

**PSYC 375 (LEC 01)**
**Brain and Behaviour**
**Winter 2020**

<b>Instructors:</b>	Sarah Thackray	<b>Lecture Location:</b>	Online
<b>Phone:</b>	403-220-3769	<b>Lecture Days/Time:</b>	TR 12:30-1:45
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<b>Office Hours:</b>	By appointment only (email to arrange a time)		

Lectures will be pre-recorded and posted on D2L following the initial class schedule (i.e. they will be available Tuesdays and Thursdays around 12:30pm) and one class' worth of material will be posted at a time. However, instead of 75 min videos, there will be a series of shorter videos available for each lecture along with review/practice questions similar to those I had in TopHat at the beginning of class and those I asked during class, as well as links to other relevant material (i.e. YouTube videos, etc.) that I would normally use in face-to-face lectures.

**Course Description**

The task of behavioural 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 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](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.	Multiple choice exams, short answer questions	1	I
Outline the basics of neural communication (neurotransmitters, the action potential, etc.).	Multiple choice exams, short answer questions	1	I
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, techniques, and levels of analysis for studying brain and behavior.	Multiple choice exams, short answer questions	1,2,6	C,I
Critically evaluate information presented in the media regarding brain and behavior.	Online activities, 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.

### 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. **\*\*The publisher has emailed me indicating that students will now have free access to the Launchpad site that includes the eBook\*\***

### Assessment Methods

Quizzes (4 total):	10%
Online assignments (5 total)	10%
Midterm #1 (Ch. 1-3; February 6 <sup>th</sup> )	20%
Midterm #2 (Ch. 4-6; March 17 <sup>th</sup> see below)	20%
Written Assignment (April 7 <sup>th</sup> )	10%
Final Exam (Ch. 7, 11, 13 - 14; starting April 22)	30%

### TopHat:

TopHat will be used in this class to encourage participation and to help students assess their own knowledge and engage with the course material. It will also be used to administer the quizzes (see below). **You will need to have a TopHat account.** Information on how to do this will be provided in class and on D2L.

### Quizzes:

There will be 4 quizzes spread throughout the course; each quiz will be worth 2.5% of your final grade (for a total of 10%). **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 done at the beginning of lecture and will be administered through TopHat (therefore, your TopHat account must be set up prior to the first quiz on Jan 28). **Quiz 4 will be run through D2L and will be available starting at 9am on March 31 and must be completed by 11:59pm March 31.** Each quiz will consist of approximately 3 short answer questions.

### Online Activities:

There will be 5 online activities throughout the semester, administered through D2L. The purpose of these activities is to enhance your critical thinking skills and prepare you for your written assignment. Each activity is worth 2% of your final grade (for a total of 10%). The activities will involve reading articles and/or watching short videos and answering questions based on what you have read/watched. All activities will be available for the duration of the semester, however, **to receive credit for completion, the “quiz” associated with the activity must be submitted prior to the deadline (see below).** Late submissions will not be accepted without appropriate documentation.

### Exams:

There are three exams for this course; the two midterms will consist of mostly multiple-choice questions with 1 page single-sided of short answer questions (which may include labeling and/or matching questions). Questions can be drawn from lecture material and the assigned textbook chapters. Midterm

#1 will be held on February 6<sup>th</sup> and is worth 20% of your final grade. Midterm #2 will be run through D2L is scheduled to open on March 17<sup>th</sup> and will be available until March 19<sup>th</sup>; however, once you begin, you will have 75 min to complete the exam. It will also be worth 20% of your final grade. **Midterm #2 will NOT be cumulative.** The final exam is worth 30% of your final grade. **The final exam will NOT be cumulative.** It will be an open book, take home exam consisting of short and long answer questions. It will be available on D2L on April 21 and must be submitted by April 24 by 5:30pm.

Quizzes and the short answer questions on the midterm and final exams 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 writing. Computers, tablets, and/or cellular phones are necessary for writing quizzes.**

### **Written Assignment:**

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 11:59 pm on April 7<sup>th</sup>** (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 on brain and behaviour in the classroom. Further details regarding the assignment will be provided in class and posted on D2L. Late papers will not be accepted without appropriate documentation.

### **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	Readings	Activity Due
M Jan 6	Winter term begin, Block Week Courses (Jan 6-10)		
T Jan 14	Winter Lectures Begin		
T Jan 14	Introduction and Review		
R Jan 16	Last day to drop Winter Term half-courses.		
R Jan 16	What are the Origins of Brain and Behaviour?	Chapter 1	
T Jan 21	What are the Origins of Brain and Behaviour?	Chapter 1	
R Jan 23	Last day to drop a class without financial penalty		
R Jan 23	What is the Nervous System's Functional Anatomy?	Chapter 2	Online Activity 1 due
F Jan 24	Last day to add or swap a course		
T Jan 28	What is the Nervous System's Functional Anatomy?	Chapter 2	Quiz 1
R Jan 30	What are the Nervous System's Functional Units?	Chapter 3	
F Jan 31	Tuition Fee Deadline		
T Feb 4	What are the Nervous System's Functional Units?	Chapter 3	
<b>R Feb 6</b>	<b>Midterm 1</b>	<b>Chapters 1-3</b>	
T Feb 11	How do Neurons Use Electrical Signals to Transmit Information?	Chapter 4	Online Activity 2 due

R Feb 13	How do Neurons Use Electrical Signals to Transmit Information?	Chapter 4	
Feb 16-22	Reading Week. No lectures. University open (except Family Day). Alberta Family Day, University closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.		
M Feb 17	Alberta Family Day, University closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.		
T Feb 25	How Do Neurons Communicate and Adapt?	Chapter 5	Quiz 2
R Feb 27	How Do Neurons Communicate and Adapt?	Chapter 5	Online Activity 3 due
T Mar 3	How Do Drugs and Hormones Influence Brain and Behaviour?	Chapter 6	
R Mar 5	How Do Drugs and Hormones Influence Brain and Behaviour?	Chapter 6	Quiz 3
T Mar 10	How Do We Study the Brain's Structures and Functions?	Chapter 7	
R Mar 12	How Do We Study the Brain's Structures and Functions?	Chapter 7	Online Activity 4 due
<b>T Mar 17</b>	<b>Midterm 2</b>	<b>Chapters 4-7</b>	
R Mar 19	How Does the Nervous System Respond to Stimulation and Produce Movement?	Chapter 11	
T Mar 24	How Does the Nervous System Respond to Stimulation and Produce Movement?	Chapter 11	
R Mar 26	Why Do We Sleep and Dream?	Chapter 13	Online Activity 5 due
T Mar 31	Why Do We Sleep and Dream?	Chapter 13	Quiz 4
R Apr 2	How Do We Learn and Remember?	Chapter 14	
T Apr 7	How Do We Learn and Remember?	Chapter 14	Written Assignment due
R Apr 9	How Does the Brain Think?	Chapter 15	
F Apr 10	Good Friday		
M Apr 13	Non-Instructional Day, University Open		
T Apr 14	How Does the Brain Think?	Chapter 15	
W Apr 15	Last day of classes, last day to withdraw from winter semester		
Apr 18-29	Final Exam Period		
Apr 30	End of Term		

### **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 <http://ucalgary.sona-systems.com>. The last day to participate in studies and to assign or reassign earned credits to courses is **April 15, 2020**.

### **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/n-1.html>. 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 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 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](mailto: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>

### **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.

### **Student Organizations**

Psychology students may wish to join the Psychology Undergraduate Students' Association (PSYCHS). They are located in Administration 130 and may be contacted at 403-220-5567.

**Student Union VP Academic:** Phone: 403-220-3911 [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca)

**Student Union Faculty Rep.:** [arts1@su.ucalgary.ca](mailto:arts1@su.ucalgary.ca)

### **Important Dates**

The last day to drop this course with no "W" notation and **still receive a tuition fee refund** is **January 23, 2020**. Last day for registration/change of registration is **January 24, 2020**. The last day to withdraw from this course is **April 15, 2020**.