

PMCOL 343: The Scientific Basis of Pharmacology

Department website: <http://www.pmcoulberta.ca/>

This is the second of three main Pharmacology courses for undergraduate science students covering the full spectrum of topics in Pharmacology (PMCOL 200 being the last and PMCOL 344 being the last one). In these courses, we provide a comprehensive study of the modern science of pharmacology with an emphasis on studying how the body and drugs interact.

As with the other courses, PMCOL 343 is not aimed at students in any professional program but, in providing context for the actions of drugs, information on the use of drugs for treatment of diseases will be provided.

The focus of the course is on the **mechanism of action of classes of drugs** rather than on the memorization of drug names. However, learning drug names is a necessary part of pharmacology so there will inevitably be names to learn.

Course: Please note: **PMCOL 200 is a pre-requisite for this course.**

This course follows on from PMCOL 200 and involves a study of various key areas in pharmacology: **autonomic pharmacology, cardiovascular and renal pharmacology, pain management, and neuro/ neuroendocrine pharmacology.**

Lectures: All lectures are held in room **ECHA 2-150** at **1:00pm** on **Mondays, Wednesdays** and **Fridays**. The course is team taught by a group of professors all with expertise in their areas of instruction. The first meeting of the class will be **September 2nd, 2022 (Friday)**.

Classroom etiquette: When possible you should arrive on time and leave after the lecturer is finished. When this is not possible, it is a courtesy to excuse yourself to the lecturer, preferably beforehand if you have prior knowledge of such circumstances. You should enter or leave the room with as little disturbance as possible, and sit at the end of a row. Also, please ensure that all cell phones are switched off during the class.

LEARNING RESOURCES

Lecture notes will be posted on eClass. Students are also encouraged to use the discussion board on eClass to post questions about lecture material. EClass will also be used to post course information, changes to schedule etc., and *it is each student's responsibility to check regularly for such information.*

Please note that instruction in the course is planned to be in a face-to-face format. Lectures are not planned to be recorded and posted online except in the event that an instructor is unable to present a lecture (for example, due to illness).

Textbook: There is no required textbook for the course. Individual instructors may assign readings from chapters in specific pharmacology textbooks (e.g. Goodman & Gilman's, the pharmacological basis of therapeutics) which are free online (<http://accessmedicine.mhmedical.com>). Students will be required to read the relevant chapters of the text book to supplement the lecture material.

Please note that all material covered in the lectures and assigned reading is subject to examination.

Academic Success Centre:

The [Academic Success Centre](#) provides professional academic support to help students strengthen their academic skills and achieve their academic goals. Individual advising, appointments, and group workshops are available year-round in the areas of Accessibility, Communication, Learning, and Writing Resources. Modest fees apply for some services.

Pharmacology Students' Association Tutorials:

The PSA typically hosts tutorial/review sessions prior to exams. Students will be notified of event and registration details as they become available.

GRADE EVALUATION

Assessments:

Examinations: The format of examinations will be short answer questions with written answers. Exams are planned to be delivered in an in-person setting. Non-programmable calculators will be permitted, but no other electronic devices (no cell phones, smart watches, etc.). There will be three examinations:

1. The **first mid-term** examination will be held on **September 26th, 2021 (Monday)** at **1:00pm** in **ECHA 2-150**. This exam will be **50 minutes** in duration and comprises only **short-answer questions** covering the material presented in class up to that date. The score from this exam will contribute **25%** to the final mark. Non-programmable calculators will be permitted.

2. The **second mid-term** examination will be held on **October 31st, 2021 (Monday)** at **1:00pm** in **ECHA 2-150**. This exam will be **50 minutes** in duration and comprises only **short-answer questions** covering the material presented from after the first mid-term up to that date. The score from this exam will contribute **35%** to the final mark.

Please note that **no deferred mid-term exams will be held**. Any excused absence from the mid-term examination that may be granted will result in the weighting of that exam being added to the final exam.

3. The **final exam** will likely (subject to confirmation) be held at **2:00 pm** on **December 13th, 2022** and will be allocated space in an exam hall by the Registrar's Office – details will be provided later. This exam will be **2 hours** in duration and comprises only **short-answer questions** covering the material presented from after the second mid-term to the end of the course. The score from this exam will contribute **40%** to the final mark.

A student who cannot write the final examination because of an incapacitating illness or is suffering from severe domestic affliction or other compelling reasons can apply for a deferred final examination. Such an application must be made to the student's Faculty office within 48 hours of the missed examination. Deferred examinations are a privilege and not a right; there is no guarantee that a deferred examination will be granted. Misrepresentation of Facts to gain a deferred examination is a serious breach of the Code of Student Behavior. The date of the deferred examination will be **at 1:00 pm Friday January 20th 2023**. The format of the deferred final examination is at the discretion of the coordinator, may differ from that of the regularly scheduled final examination and may include an oral examination component.

Examination review: Students will be able to view their two mid-term exam papers during in-class review sessions as shown on the course schedule.

Grading: Course grades are based on the final cumulative percentage score assigned to students. The final percentage score is determined by adding the weighted assessment components of the course as described in the course syllabus. Grade boundaries are determined using the grade-mapping chart shown below:

Course Mark	Letter Grade
90 - 100	A+
85 - 89	A
80 - 84	A-
75 - 79	B+
70 - 74	B
66 - 69	B-
62 - 65	C+
58 - 61	C
55 - 57	C-
52 - 54	D+
50 - 51	D
0 - 49	F

Please note that an aggregate mark of **50.0%** or more is required to pass the course (grade D). No "rounding up" of marks lower than this will be accepted as a passing grade.

Missed Assessments Where the Cause is Religious Belief:

For an excused absence where the cause is religious belief, a student must contact the instructor(s) within two weeks of the start of Fall or Winter classes to request

accommodation for the term (including the final exam, where relevant). Instructors may request adequate documentation to substantiate the student request. Students who failed at the start of term to request exam accommodations for religious beliefs are expected to follow the deferred final examination process outlined below.

Re-examination:

A student who writes the final examination and fails the course may apply for a re-examination. Re-examinations are rarely granted in the Faculty of Science. Re-examinations are governed by [university-wide Academic Regulations](#) and [Faculty of Science Academic Regulations](#). Misrepresentation of Facts to gain a re-examination is a serious breach of the *Code of Student Behaviour*.

STUDENT RESPONSIBILITIES

Academic Integrity: ‘The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behavior (online at www.ualberta.ca/secretariat/appeals.htm) and avoid any behavior which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.’

All forms of dishonesty are unacceptable at the University. Cheating, plagiarism and misrepresentation of facts are serious offenses. Anyone who engages in these practices will receive at minimum a grade of zero for the exam in question and no opportunity will be given to replace the grade or redistribute the weights. Any offense will be reported to the Senior Associate Dean of Science who will determine the disciplinary action to be taken. Typical sanctions for serious violations of the Code have included disciplinary grade reductions, disciplinary failing grades, suspension or permanent expulsion from the University.

Exam Conduct:

- Your student photo I.D. is required at exams to verify your identity.
- Students will not be allowed to begin an examination after it has been in progress for 30 minutes. Students must remain in the exam room until at least 30 minutes has elapsed.
- All cell phones must be turned off and stored in your bags.

Cell Phones:

Cell phones are to be turned off during lectures, labs and seminars.

Students with disabilities: Students who require accommodation in this course due to a disability are advised to discuss their needs with Student Accessibility Services (SAS; 1-80 Students' Union Building).

Students Eligible for Accessibility-Related Accommodations:

Eligible students have both rights and responsibilities with regard to accessibility-related accommodations. Consequently, scheduling exam accommodations in accordance with [Accessibility Resources](#) deadlines and procedures is essential. Please note adherence to procedures and deadlines is required for U of A to provide accommodations. Contact [Accessibility Resources](#) for further information.

Recording and/or Distribution of Course Materials:

Audio or video recording, digital or otherwise, of lectures, labs, seminars or any other teaching environment by students is allowed only with the prior written consent of the instructor or as a part of an approved accommodation plan. Student or instructor content, digital or otherwise, created and/or used within the context of the course is to be used **solely for personal study, and is not to be used or distributed for any other purpose without prior written consent from the content author(s).**

Learning and Working Environment:

The Faculty of Science is committed to ensuring that all students, faculty and staff are able to work and study in an environment that is safe and free from discrimination and harassment. It does not tolerate behaviour that undermines that environment.

If you are experiencing harassment, discrimination, fraud, theft or any other issue and would like to get confidential advice, please contact any of these campus services:

- [Office of Safe Disclosure & Human Rights](#): *A safe, neutral and confidential space to disclose concerns about how the University of Alberta policies, procedures or ethical standards are being applied. They provide strategic advice and referral on matters such as discrimination, harassment, duty to accommodate and wrong-doings. Disclosures can be made in person or online using the [Online Reporting Tool](#).*
- [University of Alberta Protective Services](#): *Peace officers dedicated to ensuring the safety and security of U of A campuses and community. Staff or students can contact UAPS to make a report if they feel unsafe, threatened, or targeted on campus or by another member of the university community.*
- [Office of the Student Ombuds](#): *A confidential and free service that strives to ensure that university processes related to students operate as fairly as possible. They offer information, advice, and support to students, faculty, and staff as they deal with academic, discipline, interpersonal, and financial issues related to student programs.*
- [Office of the Dean of Students](#): *They can assist students in navigating services to ensure they receive appropriate and timely resources. For students who are unsure of the support they may need, are concerned about how to access services on campus, or feel like they may need interim support while you wait to access a service, the Dean of Students office is here to help.*

Feeling Stressed, Anxious, or Upset?

It's normal for us to have different mental health experiences throughout the year, particularly as we adjust to returning to campus as we move through a pandemic. Know that there are people who want help. You can reach out to your friends and access a variety of supports available on and off campus at the [Need Help Now](#) webpage or by calling the 24-hour Distress Line: 780-482-4357 (HELP).

Contacting Instructors: Email is the preferred method of contact but if you wish to see an instructor in person, please email or phone for an appointment beforehand:

Course Co-ordinator:

Dr. Harley Kurata, Rm 6-126E Li Ka Shing, phone: 780-492-9177
E-mail: kurata@ualberta.ca

Dr. William F. Colmers
E-mail: wcolmers@ualberta.ca

Dr. Derek Dillane
E-mail: dillane@ualberta.ca

Dr. James Green
E-mail: jgreen2@ualberta.ca

Dr. Bradley Kerr
E-mail: bjkerr@ualberta.ca

Dr. Myron Zwozdesky
E-mail: myronz@ualberta.ca

Dr. Qutuba Karwi
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Dr. John Ussher
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Dr. Peter Light
E-mail: plight@ualberta.ca

Policy about course outlines can be found in [Course Requirements, Evaluations Procedures and Grading](#) of the University Calendar.

Land Acknowledgement:

The University of Alberta respectfully acknowledges that we are situated on Treaty 6 territory, traditional lands of First Nations and Métis people.

To learn more about the significance of this land acknowledgement, please read [this](#) useful article and associated links to more information.

Disclaimer:

Any typographical errors in this Course Outline are subject to change and will be announced in class. The date of the final examination is set by the Registrar and takes precedence over the final examination date reported in this syllabus.