

GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF SCIENCE - FALL 1992

COURSE: ZOOLOGY 2600 - Man and the Biosphere

INSTRUCTOR: Dr. Joan Snyder
Office J208
Phones: 539-2846 or 532-0709
Office hours: MWF 11:00-12:00, W 1:00-3:00 or
by appointment.

PREREQUISITE: One full semester of university-level Biology
or permission of the instructor.

TRANSFERABILITY: U of A ZOOL Humanity and the Biosphere
U of L BIOL 2050 Biology and Human Affairs
U of C Senior BIOL

TEXTBOOK & READ-
ING ASSIGNMENTS: Chiras, D.D., 1991. Environmental Science
Action for a Sustainable Future, third ed.
Benjamin/Cummings Publ., Redwood City, Calif.
(BOOK STORE - Required Textbook).

Managing Planet Earth (MPE), 1989. Scientific
American, W. H. Freeman, San Francisco (ON
RESERVE - Required reading as assigned).

Alberta Conservation Strategy - Strategic
Framework in Brief (ACS), 1989, Environment
Council of Alberta (ON RESERVE).

NATURE OF THE COURSE:

Zoology 260 deals with the place of humanity in the biosphere and
the biological bases of environmental problems including
population, pollution, and a consideration of the earth's
resources. The course is taught in a lecture/discussion format,
treating topics in regional, national and global contexts.

REQUIREMENTS AND EVALUATION:

Students are expected to prepare for and attend all classes, to sit
tests, and to submit assignments as specified. Students are also
responsible for the material in reading assignments and lectures.

Letter	10%	(due Sep. 18)
Critique	20%	(due Oct. 9)
Midterm Exam	20%	(Oct. 23)
Term Paper	25%	(due Nov. 23)
Final Exam	25%	(as scheduled)

All assignments are due during the lecture time on the assigned
dates. No exceptions.

LECTURE SCHEDULE
FALL 1992

<u>week of</u>		
Sep.	2	Introduction. Trouble with the biosphere; Limits to growth; Gaia hypothesis: A sustainable earth (Text Ch. 1&2, MPE-Clark, Managing the Planet pp.46-54).
	7	Ecosystems: Structure, Function, Balance and Imbalance (Ch. 3&4). Holiday (Sep. 7).
	14	Ecosystems (Continued).
	21	Human populations and their impact on the biosphere (Text Ch. 5&6, MPE-Keyfitz, The Growing Human Population pp.118-126).
	28	Feeding the world's human populations and sustainable agriculture (Text Ch. 7&17, MPE- Crosson & Rosenberg, Strategies for Agriculture, pp.128-135).
Oct.	5	Renewable resources: soils and water (Text Ch. 7&10, MPE-Maurits & Riviere, Threats to the World's Water, pp.80-94).
	12	Renewable resources: Forests (Text Ch. 9). Holiday (Oct. 12).
	19	Renewable resources: Wildlife (Text Ch. 8).
	26	Biodiversity and extinction (Text Ch. 8, MPE-Wilson, Threats to Biodiversity, pp. 108-116).
Nov.	2	Non-renewable Resources: Fossil fuels and renewable energy alternatives (Text Ch. 11 & 12, MPE-Gibbons, et al., Strategies for Energy Use, pp.136).
	9	Non-renewable resources: Earth's mineral resources - limits (Text Ch. 13).
	16	Pollution: Problems & Solutions (Text Ch. 15, 16, &18; MPE-Graedel & Crutzen, The Changing Atmosphere pp. 58-68; Schneider, The Changing Climate pp. 70-78; Frosch & Gallopoulos, Strategies for Manufacturing, pp.144-152). Holiday (Nov. 11).
	23	Pollution (Continued); Sustainable Earth: Environmental Ethics - Changes in Attitudes; Economics and the Environment (Text Ch.19 & 20; MPE- MacNeill, Strategies for Sustainable Economic Development, pp. 154-165).

- 30 Sustainable Development: Strategies for the future
(Text Ch. 21; ACS - Strategic Framework in Brief; MPE-
Ruckelshaus, Toward a Sustainable World, pp. 166-1700.
- Dec. 7 Discussion and wrap up.

ZOOLOGY 2600

First Assignment - LETTER

Write a letter to either a) a newspaper or magazine, or b) a politician, on an environmental issue of your choice.

A newspaper may be an Edmonton paper, the Grande Prairie Herald Tribune or your home town paper elsewhere in Alberta or Canada. A magazine means a Canadian magazine. Choosing the appropriate forum is often crucial to the impact of your letter.

A politician may be an elected official at the municipal, provincial, or national level. Choose an appropriate person. You can obtain addresses of various public officials by referring to various government agencies in phone books.

Your letter should not exceed one page in length, typed, single spaced (or equivalent if handwritten). It should have the recipient's address, a salutation, and a complimentary close--in other words, it should be a real letter.

Send the original copy to the addressee and turn in a copy for grading. It will constitute 10% of the course grade, which will be divided into 7.5% for content and 2.5% for English (style, grammar, spelling, etc.).

Your letter does not have to be critical. You may congratulate someone who has done something right. You may also strive for a touch of humor or satire (if you can carry it off).

Papers seldom publish long letters, and politicians claim they have no time to read them. KEEP IT SHORT.

DO NOT SAY that your letter is a course assignment if you want to see it published, or if you expect to be taken seriously. If your letter is published, or if it brings a reply from a politician, please let me know.