

**Psychology 475**
**Drugs and Behaviour**
**Winter 2015**

<b>Instructor:</b>	Dr. Andrew Brown	<b>Lecture Location:</b>	SH 278
<b>Phone:</b>	403-220-6275	<b>Lecture Days/Time:</b>	MWF 11:00 - 11:50
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<b>Office Hours:</b>	By appointment		

### Course Description and Goals

The behavioural effects of drugs specifically employed to affect the nervous system, as seen in the treatment of mental disorders, behavioural disorders, and other conditions such as Parkinson's, Huntington's and Alzheimer's diseases. Neuro-pharmacologic agents will be discussed as they relate to the biochemistry and physiology of putative neurotransmitters.

### Prerequisites

Psychology 312 - Experimental Design and Quantitative Methods for Psychology

Psychology 375 - Brain and Behaviour

### Required Text

Psychopharmacology: Drugs, the Brain, and Behavior, 2<sup>nd</sup> Edition, Jerrold S. Meyer and Linda F. Quenzer (2013) Sinauer. ISBN-13: 978-0878935109. Available at the University Bookstore and online vendors.

### Evaluation

Course Component	Weighting (% of final grade)	Date
1. Midterm exam	35	Feb 25 <sup>th</sup> , 2015
2. Research paper	25	April 8 <sup>th</sup> , 2015
3. Final exam	40	Scheduled by registrar

#### 1. Midterm exam:

- During class on **Feb 25<sup>th</sup>, 2015**
- Short answer and multiple choice questions
- Questions will be drawn from Chapters 1-3,5-9 (inclusive) and associated lecture material
- No books, notes, computers, calculators, or cellular phones will be permitted during exam writing
- 35% of final grade

## 2. Research paper:

- On a topic related to course material (example topics: Serotonin and depression; The role of norepinephrine and the amygdala in aversive memory consolidation)
- Topic must be approved by instructor, with email confirmation, by **Feb 11<sup>th</sup>, 2015**
- Page limit: 14-20 pages (not including references or figures)
- Format: 12 point, times new roman font, 1" margins, double-spaced
- Paper will be graded on two criteria:
  - i. *Presentation (20%)*: Grammar, organization of the paper (including references), clarity of writing, and other skills pertaining to written English.
  - ii. *Content (80%)*: Accuracy of information presented, completeness of relevant literature review, etc.
- A detailed description of assignment requirements and grading criteria will be discussed in class and posted on the course Desire2Learn website
- Papers are due at the end of class on **April 8<sup>th</sup>, 2015**. Hardcopy (submitted in class) and electronic copy (email or Desire2Learn) must be submitted. Reduction of 10% mark on paper for each 24h interval the paper is late, including weekends (starting from the end of class on April 8<sup>th</sup>)
- 25% of final grade

## 3. Final Exam:

- 3hrs. Scheduled by registrar, date and location to be determined
- Short answer and multiple choice questions
- The final exam will be **culmulative** (covering chapters 1-3,5-15,18-21, inclusive, and associated lecture material) with an **emphasis on material covered since the midterm**
- No books, notes, computers, calculators, or cellular phones will be permitted during exam writing.
- 40% of final grade

### Department of Psychology Grade Distribution Policy

The distribution of grades in Psychology courses (the percentage of A grades, B grades, etc.) will be similar to the distribution of grades in other courses in the Faculty of Arts. The Department monitors the grade distributions of 200-, 300-, and 400-level courses in the Faculty to ensure that the grade distributions in Psychology courses are comparable. Based on these reviews, students can expect that 1) up to 30% of grades in 200- and 300-level psychology courses will be "A" grades (A+, A, and A-), and 2) up to 40% of grades in 400-level psychology courses will be "A" grades.

### Department of Psychology Criteria for Letter Grades

Psychology professors use the following criteria when assigning letter grades:

**A+ grade: *Exceptional Performance*.** An A+ grade indicates near perfect performance on multiple choice and short answer exams. For research papers/essays/course projects/presentations, an A+ grade is awarded for exceptional work deserving of special recognition and is therefore not a common grade.

**A, A- Range: *Excellent Performance*.** Superior understanding of course material. Written work is very strong in terms of critical and original thinking, content, organization, and the expression of ideas, and demonstrates student's thorough knowledge of subject matter.

B Range: *Good Performance*. Above average understanding of course material. Written work shows evidence of critical thinking and attention to organization and editing but could be improved in form and/or content.

C Range: *Satisfactory Performance*. Adequate understanding of course material. Knowledge of basic concepts and terminology is demonstrated. Written work is satisfactory and meets essential requirements but could be improved significantly in form and content. Note: All prerequisites for courses offered by the Faculty of Arts must be met with a minimum grade of C-.

D range: *Marginally meets standards*. Minimal understanding of subject matter. Written work is marginally acceptable and meets basic requirements but requires substantial improvements in form and content. Student has not mastered course material at a level sufficient for advancement into more senior courses in the same or related subjects.

F grade: *Course standards not met*. Inadequate understanding of subject matter. Written work does not meet basic requirements. Student has not demonstrated knowledge of course material at a level sufficient for course credit.

#### Grading Scale

A+	96-100%	B+	80-84%	C+	67-71%	D+	54-58%
A	90-95%	B	76-79%	C	63-66%	D	50-53%
A-	85-89%	B-	72-75%	C-	59-62%	F	0-49%

As stated in the University Calendar, it is at the instructor's discretion to round off either upward or downward to determine a final grade when the average of term work and final examinations is between two letter grades. To determine final letter grades, final percentage grades will be rounded up or down to the nearest whole percentage (e.g., 89.5% will be rounded up to 90% = A but 89.4% will be rounded down to 89% = A-).

#### Tentative Lecture Schedule

Date	Topic	Chapter
M Jan 12	Course introduction Principles of pharmacology <b><i>Winter term lectures begin.</i></b>	1
W Jan 14	Principles of pharmacology	1
F Jan 16	Nervous system structure and function	2
M Jan 19	Nervous system structure and function	2
W Jan 21	Neurotransmission	3
F Jan 23	Neurotransmission <b><i>Last day to drop Winter Term half-courses.</i></b>	3
M Jan 26	Classes of neurotransmitters: Catecholamines <b><i>Last day to add or swap Winter Term half courses.</i></b> <b><i>Last day for change of registration from audit to credit or credit to audit.</i></b>	5
W Jan 28	Classes of neurotransmitters: Catecholamines	5
F Jan 30	Classes of neurotransmitters: Serotonin	6

	<b><i>Fee payment deadline for Winter Term fees.</i></b>	
M Feb 2	Classes of neurotransmitters: Serotonin	6
W Feb 4	Classes of neurotransmitters: Acetylcholine	7
F Feb 6	Classes of neurotransmitters: Glutamate and GABA	8
M Feb 9	Classes of neurotransmitters: Glutamate and GABA	8
W Feb 11	Drug Abuse and addiction <b>**Approval for term paper topic needed by today**</b>	9
F Feb 13	Drug Abuse and addiction	9
Feb 15-22	Reading Week. No lectures. University open (except Family Day).	
M Feb 16	Alberta Family Day, University closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.	
M Feb 23	CNS depressants: Alcohol Review of material for midterm	10
W Feb 25	<b>**Midterm exam**</b>	1-3,5-9
F Feb 27	CNS depressants: Alcohol	10
M Mar 2	CNS depressants: Opioids	11
W Mar 4	CNS depressants: Opioids	11
F Mar 6	CNS stimulants: Cocaine and the amphetamines	12
M Mar 9	CNS stimulants: Cocaine and the amphetamines	12
W Mar 11	CNS Stimulants: Nicotine and caffeine	13
F Mar 13	CNS Stimulants: Nicotine and caffeine	13
M Mar 16	Cannabinoids and marijuana	14
W Mar 18	Cannabinoids and marijuana	14
F Mar 20	Hallucinogens and psychedelics	15
M Mar 23	Hallucinogens and psychedelics	15
W Mar 25	Sedative-hypnotics and anxiolytics	18
F Mar 27	Sedative-hypnotics and anxiolytics	18
M Mar 30	Antidepressants and mood stabilizers	19
W Apr 1	Antidepressants and mood stabilizers	19
F Apr 3	Good Friday University Closed	
M Apr 6	Antipsychotics	20
W Apr 8	Antipsychotics <b>**Term paper due**</b>	20
F Apr 10	Neurodegenerative diseases	21
M Apr 13	Neurodegenerative diseases	21
W Apr 15	Course review <b><i>Winter Term Lectures End.</i></b> <b><i>Last day to withdraw from full courses and Winter Term half courses.</i></b>	
Apr 18-29	<b>**Final Exam (Date and location to be scheduled by registrar)**</b>	1-3,5-15,

**Reappraisal of Grades**

A student who feels that a piece of graded term work (e.g., term paper, essay, test) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor within 15 days of being notified about the mark or of the item's return to the class; no reappraisal of term work is permitted after the 15 days. If not satisfied, the student shall immediately take the matter to the Head of the department offering the course, who will arrange for a reassessment of the work within the next 15 days. The reappraisal of term work may cause the grade to be raised, lowered, or to remain the same. If the student is not satisfied with the decision and wishes to appeal, the student shall address a letter of appeal to the Dean of the faculty offering the course within 15 days of the unfavourable decision. In the letter, the student must clearly and fully state the decision being appealed, the grounds for appeal, and the remedies being sought, along with any special circumstances that warrant an appeal of the reappraisal. The student should include as much written documentation as possible.

**Plagiarism and Other Academic Misconduct**

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. Consequently, plagiarism or cheating on any assignment is regarded as an extremely serious academic offense. Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Students should examine sections of the University Calendar that present a Statement of Intellectual honesty and definitions and penalties associated with Plagiarism/Cheating/Other Academic Misconduct.

**Academic Accommodation**

It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 403-220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than 14 days after the start of this course.

**Absence From A Test/Exam**

Makeup tests/exams are NOT an option without an official University medical excuse (see the University Calendar). A completed Physician/Counselor Statement will be required to confirm absence from a test/exam for health reasons; the student will be required to pay any cost associated with this Statement. Students who miss a test/exam have 48 hours to contact the instructor and to schedule a makeup test/exam. Students who do not schedule a makeup test/exam with the instructor within this 48-hour period forfeit the right to a makeup test/exam. At the instructor's discretion, a makeup test/exam may differ significantly (in form and/or content) from a regularly scheduled test/exam. Except in extenuating circumstances (documented by an official University medical excuse), a makeup test/exam must be written within 2 weeks of the missed test/exam.

### **Travel During Exams**

Consistent with University regulations, students are expected to be available to write scheduled exams at any time during the official December and April examination periods. Requests to write a make-up exam because of conflicting travel plans (e.g., flight bookings) will NOT be considered except under exceptional circumstances. Students are advised to wait until the final examination schedule is posted before making any travel arrangements.

### **Freedom of Information and Protection of Privacy (FOIP) Act**

The FOIP legislation disallows the practice of having student's retrieve tests and assignments from a public place. Therefore, tests and assignments may be returned to students during class/lab, or during office hours, or via the Department Office (Admin 255), or will be made available only for viewing during exam review sessions scheduled by the Department. Tests and assignments will be shredded after one year. Instructors should take care to not link students' names with their grades, UCIDs, or other FOIP-sensitive information.

### **Course Credits for Research Participation (Max 2% of final grade)**

Students in most psychology courses are eligible to participate in Departmentally approved research and earn credits toward their final grades. **A maximum of two credits (2%) per course, including this course, may be applied to the student's final grade. Students earn 0.5% (0.5 credits) for each full 30 minutes of participation.** The demand for timeslots may exceed the supply in a given term. Thus, students are not guaranteed that there will be enough studies available to them to meet their credit requirements. Students should seek studies early in the term and should frequently check for open timeslots. Students can create an account and participate in Departmentally approved research studies at <http://ucalgary.sona-systems.com>. The last day to participate in studies and to assign or reassign earned credits to courses is **April 15, 2015**.

### **Evacuation Assembly Point**

In case of an emergency evacuation during class, students must gather at the designated assembly point nearest to the classroom. The list of assembly points is found at <http://www.ucalgary.ca/emergencyplan/assemblypoints>. Please check this website and note the nearest assembly point for this course.

### **Student Organizations**

Psychology students may wish to join the Psychology Undergraduate Students' Association (PSYCHS). They are located in Administration 170 and may be contacted at 403-220-5567.

**Student Union VP Academic:** Phone: 403-220-3911 [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca)  
**Student Union Faculty Rep.:** Phone: 403-220-3913 [socialscirep@su.ucalgary.ca](mailto:socialscirep@su.ucalgary.ca)

### **Student Ombudsman's Office**

The Office of the Student Ombudsmen provides independent, impartial and confidential support for students who require assistance and advice in addressing issues and concerns related to their academic careers. The office can be reached at 403-220-6420 or [ombuds@ucalgary.ca](mailto:ombuds@ucalgary.ca) (<http://www.su.ucalgary.ca/services/student-services/student-rights.html>).

**Safewalk**

The safewalk program provides volunteers to walk students safely to their destination anywhere on campus. This service is free and available 24 hrs/day, 365 days a year.

Call 403-220-5333.

**Important Dates**

The last day to drop this course with no "W" notation and **still receive a tuition fee refund** is **January 23<sup>rd</sup>, 2015**. Last day for registration/change of registration is **January 26<sup>th</sup>, 2015**. The last day to withdraw from this course is **April 15<sup>th</sup>, 2015**.