. You may also contact the instructor by e-mail with questions, but please do not expect a reply sooner than 24 hours (during week days) or a reply over the weekend.

## Course Requirements and Assessment

Assessment	Date of Evaluation (if known)	Weighting
Exam 1	October 3rd	25%
Exam 2	November 7th	25%
Final Exam	TBD (during exam period)	40%
Biweekly LearningCurve	September 12th - November 21st	10%
Total		100%

## Description of Assignments

Exams will consist of approximately 80% multiple choice and 20% short-answer. Multiple choice questions will be derived almost entirely from text book material. Short-answer questions may incorporate some textbook material as well as extra material discussed in class. Lectures will highlight the most important material in each chapter. Therefore, it is a good idea to attend the lectures.

### **Exam 1 – 25%**

Chapters 2-5 and 7 will be covered. The exam will be held in-person, in-class on the scheduled date.

### **Exam 2 – 25%**

Chapters 8-12 will be covered. The exam will be held in-person, in-class on the scheduled date.

### **Final Exam – 40%**

All assigned material will be covered in this exam. Chapters 13-15 will be covered as new material, in addition to previously covered chapters (2-5 and 7-12). The final exam will be held on eClass during the scheduled exam period December 5-20, 2024. Date, time, and location TBD.

### ***Biweekly LearningCurve Activities – 10%***

LearningCurve activities are required to be completed before the scheduled day of class for every meeting except the first day of class and the last day of class (see Course Schedule below). Students will have a week to complete the LearningCurve(s) online via Achieve (e.g., if a Learning Curve is September 12<sup>th</sup>, students can work on it starting September 5<sup>th</sup>). 2-6 LearningCurves are assigned per class, for a total of 28, and students will need to complete at least 25, meaning that they can choose to drop any 3 of the 28 and still get full marks for the LearningCurve activities. LearningCurve is an interactive learning tool with an adaptive quiz component that aims to encourage ongoing engagement with the material, and help students prepare for each lecture. There will be no make-ups for this activity.

*Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles.*

### **Grading as per Senate Policy**

The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A+ = 9, A = 8, B+ = 7, C+ = 5, etc.). Assignments and tests\* will bear either a letter grade designation or a corresponding number grade (e.g. A+ = 90 to 100, A = 80 to 89, B+ = 75 to 79, etc.)

For a full description of York grading system see the York University Undergraduate Calendar – [Grading Scheme for 2024-2025](#).

### **Missed Tests/Midterm Exams/Late Assignment**

If a student misses Exam 1 OR Exam 2, the final exam will be re-weighted to count for 65% of the final grade. There will be no make-up exams and no exceptions. No doctor's note is required.

If Exam 1 AND Exam 2 are missed, only students with an appropriately documented reason for missing Exam 2 (as described below) may request accommodation from the instructor. Make-up exams will take the format of long and short-answer essay questions, and may involve an oral component. Scheduling of the make-up exam will be negotiated with the instructor to take place outside of regularly scheduled course hours as soon as possible following the original scheduled exam date.

For any missed quiz or late assignment, students MUST complete the following [Missed Tests/ Exams Form](#) which will be received and reviewed in the Psychology undergraduate office. At this time, an Attending Physician's Statement (APS) is not required. However, a reason for missing an evaluated component in the course must be provided.

**Failure to complete the form within 48 hours of the original deadline will result in a grade of zero for the missed quiz or late assignment, and students will not be eligible for a make-up exam. Further accommodations will require the student to formally submit a petition to the Faculty.**

### **Important dates**

First and last day of class, as well as dates of Tests/Exams/Assignments are listed in the Course Schedule below. Any changes to these dates will be announced in class and using the eClass course website. The date and location of the Final Exam is to be determined, and will be announced in class and using the eClass course website. Other important dates are accessible through web-based resources provided by York University for the student community. It is the responsibility of the student to know them.

The sessional dates and a list of all important dates can be found at: [F/W 2024-2025 Important Dates](#).

## Academic Integrity for Students

York University takes academic integrity very seriously; please familiarize yourself with [Information about the Senate Policy on Academic Honesty](#). It is recommended that you review Academic Integrity information [SPARK Academic Integrity modules](#). These modules explain principles of academic honesty.

## Electronic Devices During a Test/Examination

This course will be delivered in-person and electronic devices (e.g., tablets, laptops) are permitted during class time for course-related purposes. **Exams are closed-book**, which means that you are expected to complete exams in a manner that does not require consulting an unauthorised source during the examination. You will use your laptop computer or tablet to access the exam on eClass, but you may not access other websites, books or other materials, or your notes, during the exam.

## Test Banks

The offering for sale of, buying of, and attempting to sell or buy test banks (banks of test questions and/or answers), or any course specific test questions/answers is not permitted in the Faculty of Health. Any student found to be doing this may be considered to have breached the Senate Policy on Academic Honesty. In particular, buying and attempting to sell banks of test questions and/or answers may be considered as “Cheating in an attempt to gain an improper advantage in an academic evaluation” (article 2.1.1 from the Senate Policy) and/or “encouraging, enabling or causing others” (article 2.1.10 from the Senate Policy) to cheat.

## Academic Accommodation for Students with Disabilities

While all individuals are expected to satisfy the requirements of their program of study and to aspire to do so at a level of excellence, the university recognizes that persons with disabilities may require reasonable accommodation to enable them to do so. The [York University Accessibility Hub](#) is your online stop for accessibility on campus. The [Accessibility Hub](#) provides tools, assistance and resources. Policy Statement.

**Excerpt from Senate Policy on Academic Accommodation for Students with Disabilities:**  
Pursuant to its commitment to sustaining an inclusive, equitable community in which all members are treated with respect and dignity, and consistent with applicable accessibility legislation, York University shall make reasonable and appropriate accommodations and adaptations in order to promote the ability of students with disabilities to fulfill the academic requirements of their programs.

The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses. Provided that students have given sufficient notice about their accommodation needs, instructors shall take reasonable steps to accommodate these needs in a manner consistent with the guidelines established hereunder.

For Further Information please refer to: [York university academic accommodation for students with disabilities policy](#).

## Course Materials Copyright Information

These course materials are designed for use as part of the PSYC 2240 Section A course at York University and are the property of the instructor unless otherwise stated. Third party copyrighted materials (such as book chapters, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law.

Copying this material for distribution (e.g. uploading material to a commercial third-party website) may lead to a violation of Copyright law. [Intellectual Property Rights Statement](#).

## Course Schedule

Week	Date	Topic(s)	Required Readings
Week 1	Sep 5 <sup>th</sup>	Course overview and Introduction	none
Week 2	Sep 12 <sup>th</sup>	Structural and Functional Organization of the Brain <b>LearningCurve due</b>	Ch. 2 & 3
Week 3	Sep 19 <sup>th</sup>	Neuronal function, communication, and adaptation <b>LearningCurve due</b>	Ch. 4 & 5
Week 4	Sep 26 <sup>th</sup>	Techniques for studying brain structure and function <b>LearningCurve due</b>	Ch. 7
Week 5	Oct 3 <sup>rd</sup>	Brain development and adaptation <b>Exam 1</b>	Ch. 8
Week 6	Oct 10 <sup>th</sup>	Seeing and hearing the world <b>LearningCurve Due</b>	Ch. 9 & 10
Week 7		Reading week, no classes	
Week 8	Oct 24 <sup>th</sup>	Touch, speech and movement <b>LearningCurve Due</b>	Ch. 11
Week 9	Oct 31 <sup>st</sup>	Emotion and motivation <b>LearningCurve Due</b>	Ch. 12
Week 10	Nov 7 <sup>th</sup>	Sleep and dreaming <b>Exam 2</b>	Ch. 13
Week 11	Nov 14 <sup>th</sup>	Learning and memory <b>LearningCurve Due</b>	Ch. 14
Week 12	Nov 21 <sup>st</sup>	Higher-order Cognition <b>LearningCurve Due</b>	Ch. 15
Week 13	Nov 28 <sup>th</sup>	Review	
	Final Exam	Date/time/location TBD	