

## Graduate Syllabus, Spring 2024 PHRM 5720, Toxicology, 3 credits

### Meeting Time and Location

Monday's/Wednesday's/Friday's 9:40 – 10:30 AM, Williams Hall 301

### Course Directors

- Dr. Karen C. Glass, Associate Professor of Pharmacology, Firestone 362, [karen.glass@med.uvm.edu](mailto:karen.glass@med.uvm.edu)
- Dr. Wolfgang Dostmann, Professor of Pharmacology, Given B333B, [wostman@uvm.edu](mailto:wostman@uvm.edu)

### Course Faculty

Faculty Members of the Department of Pharmacology

### Office Hours

By appointment

### Prerequisites

Biology, or Organic Chemistry, or Permission

### Course Description

This 3-credit course is intended to provide an understanding of the chemical, biochemical, and physiological factors that determine the pathological effects of chemicals in living systems.

### Format

All lectures will be in-person. Lecture materials (PowerPoint files, handouts, etc.) will be made available through Brightspace.

### Recommended Textbook

Casarett and Doull's Toxicology: The Basic Science of Poisons – (9th Edition; 2019). This text is the world's leading and most authoritative textbook on poisons and has been hailed as the most trusted all-in-one overview of the biomedical and environmental aspects of toxicology. However, the book is **not required** for the course.

### Readings

From to time readings may be distributed to students.

### Required Platforms and Software

Brightspace, [www.brightspace.uvm.edu](http://www.brightspace.uvm.edu)

iClickers, <https://www.uvm.edu/it/kb/article/iclicker-cloud/>

- Starting Fall 2023 Brightspace has replaced Blackboard as the UVM LIMS. For Brightspace information students can access the following UVM Knowledge Base article:  
<https://www.uvm.edu/it/kb/article/brightspace-for-students/>

## Discussion board

Students are encouraged to post and respond to 'muddiest point' questions on **concepts** that were unclear from the lecture sessions to the Brightspace discussion boards for each exam. Students have the ability to make anonymous posts.

## Exam Format (80% of grade)

A total of **4 exams** are scheduled in roughly equal intervals throughout the course. The exams will be held in person in Williams Hall 301 using paper copies. Each exam is worth **20%** of the total score. Most questions will be multiple choice. Some questions may require short essay responses. **The exams are not cumulative.**

## PowerPoint presentation (15% of grade)

Students are required to submit a PowerPoint presentation on a toxin approved by the course director.

- PowerPoint: 10-15 slides 10-20 min presentation (see me about details).
- If possible, the presentation should include a historical background, discovery, toxicological and/or biological effects, mechanisms of action, and an outlook/perspective section.
- Figures will improve the quality of the presentation, and please remember to cite where you found the figure unless you created it yourself.
- References should be properly cited and included at the end.
- This presentation will be posted on Brightspace and will be required viewing for all other students online.
- The presenting student will be graded (pass/fail) on the thoroughness and quality of their presentations
- All graduate students will be graded on their participating in the discussion board.

## Discussion board questions (5% of grade)

- The student presenting the PowerPoint (above) is expected to create 1-2 discussion-based questions from the materials and lead an online discussion on the topic.
- The presenting student will be graded (pass/fail) on the discussion board questions and interaction
- The other graduate students will be graded on their participating in the discussion board.

**Due date:** The presentation must be posted and the online discussion finished before the last day of regular classes (before finals start).

## Religious Holidays

Students have the right to practice the religion of their choice. Each semester, students should submit in writing to the instructor(s), as early as possible and at least one week before their documented religious holiday, the date(s) of the conflict or absence. The faculty will work with any students who miss work or exams for religious observance to make up this work.

## Extra Credit

### Extra Credit Paper

Students who wish to obtain extra credit can also do so by submitting a **paper** on a subject **approved by the course director**. Each paper is approximately worth an **additional 5-7%** of the total score (equivalent of a full letter grade bump up).

## Format

- Graduate students who wish to obtain extra credit can do so by submitting a paper on a toxin approved by me.
- Students will be graded 1-10 points on the thoroughness and quality of their paper.
- Points will be added to the lowest scored exam (a paper scoring 10 points would be worth the equivalent of a full letter grade bump up).
- If possible, the paper(s) should include a historical background, discovery, toxicological and/or biological effects, mechanisms of action, and an outlook/perspective section.
- Here are the specifics: 6-8 pages, 1-inch margins, 1.5 space, 11 font.
- Figures do not count towards the page limit.
- References should be properly cited and included at the end; they are not counted towards the page limitation.
- Figures are welcome.
- If a single molecule, the structure of the drug is required.
- Papers are due at midnight on the last day of regular classes (before finals start).
- Submit your paper in .pdf format on Brightspace