

## TOX\*4590 Biochemical Toxicology

Fall 2018

**Instructor:** Prof. David Josephy, Department of Molecular and Cellular Biology  
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**Format:** Three classroom meetings weekly: M, W, F 10:30-11:30 a.m., MacKinnon (arts) Building Room 115. Lectures will be presented using Powerpoint and the lecture slides will usually be made available ahead of time on Courselink.

*Note: Dr. Josephy will be out of the country during the week after Labour Day. The first class, Fri. Sept. 7, will be "self-study"; please do not go to the classroom. The lecture notes for the first class will be posted on Courselink.*

**Learning Objectives:** To develop an understanding of the chemical mechanisms of action of toxic compounds, the enzymes that catalyze their biotransformation, and the experimental tools and systems used in modern molecular toxicology. This is not a "survey" course; instead, selected topics will be considered in depth.

**Prerequisites:** (1 of CHEM\*3430, CHEM\*3450, TOX\*3300), BIOC\*3560, MBG\*2020.

**Course Materials:** Textbook: *Molecular Toxicology*, P.D. Josephy and B. Mannervik, 2<sup>nd</sup> Edition, 2006, Oxford University Press, New York. This textbook is based on my experience teaching this course. You should also have access to standard full-length introductory Biochemistry and Organic Chemistry textbooks. Since the textbook is now somewhat dated, we will also refer to recent review articles and the primary scientific literature.

### Evaluation

Midterm 1, Friday Oct. 12	30%
Midterm 2, Friday Nov. 9	30%
Final Exam, Tuesday Dec. 3, 8:30-10:30 am	40%

E-mail Communication: As per university regulations, all students are required to check their uoguelph.ca e-mail accounts 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 instructor in writing, with your name, id#, and e-mail contact. See the undergraduate calendar for information on regulations and procedures for Academic Consideration.

Drop Date: For regulations and procedures for Dropping Courses, see the Undergraduate Calendar.

Resources: The Academic Calendars are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.

Accessibility: The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Student Accessibility Services. For more information, contact SAS at ext. 56208.

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 Undergraduate Calendar.

Electronic Recordings: Presentations which are made in relation to course work, including lectures, must not be recorded electronically (audio or video) without the prior written permission of the presenter (instructor, classmate, or guest lecturer). Material recorded with permission is restricted to personal study use for this course unless further written permission is granted.