Faculty of Science Course Syllabus
Department of Psychology and Neuroscience

NESC/PSYO 3000 level

Psychology/Neuroscience 3237 - Drugs & Behaviour
Fall 2018

Instructor: Janusz Borycz  e-mail: jborycz@dal.ca  Office location: LSC 2539
Office hours: Friday 10 AM - 12 PM or by appointment

Teaching Assistant: Toni Spinella  e-mail: toni.spinella@dal.ca  Office location: LSC 2267
Office hours: Wednesday 10 AM - 12 PM or by appointment

Lectures: Time Sep 4 – Dec 4; Mon and Wed 8:35-9:55 AM  Location - LSC C238

Course Description
This course is focused on actions of the most popular drugs of abuse, which include both legal drugs like alcohol and tobacco and also the illicit ones e.g. methamphetamine and MDMA. Each group of abused drugs will be discussed starting from their absorption, distribution, metabolism and mechanism of action in the affected tissues/organs and ending in the changes in behaviour observed in either the lab animals or in the human subjects. Available addiction treatment and prevention programs will be also discussed.

Course Prerequisites
PSYO 2000.03 or NESC 2007.03, and one of PSYO/NESC 2170.03, 2470.03, 2570.03, or PSYO 2770.03

Course Objectives/Learning Outcomes
At the end of this course, students should be able to:

• Describe and identify substances that would be classified as psychotropic drugs.
• Describe factors that affect how much of a drug reaches its target site in the brain.
• Describe drug action in the synapse by illustrating its specific mechanisms at target receptors.
• Compare and contrast psychotropic drug testing in animals and humans in order to evaluate animal models of human disorders.
• Evaluate evidence from primary literature of the therapeutic/recreational/side effects of commonly used drugs.
• Know treatments and prevention programs for substance misuse and drug addiction.

Course Materials

Required Readings
Additional Readings (on reserve at the Killam Library)


**Course Assessment**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Percent of final grade</th>
<th>Date</th>
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<tbody>
<tr>
<td>Midterm 1 (in-class)</td>
<td>25%</td>
<td>Monday October 1st, 2018</td>
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<tr>
<td>Midterm 2 (in-class)</td>
<td>25%</td>
<td>Monday November 5th, 2018</td>
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<tr>
<td>In-class presentation</td>
<td>17%</td>
<td>Ongoing</td>
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<tr>
<td>In-class participation</td>
<td>3%</td>
<td>Ongoing- following lectures and presentations</td>
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<tr>
<td>Final exam</td>
<td>30%</td>
<td>TBD- Final exam period (Dec 6-16)</td>
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</table>

- Two midterm exams, worth 25% each
- One final exam during the examination period (Dec 6-16), worth 30%
- One in class presentation based upon your assigned drug, worth 17%
- Your participation in the discussion after the lectures/presentations is worth 3% (JB and TS to arbitrate)

**Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale**

- A+ (90-100)
- B+ (77-79)
- C+ (65-69)
- D (50-54)
- A (85-89)
- B (73-76)
- C (60-64)
- F (<50)
- A- (80-84)
- B- (70-72)
- C- (55-59)

**Exams** (Note: sample exams will be posted online)

Midterms will be short answer and multiple choice and will take place on Mondays, after a short review of the exam material (see schedule). The exams will be based on the handbook and material presented in class. You will have 80 min to complete the exam. To complete the final exam, you will have 2 hours. The final exam will cover material from the last section (75%) and also will include questions from material covered in midterms (25%).

**Presentation Assignment**

The draw of your drug and presentation date will be held on Wednesday, Sep 5. Presentations are going to be held between 9:15-9:55am starting on Monday, September 10. There are no presentations on the days scheduled for the midterms. Presentations should be made in the powerpoint/pdf or other presentation format of your choice. Presentations essentially should answer two broad questions: 1) What does this drug do? and 2) How does it do it? I expect you to incorporate research findings into your presentation to address the study questions (tables and figures from research papers, properly cited, are a good way to do this). The presentation should be concise yet informative. You should present for 7 minutes max, followed by up to 3 minutes of discussion. I recommend using Pubmed as a source of your literature.

**NOTE:** don’t use websites as a main source of information for your presentation
Course Policies

Missed exams - fill the form:  
https://cdn.dal.ca/content/dam/dalhousie/pdf/campuslife/Health%20and%20wellness/FINAL%20Student%20Declaration%20of%20Absence%20Form.pdf  
and handle/send it to me within 24hr of missing the regularly scheduled exam. No makeups of missed midterms will be provided but instead students who will submit the Declaration of Absence will have transferred the weight of the missed work onto the final exam. To be fair to all students in this class, we don’t assign extra-credit assignments or “bump up” marks. 
Students participating in research may have added up to 2% into their final score (SONA points).

Course Content

Tentative Lecture Schedule (Fall ’18):

<table>
<thead>
<tr>
<th>Class</th>
<th>Date</th>
<th>Topic</th>
<th>Reading from Text</th>
</tr>
</thead>
</table>
| 1     | Wed, Sep 5| Course Outline and Introduction  
The Actions of Drugs  
(Presentation Drug Draw) | Chapter 5 (pp 87-102)                  |
| 2     | Mon, Sep 10| Placebo Effects                                                        | Intro: Chapter 5 (pp 93-95)  
Details: Not in text |
| 3     | Wed, Sep 12| The Actions of Drugs (cont’d)  
How Drugs Work | Chapter 5 (pp 102-117);  
Chapter 4 (pp 64-83) |
| 4     | Mon, Sep 17| The Synapse  
Presentations 1-5 | Not in text |
| 5     | Wed, Sep 19| Methods I Cellular Changes  
Presentations 6-10 | Not in text |
| 6     | Mon, Sep 24| Methods II Behavioural Tests  
Presentations 11-15 | Not in text |
| 7     | Wed, Sep 26| Drug Addiction  
Presentations 16-20 | Chapter 2 (pp 2-43) |
| 8     | Mon, Oct 1 | MIDTERM 1 (covers lecture material 1-7)  
8:35-9:55 am | CHAPTERS 2, 4-5 |
| 9     | Wed, Oct 3 | Alcohol  
Presentations 21-25 | Chapter 9 (pp 207-241) |
|       | Mon, Oct 8| Thanksgiving – no lecture. |                                      |
| 10    | Wed, Oct 10| Tobacco and Nicotine  
Presentations 26-30 | Chapter 10 (pp 244-268) |
| 11    | Mon, Oct 15| Cannabis  
Presentations 31-35 | Chapter 15 (pp 369-394) |
| 12    | Wed, Oct 17| Psychomotor Stimulants  
Presentations 36-40 | Chapter 6 (pp 120-150);  
Chapter 11 (pp 269-291) |
| 13    | Mon, Oct 22| Opiates  
Presentations 41-45 | Chapter 13 (pp 312-338) |
| 14    | Wed, Oct 24| Depressants and Inhalants  
Presentations 46-50 | Chapter 7 (pp 151-173) |
| 15    | Mon, Oct 29| Hallucinogens  
Presentations 51-55 | Chapter 14 (pp 339-368) |
| 16    | Wed, Oct 31| Over-the-Counter Drugs  
Therapeutic Drugs  
Presentations 56-60 | Chapter 12 (pp 292-309);  
Chapter 8 (pp 174-184) |
| 17    | Mon, Nov 5| MIDTERM 2 (covers lecture material 9-15)  
8:35-9:55 am | CHAPTERS 6-7, 10-11, 13-15 |
| 18    | Wed, Nov 7 | Antidepressants  
Presentations 61-65 | Chapter 8 (pp 194-206) |
|       | Mon, Nov 12 - Fri, Nov 16| Fall study week. No lectures this week. |                                      |
ACCOMMODATION POLICY FOR STUDENTS

Students may request accommodation as a result of barriers related to disability, religious obligation, or any characteristic protected under Canadian Human Rights legislation. The full text of Dalhousie’s Student Accommodation Policy can be accessed here:


Students who require accommodation for classroom participation or the writing of tests and exams should make their request to the Advising and Access Services Centre (AASC) prior to or at the outset of the regular academic year. More information and the Request for Accommodation form are available at www.dal.ca/access.

ACADEMIC INTEGRITY

Academic integrity, with its embodied values, is seen as a foundation of Dalhousie University. It is the responsibility of all students to be familiar with behaviours and practices associated with academic integrity. Instructors are required to forward any suspected cases of plagiarism or other forms of academic cheating to the Academic Integrity Officer for their Faculty.

The Academic Integrity website (http://academicintegrity.dal.ca) provides students and faculty with information on plagiarism and other forms of academic dishonesty, and has resources to help students succeed honestly. The full text of Dalhousie’s Policy on Intellectual Honesty and Faculty Discipline Procedures is available here:

http://www.dal.ca/dept/university_secretariat/academic-integrity/academic-policies.html

STUDENT CODE OF CONDUCT

Dalhousie University has a student code of conduct, and it is expected that students will adhere to the code during their participation in lectures and other activities associated with this course. In general:

“The University treats students as adults free to organize their own personal lives, behaviour and associations subject only to the law, and to University regulations that are necessary to protect

• the integrity and proper functioning of the academic and non – academic programs and activities of the University or its faculties, schools or departments;
• the peaceful and safe enjoyment of University facilities by other members of the University and the public;
• the freedom of members of the University to participate reasonably in the programs of the University and in activities on the University's premises;
• the property of the University or its members.”

The full text of the code can be found here:

SERVICES AVAILABLE TO STUDENTS

The following campus services are available to help students develop skills in library research, scientific writing, and effective study habits. The services are available to all Dalhousie students and, unless noted otherwise, are free.

<table>
<thead>
<tr>
<th>Service</th>
<th>Support Provided</th>
<th>Location</th>
<th>Contact</th>
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<tbody>
<tr>
<td><strong>General Academic Advising</strong></td>
<td>Help with</td>
<td>Killam Library Ground floor</td>
<td>In person: Killam Library Rm G28</td>
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<td>- understanding degree requirements and academic regulations</td>
<td>Rm G28 Bissett Centre for Academic Success</td>
<td>By appointment:</td>
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<td>- choosing your major</td>
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<td>- e-mail: <a href="mailto:advising@dal.ca">advising@dal.ca</a></td>
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<td></td>
<td>- achieving your educational or career goals</td>
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<td>- Phone: (902) 494-3077</td>
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<td>- dealing with academic or other difficulties</td>
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<td>- Book online through MyDal</td>
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<tr>
<td><strong>Dalhousie Libraries</strong></td>
<td>Help to find books and articles for assignments</td>
<td>Killam Library Ground floor</td>
<td>In person: Service Point (Ground floor)</td>
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<td></td>
<td>Help with citing sources in the text of your paper and preparation of bibliography</td>
<td>Librarian offices</td>
<td>By appointment:</td>
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<td>Identify your subject librarian (URL below) and contact by email or phone to arrange a time:</td>
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<tr>
<td><strong>Studying for Success (SFS)</strong></td>
<td>Help to develop essential study skills through small group workshops or one-on-one coaching sessions</td>
<td>Killam Library 3rd floor</td>
<td>To make an appointment:</td>
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<td></td>
<td>Match to a tutor for help in course-specific content (for a reasonable fee)</td>
<td>Coordinator Rm 3104</td>
<td>- Visit main office (Killam Library main floor, Rm G28)</td>
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<td>Study Coaches Rm 3103</td>
<td>- Call (902) 494-3077</td>
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<td>- email Coordinator at: <a href="mailto:sfs@dal.ca">sfs@dal.ca</a> or</td>
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<td>- Simply drop in to see us during posted office hours</td>
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<td><strong>All information can be found on our website:</strong></td>
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<td><a href="http://www.dal.ca/sfs">www.dal.ca/sfs</a></td>
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<tr>
<td><strong>Writing Centre</strong></td>
<td>Meet with coach/tutor to discuss writing assignments (e.g., lab report, research paper, thesis, poster)</td>
<td>Killam Library Ground floor</td>
<td>To make an appointment:</td>
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<td></td>
<td>- Learn to integrate source material into your own work appropriately</td>
<td>Learning Commons &amp; Rm G25</td>
<td>- Visit the Centre (Rm G25) and book an appointment</td>
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<td>- Learn about disciplinary writing from a peer or staff member in your field</td>
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<td>- Call (902) 494-1963</td>
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<td>- email <a href="mailto:writingcentre@dal.ca">writingcentre@dal.ca</a></td>
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<td>- Book online through MyDal</td>
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<td><strong>We are open six days a week</strong></td>
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<td><strong>See our website:</strong> writingcentre.dal.ca</td>
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