

PSYC 475 /NEUR 475
Drugs and Behaviour
WINTER 2023
Instructor: Dr. Cristie Noschang

Lecture Location:

SS 010

Phone: (587) 888 9834

Lecture Days/Time:

MWF 16:00-16:50 am

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Office: Zoom

Office Hours: By appointment

Course Description

The aim of the course is to provide an understanding on how drugs affect the Central Nervous System and influence behaviours. Special emphasis will be given to drugs of abuse and aspects related to that as addiction, tolerance and dependence. Other disorders/diseases inside the scope of drugs, brain and behaviour will also be explored.

Course Learning Outcomes

The Department of Psychology is committed to student knowledge and skill development. The table below lists the key learning outcomes for this course, the program-learning outcomes they facilitate (see psyc.ucalgary.ca/undergraduate/program-learning-outcomes), and the expected level of achievement.

Course Learning Outcomes	Assessment Methods	PLO(s)	Level(s)
Summarize psychopharmacology concepts	Exams, course assignment	1,4	I
Explain the organization and function of neurotransmitters systems	Exams, course assignment	1,4,7	C
Explain drug addiction and psychopharmacological aspects related to drugs of abuse	Exams, course assignment	1,2,4,7	C
Explain the psychopharmacology of other disorders and diseases affecting the Central Nervous System (e.g., affective disorders)	Exams, course assignment	1,2,4,7	C

Analyze, criticize and summarize scientific literature about drugs, brain and behaviour	Course assignment	1,2,4,5,6,7,8	A
Integrate and correlate different aspects of drugs, brain and behaviour	Exams, course assignment	1,2,4,5,7,8	A

Notes. PLOs = Program-Learning Outcomes: 1 = demonstrate knowledge of psychological sciences, 2 = think critically and solve problems, 3 = conduct research and analyze data, 4 = communicate effectively, 5 = demonstrate information literacy, 6 = understand and implement ethical principles in a diverse world, 7 = apply psychological knowledge and skills, 8 = Demonstrate multicultural competence and awareness of issues related to equity, diversity, and inclusion. Level of PLO achievement facilitated by this course: I = introductory, C = competency, A = advanced.

Acknowledgments and Respect for Diversity

Our classrooms view diversity of identity as a strength and resource. Your experiences and different perspectives are encouraged and add to a rich learning environment that fosters critical thought through respectful discussion and inclusion. The Department of Psychology would also like to acknowledge the traditional territories of the people of the Treaty 7 region in southern Alberta. The City of Calgary is also home to Métis Nation of Alberta, Region III.

Course Format

This is an in-person class held on campus.

Prerequisites

PSYC 300 - Research Methods and Data Analysis in Psychology I
 PSYC 301 - Research Methods and Data Analysis in Psychology II
 PSYC 312 – Experiment Design & Quanti Method
 PSYC 375 – Brain and Behaviour

Recommended Text

Meyer, J. S., Farrar, A. M., Biezonski, D., Yates, J. R. (2022). Psychopharmacology: Drugs, the Brain, and Behavior (4rd ed.). Oxford University Press.

Meyer, J. S., & Quenzer, L. F. (2019). Psychopharmacology: Drugs, the Brain, and Behavior (3rd ed.). Oxford University Press.

You may use this link to order texts or rent an e text https://www.calgarybookstore.ca/buy_textbooks.asp?

You can also go into the University Bookstore to purchase it.

Assessment Methods

Exams

Midterm Exam #1 (Chapters 1, 3, 5, 6, 7; Feb 6): 25%

Midterm Exam #2 (Chapters 8, 9, 10, 11, 12; March 20): 25%
Final Exam (Chapters 1, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 18; TBA): 30%

The final exam will be scheduled by the Registrar and it will be cumulative.
There will be a combination of multiple-choice questions and short answers questions in all exams.

Half marks will be given for general answers (in short answer questions) that are able to demonstrate knowledge of the content but missed details and/or used wrong terminology.

Exams in this course are closed book. The use of resources, including class notes, the textbook, online resources, and calculators is prohibited during exams in this course. Students may not communicate with others about course material or the exam either in person or electronically during exams.

Assignment

Type	Content	Due date	% of final grade
Term project (outline)	Outline of the topics chosen for term project	March 1, 2023	1% mandatory
Term project (final assignment)	Written assignment exploring psychopharmacology topics	Apr 12, 20223	19%

You must receive the approval from the instructor for the term project outline to be able to submit the term project final assignment.

More details about the term project will be provided in D2L.

Submission should be done via the D2L dropbox before 11:59pm of the due date.

Without instructor approval, late assignments will be penalized 10% per day, including weekends.

University of Calgary Academic Integrity Policy

Academic integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect members of our community to act with integrity.

Research integrity, ethics, and principles of conduct are key to academic integrity. Members of our campus community are required to abide by our institutional code of conduct and promote academic integrity in upholding the University of Calgary's reputation of excellence. It is your responsibility to ensure that you have read and are familiar with the student academic misconduct policy:

<https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Academic-Misconduct-Policy.pdf>

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%

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/Activity/Readings/Due Date
M Jan 9	First day of classes Introduction to the Course Lecture 1: Principles of Pharmacology (Ch1)
W Jan 11	Lecture 2: Principles of Pharmacology (Ch1)
F Jan 13	Lecture 3: Principles of Pharmacology (Ch1)
M Jan 16	Lecture 4: Chemical Signaling by Neurotransmitters and Hormones (Ch3)
W Jan 18	Lecture 5: Chemical Signaling by Neurotransmitters and Hormones (Ch3)
Jan 19	Last day to drop a class without a penalty
F Jan 20	Lecture 6: Chemical Signaling by Neurotransmitters and Hormones (Ch3) Last day to add or swap a course
M Jan 23	Lecture 7: Catecholamines (Ch 5)
W Jan 25	Lecture 8: Catecholamines (Ch 5)
F Jan 27	Lecture 9: Serotonin (Ch 6) Fee payment deadline for Fall Term full and half courses
M Jan 30	Lecture 10: Serotonin (Ch 6)
W Feb 1	Lecture 11: Acetylcholine (Ch 7)
F Feb 3	Lecture 12: Acetylcholine (Ch 7)
M Feb 6	Midterm #1
W Feb 8	Lecture 13: Glutamate and GABA (Ch 8)

F Feb 10	Lecture 14: Glutamate and GABA (Ch 8)
M Feb 13	Lecture 15: Glutamate and GABA (Ch 8)
W Feb 15	Lecture 16: Drug Misuse and Addiction (Ch 9)
F Feb 17	Lecture 17: Drug Misuse and Addiction (Ch9)
M Feb 20	UNIVERSITY CLOSED Alberta Family Day
Feb 19-25	Term break
M Feb 27	Lecture 18: Drug Misuse and Addiction (Ch9)
W Mar 1	Lecture 19: Alcohol (Ch 10) Term project outline due at 11:59pm
F Mar 3	Lecture 20: Alcohol (Ch 10)
M Mar 6	Lecture 21: Alcohol (Ch 10)
W Mar 8	Lecture 22: Opioids (Ch 11)
F Mar 10	Lecture 23: Opioids (Ch 11)
M Mar 13	Lecture 24: Psychomotor Stimulants: Cocaine, Amphetamine (Ch 12)
W Mar 15	Lecture 25: Psychomotor Stimulants: Cocaine, Amphetamine (Ch 12)
F Mar 17	Lecture 26: Nicotine (Ch 13)
M Mar 20	Midterm #2
W Mar 22	Lecture 27: Nicotine (Ch 13)
F Mar 24	Lecture 28: Marijuana and the Cannabinoids (Ch 14)
M Mar 27	Lecture 29: Marijuana and the Cannabinoids (Ch 14)
W Mar 29	Lecture 30: Psychedelic Drugs and Ketamine (Ch 15)
F Mar 31	Lecture 31: Psychedelic Drugs and Ketamine (Ch 15)
M Apr 3	Lecture 32: Affective Disorders: Antidepressants and Mood Stabilizers (Ch 18)
W Apr 5	Lecture 33: Affective Disorders: Antidepressants and Mood Stabilizers (Ch 18)

F Apr 7	UNIVERSITY CLOSED Good Friday
M Apr 10	UNIVERSITY CLOSED Easter Monday
W Apr 12	Lecture 34: Affective Disorders: Antidepressants and Mood Stabilizers (Ch 18) Term project final assignment is due at 11:59pm Fall term lectures end Last day to withdraw with permission from Winter Term half courses
Apr 15 -26	Winter Final Exam Period

*Top Hat, a classroom performance system, will be used during lectures for learning purpose only (not for grading).

Course Credits for Research Participation

EXTRA RESEARCH PARTICIPATION COURSE CREDIT IS NOT OFFERED FOR THIS COURSE.

Absence From Test/Exam

Makeup tests/exams are **NOT** an option without the approval of the instructor <https://www.ucalgary.ca/pubs/calendar/current/g-1-1.html> At the instructor's discretion, a makeup test/exam may differ significantly (in form and/or content) from a regularly scheduled test/exam. Once approved by the instructor a makeup test/exam must be written within 2 weeks of the missed test/exam on a day/time scheduled by the instructor. If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam <https://www.ucalgary.ca/registrar/exams/deferred-exams>

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 by the department. Students are advised to wait until the final examination schedule is posted before making any travel arrangements. If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam [Deferred Final Exams | University of Calgary \(ucalgary.ca\)](#) Students with an exceptional extenuating circumstance (e.g., a family emergency) should contact the Department of Psychology psyugrd@ucalgary.ca

Reappraisal of Graded Term Work <http://www.ucalgary.ca/pubs/calendar/current/i-2.html>

Reappraisal of Final Grade <http://www.ucalgary.ca/pubs/calendar/current/i-3.html>

Academic Accommodations

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at [University of Calgary : B.6.1 Accommodation of Students with Disabilities or Medical Conditions \(ucalgary.ca\)](#)

Academic Misconduct

For information on academic misconduct and its consequences, please see the University of Calgary Calendar at <http://www.ucalgary.ca/pubs/calendar/current/k.html>

Instructor Intellectual Property

Course materials created by professor(s) (including course outlines, presentations and posted notes, labs, case studies, assignments, and exams) remain the intellectual property of the professor(s). These materials may NOT be reproduced, redistributed, or copied without the explicit consent of the professor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

Copyright Legislation

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (<https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy>) and requirements of the copyright act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) to ensure they are aware of the consequences of unauthorized sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

Freedom of Information and Protection of Privacy

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary

Student Support and Resources

<https://www.ucalgary.ca/registrar/registration/course-outlines>

Important Dates

The last day to drop this course with no "W" notation and **still receive a tuition fee refund is Thursday, January 19, 2023**. Last day add/swap a course is **Friday, January 20, 2023**. The last day to withdraw from this course is **Wednesday, April 12, 2023** [University of Calgary : Academic Schedule \(ucalgary.ca\)](#)