# Winter 2022 Course Syllabus Drugs and the Brain (PSYC62)

Professor: Mark Morrissey, Ph.D.

**Online Lectures:** Available via Quercus. Lectures will be posted Thursday evenings each week.

Teaching Assistants: Sabrina Adamo, Maryam Ali, Gahyun Kim, Junior Steininger, Sankirthana (Kirth) Sathiyakumar

Course Email: PSYC62.w2022@gmail.com

A note on email communication: All questions regarding the course, lectures, readings, exams, etc. must be sent to the course email address: PSYC62.w2022@gmail.com. Questions that have already been answered in the course syllabus, in lecture slides, or on Quercus will not receive a response. Students are asked to contact Dr. Morrissey directly for personal or confidential matters only, at mark.morrissey@mail.utoronto.ca

\*\* Please note: Course announcements will be made through Quercus. Students are responsible for monitoring the course website regularly for important announcements and updates. Class emails will also be sent through Quercus. Therefore, students are responsible for making sure that their listed email address is correct. \*\*

REQUIRED TEXBOOK: Prus, A. (2021). *Drugs and the Neuroscience of Behavior: An Introduction to Psychopharmacology* (3rd ed.). Cengage Learning.

COURSE DESCRIPTION: The objective of this course is to provide a comprehensive overview of neuropsychopharmacology. This interdisciplinary science examines the neurobiological and behavioural mechanisms that underlie psychoactive drug use, abuse, and dependence. We will cover the principles of pharmacology (pharmacodynamics, pharmacokinetics, and pharmacogenetics), neurobiological mechanisms of drug action; and behavioural psychopharmacology. Several lectures will focus on specific drugs with an emphasis on their mechanisms of action, what they tell us about the brain, and clinical relevance. The concepts of

physical and psychological dependence, tolerance, sensitization, and reinforcement and aversion will also be covered.

#### COURSE OBJECTIVES:

- 1. Describe and understand the fundamental aspects of pharmacology.
- 2. Review the basics of neuroanatomy and neural transmission.
- 3. Describe the Psychology and Physiology of drug seeking behaviour and drug addiction.
- 4. Cover the main categories of drugs, their individual pharmacology and their influence on our Neuropsychology.
- 5. Demonstrate an understanding of how the study of drug action advances our understanding of brain function.
- 6. Demonstrate a good understanding of how drugs produce behavioural effects through their physiological effects in the central nervous system.

#### **Prerequisite:**

[ <u>PSYB07H3</u> or <u>STAB22H3</u> or <u>STAB23H3</u>] and [at least 0.5 credit from the following: <u>PSYB64H3</u>, <u>PSYB55H3</u>, ( <u>PSYB65H3</u>), <u>NROB60H3</u>] and [an additional 0.5 credit at the B-level or C-level in PSY or NRO courses]

#### **Exclusion:**

PSY396H, PCL475Y

COURSE STRUCTURE The format of the course will consist primarily of lectures, but will also include video and other methods to help illustrate course material. The material covered in lectures will generally correspond to the material in the textbook, but will often serve to supplement the readings rather than simply duplicate their contents. Therefore, I strongly recommend having completed the relevant readings prior to watching the accompanying online lecture; having done so will make the learning experience more enjoyable and productive. I will also present material that is not included in the readings; therefore, familiarity with both lectures and course readings is necessary to succeed in this course. You will be responsible for all material presented in class and in the required readings.

Quiz 1	5%	Week 4
Mid-term Exam	30%	TBA
Drug Paper	15%	Due March 27
Quiz 2	5%	Week 8
Quiz 3	5%	Week 12
Quercus Discussion	5%	Choose 3/11 Discussion Questions
Final Exam	35%	April Exam period

#### QUIZZES, TERM TEST AND FINAL EXAM

mTuner quizzes (5% each): Students will be required to complete two closed-book online quizzes during the semester. These quizzes will be taken online with mTuner. mTuner allows for enhanced online multiple-choice tests specifically designed to help promote students' learning and understanding of the course material. The quizzes are designed to help students keep up with the course material and be prepared for the mid-term and the

final exam. No extensions will be granted for completing the quizzes. All quizzes are **closed-book.** Specific details about the mTuner quizzes will be provided on Quercus.

- Quiz 1: Will take place during week 4 (Thursday 10am-Friday 10pm) and will cover material from weeks 1-3.
- Quiz 2: Will take place during week 8 (Thursday 10am-Friday 10pm) and will cover material from Weeks 4-7.
- Quiz 3: Will take place during week 12 (Thursday 10am-Friday 10pm) and will cover material from Weeks 8-11.

Mid-term examination (30%): The mid-term exam will cover all required readings and lecture material covered before the mid-term. The exam will consist primarily of multiple-choice questions, with a few short answer questions, will not exceed two hours and **closed-book**. The exam will be scheduled by the registrar.

Final examination (35%): The final exam will be cumulative. It will cover all course material however an emphasis will be placed on material covered after the mid-term. The exam will consist of multiple-choice questions, will not exceed two hours, and be closed-book. The final exam will be scheduled during the University examination period.

Drug Paper (15%): You will be required to choose a drug to focus on for a brief (4-5 page) research report. Details will posted on Quercus. The paper is to be submitted by March 27, 11:59pm to Quercus Assignments.

Late submissions will be assessed late penalties according to the following schedule. 2.5% per day for the first two days. 5% per day for each following day.

Papers will be submitted online through the Quercus Assignments page and will be passed through plagiarism detection.

Normally, students will be required to submit their course essays to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation web site (https://uoft.me/pdt-faq).

Quercus Discussion (5%): Each week the TA will hold a virtual Discussion session around 1 question that relates to the previous weeks content. All students are required to respond to 3 of these questions by the end of the term in the Quercus Discussion section. The sum of your three responses will be assigned a grade of 0-7.5 depending on the thought and effort put into each response. All answers will be due April 8. Any answers submitted after this date will not be graded. You are encouraged to attend the virtual session to discuss and to submit your answers as you complete them.

Lecture Date	Lecture Topic	Readings
Week 1 (Jan 10)	Introduction to Neuropsychopharmacology	Chapter 1
Week 2 (Jan 17)	Neuroanatomy	Chapter 2
Week 3 (Jan 24)	Neurotransmission	Chapter 3
Week 4 (Jan 31)	Properties of Drugs	Chapter 4
Week 5 (Feb 7)	Drugs of abuse	Chapter 5
Week 6 (Feb 14)	Psychostimulants	Chapter 6
	Feb 19-26 Reading Week	
Week 7 (Feb 28)	Nicotine, and Caffeine	Chapter 7
Week 8 (Mar 5)	Ethanol	Chapter 8
Week 9 (Mar 12)	Depressants	Chapter 9
Week 10 (Mar 19)	Opioids	Chapter 10
Week 11 (Mar 26)	Cannabinoids	Chapter 11

Week 12 (April 4)	Psychedelic Drugs &Psychotropic	Chapters 12-15
	Therapy	

\*Please note that this outline is subject to change depending on the needs of the class (we may need additional time to cover a topic). Any changes to the syllabus will be announced ahead of time. However, the test dates will be fixed.

## Psychology Department Missed Term Work Policy, WINTER 2022

For missed term work (assignments and term tests) due to illness, emergency, or other mitigating circumstances, please follow the procedures outlined below.

- · The following reasons are not considered sufficient for missed term work: travel for leisure, weddings, personal commitments, work commitments, human error.
- · Missed Final Exams are handled by the Registrar's Office and should be declared on eService: http://www.utsc.utoronto.ca/registrar/missing-examination
- · Instructors cannot accept term work any later than five business days after the last day of class. Beyond this date, you would need to file a petition with the Registrar's Office: https://www.utsc.utoronto.ca/registrar/term-work

## **Accommodations for Illness or Emergency:**

For missed work due to ILLNESS OR EMERGENCY, complete the following three-step process: 1. Complete the Request for Missed Term Work Accommodations Form 2. Declare your absence on ACORN (Profile & Settings > Absence Declaration)

3. Email both the Request for Missed Term Work Accommodations Form AND a screenshot of your Self-Declared Absence on ACORN to the email address provided by your instructor on the course syllabus WITHIN 2 BUSINESS DAYS of the missed work.

Note: If you are unable to submit your documents within 2-business days, you must still email your instructor within the 2-business day window to explain the nature of the delay, and when you will be able to provide your documents. Exceptions to the documentation deadline will only be made under exceptional circumstances.

Note: For this semester, we do not require any additional supporting documentation (e.g. medical notes) to support your missed term work accommodation request.

## **Accommodations for Academic Conflicts:**

For missed term work due to an ACADEMIC CONFLICT (i.e. two midterms scheduled at the same time), please complete the following process: 1. Complete the Request for Missed Term Work Accommodations Form, choosing "Other" and explaining the conflict in the space provided.

- 2. Take screenshots of your course homepages that demonstrate the conflict.
- 3. Email the form and screenshots to your course instructor at least two weeks (10 business days) before the date of the activity, or as soon as possible if it was not possible to identify the conflict earlier.

Note: Multiple assignments due on the same day are not considered conflicts. Accommodations may only be possible in the case of quizzes and tests that are both scheduled during the same discrete period. Back-to-back tests/quizzes are not considered conflicts.

Note: Students are responsible for keeping their course timetables conflict-free. Students who choose to register in two synchronous courses with overlapping lecture/tutorial/lab schedules will not be accommodated.

## **Accommodations for Religious Conflicts:**

For missed term work due to a RELIGIOUS CONFLICT, please complete the following process: 1. Complete the Request for Missed Term Work Accommodations Form, choosing "Other" and noting "Religious conflict" in the space provided.

2. Email the form to your course instructor at least two weeks (10 business days) before the date of the activity, or as soon as possible if it was not possible to identify the conflict earlier.

## Accommodations for Students Registered with AccessAbility Services:

## For missed TERM TESTS due to ACCESSABILITY REASONS:

· Contact your AccessAbility consultant and have them email your instructor detailing accommodations required.

# For missed ASSIGNMENTS due to ACCESSABILITY REASONS:

- · If your desired accommodation is within the scope of your Accommodation Letter (e.g. your letter includes "extensions of up to 7 days" and you need 3 days): 1. Complete the Request for Missed Term Work Accommodations Form.
- 2. Email the form and your Accommodation Letter to your instructor, specifying how many days extension you are requesting.
- · If your desired accommodation is outside the scope of your Accommodation Letter (e.g. your letter includes "extensions of up to 7 days" but you need more time than that):
- 1. Contact your AccessAbility consultant and have them email your instructor detailing the accommodations required.

#### Accommodation Procedure:

After submitting your documentation, you will receive a response from your instructor or TA. This form does not guarantee that you will be accommodated. The course instructor reserves the right to decide what accommodations (if any) will be made. Failure to adhere

to any aspect of this policy may result in a denial of your request for accommodation. You are responsible for checking your official U of T email and Quercus course announcements daily, as accommodations may be time-critical.

For missed assignments, do not wait for an instructor response to resume work on your assignment. Extension accommodations may be as short as one business day, depending on the nature of the illness/emergency. You should complete your assignment as soon as you are able and email it your instructor.

For an anticipated event (e.g. scheduled surgery or an illness with a prolonged recovery period), submit a Verification of Illness Form completed by your doctor, AND this form to your instructor if you would like to request accommodations in advance of the assignment deadline or midterm date. Declare your future absence on ACORN (absences can be declared up to 14 days in the future).

#### Missed Accommodations

If an accommodation is granted but a continued illness/emergency prevents you from meeting the requirements of your accommodation, you must repeat the missed term work procedure to request additional accommodations. Please make it clear in your subject line that you are requesting a second accommodation. For example, if you are given an extension but are still sick and need more time, or if you miss a make-up midterm, you must submit another request 'Missed Term Work Accommodations' form and declare your extended absence on ACORN. \*\*\*Note: In the case of a missed make-up test, an opportunity to write a second make-up test may not be provided.

# AccessAbility

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services as soon as possible.

AccessAbility Services staff (located in Rm SW302, Science Wing) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email ability@utsc.utoronto.ca. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

# Academic Integrity

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters outlines the behaviours that constitute academic dishonesty and the processes for addressing academic

offences. Potential offences include, but are not limited to:

In papers and assignments:

- · Using someone else's ideas or words without appropriate acknowledgement;
- · Submitting your own work in more than one course without the permission of the instructor;
- · Making up sources or facts;

· Obtaining or providing unauthorized assistance on any assignment.

On tests and exams:

- · Using or possessing unauthorized aids;
- · Looking at someone else's answers during an exam or test;
- · Misrepresenting your identity; and
- · When you knew or ought to have known you were doing it.

In academic work:

- · Falsifying institutional documents or grades;
- · Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes; and
- · When you knew or ought to have known you were doing so.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on

Academic Matters. If students have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, they are expected to seek out additional information on academic integrity from their instructors or from other institutional resources.

Students are highly encouraged to read the guide on How Not to Plagiarize and to take advantage of writing resources on campus. The keyword here is respect – a good educational context is one in which all parties respect one another's perspective and opinions.

### Grade Scale

NUMERICAL MARKS	LETTER GRADE	GRADE POINT VALUE
90 - 100%	A+	4.0
85 - 89%	A	4.0
80 - 84%	A-	3.7
77 - 79%	B+	3.3
73 - 76%	В	3.0
70 - 72%	B-	2.7
67 - 69%	C+	2.3
63 - 66%	С	2.0
60 - 62%	C-	1.7
57 - 59%	D+	1.3
53 - 56%	D	1.0
50 - 52%	D-	0.7
0 - 49%	F	0.0