

Environmental Chemistry - Chemistry 371

12:00 PM to 1:50 PM

Neuberger 11

Spring 2009

Portland State University

Portland, Oregon

Dr. James F. Pankow

Office: 202 Engineering Building

Class Office Hours: 2:00 PM to 3:15 PM, Tu/Th

Text: Environmental Chemistry, 4th Edition, Colin Baird and Michael Cann, WH Freeman, NY

Class Grade: 30 Course Points HW
30 Course Points Midterm
40 Course Points Final
100 Course Points

Grades vs. Course Points

A: 90-100

B: 80-89

C: 70-79

D: 60-69

F: <60

Homeworks: 9 Assignments
Each is due on the Thursday of the week following distribution
Possible score on each: 100

Part 1. Atmospheric Chemistry and Air Pollution Reading Assign.

Week 1

March 31	Chapter 1. The Ozone Layer	27-55
April 2	Chapter 2. The Ozone Holes	59-87
	Homework #1	Due April 7

Week 2

April 7	Chapter 3. The Chemistry of Ground Level Air Pollution – part 1	91-141
April 9	Chapter 3. The Chemistry of Ground Level Air Pollution – part 1	
	Homework #2	Due April 14

Week 3

April 14	Chapter 4. The Env. Conseq. & Health Conseq. of Polluted Air – part 1	145-171
April 16	Chapter 4. The Env. Conseq. & Health Conseq. of Polluted Air – part 2	
	Homework #3	Due April 21

Part 2. Energy and Climate Change

Week 4

April 21	Chapter 6. The Greenhouse Effect – part 1	205-258
April 23	Chapter 6. The Greenhouse Effect – part 2	
	Homework #4	Due April 28

Week 5

April 28	Chapter 7. Fossil-Fuel Energy, CO ₂ , Emissions, Global Warming	261-307
April 30	Chapter 8. Renewable Energy, Alternative Fuels, and H ₂ Economy	311-364
	Homework #5	Due May 5

Week 6

May 5	Midterm – Chapters 1 through 6	
May 7	Chapter 9. Radioactivity, Radon, and Nuclear Energy	367-411
	Homework #6	Due May 12

Part 3. Toxic Organic Compounds

Week 7

May 12	Chapter 10. Pesticides	415-463
May 14	Chapter 11. Dioxins, Furans, and PCBs	469-504
	Homework #7	Due May 19

Week 8

May 19	Chapter 12. Other Organic Compounds of Env. Concern (e.g., environmental “gender benders”, fire retardants, & other difficult chemicals)	507-535
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Part 4. Water Chemistry and Water Pollution

May 21	Chapter 13. Chemistry of Natural Waters – part 1	557-598
	Homework #8	Due May 26

Week 9

May 26	Chapter 13. Chemistry of Natural Waters – part 2	
May 28	Chapter 14. Pollution & Purification of Water	601-653
	Homework #9	Due June 2

Part 5. Metals, Soils, Sediments, and Waste Disposal

Week 10

June 2	Chapter 15. Toxic Heavy Metals	663-711
June 4	to be determined	