

Integrative Biology; ENVS 433; CB 434
PESTICIDE TOXICOLOGY

Professor:
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LEARNING OBJECTIVES:

The goals of this course are to understand the fundamental principles of pesticide toxicology, including:

1. the mechanisms of action of major classes of insecticides, herbicides and fungicides;
2. the unintended consequences (non-target toxicity) of each class;
3. the environmental consequences of widespread dispersal of toxic chemicals.

Tentative Schedule of Topics

Class of		
January	15-17	Introduction; Organochlorine Insecticides
	22-24	Organophosphate Insecticides
	29-31	Endocrine Disruptors
February	5 -7	Carbamates; Disposition;
	12-14	P450s
	19-21	Pyrethroids
	26-28	Metal-containing & Plant-derived Insecticides
March	5 - 7	Newer Insecticides
	12-14	Delayed effects of Exposure: Carcinogenesis and Teratogenesis
	19-21	SPRING BREAK
	26-28	Contaminants: Substituted Phenols and Dioxins; Fungicides
April	2 - 4	Triazine and Diphenyl Ether Herbicides
	9 -11	Acetanilide and Substituted Urea Herbicides
	16-18	Pesticides and Public Policy
	23-25	Student Presentations
Apr	30	Student Presentations or Summation

REFERENCE RESOURCE:

Hayes' Handbook of Pesticide Toxicology, 3rd edition, Academic Press

TEXTBOOK: None required. Class notes will be made available on the website.

WEBSITE: <http://www.life.illinois.edu/bfrancis/ib486/>

COURSE POLICIES

EXAMINATIONS and GRADING:

After some introductory lectures, this course will use a seminar format. The exact format will be decided in consultation with the class.

The last 2 or 3 class periods will consist of final presentations by each student: 15 minutes in length, with 5 minutes for questions.

There will be no examinations; grades will be determined on the basis of class participation in the form of discussion of the assigned topics (50%), the final presentation (30%) and attendance (20%). For graduate students taking the course for 4 credit hours, a written version of the final presentation will serve for the extra hour of credit.

Failure to complete any part of the course work (whether class participation or term paper) will result in a 0% for the missing work.

For class participation, no make-up is really possible. For serious cause (e.g., prolonged illness beginning after the last drop date), a term paper may be substituted for some of the presentations, at the discretion of the instructors.

ATTENDANCE

Because of the seminar format, class attendance is required. Up to 3 absences may occur without penalty.

ACCOMMODATIONS:

Students with disabilities are **entitled** to 'reasonable accommodations' of their disabilities. Accommodation is also available for a student's religious beliefs. If you consider that either applies to you, *please* tell me as soon as possible. The student handbook gives more information, and is the authoritative source for these issues -- but if in doubt, ask.