

# ES 120 Toxics in the Environment/ Fall 2007

THIS IS A TENTATIVE OUTLINE ONLY. PLEASE CHECK THE WEB SITE OFTEN FOR REVISED OUTLINES WITH CORRECT DUE DATES

## WEEK 1

Sep 25 [Organization](#)

## WEEK 2

Sep 30 [Introduction](#)

Read before class: [Syllabus](#); PE: Introduction; WEB: [Toxic Tales](#) (fun reading)

Due before class: Essay on [‘Lead’ by Primo Levi](#) (5 pts). Click [here](#) or [here](#) for essay requirements.

Oct 2 [Metals, Metalloids and Non-Metals](#)

Read before class: PE: 1.1; 1.4; 1.5; WEB: [Dartmouth](#) (all pages about metals: once you read ‘A Metals Primer’ continue with ‘Questions and Answers’ and ‘Stories and Histories’)

## WEEK 3

Oct 7 [Organic Toxicants](#)

Read before class: PE: 1.2; 1.3

Due before class: [Table on Metals, Metalloids and Non-Metals](#) (15 pts)

Oct 9 [Entrance and Transport of Toxicants in the Environment I](#)

Read before class: PE: 2; 3

## WEEK 4

Oct 14 [Entrance and Transport of Toxicants in the Environment II](#)

Read before class: PE: 4; 5.2; 5.3

Due before class: [Table on Organic Toxicants](#) (20 pts)

Oct 16 [Bioaccumulation I](#)

Read before class: PE: 5.1 except 5.1.5 Metabolism

## WEEK 5

Oct 21 [Bioaccumulation II](#)

Read before class: WEB: [Toxicokinetics](#)

Oct 23 [Biochemical and Physiological Effects of Toxicants](#)

Read before class: PE: 5.1.5, 7

## WEEK 6

Oct 28 Introduction to Case Studies and

[Biochemical and Physiological Effects of Toxicants](#), continued

Read before class: 8.1–8.4.1, 9, [Case studies](#)

Due before class: [Essay on Toxicant Exchange](#) OR [Essay on Environmental Distribution and Transport](#) (15)

Oct 30 [Effects at the Organismal Level](#)

Read before class: PE: 8.4.2–8.7;

(not everything; follow reading instructions marked on paper)

## WEEK 7

Nov 4 [Effects at the Organismal Level](#); movie: planet in peril

Read before class: PE: 6; [From molecules to ecosystems through DEB models](#)

Due before class: [Proposal for case study](#) (no credit)

Nov 6 [Toxicity Testing](#)

Read before class: PE: 6

## WEEK 8

Nov 11 HOLIDAY

Nov 13 [Toxicity Testing 2](#)

Read before class: PE: 6

### **WEEK 9**

Nov 18 [Biomarkers and Biological Monitoring](#)

Read before class: PE: 10, 11, 12; [paper on ecological indicators](#)

Nov 20 [Effects of Toxicants on Populations, Communities and Ecosystems](#)

Read before class: PE: 12, 13, 14 and 16

Due before class: [Essay on 'Erin Brokovich](#)

### **WEEK 10**

Nov 25 [Linking Biological Levels of Organization](#); Review

Read before class: PE: 15

Study before class: Part 1: PE 1 – 6 plus lecture notes

Nov 27 THANKSGIVING

### **WEEK 11**

Dec 2 Presentations of Case Studies/ Review

Dec 4 Presentations of Case Studies/ Review

Study before class: All material covered

### **WEEK 12**

Dec 11 FINAL 12:00 – 3:00 p.m.