

PSYC 375 - 2		Brain and Behaviour		Fall 2020	
<b>Instructor:</b>	Sarah Thackray	<b>Lecture Location:</b>	Online D2L		
<b>Phone:</b>	403-220-3769	<b>Lecture Days/Time:</b>	N/A		
<b>Email:</b>	sthackra@ucalgary.ca		Materials will be provided on D2L		
<b>Office:</b>	N/A				
<b>Office Hours:</b>	By appointment, email to arrange a time				

### 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 <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 function.	Exams, quizzes	1	I
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Illustrate the relationship between nervous system dysfunction and disease states (Alzheimer's disease, depression, etc.).	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 information presented in the media regarding brain and behavior.	Discussion posts	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 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

Class materials will be posted to the course D2L page by the day/time of each scheduled class as per the course schedule below.

### Prerequisites

Psyc 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 (3 total: Sept 18, Oct 16, Nov 18):	15%
Discussion posts (minimum 6 posts + 6 responses):	15%
Midterm #1 (Ch. 1-3; Sep 30):	20%
Midterm #2 (Ch. 4-6; Nov 2):	20%
Final Exam (Ch. 7, 11, 13, 14; TBD):	30%

The course is divided into 3 sections; each section has a quiz and an exam and requires a minimum of 2 discussion posts with 2 responses.

### Quizzes:

There will be 3 quizzes spaced throughout the course (Sept 18, Oct 16, Nov 18); **each quiz is worth 5% of your final grade (15% total)**. The quizzes will be available on D2L for 24 hours starting at 12pm on the date scheduled to access but will have a limit of 30 minutes to complete once started (this is based on the 20 min plus 50% to allow for any technological issues). 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. Each quiz will consist of 5-10 multiple choice, true/false, fill-in-the-blank, short answer (1-2 words), matching, or ordering questions. **Quizzes must be completed within the 24-hour window; failure to do so without instructor approval will result in a grade of zero.** Students with Academic Accommodations should contact me to make appropriate adjustments.

A number of not-for-credit quizzes will also be provided on D2L (usually ~2 per chapter). These are optional resources for you to test your knowledge and do not count towards your final grade.

### Discussion posts:

The class will be randomly divided into groups of ~5 students for discussion posts – you are only responsible for reading and responding to those in your group. The purpose of the discussion posts is to engage with course material by examining articles/videos related to topics discussed in the course and think critically about the material. For each section of the course, a minimum of 2 discussion posts and 2 responses to other students' discussion posts are required by 11:59pm on the scheduled due date (see schedule below). **The posts from each section will be worth 5%, for a total of 15%.** Posts will be graded based on a rubric (see D2L) that includes relevancy of the post (does the post relate to something discussed in class for the specific section?), timeliness of posts (are posts and responses spread out across the section or posted within a short period of time?), and mechanics of the post (are the posts grammatically correct and readable?). Each post should be 1-2 paragraphs (¼ to ½ page single spaced maximum) and include a question that other students can respond to; each response should be a minimum of 1-2 sentences (up to ¼ page single spaced) and add to the discussion (i.e. should be more than "I agree."). Guidance for how to write and respond to posts will be provided on D2L. A list of possible topics and links will be provided for each section of the course, but you are welcome to find your own sources as well. Without instructor approval, **discussion posts/responses created up to 3 days past the deadline will be penalized 10% per day, including weekends; without instructor approval, discussion posts/responses created more than 3 days past the deadline will receive a grade of zero.**

#### **Exams:**

There will be 3 exams spaced throughout the course; **midterms 1 & 2 (Sep 30 and Nov 2) are worth 20% each and the final exam is worth 30% of your final grade (70% total).** The exams will test you on the lecture material that has been covered in each section of the course. **Exams are not cumulative**, but you may need to understand concepts from earlier in the course to answer questions on midterm 2 and the final exam. **The midterm exams will be available on D2L for 24 hours starting at 12pm on the date scheduled to access but will have a limit of 75 minutes to complete once started** (this is based on the original 50 min class plus 50% to allow for any technological issues). The midterms will consist of approximately 45 multiple choice, true/false, fill-in-the-blank, short answer (1-2 words), matching, or ordering questions.

**The final exam will be scheduled by the registrar.** It will consist of multiple choice and short answer (a few words to a few sentences) questions. **Without instructor approval, exams must be completed within the time window specified; failure to do so will result in a grade of zero.** Students with Academic Accommodations should contact me to make appropriate adjustments.

**Exams and quizzes 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.**

#### **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 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%
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
T Sep 8	University Lectures begin.	
W Sep 9	Introduction to course	
F Sep 11	What are the Origins of Brain and Behaviour?	Chapter 1
M Sep 14	What are the Origins of Brain and Behaviour? Cont'd What is the Nervous System's Functional Anatomy?	Chapter 1 Chapter 2
W Sep 16	What is the Nervous System's Functional Anatomy? Cont'd	Chapter 2
R Sep 17	Last day to drop a class without a penalty	
F Sep 18	<b>Quiz 1</b> What is the Nervous System's Functional Anatomy? Cont'd	<b>Chapter 1 and Chapter 2 Parts 1&amp;2</b> Chapter 2
F Sep 18	Last day to add or swap a course	
M Sep 21	What is the Nervous System's Functional Anatomy? Cont'd What are the Nervous System's Functional Units?	Chapter 2 Chapter 3
W Sep 23	What are the Nervous System's Functional Units? Cont'd	Chapter 3
F Sep 25	What are the Nervous System's Functional Units? Cont'd	Chapter 3
F Sep 25	Fee payment deadline for Fall Term full and half courses.	
M Sep 28	What are the Nervous System's Functional Units? Cont'd	Chapter 3
W Sep 30	<b>Exam 1</b>	Chapter 1, 2, 3
F Oct 2	<b>Section 1 Discussion posts due by 11:59pm</b>	
M Oct 5	How do Neurons Use Electrical Signals to Transmit Information?	Chapter 4
W Oct 7	<b>Section 1 Discussion responses due by 11:59pm</b> How do Neurons Use Electrical Signals to Transmit Information? Cont'd	Chapter 4
F Oct 9	How do Neurons Use Electrical Signals to Transmit Information? Cont'd	Chapter 4
M Oct 12	Thanksgiving Day, University closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.	
W Oct 14	How Do Neurons Communicate and Adapt?	Chapter 5
F Oct 16	<b>Quiz 2</b> How Do Neurons Communicate and Adapt? Cont'd	<b>Chapter 4 and Chapter 5 part 1</b> Chapter 5
M Oct 19	How Do Neurons Communicate and Adapt? Cont'd	Chapter 5
W Oct 21	How Do Neurons Communicate and Adapt? Cont'd	Chapter 5
F Oct 23	How Do Drugs and Hormones Influence Brain and Behaviour?	Chapter 6
M Oct 26	How Do Drugs and Hormones Influence Brain and Behaviour? Cont'd	Chapter 6

W Oct 28	How Do Drugs and Hormones Influence Brain and Behaviour? Cont'd	Chapter 6
F Oct 30	<b>Section 2 Discussion posts due by 11:59pm</b> How Do Drugs and Hormones Influence Brain and Behaviour? Cont'd	Chapter 6
M Nov 2	<b>Exam 2</b>	Chapters 4, 5, 6
W Nov 4	<b>Section 2 Discussion responses due by 11:59pm</b> How Do We Study the Brain's Structures and Functions?	Chapter 7
F Nov 6	How Do We Study the Brain's Structures and Functions? Cont'd	Chapter 7
Nov 8-14	Term Break No Classes	
W Nov 11	Remembrance Day (Observed). University Closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.	
M Nov 16	How Do We Study the Brain's Structures and Functions? Cont'd	Chapter 7
W Nov 18	<b>Quiz 3</b> How Does the Nervous System Respond to Stimulation and Produce Movement?	<b>Chapter 7</b> Chapter 11
F Nov 20	How Does the Nervous System Respond to Stimulation and Produce Movement? Cont'd	Chapter 11
M Nov 23	How Does the Nervous System Respond to Stimulation and Produce Movement? Cont'd	Chapter 11
W Nov 25	Why Do We Sleep and Dream?	Chapter 13
F Nov 27	Why Do We Sleep and Dream? Cont'd	Chapter 13
M Nov 30	Why Do We Sleep and Dream? Cont'd	Chapter 13
W Dec 2	How Do We Learn and Remember?	Chapter 14
F Dec 4	<b>Section 3 Discussion posts due by 11:59pm</b> How Do We Learn and Remember? Cont'd	Chapter 14
M Dec 7	How Do We Learn and Remember? Cont'd	Chapter 14
W Dec 9	<b>Section 3 Discussion responses due by 11:59pm</b> How Do We Learn and Remember? Cont'd	Chapter 14
W Dec 9	Fall Term Lectures End. Last day to withdraw with permission from Fall Term half courses.	
Dec 12-23	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 <http://ucalgary.sona-systems.com>. The last day to participate in studies and to assign or reassign earned credits to courses is **Wednesday, December 9, 2020**.

### **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](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>

### **Important Dates**

The last day to drop this course with no "W" notation and **still receive a tuition fee refund is Thursday, September 17, 2020**. Last day add/swap a course is **Friday, September 18, 2020**. The last day to withdraw from this course is **Wednesday, December 9, 2020**.

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