

Neurochemical Basis of Behavior (PSY396H1S)

Winter Session, 2022

Remote learning until January 31 on Zoom media (see page 7 for links)

In-person course from February 1 onward in SS1070

Class time: Wednesdays, 3 – 6 pm

Summary

The functional relevance of neurotransmitters, with particular emphasis on their role in mediating behaviour.

Learning Objectives

In this course, you will learn about:

- The structure of neurotransmitter systems;
- The effects and mechanisms of therapeutic and recreational drugs;
- The neurochemical basis of behavior and behavioral disorders;
- Treatment and research approaches.

Our Team

Instructor: Dr. Paul Whissell (paul.whissell@utoronto.ca). All email inquiries should receive a response in <48h. We want to help, so don't be shy!

Virtual office hours: Tuesday, 4:00 – 5:00 pm online via Zoom (see page 8 for links)

Teaching Assistant: Arya Rahbarnia

Recommended Textbook (optional; NOT required)

Psychopharmacology: Drugs, the Brain and Behavior. 3rd edition. Mayer, J. S. and Quenzer, L.F. Sinauer Associates. Print ISBN: 9781605355559, 1605355550. eText ISBN: 9781605357287, 1605357286.



Assessments

Most of your grade will come from three main assessments: **two term tests** (each based on four lectures) and a **final assessment** (cumulative, based on all lectures). At present, **all these assessments are planned to occur in-person, on-campus and during scheduled class hours (Wednesdays, 3 – 6 pm)**.

This year is an exceptional situation. If the University's position on the pandemic situation changes, our course could be moved fully online. If this move occurs, you will be notified and provided with an explanation of the new format for the course.

The fourth and final component of your grade will be a **short written assignment**.

Marking Scheme and Important Dates

- **25% Test 1 on February 9 during class hours** based on Lectures 1 – 4
 - 2 hours allotted
 - 20 multiple choice questions (each worth 1 mark) and 8 short written answer questions (each worth 5 marks), total of 60 marks
- **25% Test 2 on March 23 during class hours** based on Lectures 5 – 8
 - 2 hours allotted
 - 20 multiple choice questions (each worth 1 mark) and 8 short written answer questions (each worth 5 marks), total of 60 marks
- **42% Final Assessment between April 11 – 29** based on Lectures 1 - 10
 - 3 hours allotted; Format TBA
- **8% Written Assignment, Due April 6**
 - Short written assignment (~1500) on a neurotransmitter system *that could be covered in the course but is currently not included*.
 - Details will be provided on Quercus

Study Guide

To assist you in preparing for your assessments, a study guide will be provided on Quercus. This guide will identify key highlights of lecture content that are likely to be tested. If you can provide detailed answers to the questions in this guide, it is likely you will score at least a B grade (70+) on all assessments. The study guide will be reviewed in pre-test tutorials (dates to be posted on Quercus shortly).

Course Schedule

This course will involve completing several activities at a specific time (Wednesday, 3 – 6 pm). You must be available during this time period. This course should be treated as a synchronous course and should not conflict with other courses you are taking.

Until at least January 31, the course will be delivered online. All lectures during this period will be delivered on Zoom during class hours (see page 7 for links). All online lectures will be recorded. Links to recordings will be posted within several days of the lecture.

Our course is aiming for a return to in-person activities on February 1. From this date and onwards, lectures will be given in SS1070 and will not be recorded by the instructor. Any assessments occurring during this period will be delivered in-person, in class and during class hours.

This year is an exceptional case as it is difficult to predict how the situation will develop. Depending upon school policies, our course may be moved permanently online at some point. If this occurs, you will be notified as soon as possible.

Date	Topic	Textbook Chapters
Jan 12	Lecture 01: Introduction; Assignment Posted (on Zoom)	3
Jan 19	Lecture 02: Introduction to Neuropharmacology (on Zoom)	1 + 2
Jan 26	Lecture 03: Research Methods (on Zoom)	4
Feb 2	Lecture 04: Dopaminergic transmission in behavior	5, 9, 12 + 19
Feb 9	TERM TEST 1 (Lectures 1 – 4)	
Feb 16	Lecture 05: Adrenergic transmission in behavior	5, 11, 12
Feb 23	Reading Week from February 22 - 25; No Assigned Work	
Mar 2	Lecture 06: Serotonergic transmission in behavior	6, 17, 18
Mar 9	Lecture 07: Endocannabinoids and behavior	14
Mar 16	Lecture 08: GABAergic transmission in behavior	8, 10
Mar 23	TERM TEST 2 (Lectures 5 – 8)	
Mar 30	Lecture 09: Acetylcholine	11
Apr 6	Lecture 10: Guest Lecture(s) + Final Exam Review; Assignment Due	NA
Apr 11 - 29	FINAL ASSESSMENT (All lectures)	

Course Policies

Missed Tests

In the event you miss an assessment due to illness, please use the **illness self-declaration tool on ACORN and notify the instructor as soon as possible**. If you miss a test due to other exceptional circumstances, you must still notify the instructor. According to departmental policies, you have a maximum of 1 week to get in touch about the missed test. Each situation will be handled on a case-by-case basis.

If you miss a single term test (e.g. test 1) due to exceptional circumstances, you will be given an automatic grade reweight wherein the proportion of your grade allocated to the missed test (e.g. 25% for test 1) will be reallocated to your other tests (e.g. 37.5% for test 2 and 54.5% for the final assessment). Please note the assignment is not re-weighted.

If you miss BOTH term tests (i.e. test 1 AND test 2) due to exceptional circumstances, you must attend a make-up test. The date of this test will be announced after test 2. The make-up test will be similar in format to test 2. The weight of the make-up test will be 37.5% and the weight of the final test will be 54.5%. As before, the assignment is not re-weighted.

If you miss the final assessment, you must attend a make-up final assessment at a later date. The make-up final assessment will be similar in format to the missed final assessment.

Late Policies

The standard late penalty is 10% per day late. If exceptional circumstances prevent you from submitting an assessment on time, please contact the instructor to discuss your situation.

Religious Accommodation

As a student at the University of Toronto, you are part of a diverse community that welcomes and includes students and faculty from a wide range of backgrounds, cultural traditions, and spiritual beliefs. For my part, I will make every reasonable effort to avoid scheduling tests, examinations, or other compulsory activities on religious holy days not captured by statutory holidays. Further to University Policy, if you anticipate being absent from class or missing a major course activity (like a test, or in-class assignment) due to a religious observance, please let me know as early in the course as possible, and with sufficient notice (at least two to three weeks), so that we can work together to make alternate arrangements.

Accessibility Needs

Students with diverse learning styles and needs are welcome in this course. If you have an acute or ongoing disability issue or accommodation need, you should register with Accessibility Services (AS) (www.accessibility.utoronto.ca) at the beginning of the academic year. Without registration, you will not be able to verify your situation with your instructors, and instructors will not be advised about your accommodation needs. AS will assess your medical situation, develop an accommodation plan with you, and support you in requesting accommodation for your course work. Remember that the process of accommodation is private: AS will not share details of your condition with any instructor, and your instructors will not reveal that you are registered with AS.

Intellectual Property

Lectures slides and recordings are the intellectual property of the instructors. Under no circumstances should any of this content be shared online (e.g. via sites such as OneClass, Course Hero or Youtube). The Academic Handbook states: “It is absolutely forbidden for a student to publish an instructor’s notes to a website or sell them” (section 4.5)” Any student found violating this rule will be brought in to the Office of Student Academic Integrity. If you would like to share material with someone, please obtain approval from the content creator first.

Academic Integrity

You must complete all work in this course independently. You may not collaborate with anyone else (*though you are encouraged to ask instructors and teaching assistants for help*). Your answers must be your own thoughts, expressed in your own words.

All students, faculty and staff are expected to follow the University’s guidelines and policies on academic integrity. For students, this means following the standards of academic honesty when writing assignments, collaborating with fellow students, and writing tests and exams. Ensure that the work you submit for grading represents your own honest efforts. Plagiarism—representing someone else’s work as your own or submitting work that you have previously submitted for marks in another class or program—is a serious offence that can result in sanctions. Speak to me or your TA for advice on anything that you find unclear. To learn more about how to cite and use source material appropriately and for other writing support, see the U of T writing support website at www.writing.utoronto.ca/. Consult the Code of Behaviour on Academic Matters for a complete outline of the University’s policy and expectations. For more information, please see <http://www.artsci.utoronto.ca/osai> and <http://academicintegrity.utoronto.ca/>.

Plagiarism Detection Tools

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>). Please see here for more information: <https://teaching.utoronto.ca/ed-tech/teaching-technology/pdt/#pdt1>.

Writing

As a student here at the University of Toronto, you are expected to write well. The university provides its students with a number of resources to help them achieve this. For more information on campus writing centres and writing courses, please visit <http://www.writing.utoronto.ca/>.

Other Resources

- Student Life Programs and Services (<http://www.studentlife.utoronto.ca/>)
- Academic Success Services (<http://www.studentlife.utoronto.ca/asc>)
- Counselling and Psychological Services (<http://www.studentlife.utoronto.ca/hwc>)

Online lectures

Paul Whissell is inviting you to a scheduled Zoom meeting.

Topic: PSY396 Lectures

Time: Jan 12, 2022 03:00 PM Eastern Time (US and Canada)

Every week on Wed, 3 occurrence(s)

Jan 12, 2022 03:00 PM

Jan 19, 2022 03:00 PM

Jan 26, 2022 03:00 PM

Please download and import the following iCalendar (.ics) files to your calendar system.

Weekly: <https://us02web.zoom.us/meeting/tZ0uduqqqDljEtRcd7urhdkb0nCzLg-i87r9/ics?icsToken=98tyKuGhrTopGNKcuRGHRpx5A4j4b-rwplhEj7dvnxuyFjJbZgj0ZuxhKJ54XdGl>

Join Zoom Meeting

https://us02web.zoom.us/j/89313269980?pwd=dzhYVHBMM3FUS0RUdE9jbFhHTEJTd_z09

Meeting ID: 893 1326 9980

Passcode: 254771

If school regulations change, more lectures may end up being delivered online. Please follow announcements closely.

Virtual Office Hours

Paul Whissell is inviting you to a scheduled Zoom meeting.

Topic: PSY396 Office Hours

Time: Jan 18, 2022 04:00 PM Eastern Time (US and Canada)

Every week on Tue, 13 occurrence(s)

Jan 18, 2022 04:00 PM

Jan 25, 2022 04:00 PM

Feb 1, 2022 04:00 PM

Feb 8, 2022 04:00 PM

Feb 15, 2022 04:00 PM

Mar 1, 2022 04:00 PM

Mar 8, 2022 04:00 PM

Mar 15, 2022 04:00 PM

Mar 22, 2022 04:00 PM

Mar 29, 2022 04:00 PM

Apr 5, 2022 04:00 PM

Please download and import the following iCalendar (.ics) files to your calendar system.

Weekly: https://us02web.zoom.us/meeting/tZYud-mrqTkrE91g7jagLntz9mf-AZvzibGj/ics?icsToken=98tyKuGqrTsqGdOXsRCORpwQA4igc-nwtnpcj_oMm0jvAid_bBfsb-9Ef5NFBsLZ

Join Zoom Meeting

<https://us02web.zoom.us/j/82300372199?pwd=M0dXeURTeTdVYkhYanZxRkFCYkgwQT09>

Meeting ID: 823 0037 2199

Passcode: 620426