ES2/EES2 Introduction to Environmental Science
Tues/Thurs 10:45 – 12:00
Location: STEPS 101

Prof. Dork Sahagian

Textbook: Introduction to Environmental Science. Additional readings will be posted on Course Site as they are needed. (This is a new textbook just written for this course, available directly from the publisher. Ordering details will be provided in class.)

This course in introductory environmental science focuses on an integrated system-level approach to understanding our natural environment at all space scales, and on human time scales. Concepts to be covered span natural and human-induced drivers of environmental change, consequences within ecosystems, physical systems, and social systems, and options for mitigation of and adaptation to environmental change. Example topics include change within systems, biogeochemical cycles, population pressure, ecosystems and diversity, productivity and food security, energy, water resources, climate change, pollution, ozone, urban issues, and sustainability. The course will stress interactions and inter-relationships between components, with an emphasis on critical thinking about environmental issues. The material is simple, but there is A LOT OF MATERIAL. Do not fall behind in reading, or miss class! Attendance is required. (Cheating of any kind is forbidden. Cheaters fail the course.)

Relation to EES22 and ES4: Our class has no lab or recitation. However, if you need a 4-credit science class, add ES4 for a total of 4 credits. If you need a lab course, add EES22. Neither one is required for this course. This system adds flexibility for you.
A companion non-science course, ES1- Intro Environmental Studies, is offered in Spring semester. Both courses are required for the Environmental Studies major. ES/EES2 can also be used toward the major (or minor) in Earth and Environmental Sciences.

Grades: 3 hour exams (20% each- drop lowest- NO MAKEUPS!); Final exam (30%); Homework (30%)

SYLLABUS (to be updated as opportunities develop)

Wk	**dates**	**Tuesday**	**Thursday**
1	Jan 15,17	Basic Environmental Issues (1)	The Nature of Science (2)
2	22, 24	Systems (3)	Population (4)
3	29, 31	Ecology & Ecosystems (5)	Biodiversity (5)
4	Feb 5, 7	Biogeochemical cycles (6)	EXAM 1
5	12, 14	Water Resources (7)	Water Pollution (7)
6	19, 21	Soils (8)	Food & Agriculture (8)
7	26, 28	The Ocean (9)	EXAM 2
8	Mar 5, 7	Energy (10)	Nuclear & Alternative Energy (10)
9	12, 14	SPRING BREAK	SPRING BREAK
10	19, 21	The Atmosphere (11)	Air pollution & Ozone (11)
11	26, 28	Climate and Climate change (12)	Climate change cont. (12)
12	Apr 2, 4	Hurricanes formation (special readings)	Hurricane tracks and damage
13	9, 11	History of Hurricanes	Hurricane risks and evacuation
14	16, 18	Earth System Sci (13)	EXAM 3
15	23, 25	Relation of Environmental Science to Economics, Policy and Society (special)	Review
		FINAL EXAM (TBA)	