

TOXICOLOGY (PHRM 272; SPRING 2020)

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.

Prerequisites:

Biology, or Organic Chemistry, or Permission

Course Director:

Dr. Wolfgang Dostmann, Professor of Pharmacology
(656-0381; wolfgang.dostmann@uvm.edu; Given B303B)

Office hours:

Thursday, 2-4pm, Given B303B

Course Faculty:

Faculty Members of the Department of Pharmacology

Time and Place:

Monday's/Wednesday's/Friday's 9:40 – 10:30 AM in Lafayette Hall L207

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.

Attendance:

We don't monitor attendance. However, there is a very strong correlation between doing well in this course and attending class prepared.

Examinations:

A total of **4 written exams** are scheduled in roughly equal intervals throughout the course. Each exam is worth **25%** of the total score. The majority of questions will be multiple choice. Some questions may require short essay responses. **The exams are not cumulative.**

Extra credit:

Students who wish to obtain extra credit can do so by submitting up to **two papers** on a subject **approved by the course director**. Each paper is approximately worth an **additional 5-7%** of the total score. Details on deadlines, paper format and topics will be posted on Blackboard before exam 1.

Graduate Students:

Students taking the course for graduate school credit have an **additional requirement** to submit a term **paper on a subject approved by the course director**.

Course Schedule

1/13	Introduction, Toxins in our homes I	Dostmann
1/15	Toxins in our homes II	Dostmann
1/17	Toxicology of Gases: Carbon Monoxide	Dostmann
1/21	Martin Luther King Holiday	
1/22	Toxicology of Gases: Cyanide	Dostmann
1/24	Toxicology of Gases: Air Pollutants I	Dostmann
1/27	Toxicology of Gases: Air Pollutants II	Dostmann
1/29	Toxicology of Airborne Particulate Matter	Dostmann
1/31	Exam 1	
2/03	Plant Toxins I	Wellman
2/05	Plant Toxins II	Wellman
2/07	Plant Toxins III	Wellman
2/10	Plant Toxins IV	Wellman
2/12	Toxins from Fungi	Wellman
2/14	Toxicology of Pesticides	Morielli
2/17	Presidents' Day Holiday	
2/19	Pesticides/Chemical Warfare	Morielli
2/21	Chemical Warfare	Morielli
2/22	Biological Warfare	Morielli
2/26	Bioterrorism	Morielli
2/28	Exam 2	
3/02	Toxicogenomics	Carr
3/04	Chemical Carcinogenesis	Carr
3/06	Endocrine Disruptors	Carr
3/09	Spring Recess	
3/11	Spring Recess	
3/13	Spring Recess	
3/16	Toxicology of Smoking	Dostmann
3/18	Toxicology of Alcohols	Dostmann
3/20	Toxicology of Heavy Metals: General Principles	Dostmann
3/23	Toxicology of Heavy Metals: Lead	Dostmann
3/25	Toxicology of Heavy Metals: Cadmium	Dostmann
3/27	Toxicology of Heavy Metals: Mercury	Dostmann
3/30	Toxicology of Arsenic	Dostmann
4/01	Toxicology of Radioactive Elements	Dostmann
4/03	Exam 3	
4/06	Animal Toxins I	Wellman
4/08	Animal Toxins II	Wellman
4/10	Animal Toxins III	Wellman
4/13	Animal Toxins IV	Wellman
4/15	Animal Toxins V	Wellman
4/17	Analytical Methods in Toxicology	Morielli
4/20	Forensic Toxicology: Elements of Death	Morielli
4/22	Environmental Toxicology: Risk Assessment	Bress
4/24	Forensic Toxicology: Molecules of Death	Morielli
4/27	Toxicology of drugs of abuse	Morielli
5/29	Regulatory Toxicology I	Morielli
5/01	Regulatory Toxicology II	Morielli
5/4	Final Exam 7:30am – 10:15am Lafayette L207	