

TOXICOLOGY (PHRM 272; SPRING 2019)

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 **5 written exams** are scheduled in roughly equal intervals throughout the course. Each exam is worth **20%** of the total score. The majority of questions will be multiple choice. Some questions may require short essay responses.

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

1/14	Introduction to Toxicology	Dostmann
1/16	Toxins in our homes	Dostmann
1/18	Toxicology of Gases: Carbon Monoxide	Dostmann
1/21	Martin Luther King Holiday	
1/23	Toxicology of Gases: Cyanide	Dostmann
1/25	Toxicology of Gases: Air Pollutants/Ozone	Dostmann
1/28	Toxicology of Gases: Air Pollutants/Acid Rain	Dostmann
1/30	Toxicology of Airborne Particulate Matter/Sources	Dostmann
2/1	Toxicology of Airborne Particulate Matter/Effects	Dostmann
2/4	Toxicology of Smoking	Dostmann
2/6	Exam 1	
2/8	Plant Toxins	Wellman
2/11	Plant Toxins	Wellman
2/13	Plant Toxins	Wellman
2/15	Plant Toxins	Wellman
2/18	Presidents' Day Holiday	
2/20	Toxins from Fungi	Wellman
2/22	Toxicology of Pesticides	Morielli
2/25	Pesticides/Chemical Warfare	Morielli
2/27	Chemical Warfare	Morielli
3/1	Biological Warfare	Morielli
3/4	Bioterrorism	Morielli
3/6	Exam 2	
3/8	Toxicogenomics	Carr
3/11	Spring Recess	
3/13	Spring Recess	
3/15	Spring Recess	
3/18	Chemical Carcinogenesis	Carr
3/20	Endocrine Disruptors	Carr
3/22	Toxicology of Alcohols	Dostmann
3/25	Toxicology of Heavy Metals: General Principles	Dostmann
3/27	Toxicology of Heavy Metals: Lead	Dostmann
3/29	Toxicology of Heavy Metals: Cadmium	Dostmann
4/1	Toxicology of Heavy Metals: Mercury	Dostmann
4/3	Toxicology of Arsenic	Dostmann
4/5	Toxicology of Radioactive Elements	Dostmann
4/8	Exam 3	
4/10	Poisonous Animals	Wellman
4/12	Poisonous Animals	Wellman
4/15	Venomous Animals	Wellman
4/17	Venomous Animals	Wellman
4/19	Analytical Methods in Toxicology	Morielli
4/22	Forensic Toxicology: Elements of Death	Morielli
4/24	Environmental Toxicology: Risk Assessment	Bress
4/26	Forensic Toxicology: Molecules of Death	Morielli
4/29	Toxicology of drugs of abuse	Morielli
5/1	Regulatory Toxicology	Morielli
5/3	Principles of Ecotoxicology	Dostmann
5/9	Final Exam TBA 7:30am – 10:15am Lafayette L207	