

PSYC 471: Behavioural Pharmacology

Instructor

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To ensure a prompt response to email, please include Psyc471 in the subject line.

Acknowledgement of Territory

To begin, let us acknowledge that Queen's is situated on traditional Anishinaabe and Haudenosaunee territory. We are grateful to be able to live, learn and play on these lands.

To acknowledge this traditional territory is to recognize its longer history, one predating the establishment of the earliest European colonies. It is also to acknowledge this territory's significance for the Indigenous peoples who lived, and continue to live, upon it and whose practices and spiritualities were tied to the land and continue to develop in relationship to the territory and its other inhabitants today. The Kingston Indigenous community continues to reflect the area's Anishinaabek and Haudenosaunee roots. There is also a significant Métis community and there are First people from other Nations across Turtle Island present here today.

To read more about the history of the land, see the Queen's Encyclopedia at <http://www.queensu.ca/encyclopedia/t/traditional-territories>

Course Delivery

This entire course will be taught remotely; all components are asynchronous to accommodate students who are in other time zones and/or unable to attend synchronous sessions. Beginning in the third week of class, students may arrange individual or group meetings with the instructor to discuss course material, topics and assignments, as well as other general issues related to the course. Depending on provincial health regulations and conditions on Queen's campus, meetings may be virtual (via Microsoft Teams) or in person.

Course Description

This course focuses on understanding the neuropharmacological basis of psychological processes. The course begins with an overview of basic neuropharmacology, including principles of neurotransmission and neurophysiology. This will be followed by a description of the behavioural effects of drugs in humans and other animals. This will lay the groundwork for in-depth discussions of the neuropharmacological mechanisms mediating recreational and prescription drugs.

Course Website

All communication related to this course will occur through OnQ: access is restricted to students who are registered in this course. Course announcements will be sent through Queen's email addresses, so it is important to access this account on a regular basis throughout the term.

Textbook

All students should purchase or have access to the following textbook:

Hancock, S.D. & McKim, W.A. (2018). *Drugs and Behavior: An Introduction to Behavioral Pharmacology*. 8th edition. New York NY: Pearson Education Inc.

The text is available through the campus bookstore.

Learning Outcomes

With successful completion of Psychology 471, students will be able to:

- Identify primary areas of research in behavioral pharmacology.
- Outline the biological steps involved in central nervous system neurotransmission.
- Discuss similarities and differences in pharmacological mechanisms of abused drugs.
- Describe pharmacological underpinnings of common psychiatric disorders.
- Effectively communicate the rationale, methodology, results, and implications of a scientific study in neuropharmacology.

Technological Requirements

To best participate in the course, the following technology specifications are encouraged.

Web browsers: onQ performs best when using the most recent version of the web browsers, Chrome or Firefox. Safari and Edge are strongly discouraged as these web browsers cause issues with onQ.

Internet speed: While wired internet connection is encouraged, we recognize that students may be relying on a wireless connection. A minimum download speed of 10 Mbps and up to 20 Mbps for multimedia is recommended. To test your internet speed, <https://www.speedtest.net/>

For technology support ranging from setting up your device, issues with onQ to installing software, contact ITS Support Centre: <https://www.queensu.ca/its/itsc>

Evaluation

Quizzes	20%
Lecture Presentation	15%
Lecture Feedback	5%
Group Discussion Project	20%
Group Discussion Response	10%
Research Paper Analysis	10%
Science Communication	20%

Note: Due dates are all listed on a separate document loaded on the course website.

Assignment Descriptions

Quizzes (20%)

There are 15 quizzes, one for each chapter in the textbook. All quizzes are accessed and completed through OnQ. Each quiz consists of 10 questions, randomly selected from a larger database. You will have 30 minutes to complete each quiz once it is initiated. The **top ten** quiz marks will constitute 20% of your final mark (i.e., 2% per quiz).

Lecture presentation (15%)

Each student will prepare **one** lecture that covers material from one chapter of the textbook. Lecture assignments, with corresponding due dates, are listed on a separate document ('lecture assignments'). The lecture should be 15-20 minutes in length and prepared as a voice over powerpoint. The lecture should summarize the main points in the chapter and highlight important terms or definitions. The primary goal of the lecture is to educate your classmates and to prepare them for quizzes or other assignments in this course. It is not necessary to use any references beyond the textbook, although you may want to consult other sources if you are looking for images to include on the slides or for alternative ways to explain complex topics.

Instructions for preparing voiceover powerpoint videos can be found at the following sites:

- [Voice over PowerPoint Office 2013-2016](#)
- [Voice over PowerPoint Office 2010](#)
- [Voice over PowerPoint Office 2011 \(mac\)](#)

There is a file upload limit of 100 MB. For instructions on reducing file sizes, [click here](#)

Please save your file using the chapter number (e.g., Chapter 1), then submit one copy to the OnQ dropbox AND leave one copy on the Discussions Board under Lecture Assignments. That way, other students in the class will have access to your presentation for their own studying and to do the Lecture Feedback assignment.

Lecture Feedback (5%)

Lecture presentations from each student will be available for the entire class to view. Each student is required to provide feedback on **five** other lectures (although we hope that you will watch most of these!) using a lecture feedback form that is loaded on the course website.

Group Project (20%)

Students will work in groups of 4-7 to prepare **one** in-class presentation on recent, controversial topics related to the field of neuropharmacology. The purpose is to use scientific evidence to shed light on topics that are broadly discussed in the public domain. Groups will be randomly selected and topics will be assigned after the add/drop period has passed. Presentations should be 15-20 min using slides, video clips, panel discussion, or any other technique that effectively conveys the important points in the topic. Presentations will be loaded on line using a format that is readily available to the entire class (powerpoint is ideal). One copy must be submitted to the OnQ dropbox and one copy loaded on the Discussions Board under Group Projects.

Group Discussion Response (10%)

Each student is required to provide feedback on **two** other group projects. Each written response should include 3-4 paragraphs describing what you learned about the topic and how your opinions did (or did not) change after watching the presentation.

Research Paper Analysis (10%)

Each student will complete an assignment in which they read a behavioral pharmacology article, then respond to a series of questions about the articles. There are two opportunities to complete this assignment, but students should only complete one of these. The articles and associated questions will be available over a 24-hour period. The assignment should take 3-4 hours so the 24-hour window includes any extensions related to accommodation. Questions will draw on material in the course textbook, but will also require students to critically evaluate the results of each study.

Science Communication (20%)

Each student will complete an assignment in which they communicate findings from a behavioral pharmacology study to a general audience. Topics may include pharmacological treatments for a specific mental health conditions (e.g., obsessive-compulsive disorder), technological advances in understanding epigenetic modification of pharmacological systems, or COVID effects on neurotransmission. The mode of communication may vary from a science reporting article (~1,000 words) to a 5 min TedTalk or podcast. Students may complete the project on their own or in groups of 2-5 students. Students must set up the groups themselves and those who submit an assignment together will all receive the same mark. There are two submission due dates for this assignment (see due dates document): students who submit the assignment on the first due date will receive a mark and feedback within 2 weeks of the submission. They will then have the option to revise and resubmit the assignment for the second submission deadline.

Due Dates

Please check the 'due dates' document for specific deadlines of each assignments.

Statements on Accommodation and Academic Consideration

Queen's University is committed to achieving full accessibility for people 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. The Senate Policy for Accommodations for Students with Disabilities was approved at Senate in November 2016 (see

<https://www.queensu.ca/secretariat/sites/webpublish.queensu.ca.uslclwww/files/files/policies/senateandtrustees/ACADACCOMMPOLICY2016.pdf>)

Queen's University is also committed to providing academic consideration to students experiencing extenuating circumstances that are beyond their control and are interfering with their ability to complete academic requirements related to a course for a short period of time. The Senate Policy on Academic Consideration for Students in Extenuating Circumstances is available at

<http://www.queensu.ca/secretariat/sites/webpublish.queensu.ca.uslclwww/files/files/policies/senateandtrustees/Academic%20Considerations%20for%20Extenuating%20Circumstances%20Policy%20Final.pdf>

Because of the policy on late assignments (see ‘due dates’ document), students are not required to submit either an Academic Accommodation or Request for Academic Consideration form to the instructor, with the two exceptions noted below:

1. Requests for academic consideration between 4 days and 3 months

- Requests for academic consideration between 4 days and 3 months should be made as soon as you require academic consideration.
- All requests for academic consideration between 4 days and 3 months require [supporting documentation](#), which should be submitted within 5 business days of submitting the request or it will be withdrawn.
- All requests for academic consideration for extenuating circumstances between 4 days and 3 months must be submitted before the course has closed/ended.
- Delegates submitting a Request for Academic Consideration for Extenuating Circumstances form and supporting documentation on behalf of a student should contact the Faculty Office to arrange to complete the proper forms.
- If you have questions, please contact the Academic Consideration Team in the Faculty Office at: asc.consideration@queensu.ca or 613-533-6000, ext. 75413.

2. Request for Excused Absence for Significant Event

Students who are making a request for academic consideration related to a significant event must follow these steps outlined below. If you are participating in an event at the provincial, national, or international level that is either a Queen’s Varsity Athletics event or an event to which you were invited as a distinguished guest, you can complete this form. Please submit requests a minimum of 2 weeks before the sanctioned events or as soon as the event is scheduled.

1. Gather the following information:
 - A personal statement about why participation in the event is significant to you/Queen’s
 - Specific details about what is being missed (i.e., exactly what courses, what tests, what assignments, etc.)
 - A copy of the invitation to participate/details about the competitions that determine who is invited
 - Any other relevant details about the event (i.e., tournament information, schedules, team details, who is participating)
2. A minimum of two weeks before the sanctioned event, or as soon as the event is scheduled, complete and submit a [Request for Excused Absence for Significant Event Form](#) to either:
 - Queen’s Athletics and Recreation senior management team/Athletics Services Coordinator – Retention (athletics and Recreation Centre, 284 Earl Street), for varsity athletic events OR
 - the Vice-Provost and Dean of Student Affairs (Gordon Hall, Room 300, 74 Union Street) for all other significant events
 - BISC Students should submit their requests to the Student Services office at the Bader International Student Centre (BISC).
3. Upload your signed form to the Arts & Science Academic Consideration Portal. If you encounter technical difficulties please reach out to asc.consideration@queensu.ca

As soon as possible, follow-up with your instructor(s) either by email or in-person to discuss how you will be making up for the missed academic requirements. This may require you to complete academic requirements prior to being absent for the event.

Academic Integrity

Queen's students, faculty, administrators and staff all have responsibilities for upholding the fundamental values of academic integrity; 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 and their behaviour 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 <https://www.queensu.ca/artsci/students-at-queens/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.

Queen's Copyright Information

"This material is copyrighted and is for the sole use of students registered in Psychology 471. This material shall not be distributed or disseminated to anyone other than students registered in Psychology 471. Failure to abide by these conditions is a breach of copyright, and may also constitute a breach of academic integrity under the University Senate's Academic Integrity Policy Statement."

Grade Conversion

All components of this course will receive a letter grade, using the Queen's Faculty of Arts and Science Official Grade Conversion Scale:

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

Grading Policy

If you feel the grade you have received does not reflect the work you turned in, you may ask for your assignment to be graded again by providing written justification within 7 days of receiving your mark. You must explain, in detail, why you think your grade should be adjusted, based on the assignment description and marking guidelines. By asking for your assignment to be regraded, you acknowledge that your grade may be higher or lower than your first mark. The second grade is final.