

Course outline

Course number 731

Course title Biochemical Pharmacology

Instructor Michael Palmer (Chemistry department)

Term offered Winter 2017

Meeting Dates January 3rd to April 4th

Times Wednesdays, 7:00 p.m. – 9:50 p.m.

Location EIT 2053 (main link)

Office hours Fridays, 10 a.m. to 12 a.m. (ESC 234), or by appointment

Course objectives Understand the biochemical principles of drug action

Required reading Course notes (see <http://tinyurl.com/pharma-notes>)

Evaluation A written short review on a specific research topic related to the course material. You can choose your own topic, but please run it by me before actually starting to work on it. If you don't, you risk that I reject the topic (and your review) as unsuitable; *that has happened in the past.*

Overview of topics

1. Introduction
2. Pharmacodynamics: General principles of drug action
3. Pharmacokinetics: Uptake, distribution, and elimination of drugs
4. Pharmacology of nerve and muscle cells
5. G protein-coupled receptors as drug targets
6. Drugs that modulate nitric oxide signaling
7. Eicosanoid mediators and related drugs
8. Antimicrobial chemotherapy
9. Anti-cancer chemotherapy
10. Drug delivery
11. RNA as a drug target
12. Drug discovery/development

Legalese

For University of Waterloo Students

Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. [Check www.uwaterloo.ca/academicintegrity/ for more information.]

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70, Student Petitions and Grievances, Section 4, www.adm.uwaterloo.ca/infosec/Policies/policy70.htm. When in doubt please be certain to contact the department's administrative assistant who will provide further assistance.

Discipline: A student is expected to know what constitutes academic integrity [check www.uwaterloo.ca/academicintegrity/] to avoid committing an academic offence, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about rules for group work/collaboration should seek guidance from the course instructor, academic advisor, or the undergraduate Associate Dean. For information on categories of offences and types of penalties, students should refer to Policy 71, Student Discipline, www.adm.uwaterloo.ca/infosec/Policies/policy71.htm. For typical penalties check Guidelines for the Assessment of Penalties, www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm.

Appeals: A decision made or penalty imposed under Policy 70 (Student Petitions and Grievances) (other than a petition) or Policy 71 (Student Discipline) may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72 (Student Appeals) www.adm.uwaterloo.ca/infosec/Policies/policy72.htm.

Note for Students with Disabilities: The Office for Persons with Disabilities (OPD), located in Noodles Hell, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.

For University of Guelph Graduate Students

E-mail Communication: All students are required to check their University of Guelph e-mail account regularly. E-mail is the official route of communication between the University and its students.

When You Cannot Meet a Course Requirement: When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course in writing, with your name, id#, and e-mail contact. See the graduate calendar for information on regulations and procedures for Academic Consideration.

Drop Date: The last date to drop one-semester courses, without academic penalty, is Friday 11th March 2016 [well, har, har, that is what the "template" supplied to me in 2017 says. Apparently, I should care enough to look it up myself, even though GWC2 doesn't. Fat chance.]

Two-semester courses must be dropped by the last day of the add period in the second semester. Refer to the Graduate Calendar for the Schedule of Dates.

Academic Misconduct: The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community - faculty, staff, and students - to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. The Academic Misconduct Policy is detailed in the Graduate Calendar.

Recording of Materials: Presentations which are made in relation to course work—including lectures—cannot be recorded in any electronic media without the permission of the presenter, whether the instructor, a classmate or guest lecturer.

Resources: The Graduate Calendar is the source of information about the University of Guelph's procedures, policies and regulations that apply to graduate programs: <http://www.uoguelph.ca/registrar/calendars/graduate/current/>