



# **DRUGS AND THE BRAIN**

**Instructor** Zachariah Campbell

**Teaching Assistants** Jordan Benko Laurie Hamel Ian Miller **Lecture Details** Fridays, 10AM-12PM AA112

**Content** UofT Learning Portal (Blackboard)

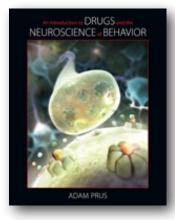




## **COURSE OBJECTIVE**

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. The concepts of physical and psychological dependence, tolerance, sensitization, and reinforcement and aversion will also be covered. Finally, an examination of therapeutic agents (psychotropic medication) will be examined at length.

# **REQUIRED TEXTBOOK & COURSE MATERIALS**



Prus, A. (2014). *An Introduction to Drugs and the Neuroscience of Behavior* (1st ed.). Cengage Learning.

All announcements and course materials including lecture slides, additional readings, links to media, and midterm grades will be made available exclusively on the Blackboard Learning Portal.

## **CONTACT INFORMATION**

All course related inquiries are to be directed to the instructor (<u>zac.campbell@utoronto.ca</u>). All emails must contain the following subject line:

### PSYC62H3 - Student Inquiry: (The nature of your inquiry)

Students also must use their academic email account (i.e., utsc or utoronto email) to abide by University policy and avoid fraudulent representation of your person. Email inquiries will receive a response within a reasonable time-frame (typically within 24-48 hours).

## **IMPORTANT NOTES**

#### **Prerequisites & Exclusions**

Prerequisite: [PSYB07H3 or its equivalent] and [at least one of PSYB64H3, PSYB65H3 or NROB60H3] and [one additional B-level or C-level half credit in PSY or NRO]. Exclusion: PSY396H and PCL475Y

#### **Academic Integrity**

The **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: 1) using/possessing unauthorized aids or looking at someone else's answers during an exam or test; 2) misrepresenting your identity or falsifying/altering any documentation required by the University such as doctor's notes.

#### **AccessAbility Resources**

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 Room 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**.

## **SESSIONAL DATES**

| Dates          | Detail  |
|----------------|---|
| January 6      | Classes begin   |
| January 19     | Last day to add S courses (on ROSI only)                    |
| February 17    | Family Day holiday (University closed)                      |
| February 18-21 | Reading week (No classes held)                              |
| March 23       | Last day to drop S courses without academic penalty         |
| April 4        | Last day of classes   |
| April 9        | Last day to drop F courses with a LWD transcript indication |
| April 10-20    | Final examinations is S and Y courses                       |

\*Regarding the Lecture Schedule, every effort will be made to maintain the posted lecture schedule but some deviation may occur depending on the content. Further, additional readings may be posted on the Blackboard.

## **GRADING SCHEME**

#### **Midterm Tests**

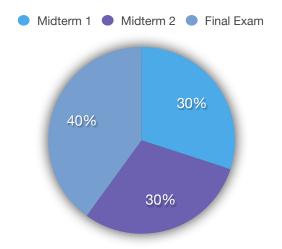
There will be two midterm tests that will contribute to approximately 60% towards the final grade (i.e., each worth 30%). Midterm 1 will be based on Chapters 1 through 5, any additional readings posted on Blackboard and, of course, all lectures to date. Midterm 2 will be based on Chapters 6 through 10, any additional readings and all lectures since the first midterm. That is, second midterm is not cumulative.

#### **Final Examination**

The final examination will be administered during the UTSC Final Examination Period (April 10-20). It will be worth approximately 40% and will be mostly based on any new content (i.e., Chapters 11-15, additional posted readings, etc) along with some cumulative coverage of previously tested material (i.e., before Midterm 2). This cumulative component will make up about 25% of the final examination and will be comparatively more general in nature.

#### **Examination Structure**

All exams will be comprised of multiplechoice and written response questions that are based on the readings as well as the content of the lectures. Details about the exact structure of each examination will be announced in-class and sample questions will be posted prior to the first midterm.



#### **Missed Examinations**

If a student is absent from a midterm examination due to illness or other extenuating circumstance, they must contact the instructor as soon as possible. For medical reasons, students must use the University of Toronto Student Medical certificate. It can be downloaded on the UTSC website. For approved absences from either midterm, students will write an extended cumulative final examination that covers missed content in specific detail. Matters concerning the final examination are dealt with solely by the Registrar's office.

# LECTURE SCHEDULE

| Lecture Date | Lecture Topic                               | Readings       |
|--------------|---|----------------|
| January 10   | Introduction to<br>Neuropsychopharmacology  | Chapter 1      |
| January 17   | Neuroanatomy                                | Chapter 2      |
| January 24   | Neurotransmission                           | Chapter 3      |
| January 31   | Properties of Drugs<br>Drugs of abuse       | Chapters 4-5   |
| February 7   | Midterm 1 Examination<br>In-class           | Not applicable |
| February 14  | Psychostimulants, Nicotine, and<br>Caffeine | Chapters 6-7   |
| February 21  | Reading week<br>No class                    | Not applicable |
| February 28  | Ethanol                                     | Chapter 8      |
| March 7      | GHB, Inhalants, Anesthetics, and Opiods     | Chapters 9-10  |
| March 14     | Midterm 2 Examination<br>In-class           | Not applicable |
| March 21     | Cannabinoids & Psychedelic Drugs            | Chapters 11-12 |
| March 28     | Psychotropic Therapy I                      | Chapters 13-15 |
| April 4      | Psychotropic Therapy II                     | Chapters 13-15 |