

# DEPARTMENT OF PSYCHOLOGY Faculty of Arts

PSYC 375 (LEC 1) Brain and Behaviour Fall 2022

Instructor: Mahtab Moshirpour Lecture Location: TI Forum

**Phone:** (403) 220-7709 **Lecture Days/Time:** TR 09:30-10:45

Email: <a href="mmoshir@ucalgary.ca">mmoshir@ucalgary.ca</a> TA: TBA

Office: AD09

**Office Hours:** By appointment: Email me to

schedule a meeting

## **Course Description**

The task of behavioural neuroscience is to explain behaviour in terms of the activities of the brain. This course explores a wide variety of topics that may include the neural basis of learning, memory, sensation, and sleep, as well as behavioural and neurodegenerative disorders that arise from nervous system malfunction.

## **Course Learning Outcomes**

The Department of Psychology is committed to student knowledge and skill development. The table below lists the key learning outcomes for this course, the program-learning outcomes they facilitate (see https://live-arts.ucalgary.ca/psychology/about#program-learning-outcomes), and the expected level of achievement.

Course Learning Outcomes	Assessment Methods	PLO(s)	Level(s)
Describe the major structures of the brain and explain their general	Multiple choice exams,	1	I
function.	short answer questions		
Outline the basics of neural communication (neurotransmitters, the	Multiple choice exams,	1	1
action potential, etc.).	short answer questions		
Illustrate the relationship between nervous system dysfunction and disease states (Alzheimer's disease, depression, etc.).	Multiple choice exams, short answer questions	1	I
Compare and contrast the usefulness of different species,	Multiple choice exams,	1,2,6	I, C, C
techniques, and levels of analysis for studying brain and behaviour.	short answer questions		
Critically evaluate information presented in the media regarding	Written assignment	2,4,5,7	C, I, I,C
techniques, and levels of analysis for studying brain and behaviour.	short answer questions		

Notes. PLOs = Program-Learning Outcomes: 1 = demonstrate knowledge of psychological sciences, 2 = think critically and solve problems, 3 = conduct research and analyze data, 4 = communicate effectively, 5 = demonstrate information literacy, 6 = understand and implement ethical principles in a diverse world, 7 = apply psychological knowledge and skills, 8 = Demonstrate multicultural competence and awareness of issues related to equity, diversity,\* and inclusion. Level of PLO achievement facilitated by this course: I = introductory, C = competency, A = advanced.

## **Acknowledgments and Respect for Diversity**

Our classrooms view diversity of identity as a strength and resource. Your experiences and different perspectives are encouraged and add to a rich learning environment that fosters critical thought through respectful discussion and inclusion. The Department of Psychology would also like to acknowledge the traditional territories of the people of the Treaty 7 region in southern Alberta. The City of Calgary is also home to Métis Nation of Alberta, Region III.

#### **Course Format**

This is an in-person class held on campus.

#### **Prerequisites**

Psychology 200 – Principles of Psychology

#### **Required Text**

An Introduction to Brain and Behaviour (6<sup>th</sup> Edition), B. Kolb, I.Q. Whishaw, and G.C. Teskey (2018), Worth Publishers. The text is available from the university bookstore and as an eBook.

#### **Assessment Methods**

Quizzes (4 total; see lecture schedule below for dates)	10%
Midterm #1 (Ch. 1-4; October 4 <sup>th</sup> )	25%
Midterm #2 (Ch. 5-7; November 3 <sup>rd</sup> )	25%
Written Assignment (November 22 <sup>nd</sup> )	10%
Final Exam (Ch. 10,11,13,14; TBA)	30%

## **Quizzes and Exams:**

There will be four quizzes spaced throughout the course; each quiz is worth 2.5% of your final grade (4 quizzes for a total of 10%). The quizzes will test you on the lecture material that has been covered since the last assessment and are meant to keep you up to date on the course material. Quizzes will be done at the beginning of lecture and will consist of approximately 3-4 short answer questions. Please ensure that you have a writing utensil with you at the beginning of each class.

There will be three exams for this course: two midterms and a final exam. Midterms will consist of multiple-choice questions. Questions can be drawn from lecture material that has been covered in each section of the course along with the assigned textbook chapters. **Exams will NOT be cumulative,** but you may need to understand concepts from earlier in the course to answer questions on midterm # 2 and the final exam. Midterm #1 will be held on October 4<sup>th</sup> and is worth 25% of your final grade. Midterm #2 will be held on November 3<sup>rd</sup> and will also be worth 25% of your final grade. The final exam will be scheduled by the registrar and is worth 30% of your final grade; the final exam will include multiple choice and short answer questions.

Exams in this course are closed book. The use of resources, including class notes, the textbook, online resources, and calculators is prohibited during the exams in this course. Students may not communicate with others about course material or the exam either in person or electronically during exams.

#### Written Assignment:

Your goal is to find and read a current news article describing research about the brain, and compare it to the original source, as well as relate it back to our discussion of brain and behaviour in the classroom. Further details regarding the assignment will be provided in class and posted on D2L. The assignment should be two pages in length (not including the reference section or title page) and formatted according to APA guidelines, it is due by 11:59 pm on November 22<sup>nd</sup> (handed in via the assignment dropbox on D2L) and is worth 10% of your final grade. Late papers will not be accepted without instructor approval.

## **University of Calgary Academic Integrity Policy**

Academic integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect members of our community to act with integrity.

Research integrity, ethics, and principles of conduct are key to academic integrity. Members of our campus community are required to abide by our institutional code of conduct and promote academic integrity in upholding the University of Calgary's reputation of excellence. It is your responsibility to ensure that you have read and are familiar with the student academic misconduct policy: <a href="https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Academic-Misconduct-Policy.pdf">https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Academic-Misconduct-Policy.pdf</a>.

#### **Department of Psychology Criteria for Letter Grades**

Psychology course instructors use the following criteria when assigning letter grades:

A+ grade: *Exceptional Performance*. An A+ grade indicates near perfect performance on multiple choice and short answer exams. For research papers/essays/course projects/presentations, an A+ grade is awarded for exceptional work deserving of special recognition and is therefore not a common grade.

A, A- Range: *Excellent Performance*. Superior understanding of course material. Written work is very strong in terms of critical and original thinking, content, organization, and the expression of ideas, and demonstrates student's thorough knowledge of subject matter.

B Range: *Good Performance*. Above average understanding of course material. Written work shows evidence of critical thinking and attention to organization and editing but could be improved in form and/or content.

C Range: *Satisfactory Performance*. Adequate understanding of course material. Knowledge of basic concepts and terminology is demonstrated. Written work is satisfactory and meets essential requirements but could be improved significantly in form and content. Note: All prerequisites for courses offered by the Faculty of Arts must be met with a minimum grade of C-.

D range: *Marginally meets standards*. Minimal understanding of subject matter. Written work is marginally acceptable and meets basic requirements but requires substantial improvements in form and content. Student has not mastered course material at a level sufficient for advancement into more senior courses in the same or related subjects.

F grade: Course standards not met. Inadequate understanding of subject matter. Written work does not meet basic requirements. Student has not demonstrated knowledge of course material at a level sufficient for course credit.

# **Grading Scale**

A+	96-100%	B+	80-84%	C+	67-71%	D+	54-58%
Α	90-95%	В	76-79%	С	63-66%	D	50-53%
A-	85-89%	B-	72-75%	C-	59-62%	F	0-49%

As stated in the University Calendar, It is at the instructor's discretion to round off either upward or downward to determine a final grade when the average of term work and final examinations is between two letter grades. To determine final letter grades, final percentage grades will be rounded up or down to the nearest whole percentage (e.g., 89.5% will be rounded up to 90% = A but 89.4% will be rounded down to 89% = A-).

## **Tentative Lecture Schedule**

Date	Topic/Activity/Readings/Due Date
T Sep 6	First day of lectures
	Introduction to the Course. What Are the Origins of Brain and Behaviour? (Chapter 1)
R Sep 8	What Are the Origins of Brain and Behaviour? (Chapter 1)
T Sep 13	What is the Nervous System's Functional Anatomy? (Chapter 2)
R Sep 15	Last day to drop a class without financial penalty
	What is the Nervous System's Functional Anatomy? (Chapter 2)
F Sep 16	Last day to add or swap a course
T Sep 20	Quiz #1, What are the Nervous System's Functional Units? (Chapter 3)
R Sep 22	What are the Nervous System's Functional Units? /How do Neurons Use Electrical
	Signals to Transmit Information? (Chapter 3/4)
F Sep 23	Fee payment deadline for Fall Term full and half courses.
T Sep 27	How do Neurons Use Electrical Signal to Transmit Information? (Chapter 4)
R Sep 29	How do Neurons Use Electrical Signals to Transmit Information? (Chapter 4)
F Sep 30	University Closed National Day for Truth and Reconciliation
T Oct 4	Midterm #1 (25% of final grade): Chapters 1-4
R Oct 6	How do Neurons Communicate and Adapt? (Chapter 5)
M Oct 10	Thanksgiving Day, University closed (except Taylor Family Digital Library, Law, Medical,
	Gallagher and Business Libraries). No lectures.
T Oct 11	How do Neurons Communicate and Adapt? (Chapter 5)
R Oct 13	How do Neurons Communicate and Adapt? / How Do Drugs and Hormones Influence
	Brain and Behaviour? (Chapter 5/6)
T Oct 18	Quiz #2, How Do Drugs and Hormones Influence Brain and Behaviour? (Chapter 6)
R Oct 20	How do Drugs and Hormones Influence Brain and Behaviour? (Chapter 6)
T Oct 25	How Do We Study the Brain's Structures and Functions? (Chapter 7)
R Oct 27	How Do We Study the Brain's Structures and Functions? (Chapter 7)

T Nov 1	How Do We Hear, Speak, and Make Music? (Chapter 10)
R Nov 3	Midterm #2 (25% of final grade): Chapters 5-7
Nov 6-12	Term Break No Classes
F Nov 11	Remembrance Day (Observed). University Closed (except Taylor Family Digital Library,
	Law, Medical, Gallagher and Business Libraries). No lectures.
T Nov 15	How Do We Hear, Speak, and Make Music? (Chapter 10)
R Nov 17	Why Do We Sleep and Dream? (Chapter 13)
T Nov 22	Written Assignment Due (10% of final grade)
	How Does the Nervous System Respond to Stimulation and Produce Movement?
	(Chapter 11)
R Nov 24	Why Do We Sleep and Dream? (Chapter 13)
T Nov 29	Quiz #3, Why Do We Sleep and Dream? (Chapter 13)
R Dec 1	How Do We Learn and Remember? (Chapter 14)
T Dec 6	Quiz #4, How Do We Learn and Remember (Chapter 14)
W Dec 7	Fall Term Lectures End. Last day to withdraw with permission from Fall Term half
	courses.
Dec 10-21	Fall Final Exam Period

#### **Course Credits for Research Participation (Max 2% of final grade)**

Students in most psychology courses are eligible to participate in Departmentally approved research and earn credits toward their final grades. A maximum of two credits (2%) per course, including this course, may be applied to the student's final grade. Students earn 0.5% (0.5 credits) for each full 30 minutes of participation. The demand for timeslots may exceed the supply in a given term. Thus, students are not guaranteed that there will be enough studies available to them to meet their credit requirements. Students should seek studies early in the term and should frequently check for open timeslots. Students can create an account and participate in Departmentally approved research studies at <a href="http://ucalgary.sona-systems.com">http://ucalgary.sona-systems.com</a>. The last day to participate in studies and to assign or reassign earned credits to courses is Wednesday, December 7, 2022

### Absence From A Test/Exam

Makeup tests/exams are **NOT** an option without the approval of the instructor. Students who miss a test/exam have up to 48 hours to contact the instructor to ask for a makeup test/exam. It's the instructor's discretion if they will allow a make-up exam. Students who do not schedule a makeup test/exam with the instructor within this 48-hour period forfeit the right to a makeup test/exam. At the instructor's discretion, a makeup test/exam may differ significantly (in form and/or content) from a regularly scheduled test/exam. Once approved by the instructor a makeup test/exam must be written within 2 weeks of the missed test/exam on a day/time scheduled by the instructor. If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam <a href="https://www.ucalgary.ca/registrar/exams/deferred-exams">https://www.ucalgary.ca/registrar/exams/deferred-exams</a>.

## **Travel During Exams**

Consistent with University regulations, students are expected to be available to write scheduled exams at any time during the official December and April examination periods. Requests to write a make-up exam because of conflicting travel plans (e.g., flight bookings) will NOT be considered by the department. Students are advised to wait until the final examination schedule is posted before making any travel arrangements. If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam <a href="https://www.ucalgary.ca/registrar/exams/deferred-exams">https://www.ucalgary.ca/registrar/exams/deferred-exams</a>. Students with an exceptional extenuating circumstance (e.g., a family emergency) should contact the Department of Psychology

Reappraisal of Graded Term Work <a href="http://www.ucalgary.ca/pubs/calendar/current/i-2.html">http://www.ucalgary.ca/pubs/calendar/current/i-2.html</a>

Reappraisal of Final Grade <a href="http://www.ucalgary.ca/pubs/calendar/current/i-3.html">http://www.ucalgary.ca/pubs/calendar/current/i-3.html</a>

#### **Academic Accommodations**

(psyugrd@ucalgary.ca).

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at <a href="https://www.ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure.">https://www.ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure.</a>

#### **Academic Misconduct**

For information on academic misconduct and its consequences, please see the University of Calgary Calendar at <a href="http://www.ucalgary.ca/pubs/calendar/current/k.html">http://www.ucalgary.ca/pubs/calendar/current/k.html</a>

#### **Instructor Intellectual Property**

Course materials created by professor(s) (including course outlines, presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the professor(s). These materials may NOT be reproduced, redistributed or copied without the explicit consent of the professor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

# **Copyright Legislation**

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (<a href="https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy">https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy</a> ) and requirements of the copyright act (<a href="https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html">https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html</a>) to ensure they are aware of the consequences of unauthorized sharing of course materials (including instructor notes, electronic versions of textbooks

etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

# **Freedom OF Information and Protection of Privacy**

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary

## **Student Support and Resources**

https://www.ucalgary.ca/registrar/registration/course-outlines

## **Important Dates**

The last day to drop this course with no "W" notation and **still receive a tuition fee refund** is **Thursday**, **September 15**, **2022**. Last day add/swap a course is **Friday**, **September 16**, **2022**. The last day to withdraw from this course is **Wednesday**, **December 7**, **2022**<a href="https://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html#fall2017">https://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html#fall2017</a>