

# Brain and Behaviour Psychology 304-002

\*Photo of glial cells of the cerebral cortex, from Belkin.ubc.ca, publicly shared courtesy of Instituto Cajal (CSIC)



## Who?

### **Instructor:**



Nicole A. Sugden, PhD

[nsugden@psych.ubc.ca](mailto:nsugden@psych.ubc.ca)

Office hours: Kenny 2408

Tuesdays 11h00-12h00

and by appointment

### **Teaching assistant:**



Rand Mahmoud

[rand.mahmoud@psych.ubc.ca](mailto:rand.mahmoud@psych.ubc.ca)

Office hours: TBA

and by appointment

### **Questions and meeting requests:**

Course material questions? Check the course website first. If you still have questions, email Rand.

- There is a Q & A section on the website where you can read other students' questions and ask your own questions. Rand and I will post answers there.
- If the website Q & A wasn't quite helpful/just not doing it for you, email Rand! In your email, explain what you (believe you) understand. Explaining the concept may help you better understand it as well as allowing Rand to prepare to help.

- NB: Because of the nature of the material in this course, we will not be able to provide detailed replies via email. Instead, we may recommend scheduling a personal meeting.

Questions about grades? Email Rand.

- Still have questions after speaking with Rand? Email Nicole!

We are happy to meet with you for any reason! Please just pop by during office hours or email to suggest a day and time.

Please ensure that the course number (PSY304) is in the subject line, so that it will be prioritized. We will strive to respond to all emails within 1 business day.

Please do not send email via Connect, we do not read emails sent via Connect.

## When?

Tuesdays & Thursdays from 9h30-11h00 in Buchanan A201

## What?

This course is an in-depth survey of the neurobiological bases of behaviour. In term 1, we will discuss the fundamental mechanisms of neuronal communication, neurophysiology, neuroanatomy, and evolutionary principles as they apply to the brain and behaviour. We will also discuss

the basics of neuropharmacology, sensory processing, and the functioning of the brain across the lifespan.

## **Why?**

By the end of term, you should be able to:

- understand how neurons communicate at the cellular and molecular levels,
- comprehend the basic organization of the nervous system,
- utilize basic neuroscience concepts to explain fundamental behavioural phenomena,
- explain behaviour using an evolutionary framework.

## **Course materials**

### **Required Text:**

Behavioural Neuroscience, 8th Edition. S. M. Breedlove and N. V. Watson.

### **Lectures and Readings:**

Lectures and additional readings or materials will be posted on Connect before each lecture. Some additional materials will be optional and others mandatory.

Additional mandatory (testable!) materials posted on Connect will be clearly indicated - there will be no surprises here.

### **Course website:**

All course related announcements will be made in class or posted on Connect.

You are responsible for checking the course website at <http://www.connect.ubc.ca> often throughout the term. You use your CWL to login. This is where you can access and download the course syllabus, find the course readings, and see important

announcements.

## **Course requirements and grading**

### **Attendance:**

Attendance is expected in this course and is necessary in order for you to do well. Although attendance will not be taken in class, there will be material covered in lecture in substantially greater depth than what is in the textbook. The lectures do not completely overlap with the textbook material, and it is helpful to be walked step-by-step through the concepts. We will not be able to cover all the material from the textbook in the lectures; similarly, there will be some lecture material drawn from additional materials and other sources not present in the textbook. Examinations will cover lecture material, textbook material, and additional materials.

### **Evaluation for Term 1:**

- Midterm (25%)
- Final (25%)

OR

- Midterm (18%) + Project (7%)
- Final (25%)

OR

- Midterm (25%)
- Final (18%) + Project (7%)

### **Overall exam details:**

Exams will consist of multiple choice and short answers. The goal of assessments is to allow your demonstration of understanding of the material. For this reason, each exam will additionally allow *at least one*

*opportunity to demonstrate your knowledge in an alternate way in place of answering one of the multiple choice questions. (Exams will have a dedicated space for this.)*

**Midterm exam:**

The will be an 80-minute-long midterm (October 26th). The midterm will be based on information from Chapters 1 to 4 and all other materials covered up to that point.

**Final exam:**

The final exam will be scheduled during the final exam period (December 5th and 20th; actual date TBA). You will likely have more time to complete the final exam. The final will be based upon Chapters 5 to 8 and all other materials covered after the midterm.

The final exam is NOT cumulative. Of course, the material you learn in the first half of the course will help with your understanding of the material in the latter half, so keep an engram or two around.

**Optional project:**

Students may request to complete an optional project. Since a key component to science is being able to communicate knowledge, the goal of the project is to allow you to gain greater depth and understanding of a key concept from the course by sharing it with your peers. The goal is to help you learn by helping them learn in a fun 15 minutes or less(!).

The project may be traditional (e.g., written) or more creative (e.g., stop-motion animated demonstration, song and dance video...), proviso that it can be uploaded to connect and convey information in a way that improves others' understanding.

All projects will be shared with the class via

connect (e.g., uploaded file, website link).

All students wishing to complete the project must submit a one-page proposal – uploaded to the turnitin link on the course website.

The proposal must describe the concept/idea to be communicated, the proposed format of the project, three primary-source references to be used, and how the proposed project will benefit, enhance, or deepen peers' learning. The proposal will be evaluated based on whether it provides additional depth to the concept, is feasible, and will facilitate student understanding. Approval is at the instructor's discretion.

Details will be presented in class and posted on connect. The grading scheme will also be posted to connect.

NB: If you opt to complete a project, *you must still write both exams*.

**Deadline / assessment dates:**

Proposals are due on September 24<sup>th</sup> at 11:59:59pm to connect and turnitin.com.

Projects about concepts covered in Chapters 1 – 4 will be due on October 19<sup>th</sup>.

The mid-term exam will be on October 26<sup>th</sup>.

Projects about concepts covered in Chapters 5 – 8 will be due on November 23<sup>rd</sup>.

The final exam date is TBA.

NB: Project proposals and written components must be submitted to turnitin. Late projects will not be accepted, resulting in the exam being weighted at the traditional weighting of 25% (not 18%).

**Grade information:**

The midterm and project grades will be posted on the Connect course website.

Requests for grade exam or project grade adjustments must be made within 2 weeks of posting of the grade. Please:

- 1) Wait until 48 hours after grades are posted before contacting Rand.
- 2) Email Rand with a brief explanation of why you believe there should be a grade adjustment and request when to meet (e.g., during office hours).
  - a. For the project, please refer to the grading scheme to help you in your explanation.
- 3) Meet with Rand for a friendly, constructive discussion.

Most requests for adjustment of midterm or project grades can be settled directly with Rand. In cases of a dispute that cannot be satisfactorily resolved in this fashion, the instructor will render a final decision.

If you request that a question or project be re-graded, it will be re-graded and your mark may go up, down, or stay the same.

### **Human subject pool credits (up to 3% extra credit):**

You may earn up to 3% extra credit to your final course grade through participating in research studies (or by completing library assignments). Information can be found at:

<http://psych.ubc.ca/internal/human-subject-pool/>

### **Grade distribution & scaling:**

In order to reduce grade inflation and maintain equity across multiple course sections, all psychology courses are required to comply with departmental norms regarding grade distributions. According to departmental norms, the average grade in a 300- and 400-level classes are 70, 68, and

66, with a standard deviation of 13. Scaling may be used in order to comply with these norms; grades may be scaled up or down as necessary by the professor or department. Each student will earn a percent grade for this course and will be automatically assigned a corresponding letter grade by the Registrar.

### **Ethical & responsible conduct**

Always treat yourself, your classmates, and your instructors with respect both in and outside of class. This includes being on time to class, and being aware of your words and actions. Be mindful of other students during class. Please turn off all mobile phones, mp3 players, etc. before coming to class. If you choose to take notes on a laptop, please quit/minimize any programs that may distract others (www, facebook, games, etc).

Cheating of any type is not tolerated. Just don't do it—it is not worth your education, your reputation, or your future. Any cheating will result in failing the assignment or exam, and may lead to an automatic fail for the course and/or expulsion from the university. If you have any questions about citing or using sources in your assignments, please see your Instructor or Rand BEFORE the assignment is due.

### **Academic misconduct**

Cheating, plagiarism, and other forms of academic misconduct are very serious concerns of the University, and the Department of Psychology has taken steps to alleviate them. In the first place, the Department has implemented software that can reliably detect cheating on multiple-choice exams by analyzing the patterns of

students' responses. In addition, the Department subscribes to TurnItIn – a service designed to detect and deter plagiarism. All materials (term papers, lab reports, etc.) that students submit for grading will be scanned and compared to over 4.5 billion pages of content located on the Internet or in TurnItIn's own proprietary databases. The results of these comparisons are compiled into customized "Originality Reports" containing several sensitive measures of plagiarism; instructors receive copies of these reports for every student in their class.

In all cases of suspected academic misconduct the parties involved will be pursued to the fullest extent dictated by the guidelines of the University. Strong evidence of cheating or plagiarism may result in a zero credit for the work in question. According to the University Act (section 61), the President of UBC has the right to impose harsher penalties including (but not limited to) a failing grade for the course, suspension from the University, cancellation of scholarships, or a notation added to a student's transcript.

All graded work in this course, unless otherwise specified, is to be original work done independently by individuals. If you have any questions as to whether or not what you are doing is even a borderline case of academic misconduct, please consult your instructor. For details on pertinent University policies and procedures, please see Chapter 5 in the UBC Calendar (<http://students.ubc.ca/calendar>) and read the University's Policy 69 (available at <http://www.universitycounsel.ubc.ca/policies/policy69.html>). This section has been fully

plagiarized from Dr. Lily May's syllabus☺.

## **Important Information**

1. Missed Midterm: If you miss the midterm due to incapacitating illness, contact the instructor AND the TA either before the exam or on the day of the exam. Failure to immediately notify the instructor/TA that you missed the exam may result in a grade of 0 with no opportunity to write a make-up. Notify the instructor/TA once again when you are well and are ready to write the make-up exam and arrangements will be made by your TA. You must have an original note (pictures or copies sent via email are not acceptable and will be ignored) from your doctor confirming that you were ill for the period of time before the exam. The note must be dated appropriately and state that you were too ill to attend the exam and cannot simply state that you were seen in the doctor's office. You will not be permitted to write the exam without this note.

2. Missed Final Exams: If you miss the final examination, contact the instructor either before the exam or on the day of the exam. In addition, you must notify the Faculty of Arts. We will try to schedule your make-up exam as soon as possible after the final, but you will need to apply for and receive deferred standing from the Faculty of Arts in order to receive credit for the exam. The Faculty of Arts requires medical documentation in order to grant deferred standing. Please plan on being in town for the final exam- students will not be permitted to write exams earlier or later than the scheduled final exam day due to vacations, etc.

## **Resources**

- UBC Academic Regulations: Information on academic regulations, including course withdrawal dates and credits, can be found in the UBC Calendar at <http://students.ubc.ca/calendar>
- UBC Learning Commons: <http://learningcommons.ubc.ca> offers a variety of learning and research sources for students. The website includes tutoring, workshops, study groups, many other online tools, and links to most of the academic resources offered at UBC.
- Academic English Support Program: <https://cstudies.ubc.ca/student-information/services/academic-english-support> Provides free one-on-one coaching for improving Academic English skills. Open to all UBC students.
- UBC Counseling Services: <http://www.students.ubc.ca/livewelllearnwell/book-an-appointment/counselling-services/> or 604-822-3811. For help with mental illness, stress, etc.
- Vancouver Crisis Line: <http://www.crisiscentre.bc.ca> or 604-872-3311. Offers emergency support.

- The Kaleidoscope: <http://the-kaleidoscope.com/> A confidential peer-run mental health support group that takes place on campus 2-3 times a week. You may attend the group if you are experiencing any kind of mental health related challenges, or if you're just feeling stressed about school in general. Registration is not required to attend. See the website for meeting times and locations. Food and drink is provided.
- SpeakEasy: <http://www.ams.ubc.ca/services/speakeasy/> A student run service that offers confidential support for students experiencing crisis. Also a good resource for additional information and referrals within the UBC community.
- Student Health Services: <http://students.ubc.ca/livewell/services/student-health-service> or 604-822-7011. Provides students with a variety of healthcare related services to help you maintain your health.
- Access and Diversity: <http://students.ubc.ca/about/access> or [604-822-5844](http://students.ubc.ca/about/access) Provides accommodations for students living with physical, mental, and/or learning disabilities.

## **Important Dates and Course Schedule**

Course schedule and due dates may be modified at anytime during the semester. All changes will be announced in class and posted on Connect. You are responsible for being aware of these changes, whether or not you attend the lectures.

Date	Topic	Text chapter
September 7	Course introduction	This syllabus
September 12	Biological psychology	Chapter 1
September 14	Biological psychology	Chapter 1
September 19	Functional neuroanatomy	Chapter 2
September 21	Functional neuroanatomy	Chapter 2 / Proposal due Sept 24 <sup>th</sup>
September 26	Functional neuroanatomy	Chapter 2
September 28	Neurophysiology	Chapter 3
October 3	Neurophysiology	Chapter 3
October 5	Neurophysiology	Chapter 3
October 10 & 12	TBA	TBA
October 17	Neurotransmitters	Chapter 4
October 19	Neurotransmitters	Chapter 4 / Optional project due
October 24	Neurotransmitters / review	Chapter 4 / Chapters 1 - 4
October 26	Mid-term exam	Chapters 1 - 4
October 31	Hormones and the brain	Chapter 5
November 2	Hormones and the brain	Chapter 5
November 7	Evolution of the brain & behaviour	Chapter 6
November 9	Evolution of the brain & behaviour	Chapter 6
November 14	Lifespan development	Chapter 7
November 16	Lifespan development	Chapter 7
November 21	Lifespan development	Chapter 7
November 23	General principles of sensation	Chapter 8 / Optional project due
November 28	General principles of sensation	Chapter 8
November 30	Review	Chapters 5 - 8

December 5 - 20	Exam period	Final exam date: TBA
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