

Neurochemical Basis of Behavior (PSY396H1F)

Fall Session, 2021

**In-person Course past September 23 (see Schedule)
Tuesdays, 6 – 9 pm in LM155**

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)

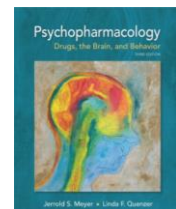
Virtual office hours: Wednesday, 1:30 – 2:30 pm online via Zoom (see page 7)

Teaching Assistant: Alexander Jacob (alexander.jacob@mail.utoronto.ca)

All email inquiries should receive a response in <48h. We want to help, so don't be shy!

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

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

The **final component of your grade will require completing a short assignment**. This assignment will be submitted online.

Marking Scheme and Important Dates

- **25% Test 1 on October 12 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 November 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 December 10 – 21***** based on Lectures 1 - 10
 - 3 hours allotted; Format TBA
- **8% Written Assignment, Due November 16**
 - Short written assignment (~500 – 750 words) on a neurotransmitter system that could be covered in the course.
 - Details will be provided on Quercus

***** If you have difficulty meeting these deadlines due to exceptional circumstances (e.g. severe illness) please use the self-declaration tool on ACORN and contact the instructor to discuss the situation.**

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

Lecture slides (*.pdf format) will be available by the posting date below. **Lectures 1 + 2 will be given online via Zoom during scheduled class hours.** Links to these lecture sessions are included in this document. **All remaining lectures (3 – 10) and assessments are currently scheduled to occur on-campus, in-person.** If the University's position on the current pandemic situation changes, our course could be moved online. If this move occurs, you will be notified and provided with an explanation of the new course format.

Posting Date	Topic	(Optional) Textbook Chapters
Sept 14	Lecture 01: Introduction to Neurotransmission on Zoom (see page 6)	3
Sept 21	Lecture 02: Introduction to Neuropharmacology on Zoom (see page 6)	1 + 2
Sept 28	Lecture 03: Research Methods	4
Oct 5	Lecture 04: GABAergic transmission in behavior	8, 10
Oct 12	TERM TEST 1 (Lectures 1 – 4)	
Oct 19	Lecture 05: Dopaminergic transmission in behavior	5, 9, 12 + 19
Oct 26	Lecture 06: Adrenergic transmission in behavior	5, 11, 12
Nov 2	Lecture 07: Serotonergic transmission in behavior	6, 17, 18
Nov 9	Reading Week from November 8 – 12; No Assigned Work	
Nov 16	Lecture 08: Endocannabinoids and behavior; Assignment Due	14
Nov 23	TERM TEST 2 (Lectures 5 – 8)	
Nov 30	Lecture 09: Opioids and behavior	11
Dec 7	Lecture 10: Final Lecture (TBA)	TBA
Dec 10 - 21	FINAL ASSESSMENT (Lectures 1 – 10)	

Course Policies

Missed Tests

If you miss an assessment due to illness, please use the **illness self-declaration tool on ACORN and notify the instructor immediately**. If you miss a test due to other exceptional circumstances besides illness, you must still notify the instructor immediately. Each situation will be handled on a case-by-case basis.

If you miss a single term assessment (e.g. test 1), you will be offered a grade reweight wherein the proportion of your grade allocated to the missed assessment (e.g. 25% for test 1) will be reallocated to your other assessments (e.g. 37.5% for test 2 and 54.5% for the final assessment).

If you miss BOTH term assessments (i.e. test 1 AND test 2), you must attend a make-up assessment. The date of this assessment will be announced after test 2. The make-up assessment will be similar in format to test 2. The weight of this assessment will be 37.5% and the weight of the final assessment will be 54.5%.

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

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.

Intellectual Property

Class material is designed specifically for University of Toronto students enrolled in the course. Other parties should not have free access to this material. *Under no circumstances should any content be uploaded or shared online (e.g. to an information-sharing website such as OneClass, Course Hero or Youtube) without first obtaining consent from the content creator.* If you would like to share material with someone who is not a student, please speak to the content creator.

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.

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/>.

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>.

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 (Week 1 + 2)

Paul Whissell is inviting you to a scheduled Zoom meeting.

Topic: PSY396-Zoom Lectures

Time: Sep 14, 2021 06:00 PM Eastern Time (US and Canada)

Every week on Tue, 2 occurrence(s)

Sep 14, 2021 06:00 PM

Sep 21, 2021 06:00 PM

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

Weekly:

https://us02web.zoom.us/meeting/tZcrde6opj4sHdSw3fgt2gBKVKcD0_xaEhai/ics?icsToken=98tyKuGrqDktGtyQth6HRpwqBljoKPTxiCVdggdui0ziBDQBZSHdAMIBFuJACNn1

Join Zoom Meeting

<https://us02web.zoom.us/j/83627085670?pwd=c1NQclNJQUhET3gvb2thRHVXU0JSQT09>

Meeting ID: 836 2708 5670

Passcode: 602197

Virtual Office Hours Schedule

Paul Whissell is inviting you to a scheduled Zoom meeting.

Topic: PSY396-Virtual Office Hours

Time: Sep 15, 2021 01:30 PM Eastern Time (US and Canada)

Every week on Wed, 13 occurrence(s)

Sep 15, 2021 01:30 PM

Sep 22, 2021 01:30 PM

Sep 29, 2021 01:30 PM

Oct 6, 2021 01:30 PM

Oct 13, 2021 01:30 PM

Oct 20, 2021 01:30 PM

Oct 27, 2021 01:30 PM

Nov 3, 2021 01:30 PM

Nov 17, 2021 01:30 PM

Nov 24, 2021 01:30 PM

Dec 1, 2021 01:30 PM

Dec 8, 2021 01:30 PM

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

Weekly: <https://us02web.zoom.us/meeting/tZ0lduysrTMpHNUPILDdc-tUQ3MyzAqPhQwo/ics?icsToken=98tyKuGhpjovHtedsx-GRpx5Goj4Z-jztlxego1orDbJJyRQLxfDB7FvK6heAejY>

Join Zoom Meeting

<https://us02web.zoom.us/j/89815438361?pwd=d2xpOWZYyj4dndVSEpZeWIZSkNVUT09>

Meeting ID: 898 1543 8361

Passcode: 714508