Office hours: 11:30-12:15 MWF, or by appointment--Waters 312 (advance notification when no office hours)

Econ 527. Environmental Economics. (3) II. Economics of environmental market failure and the efficient use of exhaustible and renewable resources. Topics include the application of markets and government policies to greenhouse warming, air and water pollution, and recycling. The course emphasizes a global perspective on environmental and natural resource economics. Pr.: Econ 120. The course is a university general education course and counts for the natural resources and environmental sciences secondary major.

Objectives: The primary objectives of the course are to analyze international environmental problems, with special focus on the relationship between the environment, natural resources, and economic development in developing countries. The major concentrations are on ecological versus economic approaches to the environment, sustainable development, population and development, poverty and environmental stress, grassroots environmental action by poor people, pollution and development, the economics of biodiversity and global warming, correcting measures of GNP for natural asset deterioration, intergenerational allocation of resources, green markets, and the impact of market imperfections and policy failures on environmental degradation.

Required text and reading assignments: Eisenhower 11 (Eisen) packet for Nafziger, Environmental Economics, Spring 2004; 532-6898

Outside Speakers: We plan to have lectures by chemistry Professor Kenneth Klabunde on “Nanotechnology: and its Environmental Effect” and “The Greenhouse Effect and the Ozone Problem”; Professor Dustin Becker, a biologist, on “Saving a Tropical Cloud Forest: The Role of Total Economic Value (TEV)”); and Professor David Norman, an economist, on “Biotechnology in Agriculture in Developing Countries.”

Grades: I plan three one-hour examinations, each worth 100 points (total 300 points); three 36-point multiple-choice exams; some internet exercises (each worth 10 points); and an occasional minute paper (5 points each). Exams encompass readings, lecture/discussion, talks, videos, and e-mails. I have indicated tentatively the coverage of each exam (the readings and class material just before the listing of the examination). Each one-hour exam is roughly half multiple choice and half essay/problem. See {HYPERLINK http://www.ksu.edu/economics/nafwayne/class.htm} for all class exams or http://www.ksu.edu/economics/nafwayne/syl03cl.doc for exams in 2003.

I plan a few 10-point out-of-class internet exercises where, for example, I will ask you to write a response to an aspect of world population data of interest to you at www.prb.org, click 2003 Population Data Sheet or www.census.gov/ipc/www/worldhtm/, click World Pop Profile, World Pop 1950 to 2050, World Pop Clock, World Vital Events per time Unit 2003, Historical Estimates of World Population; your reaction to a report or working group by the Intergovernmental Panel on Climate Change (IPCC) at {HYPERLINK "http://www.ipcc.ch/" }; material on biodiversity such as http://www.ksu.edu/konza/keep/ on KSU’s Konza Prairie or material on Edmond Wilson’s view of biodiversity at {HYPERLINK "http://www.islandpress.org/wilsoncd/mainm.html"}; World Bank material on sustainable development at {HYPERLINK "http://www-esd.worldbank.org/"}; or Worldwatch material {HYPERLINK "http://www.worldwatch.org/worldsummit/"}.

Minute papers ask the student, in 2-3 minutes, to respond to questions such as: “What was the most important thing you learned during this class?” and “What important question remains unanswered for you?”

Alternative to the Second or Third One-hour Exams: For either or both the second and third (during finals) exams, the student may write a paper or give a talk instead of taking the exam (the paper must be a topic related to the readings and material to be covered on the exam). The student must notify the
instructor in writing (by e-mail or, e.g., on a 3" by 5" card) what topic s/he is presenting by the second
class after the previous exam; notify the instructor in writing of any changes in the topic; and **attend
class regularly**. If the student gives a talk (prepare for an average length of about 20 minutes), s/he
must arrange with the instructor for the presentation to be near the time when the subject is discussed
in class. (In the past, one student both took the exam and gave the talk, enabling that student to get the
better of the two grades!). The average length of the paper is about 7-12 pages. You are expected to use
standard bibliographical and citation procedures (if in doubt, use the procedures of a recent *American
Economic Review*. For material on the web, the bibliographical citation must be complete, for
example, Partha Dasgupta, “The Economics of the Environment,” *Proceedings of the British
Academy*, Volume 90, pp. 165-221, Copyright © The British Academy, 1996, available at
http://britac3.britac.ac.uk/pubs/keynes95/06sec5.html. Feel free to hand in an earlier draft so that I can
give you comments that will allow you to improve your paper (but give me a few days to respond), or ask
questions about your progress at earlier stages of work on your paper. Students giving a talk should be
prepared to discuss sources used for the talk.

One paper of interest, in lieu of the second one-hour exam, might be to compare the views of Wes
Jackson, Wendell Berry, or Barry Commoner to that of Theodore Panayotou, Robert Solow, Alan
Randall, or Ronald Coase on the environment.

I have compiled an annotated bibliography of 263 environmental economic internet sites, classified
by topic, at { HYPERLINK http://www.ksu.edu/economics/nafwayne/envweb.htm } . You may
consult this, but you need to examine the sites critically, being careful to use sources with scholarly
merit for papers or talks.

No alternative is possible for the first exam. **All students are required to take this exam.**

**Plagiarism:** University policy is: “Plagiarism and cheating are serious offenses and may be punished
by failure on the exam, paper, or project; failure in the course; and/or expulsion from the university.” For

**Honor system:** The university has an honor system based on personal integrity, which is presumed
to be sufficient assurance that in academic matters one's work is performed honestly and without
unauthorized assistance. Undergraduate students, by registration, acknowledge the jurisdiction of the
Undergraduate Honor System. The policies and procedures of the Undergraduate Honor System apply
to all full and part-time students enrolled in undergraduate courses on-campus, off-campus, and via
distance learning. A prominent part of the Honor System is the inclusion of the Honor Pledge, which
applies to all assignments, examinations, or other course work undertaken by undergraduate students.
The Honor Pledge is implied, whether or not it is stated: "On my honor, as a student, I have neither
given nor received unauthorized aid on this academic work." This statement means that the student
understands and has complied with the requirements of the assignment as set forth by the instructor. A
grade of XF can result from a breach of academic honesty. An XF would be failure of the course with
the X on the transcript indicating failure as a result of a breach of academic honesty. For more
information, refer to { HYPERLINK http://www.ksu.edu/honor }.

**Academic Accommodations for Students with Disabilities:** If you have any condition, such as a
physical or learning disability, which will make it difficult for you to carry out the work as I have
outlined it or which will require academic accommodations, please notify me in the first two weeks of
the course.

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from selling (or being paid for taking) notes during this course to or by any person or commercial firm
without the express written permission of E. Wayne Nafziger.

**Tentative Outline of Course:**
1. Ecology and Economics
   Mon., Jan. 26 No class if Landon lecture by Senate Minority Leader Tom Daschle, McCain
   Auditorium.
2. Sustainable Development
   . Solow, "The Economics of Resources or the Resources of Economics," in *Eisen*, pp. 14-22 (Read
   for Mon., Jan. 26).

3. The Environment and Development


4. Population and Food


5. Power, Inequality, and Environmental Degradation

Boyce, “Inequality as a Cause of Environmental Degradation,” in Eisen, pp. 106-112.
Possible videos, World Bank, “Voices of the Poor.”

6. The Tragedy of the Commons

Hardin, "The Tragedy of the Commons," in Eisen, pp. 113-127.
Possible videos, "Trade, Automobiles, and Property Rights," with Rees, J. Harris, Costanza, Maler, & Minos.

7. Green Markets: Market Imperfections, Policy Failures, and Sustainable Development


W. Jackson, “Becoming Native to this Place,” Eisen, pp. 236-299.


Possible video, “Trade, Automobiles, and Property Rights,” with Rees, J. Harris, Costanza, Maler, & Minos.

MULTIPLE-CHOICE EXAMINATION
9. Pollution
10. Groundwater
    Postel, "When the World's Wells Run Dry," in Eisen, pp. 325-333.
11. Benefit Cost Analysis
12. The Economics of Global Warming
    Dunn and Flavin, "Moving the Climate Change Agenda Forward," in Eisen, pp. 368-381.
    Possible video, "Costa Rica Counts the Future: Global Climate Change" with Alvaro Umana.

MULTIPLE-CHOICE EXAMINATION

13. Tropical Forest and Externalities
    Lecture--Prof. Becker, "Saving a Tropical Cloud Forest: The Role of Total Economic Value."
14. The Economics of Biodiversity
15. Natural Asset Deterioration and the Measurement of National Income
    Possible videos, "Natural Capital," with Gaylord Nelson and Herman Daly; "GNP and the Index for Sustainable Economic Welfare," with John Cobb, Jr., Herman Daly, and Martin Evans.
16. Will Natural Resources Shortages Limit Future Economic Growth?
    Possible video, "The Limits to Growth," with Herman Daly.
17. Daly's Impossibility Theorem: Economics as the Dismal Science Again
18. Environmental Resources, War, and State Violence
    Renner, "Breaking the Link between Resources and Repression," in Eisen, pp. 466-482.
    Gasana, "Remember Rwanda?" in Eisen, pp. 507-516.

ONE-HOUR (100-POINT) EXAMINATION (DURING THE FINAL EXAMINATION PERIOD),
FRIDAY, MAY 21, 11:50-1:40, IN DERBY FOOD CENTER 134