

Psyc 375 (LEC 1)		Brain and Behavior		Spring 2022
<b>Instructor:</b>	Dr. Serena Jenkins	<b>Lecture Location:</b>	AD 142	
<b>Phone:</b>	403-929-6649	<b>Lecture Days/Time:</b>	MW 13:00 – 15:45	
<b>Email:</b>				
<b>Office:</b>	Not Applicable			
<b>Office Hours:</b>	By appointment			

### Course Description

The task of behavioral neuroscience is to explain behavior 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 behavioral 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](http://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.	Exams, quizzes	1	I
Outline the basics of neural communication (neurotransmitters, the action potential, etc.).	Exams, quizzes	1	I
Illustrate the relationship between nervous system dysfunction and disease states	Exams, quizzes	1	I
Compare and contrast the usefulness of different species, techniques, and levels of analysis for studying brain and behavior.	Exams, quizzes	1,2,6	C,I
Critically evaluate and summarize psychological research.	Written assignment	1,2,4,7	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 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**

PSYC 200 – Principles of Psychology

### **Required Text**

Kolb, B., Whishaw, I. Q., & Teskey, G. C. (2016). *An Introduction to Brain and Behavior* (6<sup>th</sup> Ed.). Worth Publishers: New York, NY.

The textbook can be purchased from the University Book Store. An e-book version can be purchased from MacMillan Learning.

### **Assessment Methods**

Quizzes (11 total)	15%
Midterm #1 (Ch. 1 – 3; May 18)	20%
Midterm #2 (Ch. 4 – 7; June 6)	25%
Written Assignment (June 13)	10%
Final Exam (Ch. 9, 10, 11, 14; TBD)	30%

There will be 11 multiple choice quizzes throughout the course, one following each chapter. Quizzes will be completed at the beginning of each lecture (after the midterm but prior to lecture on May 18 and June 6) and cover material presented in the previous lecture. You will have 10min to complete each quiz.

The two midterms and the final exam will be non-cumulative and include multiple choice and short answer questions. The midterms will take place during the first 60min of lecture on May 18 (Midterm #1, Chapters 1 – 3) and June 6 (Midterm #2, Chapters 4 – 7). The final exam will cover Chapters 9, 10, 11, and 14 and will be scheduled by the registrar during the final exam period (June 20 – 22).

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.

The written assignment will involve doing a literature search for a recent (published within 2022) original research paper (i.e., not a review, meta-analysis, commentary, etc.) that covers a topic relevant to the topics covered in the course. You must have the research paper approved by the instructor by **11:59pm on Monday, May 30**. Your objective is to read, understand, and critically evaluate the research paper in order to summarize the Introduction, Methods, Results, and Discussion in plain, jargon-free

language. You must write a report (~2-3 pages double-spaced not including your title page) that can be understood by someone with no background in psychology or neuroscience. Your report must be written in APA style (7<sup>th</sup> edition). Your assignments must be submitted via D2L dropbox by **11:59pm on Monday, June 13**. Late assignments 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: <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-).

**Tentative Lecture Schedule**

Date	Topic/Activity/Readings/Due Date (revise and add columns & rows as necessary)
W May 4	<i>Spring term lectures begin</i> Course Introduction Chapter 1: What are the origins of brain and behavior?
M May 9	<i>Last day to drop classes without penalty and last day to add or swap classes.</i> Chapter 2: What is the nervous system’s functional anatomy?
W May 11	Chapter 3: What are the nervous system’s functional units?
M May 16	Chapter 4: How do neurons use electrical signals to transmit information?
W May 18	<b>Midterm #1: Chapter 1 – 3</b> Chapter 5: How do neurons communicate and adapt?
M May 23	<i>Victoria Day UNIVERSITY CLOSED</i>
W May 25	Chapter 6: How do drugs and hormones influence brain and behavior?
M May 30	Chapter 7: How do we study the brain’s structures and functions? <b>Deadline for approval of Written Assignment paper</b>
W Jun 1	Chapter 9: How do we sense, perceive, and see the world?
M Jun 6	<b>Midterm #2: Chapters 4 – 7</b> Chapter 10: How do we hear, speak, and make music?
W Jun 8	Chapter 11: How does the nervous system respond to stimulation and produce movement?
M Jun 13	Chapter 14: How do we learn and remember? <b>Written Assignment due @ 11:59pm</b>
W Jun 15	Flex Day
R Jun 16	<i>End of Spring Lectures and last day to withdraw from a course.</i>
M Jun 20	<i>Start of Spring Final Exams</i>
W Jun 22	<i>End of Spring Final Exams</i>

## **Extra Research Participation Course Credit is Not Offered for this Course.**

### **Seating During Exams**

Instructors and exam invigilators are free to ask students to move seats before an exam begins or even during an exam. Students must comply with this request and refusal to do so may warrant a charge of academic misconduct.

### **Absence From A Test/Exam**

Makeup tests/exams are **NOT** an option without the approval of the instructor. A student may be asked to provide supporting documentation for an exemption/special request for a make-up exam <https://www.ucalgary.ca/pubs/calendar/current/m-1.html>. Students who miss a test/exam have up to 24 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 24-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 1 week of the missed test/exam during exam make-up hours provided by the department <http://psychology.ucalgary.ca/undergraduate/exam-and-course-information#mues>. 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 June and August 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).

**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/](http://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 <http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf>.

### **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](http://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

### **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 **Monday, May 9<sup>th</sup>, 2022**. Last day for registration/change of registration is **Monday, May 9<sup>th</sup>, 2022**. The last day to withdraw from this course is **Thursday, June 16<sup>th</sup>, 2022**.