

ISEN 130

Sustainability: Energy, Environment, and Ethics

Spring Quarter, 2010

Course Description

Interdisciplinary analysis of sustainability, including systems analysis of planet Earth and natural constraints on resources, discussion of the politics of sustainability, and an exploration of the ethics of resource use, conservation practices, and environmentalism.

Instructors

Paul Freisema, Office Hrs: WED 11-1, Scott 601; 847 491 2645; pfree@northwestern.edu
Brad Sageman, Office Hrs: TU 3:30-5:00, Locy 313; 847 467 2257; brad@earth.northwestern.edu
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Lecture: TUES, THURS 2:00 - 3:20 pm ANNENBERG G21

Reading

- Speth, J.G., 208, *The Bridge at the End of the World*, Yale Univ. Press, New Haven.
- World Commission on Environment and Development, 1987, *Our Common Future, Report of the World Commission on Environment and Development*, Published as Annex to General Assembly document A/42/427.
- Selected articles posted to Blackboard, and/or web sources, TBA.

Evaluation

- Exams (2)
- Final group project (1)

% of final grade

60%
40%

Academic Integrity

All students should review Northwestern University's principles regarding Academic Integrity (<http://www.northwestern.edu/uacc>) and Weinberg College policies on Academic Integrity (<http://www.wcas.northwestern.edu/advising/academic.html>). Suspicion of violations of the rules for academic integrity will be reported to the WCAS dean's office.

No notes, books, etc., may be used during in-class examinations. Use of electronic devices (e.g., calculators, PDAs, laptops, cellular phones, iPods, etc.) during examinations is prohibited. Students may benefit from discussing class material, but ultimately each student is expected to submit his or her own individual work and/or to clearly document each person's contribution to group projects. Any material taken from websites, books, journals, or other sources must be clearly cited, and any such material taken verbatim must be clearly identified as quotations. Failure to do so may constitute plagiarism.

*If you cannot participate in a scheduled assignment for this class you must contact the appropriate instructor **BEFORE** the absence occurs or receive a grade of "0" for the assignment. Only cases of documented medical/family emergency are exempt.*

LECTURE SCHEDULE

| <u>Date</u> | <u>Topics</u> | <u>Reading</u> |
|-------------|--|-----------------------------|
| 3/30 | 1) Introduction-Sustainability | Blackboard – Lect#1 A and B |
| 4/1 | 2) The Earth as a System | Blackboard – Lect#2 A and B |
| 4/6 | 3) Greenhouse Effect & Climate | Blackboard – Lect#3 A - C |
| 4/8 | 4) Global Warming | Blackboard – Lect#4 |
| 4/13 | 5) <i>Climate-wise women seminar</i> McCormick Forum, 2-4 pm | |
| 4/15 | 6) Climate Crisis or new energy economy | Blackboard – Lect#6 |
| 4/20 | 7) Climate science and the media | TBA |
| 4/22 | 8) Exam #1: in-class | |
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| 4/27 | 9) Sustainability as an elusive goal: from sustained yield forestry to Brundtland declaration. | Blackboard – Lect #9-10 |
| 4/29 | 10) Sustainability and environmentalism | |
| 5/4 | 11) Sustainable energy and soft/hard paths to a more secure future. | Blackboard – Lect #11-12 |
| 5/6 | 12) Political complexity as it affects specific energy options: (EIS's and EA's) | |
| 5/11 | 13) Politics of scale: How the American political structure facilitates and hinders energy options | Blackboard – Lect #13-14 |
| 5/13 | 14) NEPA and sustainability. How the environmental impact process affects energy options (EAs and EIS s); Exam #2: take home | |
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| 5/18 | 15) Introduction to ethical theory and Environmental Ethics | Blackboard – Lect #15-16 |
| 5/20 | 16) Philosophical theories of nature and the concept of sustainability | |
| 5/25 | 17) Sustainability of species, nature, and natural objects | Blackboard – Lect #17-18 |
| 5/27 | 18) Food and sustainability: vegetarianism and genetic engineering | |
| 6/1 | 19) Sustainability and future generations | Blackboard – Lect #19-20 |
| 6/3 | 20) Sustainability and property, equity, and democracy | |
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| 6/7 | Final Project Due | |