

**Planetary Pathology:**  
**Scientific Background to Global Environmental Problems**  
**Spring 1994**

**Abbreviated Syllabus, with Approximate Dates**

<b>Week</b>		<b>Topic</b>
<b>Beginning</b>		
Jan.	24	Overview: Biography of a Planet
	31	Continental Drift & Carbon Recycling; Review of Elementary Chemistry
Feb.	7	Review of Elementary Chemistry
	14	Radiation; Energy Balance & Planetary Surface Temperatures
	21	Meteorology; Planetary Atmospheric Histories; Molecular Radiation
	28	Greenhouse Warming & Climate Migration
Mar.	7	Stratospheric Ozone Depletion; Biological Effects
	14	Elementary Organic Chemistry
	21	Elementary Biochemistry & Cellular Biology
	28	SPRING BREAK
Apr.	4	Toxic Substances in the Environment
	11	Toxic Substances in the Environment
	18	Photosynthesis. Soil Chemistry & Microbiology; Waste Biodegradation. Acid Precipitation.
	25	Acid Precipitation: Effects on Lakes, Forests, Crops.
May	2	Plate Tectonics, Paleoclimates; Evolution, Biodiversity & Extinction of Species
	9	Gaia & Review

The supplementary texts (Lovelock and Brown) will cover only a small fraction of the subject matter of the course. Since no text is available which covers the necessary material, you will be provided with (voluminous!) class handouts as the semester progresses.

Problem sets will be due each week, at CLASSTIME on Fridays, and will be returned (hopefully) at the Monday afternoon discussion meetings. Since many of the problems will be numerical, you will need a simple hand calculator which is equipped with "scientific" or "exponential" readout. As much time as possible during these Monday sessions will be devoted to open discussions of current environmental problems, generally focussed on one of the chapters from Gore's book.

There will be (evening) hour exams on March 9 and April 20, each of which will count for 20% of the final grade. The problems will also count 20% and the Final 40%.

My office is in 5279 Chamberlin Hall (phone 262-1152), and you are welcome to stop by at any time.

To a man who knows nothing  
Mountains are mountains  
Water is water and  
Trees are trees.  
When he has studied and  
knows a little,  
Mountains are no longer  
mountains  
Water is no longer water and  
Trees are no longer trees.  
When he has thoroughly  
understood,  
Mountains are again  
mountains  
Water is water and  
Trees are trees.

Anonymous