

Psychology 3535A – Drugs and Behaviour

**Department of Psychology
The University of Lethbridge
Spring 2011**

Location:

M W F, 12:00-12:50, PE264

Instructor:

Dr. Margaret Forgie

Phone: 329-2437 (department: 329-2235)

Office: D850

Email: forgie@uleth.ca (preferred contact)

Office Hours: By individual appointment at a mutually convenient time.

Undergraduate Student Assistant:

Mr. Mark Davids (B.Sc. Candidate - Psychology)

email: mark.davids@uleth.ca

Course Description:

My aim for this course is to provide an in-depth introduction to the field of psychopharmacology, which is the study of the relationship between drugs and behaviour. In this course, we will address the underlying neural and physiological correlates of this relationship (i.e., the interactions of drugs with neurochemicals that result in alterations to behaviour). In other words, we will explore a wide range of topics related to the mechanisms by which psychotropic and psychotherapeutic drugs exert their actions on the functional properties of the nervous system and, thus, on behaviour. For each topic area the basic neurochemistry and neurophysiology of the drug's action, and the patterns of behaviour exhibited at the level of the whole person in relation to the drug, will be addressed.

Prerequisites:

Prerequisites for this course are two, 2000-level courses (6.0 credit hours) in Psychology or Neuroscience. Students should note that it is **strongly recommended** that they have **successfully** completed Neuroscience 2600, or an equivalent course, prior to taking this one. I will assume that all students have a working knowledge of the material that would be covered in such a course. Regardless of specific background, all students are expected to have a solid foundation in the scientific approach to understanding behaviour, and a willingness to learn about neurophysiology and neurochemistry.

Required Texts:

Meyer, J.S. and Quenzer, L.F. (2004). *Psychopharmacology: Drugs, The Brain, and Behavior*. Sinauer Associates Inc.: New York, NY.

Northey, M. and Timney, B. (2007). *Making Sense in Psychology and the Life Sciences. A student's guide to research and writing*, Fourth Edition. Oxford University Press: Don Mills, ON.

Course Requirements:

- (1) Tests. There will be three short tests, approximately every 4 to 5 weeks during the semester, and these will account for a total of 45% of your final grade (15% each). Tests will consist of short-answer, definition, and multiple-choice questions. Test 3 will take place on the last day of classes. There is no cumulative final exam in this course (see attached Course Schedule).
- (2) Presentation. Students will be responsible for giving a short, conference length presentation (a total of 10 minutes for the group presentation; 3 minutes for question period, with length of time strictly enforced by the instructor). Students will present in groups of three. This presentation will be worth 20% of your final grade, with 10% accorded to the group and 10% accorded to each individual's contribution. All students will be required to submit a one-paragraph statement of interest and then groups will be assigned based on matched interests (see attached Course Schedule).
- (3) Abstract Assignment. As a companion to your presentation, each student will submit a written assignment that is adapted from several standard annotated formats. The assignment will consist of writing a one-page, critical abstract of each of five primary research articles. This assignment is worth 15% of your final grade and will be marked on a pass/fail basis. In other words, if you pass the assignment on first submission you will receive 15%. Students that do not pass the assignment on first submission will be given a mark of 0, and will be required to submit a revision to achieve the full 15%. A handout for this assignment will be distributed and discussed during the introductory classes (see attached Course Schedule). **This assignment is due on the day that you give your presentation, and must be submitted by 4:00 pm in the dropbox located adjacent to D866.**
- (4) Journal Assignment. This written assignment consists of an essay explaining a single, original research article concerning any topic in the area of psychopharmacology. Approaches from all levels of psychological analysis are encouraged (e.g., depending on your interests, you might choose to focus on the molecular processes of drug action or you might choose a topic in clinical pharmacology). The only caveat is that your target article **MUST** be a primary research paper that has published in a peer-reviewed (refereed) journal and it must have been published within the last 5 years (i.e., 2005 or later). Your submission will be worth 20% of your final grade. Following initial grading, all students will be given an opportunity to revise their paper for a higher grade. A handout for this assignment will be distributed and discussed during the introductory classes (see attached Course Schedule). **This assignment is due on March 21 by 4:00 pm in the dropbox located adjacent to D866.**

NB.

Late submissions of the Journal Assignment or the Abstract Assignment will result in a 25% penalty per day. Failure to deliver your part of the in-class presentation will result in a grade of zero for both portions of the mark. Your group will be graded without your result. Students that contribute little to the group presentation will have their mark adjusted accordingly. All assignments will be graded under the assumption that all students have read, and understood, the contents of the second required text by Northey and Timney (2007). In particular, all assignments must be in your own words. Paraphrasing someone else's words, even if you reference those words, is plagiarism. Plagiarism is a serious academic offense and any case of suspected plagiarism will be dealt with severely, including the imposition of the maximum penalties allowable for such an offense. For information on what constitutes plagiarism, see Northey and Timney (2007), Chapter 4. This information is also available from the U of L Library website.

Students with Special Needs:

If you have a documented condition that prevents you from fully participating in this course, including evaluation procedures, it is your responsibility to contact me if special arrangements are necessary to accommodate your individual situation. Please note that you must contact Counselling Services to acquire an official letter concerning your situation. No accommodations will be given without official notification from that office.

Grading:

Letter grades will be assigned to final percentages according to the following scale:

A+ (90+)	B+ (77-79)	C+ (67-69)	D+ (56-59)
A (85-89)	B (73-76)	C (63-66)	D (50-55)
A- (80-84)	B- (70-72)	C- (60-62)	F (< 50)

Web Sites and Email:

- (1) Course Information. All students have a U of L computer account. Your account name is equivalent to your username and your password is the same as you use for email. You will need this to access Blackboard (<https://courseware.uleth.ca/webct>) in order to obtain course information, handouts, and to view the online grade book. Although all tests will be written during class time, I will use this utility so that you can keep track of all your graded work. If you require assistance with anything related to using computers at the U of L, please contact the Student Help Desk. Should you have a problem with Blackboard, please contact the CRDC (11th floor - Library).
- (2) E-mail Accounts. My primary method of communicating with you for general notices and points of interest to supplement course information, will be via email and in-class announcements. Please be sure you check your U of L email account on a regular basis. Please do your best to remember to do regular housekeeping so that you do not miss important notices that relate to this class due to a full mailbox. PLEASE DO NOT ABUSE THE CLASS LISTSERV by sending communications to the list that are not relevant to class material.

Projected Course Schedule and Readings

Week 1: Jan. 10, 12, 14

Lecture Topics:

Introductory Classes - All students are expected to attend these classes.

Explanation of Assignments, Exams and Presentation Requirements

Introduction to Psychopharmacology I: Pharmacokinetics and Pharmacodynamics – Chapter 1

Weeks 2 to 4: Jan. 17, 19, 21*, 24**, 26, 28, 31, Feb. 2, 4

Important Dates:

*Paragraph of Interests due for presentation topics – in class.

**Groups assigned and dates scheduled for presentations - All students are expected to attend this class.

Lecture Topics and Readings:

Introduction to Psychopharmacology II: Nervous System Review - Chapter 2

Introduction to Neurochemistry I: Transmitters, Hormones, and Synaptic Function - Chapter 3

Introduction to Neurochemistry II: The Monoamine Transmitters – Chapters 5 & 6

Student Presentations Begin:

Jan. 31, Feb. 2, 4 - Student Presentations 1

Weeks 5 to 9: Feb. 7*, 9, 11, Feb. 14, 16, 18, 21, 23, 25**, Feb. 28, Mar. 2, 4, 7, 9, 11

Important Dates:

*Monday, Feb. 7 – In-class Exam 1

**** No Classes – Reading Week**

**Friday, Mar. 11 – In-class Exam 2

Lecture Topics and Readings:

Introduction to Neurochemistry III: The Cholinergic Systems – Chapter 6

Introduction to Neurochemistry IV: The Amino Acid Transmitters – Chapter 7

Specific Drug Categories I: The Sedative Hypnotics/CNS Depressants – Chapters 9 & 15

Specific Drug Categories II: The Opioids – Chapter 10

Student Presentations Begin:

Feb. 14, 16, 18 - Student Presentations 2

Feb. 28, Mar. 2, 4 - Student Presentations 3

Mar. 7, 9, 11 - Student Presentations 4

Weeks 10 through 14: Mar. 14, 16, 18, 21*, 23, 25, 28, 30, Apr. 1, 4, 6, 8, 11, 13, 15**

Important Dates:

*Monday, March 21 - Journal Assignments are due in the drop-box by 4:00 PM. Withdrawal Deadline for the Spring 2011 Semester.

**Friday, April 15 – In-class Test 3

Lecture Topics and Readings:

Specific Drug Categories III: The CNS Stimulants – Chapters 11 & 12

Specific Drug Categories IV: The Hallucinogens (Cannabis, Psychedelics, Ketamine etc.) Chapters 13 & 14

Psychopathology and Drugs: Selected Topics from Chapters 8, 16, 17, & 18

Student Presentations

Mar. 21, 23, **25** - Student Presentations 5

Mar. 28, **30**, April 1 - Student Presentations 6

April **4**, 6, 8 - Student Presentations 7

N.B. Wednesday, April 20 – All Abstract and Journal Assignment Revisions are Due by 4:00 pm in the drop box located outside the Psychology Department Office (D866).