

Brain & Behaviour I

PSYC 271

Fall 2017

Instructor: Dr. Tyson W. Baker
Contact: Tyson.Baker@Queensu.ca
Lectures in Dunning Auditorium: Monday 8:30am-10:00am
Thursday 10:00am-11:30am
Office Hours in Humphrey 235: Monday 10:00am-11:00am
Thursday 11:30am-12:30pm

Teaching Assistant (TA): Louisa Man
Contact: Louisa.Man@Queensu.ca
Office Hours: See OnQ and by Appointment

Course Site

Course material, announcements, and students' grades will be available on [OnQ](#). OnQ will be used to communicate with the class regarding any cancellations, so please be sure to check in regularly. I highly-encourage using the discussion board for class-related content.

Your textbook comes with complimentary access to Revel as an optional supplement to the textbook and lectures. Detailed login instructions are posted on OnQ. If you have any technical problems, take a screenshot and check the help menu. If that doesn't work email the screenshot and a detailed description of the problem to me and your TA.

Course Description

An introduction to behavioural neuroscience. The course primarily focuses on the basics of neuronal operation, functional neuroanatomy, neuropharmacology, and behavioral neuroscience methods. This will be followed by an examination of input (sensory) and output (motor) systems of the brain. Finally, topics relevant to lateralization of function and language will be covered.

3 credit hours

Pre-requisites: PSYC 100

Required Materials: John P.J. Pinel & Steven J. Barnes. *Biopsychology*. 10th Edition. Pearson.
-Comes with complementary Revel access in the bookstore (Revel is an optional e-text with quizzes)
-9th edition is acceptable, but 10th is best.

Course Content

This schedule is subject to change and not all chapters will be covered in exactly 2 lectures.

(Date)	Topic	Relevant Readings
Sept 11	General Course Introduction	This syllabus
Sept 14,18	Introduction to Biopsychology	Chapter 1
Sept 21, 25	Evolution, Genetics, & Experience	Chapter 2
Sept 28, Oct 2	Anatomy of the Nervous System	Chapter 3
Oct 5	Midterm Exam 1 (30%)	Chapters 1-3
Oct 9	Thanksgiving: No Classes	
Oct 12, 16	Neural Conduction and Synaptic Transmission	Chapter 4
Oct 19, 23	The Research Methods of Biopsychology	Chapter 5
Oct 26, 30	Perception: The Visual System	Chapter 6
Nov 2	Leftovers & Review	Chapters 4-6
Nov 6	Midterm Exam 2 (30%)	Chapters 4-6
Nov 9, 13	Perception: Hearing, Touch, Smell, Taste, Attention	Chapter 7
Nov 16, 20	The Sensorimotor System	Chapter 8
Nov 23, 27	Learning, Memory, and Amnesia	Chapter 11
Nov 30	Leftovers & Review	All
Dec 7-17	Final Exam (40%) to be scheduled by the Examinations Office	All, with an emphasis on 7,8, 11

Please note that the final exam could be scheduled late in the exam period (I have no control over this) and **you are responsible for being available to write the exam at any point in the exam period.** Thus, I STRONGLY advise you to NOT book flights until the exam schedule becomes available!

Grading Scheme and Grading Method

Both midterms will occur during normal class time. Grades will be posted on OnQ. You can meet with your TA to view your exams. Grades will be handled in accordance with FOIPOP.

Component	Weight %	Comments
Midterm Exam 1 Midterm Exam 2	30% 30%	Midterm exams are designed to evaluate understanding of the material presented. Students are responsible for all textbook readings and lecture material. There will be 2 80-minute midterm exams during class time. Midterm exams are NOT cumulative and will consist of multiple choice and short-answer questions.
Final Exam	40%	The final exam IS cumulative, but the emphasis will be on material not covered on previous tests. Students are responsible for all textbook readings and lecture material. The final exam will consist of multiple choice and short-answer questions. This exam will be scheduled during the formal examination period.

Bonus Marks

Students can earn **up to 3% in bonus marks** for participation in psychological research outside of class. You can sign up and get instructions on <http://queensu.ca/psychology/undergraduate/participant-pool-information>

The Psychology Department Participant Pool has been expanded this year to include students enrolled in certain PSYC 200-level courses including this course. For every half hour of research completed, you can increase your final mark in this course by 0.5% up to a maximum of 3%. If you are enrolled in more than one eligible course, you will select the course toward which your research participation will be credited when you sign up for a study. This way you can complete studies toward each course. However, you cannot apply the same study credit to more than one course, and research credit cannot be used to improve a failing mark to a passing mark. Also, the penalty for missed experiments is the same as the one in PSYC 100. For more details, please see the information posted at the Psychology Participant Pool page on the Department website:

<http://www.queensu.ca/psychology/undergraduate/participant-pool-information>

As with PSYC 100, studies will be listed on SONA, and you will receive an email with the information you need to register your account on SONA after the end of the drop/add period. Expect the email around the middle of the third week of the semester. In addition, during the first week of the semester, you will be emailed a link to an online prescreening questionnaire that will be due by the end of the drop/add period (second Friday of the term). If you complete the larger prescreening questionnaire online, you may become eligible for additional studies, and those researchers will contact you directly to find a time to participate.

Participation in research is entirely voluntary. If you want to earn credit but don't want to participate in a particular study, you can complete an alternative assignment instead. For the alternative assignment, researchers either will offer a walk-through of their experiment, or they will have you to read an article or blog post, listen to a short podcast, or watch a short video and then answer questions about it. Researchers of the particular study for which you wish to get credit will administer the alternative assignment (NOT your course instructor -- course instructors are not involved in the crediting for studies or alternative assignments). You must contact the researcher of a particular study (see the study's contact information on SONA) before the last week of classes for the semester to complete the alternative assignment option. Although the length of studies will vary, the alternative assignment will take less time (approximately 30 minutes), so you will earn 0.5% for each alternative assignment that you complete.

All components of this course will receive numerical percentage marks. Your course total will be rounded according to mathematical convention. Your rounded course total will be converted to a letter grade according to Queen’s Official Grade Conversion Scale:

Grade	Numerical Course Average (Range)
A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
C+	67-69
C	63-66
C-	60-62
D+	57-59
D	53-56
D-	50-52
F	49 and below

Tips for Success!

Ask questions during lectures! If something is unclear to you or you have another question, chances are there are other students thinking the same thing. It makes lectures so much more enjoyable and allows everyone to benefit from your questions.

Study as frequently as possible; there is a massive amount of literature demonstrating that frequent studying is far superior to infrequent studying even when total study time is the same. **The most efficient minutes to study are right before lecture** because you can review the material from the last lecture that often continues into the oncoming lecture. An added bonus is that I’m right here if you have any questions. Incorporating tests into the same amount of study time increases learning, so use Revel as a study aid.

Please make use of the discussion board on OnQ for course-related content. Email your TA and myself (on the same email) if you have any questions unsuitable for the discussion board (e.g. personal information). Some concepts are best explained in-person, so just drop in to my office hours (you don’t need an appointment; I’ll be there). If you would like to meet but cannot make it to my office hours, email me with the reason you cannot attend my office hours and your available times for the next 5-7 days and I’ll reply with the first time our schedules match.

Location and Timing of Final Examinations

As noted in Academic Regulation 8.2.1, “the final examination in any class offered in a term or session (including Summer Term) must be written on the campus on which it was taken, at the end of the appropriate term or session at the time scheduled by the Examinations Office.”

The exam period is listed in the key dates prior to the start of the academic year in the Faculty of Arts and Science Academic Calendar and on the Office of the University Registrar’s webpage. A detailed exam schedule for the Fall Term is posted before the Thanksgiving holiday; for the Winter Term it is posted the Friday before Reading Week, and for the Summer Term the window of dates is noted on the Arts and Science Online syllabus prior to the start of the course. Students should delay finalizing any travel plans until after the examination schedule has been posted. Exams will not be moved or deferred to accommodate employment, travel /holiday plans or flight reservations.

Academic Considerations for Students in Extenuating Circumstances

Queen's University is committed to providing academic consideration to students experiencing extenuating circumstances that are beyond their control and which have a direct and substantial impact on their ability to meet essential academic requirements. The Faculty of Arts and Science is developing a protocol to provide a consistent and equitable approach in dealing with requests for academic consideration for students facing extenuating circumstances, which will be posted on the Faculty of Arts and Science website in Fall, 2017.

The above is the official Queen's statement, which means we are currently transitioning into a new system this term. Here is the system we will use (unless it is replaced by the new system).

Email myself and your TA as soon as possible if you miss an exam due to extenuating circumstances. I decide what constitutes extenuating circumstances, but circumstances must be outside of your control and greatly impair your ability to perform near your usual ability. Extenuating circumstances usually are documented and include death or severe illness of a family member or your own illness.

- An acute minor illness or infection (e.g. cold)?
 - Use the Self-Declaration form:
<http://www.queensu.ca/studentwellness/sites/webpublish.queensu.ca.swswww/files/files/Health%20Services/Declaration%20of%20Illness%20From.pdf>
- A serious and/or chronic (long term) illness or injury results in a significant disruption of academic work?
 - Use a "Verification of Illness" (AKA "sick note")
<http://www.queensu.ca/studentwellness/health-services/services-offered/sick-notes>
- Death or serious family illness?
 - Please ask your family member's funeral home or health-care professional for documentation.
- Other?
 - Email your TA and myself directly. There are incredibly rare cases that do not fit the above classifications.

Extenuating circumstances exclude forgetting the exam, your boss wants you to work a shift, or you have 6 other exams and 3 papers due the day of the midterm. However, for final exams only, a student discovering a conflict (two examinations at the same hour, three consecutive examinations in a 24-hour period or an examination at the same hour as a religious observance) should report the conflict to the University Examinations Office, as soon as possible.

For **midterm exams** missed due to extenuating circumstances, I will prorate the exam as the weighted mean of the other midterm and final exam. For midterm exams missed NOT due to extenuating circumstances, I will prorate the exam as half the weighted mean of the other midterm and final exam.

For **final exams** missed due to extenuating circumstances, we follow departmental policies:
<http://www.queensu.ca/psychology/undergraduate/current-students/departmental-policies>

Students who cannot write an exam during the December or April exam period due to a serious, extenuating circumstance (illness, death in the family) must follow the steps below to be eligible to write a deferred exam during the PSYC department's Make up Exam period in January, April/May, and September.

1. Obtain permission from their instructor to write a deferred exam. This requires notifying your instructor in advance or, under extraordinary circumstances, within 72 hours after, the exam, with appropriate documentation . Please use the Request for Exam Deferral form [http://www.queensu.ca/psychology/sites/webpublish.queensu.ca.psycwww/files/files/Undergraduate/Other/Request for Exam Deferral Form FINAL COPY.pdf](http://www.queensu.ca/psychology/sites/webpublish.queensu.ca.psycwww/files/files/Undergraduate/Other/Request%20for%20Exam%20Deferral%20Form%20FINAL%20COPY.pdf) and attach your documentation.
2. Complete and return the instructor-signed Permission for an Incomplete Grade form available on the Arts and Science website http://www.queensu.ca/artsci/sites/default/files/permission_for_an_incomplete_grade1.pdf and return to the UG office.
3. Be available to write the makeup exam the PSYC department's Make up Exam period in January, April/May or September, or receive '0' on the exam.

NOTE: Students who do not write the makeup exam are advised to drop the course. If a student cannot write the makeup exam due to a serious extenuating circumstance for which they can provide new documentation, they will either be granted a second deferral by their instructor or be supported in their appeal to drop the course after the deadline though this decision rests with the Associate Dean (Studies).

Accessibility

Queen's is committed to an inclusive campus community with accessible goods, services, and facilities that respect the dignity and independence of persons with disabilities. PSYC 271 is available in an accessible format or with appropriate communication supports upon request. Please contact me for support.

Accommodations

Queen's University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a disability and think you may need accommodations, you are strongly encouraged to contact Student Wellness Services (SWS) and register as early as possible. For more information, including important deadlines, please visit the Student Wellness website at:

<http://www.queensu.ca/studentwellness/accessibility-services/>

Technology in our Classroom

Use of electronic devices within the classroom must be class-relevant and sound/vibration must be turned off. Contact me before class if you require special consideration.

Intended Student Learning Outcomes

By Midterm Exam 1, students are expected to be able to compare and contrast the subdisciplines of biopsychology and identify their role in converging operations, describe how research on evolution of the human brain has changed over time, define epigenetics, and explain how it is transforming our understanding of genetics, identify parts of the brain and brain cells.

By Midterm Exam 2, students are expected to be able to understand how neurons fire action potentials and communicate with one another, compare and contrast brain imaging techniques, psychophysiological measures of brain activity, psychological and physiological brain measurement and forms of brain manipulation, identify the processes that our visual system uses to turn our physical environment into neural signals and how these neural signals operate.

By the Final Exam, students are expected to be able to identify the processes that our other (non-visual) senses turn our physical environment into neural signals and how these neural signals operate, explain what is meant by a hierarchy of central sensorimotor programs, and explain the importance of this arrangement or sensorimotor functioning (in other words, how we produce behaviours), how the brain acquires, maintains, and loses knowledge

By the end of the course, a student may be able to understand how our biological machinery allows us to convert physical input into sensory experiences, thoughts, and behaviour.

Academic Integrity

Academic Integrity is constituted by the six core fundamental values of honesty, trust, fairness, respect, responsibility and courage (see www.academicintegrity.org). These values are central to the building, nurturing and sustaining of an academic community in which all members of the community will thrive. Adherence to the values expressed through academic integrity forms a foundation for the "freedom of inquiry and exchange of ideas" essential to the intellectual life of the University (see the Senate Report on Principles and Priorities <http://www.queensu.ca/secretariat/policies/senate/report-principles-and-priorities>).

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments conform to the principles of academic integrity. Information on academic integrity is available in the Arts and Science Calendar (see Academic Regulation 1 <http://www.queensu.ca/artsci/academic-calendars/regulations/academic-regulations/regulation-1>), on the Arts and Science website (see <http://www.queensu.ca/artsci/academics/undergraduate/academic-integrity>), and from the instructor of this course. Departures from academic integrity include plagiarism, use of unauthorized materials, facilitation, forgery and falsification, and are antithetical to the development of an academic community at Queen's. Given the seriousness of these matters, actions which contravene the regulation on academic integrity carry sanctions that can range from a warning or the loss of grades on an assignment to the failure of a course to a requirement to withdraw from the university.

Copyright

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Privacy

This course makes optional use of Revel for augmenting studying. Be aware that by logging into the site, you will be leaving OnQ, and accessing Pearson's website and Revel. Your independent use of that site, beyond what is required for the course (for example, purchasing the company's products), is subject to Pearson's terms of use and privacy policy. You are encouraged to review these documents before using the site. <http://www.pearsoncanada.ca/pearson-canada-at-a-glance/legal/privacy-statement>