

Psychology 462 – Drugs and Behavioural Neuroscience Term 2 25/26

Instructor: Dr. Stan Floresco
Office Phone: (604) 827-5313
Email: floresco@psych.ubc.ca

- I typically respond to emails seven days a week, but please bear in mind that my email volume is very high. When contacting me, please use the email UBC has on file for you, and please note which course you are in, i.e. PSYC 462. In addition, **emails sent during normal-ish business hours (8 am -6 pm PST) are more likely to get responded to promptly**, as I don't check my email as often outside of those time, and your message might get pushed down the list in my inbox.

Teaching assistant: Peiran Zhou
Email: peiran.zhou@psych.ubc.ca

PREAMBLE

Welcome to the Drugs and Behavioural Neuroscience course! **Here's the quick and easy version of the course-**

Website: Canvas: <https://canvas.ubc.ca>

Links to all lecture slides, messages, announcements, etc. will be posted here.

Lectures: On campus, Tuesdays and Thursdays, 2:00-3:20 pm

Room: Woodward Instructional Resources Centre – Room 6

Zoom Q &A/Office Hour: There will be an optional, weekly, online Q&A session where you can ask me any questions about the lecture material or other class materials, or, just general interest questions. These Q&A sessions will be recorded, if you cannot attend. During these sessions, I would be happy to go over certain slides “live” from the previous week’s lecture if you have any question about the content.

Class discussion forum: There will be a class discussion forum conducted via *Piazza*. Please sign up to this forum via the link on the Canvas site, as I am able to answer a lot of questions of course content this way.

TEXTBOOK: **Psychopharmacology (4th Ed) by Meyer et al.**

The textbook is **mandatory**. An enhanced e-book is available through the UBC bookstore and a hard copy is also available on Amazon and other websites.

Note: The 2nd Ed version of the textbook is not sufficient for the course. The 3rd Ed *may* be sufficient, however when I refer particular textbook pages, I will only be referring to the 4th Ed.

Evaluation of your final mark will come in the form of three (3) exams, as detailed below.

COURSE CONTENT

Lectures will cover some material from the textbook, and some **not found in the text**. It is strongly recommended that the appropriate section of the textbook is read before or shortly after a lecture. Lectures slides will be made available online in a PDF format prior to class.

Most chapters are covered over 2 in-person lectures (with some topics receiving 1 or 3 lectures). Order loosely correspond to order presented in the textbook, with some exceptions.

TENTATIVE LECTURE TOPICS:

- 1) Principles of Pharmacology (**Chapter 1**)
- 2) Structure/Function of Nervous System & Chemical Signaling by Neurotransmitters (**Chapters 2-3**)
{1 lecture each}
- 3) Methods of Research in Psychopharmacology (**Chapter 4**)

Midterm Exam #1 held on Thursday, Jan 29th

- 4) Glutamate and GABA (**Chapter 8**) {** note order change}
- 5) Catecholamines (**Chapters 5**)
- 6) Serotonin/Acetylcholine (**Chapter 6-7**) {~1 lecture each}

Midterm Exam #2 held after midterm break (likely Tuesday, March 3rd)

- 7) The Opioids (**Chapter 11**) {1 lecture} {** note order change}
- 8) Drug Misuse and Addiction (**Chapter 9**)
- 9) Alcohol (**Chapter 10**)
- 10) **Class choice** - EITHER

Two other recreational drugs [The class will choose two] {1 lecture each}
Psychomotor Stimulants (**Chapter 12**) -or-
Nicotine/Caffeine (**Chapter 13**) -or-
Cannabinoids (**Chapters 14**)

-OR -

Affective Disorders (**Chapter 18**) (2 lectures)

- 11) Schizophrenia: Antipsychotic Drugs (**Chapter 19**)

LEARNING OUTCOMES:

The objectives of this course is to familiarize you with the neurochemical mechanisms that underlie different aspects of behavior, and understand how dysfunction in these processes may contribute to mental illness. By the end of this course, I hope that you will be able to-

- Understand basic principles of pharmacology
- Have a detailed knowledge of some key neural systems that regulate motor, motivational, emotional and cognitive functions.
- Comprehend some of the cellular mechanisms through which neurotransmitters and psychoactive drugs can alter neural activity and lead to changes in behavior
- Identify some of the key neurotransmitter systems and their contributions to different types of behavior
- Know the mechanisms of action of different drugs of abuse and how they may alter brain function both acutely and chronically.
- Have a detailed understanding of contemporary theories of brain dysfunction underlying different disorders, and how therapeutic drugs act to treat them.

Key Course Information

Website: Canvas: <https://canvas.ubc.ca>

Links to all lectures, slides, and additional information will be posted here. Messages and announcements will also come through Canvas. Please let me or your TA (Peiran) know if you're having any issues with the website!

Lectures: will be in person. This course covers A LOT of material, and many students find it difficult to catch up on content if they miss lectures, so it is **highly** recommended you make it to these if you want to keep up with the course content.

- Lectures will not be recorded, but I am perfectly fine with you recording the audio of the lectures on your own devices.

Q&A (optional): Every Wednesday, 2:30-3:30 pm via Zoom on Canvas, starting Wednesday, January 21st. These sessions are for your benefit, as I really want to help you understand the course content to best of your (and my) ability. If you are feeling a bit lost in the course, just want some clarification on topics discussed in class, or even just have more general questions about the field, I'm happy to answer best I can.

- These sessions are intended to handle all the questions you'd normally ask in class, as well as any questions that might be broadly applicable to your classmates. If you have questions about the course content or course administration, please ask these during the Q&A sessions. If for some reason you cannot make the Q&A session, please post your content questions on the discussion forum of the course website, and I will answer them during the Q&A session, which is recorded for you to watch later. One-on-one office hours are for personal/individual matters (see below).

Office hours: If you would prefer one-on-one discussions about the course that you would rather not discuss in a group setting, please email me to schedule an appointment (again, emails during regular business hours are more likely to be answered promptly than those sent after 6 pm on Fridays). Most one-on-one discussions can be conducted over Zoom, but I can also make time for an in-person meeting after class if needed. **I am also happy to answer relatively brief questions about course content over e-mail as well.**

Note: whom should you book one-on-one office hours with?

Please book office hours with your awesome TA if:

- You would like to review one of your exams. When reviewing your exam, you are not allowed to take photos or notes on the exam.
- You would like to discuss content from the course readings and/or study strategies.

Please book one-on-one office hours with Dr. Floresco if:

- You have an issue with course performance or progress.
- You would like to discuss psychology and neuroscience more generally.

Again, please note that questions about lecture content should be handled during the Q&A sessions, not during office hours. If you feel reluctant to speak up during the Q&A (which I totally understand), I encourage you to post your questions in the discussion forum of our Piazza page and I'll answer them on the Q&A.

TA office hours: By Appointment- email Peiran to set up a time

EVALUATIONS

Your final mark will be made up of a weighted average of (3) examinations. This will consist of two midterm exams written during the class time (2-3:20 pm), and the “final” exam written during the exam period at a time designated by UBC administration (you must be able to write at any time during the exam period). These will cover material from primarily from the lectures supplemented by information in the textbook.

Tentative date and duration of exams are as follows:

Midterm Exam 1 (80 minutes) Thursday, January 29th, 2026 (worth **25%** of the mark for the course)

Midterm Exam 2 (80 minutes) likely the 2nd week after reading break (likely March 3rd, 2026) (worth **35%** of final mark)

Final Exam: TBA by Registrar’s office (worth **40%** of the mark for the course)

Notes on the exams:

- **Exams are held on campus in our usual class, and you must be available to write the exam on campus at the appointed time. Exams CANNOT be administered remotely.** Please schedule ahead accordingly. (Accommodations with the Centre for Accessibility will of course be honored.)

- Exams will be composed of multiple choice questions, short essays and definitions

- For exams, you will be responsible for all material covered in the lectures and related information in the chapters of the textbook. A good proportion of the lecture material is also covered in the textbook, **but some is not.**

Again→ you will be tested on the material *related to what is covered in the lectures-* so **your study strategy should focus on lecture material first** and then supplement that with information from the textbook.

- Exams are not cumulative (with the exception of one essay question on the 2nd midterm), but the later material in the course clearly builds upon the earlier material.

- Once exams have been marked, grades will be sent out via Canvas.

- Grade adjustments are uncommon, but if a dispute between TA and student occurs for grading, Dr. Floresco will regrade that component of your exam—this can result in the same grade, an increase, or a decrease, depending on Dr. Floresco’s judgement of your answer. Any grading disputes must be handled within 2 weeks of exam grades being released.

- Your final mark will be based on the weighted average of the three exam marks described above. Marks *may* be scaled/adjusted.

- If you are sick, do not come to the exam. Instead, contact me about accommodations (see subsequent section).

CONCESSION/ILLNESS ISSUES AND POLICIES:

- Please empower yourself by reading about UBC’s academic concessions policies at <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,329,0,0>.
- If you must miss a midterm exam due to acute illness, you do not need to supply me with a medical note. Note that this policy does not apply to exams during the final exam period (for “final” exams, see below).
- ***If you are accommodated for missing a midterm exam***, the general policy will be that you should write the exam within one week of the original test date. However, ***we will handle this on a case-by-case basis***, depending on the nature of the concession (eg, positive Covid test vs other illness etc). It is possible that you may make-up the exam in-person, or have your final mark made up of a weighted average of your other exam.
- If you have an unavoidable hardship that is not an acute illness that will spontaneously resolve, then you may have to present me with some details of such hardship.
- In any case, you must contact me within 48 hours of the exam write date if you need accommodation for that exam. If at all possible, please contact me about accommodations before the exam, not after.
- Students who plan to be absent for varsity athletics, family obligations, or other commitments, cannot assume they will be accommodated, and must discuss their commitments with me by January 19th, 2026 if they wish to be considered for accommodation.
- Being accommodated for missing a midterm exam is at my sole discretion. Similarly, I may send you to your faculty Academic Advising if I feel ill-equipped to judge the nature of your hardship, as Advising has much more experience in the matter.
- **FINAL EXAM:** If you miss the “final” exam (i.e. exam 3), you must contact your Faculty Academic Advising Office to address the issue—note that they will probably require unambiguous medical (or other) documentation.

UBC's statement about the University's values and policies

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious and cultural observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. Details of the policies and how to access support are available here: <https://senate.ubc.ca/policiesresources-support-student-success>

UBC's statement on potentially sensitive topics while studying abroad

During this pandemic, the shift to online learning has greatly altered teaching and studying at UBC, including changes to health and safety considerations. Keep in mind that some UBC courses might cover topics that are censored or considered illegal by non-Canadian governments. This may include, but is not limited to, human rights, representative government, defamation, obscenity, gender or sexuality, and historical or current geopolitical controversies. If you are a student living abroad, you will be subject to the laws of your local jurisdiction, and your local authorities might limit your access to course material or take punitive action against you. UBC is strongly committed to academic freedom, but has no control over foreign authorities (please visit <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0> for an articulation of the values of the University conveyed in the Senate Statement on Academic Freedom). Thus, we recognize that students will have legitimate reason to exercise caution in studying certain subjects. If you have concerns regarding your personal situation, consider postponing taking a course with manifest risks, until you are back on campus or reach out to your academic advisor to find substitute courses. For further information and support, please visit: <http://academic.ubc.ca/support-resources/freedom-expression>

Academic integrity and avoiding misconduct

The following is verbatim, with only some light modifications, from materials given to me by UBC's Dr. Catherine Rawn, speaking for the Department of Psychology and the Faculty of Arts:

*In the academic community—a community of which you are now a part—we deal in ideas. That's our currency, our way of advancing knowledge. By representing our own and others' contributions in an honest way, we are (1) respecting the rules of this academic community, and (2) showcasing how our own novel ideas are distinct from but relate to their ideas. APA style gives us a formal way to indicate where our ideas end and where others' begin. But academic integrity goes well beyond formal citation. **Welcome to the academic community. You are expected to act honestly and ethically in all your academic activities, just like the rest of us.***

Make sure you understand UBC's definitions of [academic misconduct](#), [consequences](#), and expectation that students must clarify how [academic honesty](#) applies for a given assignment. Please ask if you're not sure. (While you're checking out the calendar, you might want to check out the "[Student Declaration and Responsibility](#)" statement you agreed to when you registered.)

***What does academic integrity look like in this course?** If at any time you are unsure if a certain type of assistance is authorized, please ask. If you have a need that is unmet by existing course materials, course structure, and/or our learning community members, please ask. In the meantime, here are some guiding principles for what academic integrity looks like:*

***Do your own work.** All individual work that you submit should be completed by you and submitted by you. All assessments, large and small, are designed to help you learn the material. It is unacceptable to use an editor (paid or unpaid) without my permission to revise, correct, or alter your work, because your submission is no longer your own work. It is unacceptable to buy/sell/swap/share assignment questions or answers on any platform. It is unacceptable to misrepresent your identity by using someone else to*

complete any portion of a course (e.g., comment on a discussion board, complete a quiz question). It is unacceptable to help someone else cheat.

Avoid collusion. Collusion is a form of academic integrity violation that involves working too closely together *without authorization*, such that the resulting submitted work gains unfair advantage over other students because it is a measurement of the group/pair/others' understanding rather than the individual understanding (definition adapted from [OpenLearn](#)). For example, collusion on a test includes working together to write answers or answering someone else's question in a WhatsApp chat. See more examples of collusion [here](#). There are no assignments in this course that are the product of group collaboration, so please do not collaborate on any quizzes, exams, or projects. Preparing to individually complete an assignment or test by studying together (e.g., discussing concepts, quizzing each other and giving feedback on each others' answers) doesn't count as collusion.

Can I work with a classmate to co-create study notes? Yes, you can create your own original collaborative notes.

Do not share materials provided for you to use in this course. We are working hard to provide all the materials you need to succeed in this course. In return, please respect our work and the enormous efforts that went into making this class. All assignment instructions, quiz questions and answers, discussion questions, announcements, PowerPoint slides, audio/video recordings, Canvas modules, and any other materials provided to you by myself or the TAs are for use in this course by students currently enrolled in this course. It is unacceptable to share any of these materials beyond our course, including by posting on file-sharing websites (e.g., CourseHero, GoogleDocs). Please respect our intellectual property.

Acknowledge others' ideas. Scholars build on the work of others, and give credit accordingly—this is a quality of strong academic work. Citing sources in both formal and informal ways will be essential, and appropriate, depending on the assignment.

Learn to avoid unintentional plagiarism. Visit the Learning Commons' guide to academic integrity to help you organize your writing as well as understand how to prevent unintentional plagiarism, which can be challenging when first learning to paraphrase. Visit <http://learningcommons.ubc.ca/resource-guides/avoiding-plagiarism/>. An example tip: Do not copy and paste text from other sources, including other people's work, even in a draft. It's easy to unintentionally misrepresent those words as your own in a later draft.

Other Course Policies

During your time in this course, if you encounter medical, emotional, or other personal problems that affect your attendance or academic performance, **please notify me as soon as possible, as well as your Faculty Academic Advising Office.** Please refer to the UBC Calendar for a discussion of academic concession.

The university accommodates students with disabilities who have registered with the Centre for Accessibility office (see below). The university also accommodates students whose religious obligations conflict with attendance or scheduled exams. **Please let me know in advance, by January 18th 2023 if possible, if you will require any accommodation on these grounds.** Other absences (e.g. varsity athletics, family obligations, or similar) are not part of the university policy and you should not assume they will be accommodated. Please discuss these with me by January 18th 2023.

The Centre for Accessibility (previously Access & Diversity). UBC is committed to equal opportunity in education for all students including those with documented physical or learning disabilities. If you believe you fall in this category, please visit the website for the Centre for Accessibility (students.ubc.ca/about/access) to take the necessary steps to ensure that you have every opportunity that you deserve to excel in your studies.

Wellness Resources

Below is a list of resources you may want to use if you are struggling in any way to manage your responsibilities while in school or the stresses of life in general. I recognize that this year will be particularly challenging for some of us, and I will be operating from a position of generosity, flexibility, and kindness.

The Kaleidoscope:

the-kaleidoscope.com

A confidential peer-run mental health support group that takes place on campus at least once a week. You may attend the group if you are experiencing any kind of mental health related challenges, or if you're just feeling stressed about school in general. Registration is not required to attend the group. See the website for meeting times and locations. Food and drink are provided.

Counselling Services:

students.ubc.ca/livewell/services/counselling-services Phone number: 604-822-3811

Counselling services offers a variety of resources to help you maintain your mental health while in school. You may see a counsellor on an individual basis, attend group counselling, or to document an illness if you should require academic concession.

SpeakEasy:

ams.ubc.ca/services/speakeasy/

Phone number: 604-822-9246

A student run service that offers confidential support for students experiencing crisis. Also a good resource for additional information and referrals within the UBC community.

SHARE:

www.vivreshare.org

Self Harm Anonymous Recovery and Education is a program designed to promote self care and educate about self harm. SHARE support groups meet biweekly; times and locations can be found on their website.

UBC Wellness Centre:

students.ubc.ca/livewell/services/wellness-centre

Phone number: 604-822-8450

Speak with other students about tips for managing stress, keeping healthy sleep and eating patterns, concerns about safe sex and more.

Access and Diversity:

students.ubc.ca/about/access

Phone number: 604-822-5844

Access and Diversity provides accommodations for students living with physical or mental disabilities.

Student Health Services:

students.ubc.ca/livewell/services/student-health-service Phone number: 604- 822-7011

Student health provides students with a variety of healthcare related services to help you maintain your health while studying. Access to doctors and registered nurses.

Mood Disorders Clinic UBC:

ubc-mooddisorders.vch.ca/

A psychiatric program designed specifically to treat individuals living with depression or bipolar disorder.

Live Well, Learn Well:

students.ubc.ca/livewelllearnwell

The Live Well, Learn Well initiative is a resource hub that provides students with information to help improve physical and mental wellbeing.

Mental Health Awareness Club:

ubcmhac.sites.olt.ubc.ca/

A club that offers opportunities to speak about mental health with others and strives to promote mental health awareness throughout the UBC community.

Pacific Spirit Addiction Services:

3rd Floor, 2110 West 43rd Ave Vancouver B.C. V6M 2E1 Phone number: 604-267-3970

A free and confidential service for youth and young adults up to the age of 24. Services include counselling, access to an addiction physician—including usage of a methadone maintenance program—and a drug education series.

AMS Food Bank:

ams.ubc.ca/services/food-bank/

If you are in a financial emergency AMS food bank can provide you with a food hamper. You are able to use the service up to 6 times each term.

UBC Psychology Clinic:

clinic.psych.ubc.ca

Professional psychological services provided to the community, including assessment & treatment for children, adults & families by clinical psychology trainees.

BC Crisis Center:

crisiscentre.bc.ca

Phone number: 604-872-3311

Non-profit, volunteer-driven organization that provides emotional support to youth, adults, and seniors in crisis in BC. Crisis line available 24/7.

Distress Line:

Phone number: 1-800-Suicide (784-2433)

If you are in distress or are worried about someone in distress who may hurt themselves, call 1-800-SUICIDE 24 hours a day to connect to a BC crisis line, without a wait or busy signal.