

PSYC 375 (LEC 01)
Brain and Behaviour
Winter 2022

Instructor:	Dr. Bryce Geeraert	Lecture Location:	ENE 243
Email:	blgeerae@ucalgary.ca	Lecture Days/Time:	TR 12:30PM-1:45PM
Office Hours:	Email me to arrange a convenient time	TA:	TBA

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 thinking, 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 psyc.ucalgary.ca/undergraduate/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 function.	Multiple choice exams, short answer questions	1,4	I
Outline the basics of neural communication (neurotransmitters, the action potential, etc.).	Multiple choice exams, short answer questions	1,4	I
Illustrate the relationship between nervous system dysfunction and disease states (Alzheimer's disease, depression, etc.).	Multiple choice exams, short answer questions	1,4	I
Compare and contrast the usefulness of different species, techniques, and levels of analysis for studying brain and behaviour.	Multiple choice exams, short answer questions	1,2,4,6	C, I
Critically evaluate information presented in the media regarding brain and behaviour.	Written Assignment	2,4,5,7	C, I

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, 7 = apply psychological knowledge and skills. Level of PLO achievement facilitated by this course: I = introductory, C = competency, A = advanced.

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 (6th Edition), B. Kolb, I.Q. Whishaw, and G.C. Teskey (2016), Worth Publishers. The text is available from the university bookstore.

Tentative Lecture Schedule

Date	Topic/Activity/Readings/Due Date
T Jan 11	Introduction to the Course. What are the origins of brain and behaviour? (Chapter 1)
R Jan 13	What are the origins of brain and behaviour? (Chapter 1)
T Jan 18	What are the origins of brain and behaviour? (Chapter 1)
R Jan 20	What is the nervous system's functional anatomy? (Chapter 2) <i>Last day to drop a class without financial penalty</i>
F Jan 21	<i>Last day to add or swap a course</i>
T Jan 25	Quiz #1 , afterward: What is the nervous system's functional anatomy? (Chapter 2)
R Jan 27	What are the nervous system's functional units? (Chapter 3)
F Jan 28	<i>Fee payment deadline for Fall Term full and half courses.</i>
T Feb 1	What are the nervous system's functional units? (Chapter 3)
R Feb 3	How do neurons use electrical signals to transmit information? (Chapter 4)
T Feb 8	Midterm #1 (25% of final grade)
R Feb 10	How do neurons use electrical signals to transmit information? (Chapter 4)
T Feb 15	How do neurons communicate and adapt? (Chapter 5)
R Feb 17	How do neurons communicate and adapt? (Chapter 5)
Feb 20-26	Term Break No Classes
T Mar 1	Quiz #2 , after: How do drugs and hormones influence brain and behaviour? (Chapt. 6)
R Mar 3	How do drugs and hormones influence brain and behaviour? (Chapter 6)
T Mar 8	How do we study the brain's structures and functions? (Chapter 7)
R Mar 10	How do we study the brain's structures and functions? (Chapter 7)
T Mar 15	Midterm #2 (25% of final grade)
R Mar 17	How do we hear, speak, and make music? (Chapter 10)

T Mar 22	How do we hear, speak, and make music? (Chapter 10)
R Mar 24	Written Assignment Due (10% of final grade) How does the nervous system respond to stimulation and produce movement? (Chapter 11)
T Mar 29	How does the nervous system respond to stimulation and produce movement? (Chapter 11)
R Mar 31	Quiz #3 , after: Why do we sleep and dream? (Chapter 13)
T Apr 5	Why do we sleep and dream? (Chapter 13)
R Apr 7	How do we learn and remember? (Chapter 14)
T Apr 12	Quiz #4 , How do we learn and remember? (Chapter 14) <i>Last day of Lectures and last day to withdraw from a winter term half course</i>
Ap 19-29	Fall Final Exam Period

Assessment Methods

Quizzes (4 total):	10%
Midterm #1 (Ch. 1-4; February 8)	25%
Midterm #2 (Ch. 5-7; March 15)	25%
Written Assignment (March 24)	10%
Final Exam (Ch. 10,11,13,14; TBA)	30%

There will be 4 quizzes spread throughout the course worth 10% of your final grade. **The quizzes will test you on the lecture material that has been covered since the last assessment**, and are designed to keep you up to date with the course material. **Quizzes will be written 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 are three exams for this course; the two midterms will consist of multiple-choice questions. Questions can be drawn from lecture material and the assigned textbook chapters. Midterm #1 will be held on February 8th and is worth 25% of your final grade. Midterm #2 is scheduled for March 15th and will also be worth 25% of your final grade. **Midterm #2 will NOT be cumulative**. The final exam will be scheduled by the registrar and is worth 30% of your final grade, it will include multiple-choice and short answer questions; **the final exam will NOT be cumulative**.

During online course delivery:

Quiz assessments will be posted on D2L 30 minutes before the end of class (at 1:15PM) on the day of each quiz, and will be due 24 hours after posting. Students will be allotted 30 minutes to complete the quiz after they have started the assessment. Quiz content will still consist of 3-4 short answer questions and are designed to keep you up to date with the course material.

Midterms will be delivered as a timed assessment available on D2L at the beginning of class on the date of each midterm (February 8th, March 15th if online delivery is extended). Midterms will be available for

24 hours. When you access the assessment, you will have the length of the class (75 minutes) to complete and submit it. The assessment will consist of multiple-choice questions.

For both quizzes and midterms, If you experience an issue that affects your ability to complete the assessment, which can include (but is not limited to) issues with technology, caregiving responsibilities, or distractions within your test-taking environment, you will need to contact your instructor as soon as possible to arrange an alternate or (in the case of technical issues) extended time to write the assessment.

Quizzes and the short answer questions on the final exam will be graded using a similar format. Half marks will be given if it is clear that you know the general answer, but have omitted specific details or scientific terms. Full marks will be given to those that include specifics, and employ the correct terminology and concepts. Unless specified by your instructor, **no books, notes, computers, calculators, or cellular phones will be allowed during exam/quiz writing.**

The written 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 11:00 pm on March 24th** (handed in via the assignment dropbox in D2L) and is worth 10% of your final grade. 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. Late papers will be penalized 10% per day, unless an exception is made by your instructor.

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

Students in many 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 <http://ucalgary.sona-systems.com>. The last day to participate in studies and to assign or reassign earned credits to courses is **Tuesday, April 12, 2022**.

Wellness and Mental Health Resources

The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the excellent mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, <https://www.ucalgary.ca/wellnesscentre/services/mental-health-services>) and the Campus Mental Health Strategy website (<http://www.ucalgary.ca/mentalhealth/>).

Student Support and Resources

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

Safewalk

The safewalk program provides volunteers to walk students safely to their destination anywhere on campus. This service is free and available 24 hrs/day, 365 days a year.

Call 403-220-5333.

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.

Supporting Documentation

Students may be asked to provide supporting documentation for an exemption/special request. This may include, but is not limited to, a prolonged absence from a course where participation is required, a missed course assessment, a deferred examination, or an appeal. Students are encouraged to submit documentation that will support their situation. Supporting documentation may be dependent on the reason noted in their personal statement/explanation provided to explain their situation. This could be medical certificate/documentation, references, police reports, invitation letter, or a statutory declaration, etc. The decision to provide supporting documentation that best suits the situation is at the discretion of the student. Students cannot be required to provide specific supporting documentation, such as a medical note.

Students can make a Statutory Declaration as their supporting documentation (available at [ucalgary.ca/registrar](https://www.ucalgary.ca/registrar)). This requires students to make a declaration in the presence of a Commissioner for Oaths. It demonstrates the importance of honest and accurate information provided and is a legally binding declaration. Several registered Commissioners for Oaths are available to students at no charge, on campus, please see [ucalgary.ca/registrar](https://www.ucalgary.ca/registrar).

Falsification of any supporting documentation will be taken very seriously and may result in disciplinary action through the Academic Discipline regulations or the Student Non-Academic Misconduct policy.

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 <https://www.ucalgary.ca/registrar/exams/deferred-exams>.

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

<https://www.ucalgary.ca/registrar/exams/deferred-exams>. Students with an exceptional extenuating circumstance (e.g., a family emergency) should contact the Department of Psychology (psyugrd@ucalgary.ca).

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:

<https://www.ucalgary.ca/policies/files/policies/student-academic-misconduct-policy.pdf>.

Department of Psychology Criteria for Letter Grades

Psychology professors 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%
A	90-95%	B	76-79%	C	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-).

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

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

Academic Accommodations

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 <https://www.ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure>.

Academic Misconduct

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

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 (www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf) and requirements of the copyright act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) 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

Important Dates

The last day to drop this course with no "W" notation and **still receive a tuition fee refund is Thursday, Thursday, January 20, 2022.** Last day add/swap a course is **Friday, January 21, 2022.** The last day to withdraw from this course is **Tuesday, April 12, 2022.**

<https://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html>