

**BIOLOGY 485
TECHNOLOGY AND THE ENVIRONMENT
SPRING 1998**

INSTRUCTOR: DR. ANDREW ROGERSON (OFFICE M103: TEL 394-1240)
OFFICE HOURS: MONDAY TO FRIDAYS (MORNINGS)
TEXT: ENVIRONMENTAL SCIENCE - the way the world works.
NEBEL, B.J., AND WRIGHT, R.T., PRENTICE HALL, NJ

DATE

SUBJECT

JAN 9	HUMANITY AND THE ENVIRONMENT
JAN 11	ENVIRONMENTAL SCIENCE - THE FACTS
JAN 14	A SURVEY OF ENVIRONMENTAL CONCERNS
JAN 16	ECOSYSTEMS I
JAN 21	ECOSYSTEMS II
JAN 23	ECOSYSTEMS III
JAN 26	CARBON CYCLE I
JAN 28	CARBON CYCLE II
JAN 30	NITROGEN CYCLE
FEB 2	P AND S CYCLE
FEB 4	BIOLOGICAL COMMUNITIES I
FEB 6	BIOLOGICAL COMMUNITIES II
FEB 9	BIOLOGICAL COMMUNITIES III
FEB 11	EXAMINATION 1
FEB 13	SYSTEMS - SOIL
FEB 18	SYSTEMS - LAKES
FEB 20	SYSTEMS - OCEANS
FEB 23	SYSTEMS - AIR

FEB 25	TECHNOLOGY AND INDUSTRY
FEB 27	OVERVIEW OF RISK ASSESSMENT
MAR 2	OIL POLLUTION
MAR 4	SEWAGE - PROBLEMS
MAR 6	SEWAGE TREATMENT
MAR 16	POPULATION GROWTH
MAR 18	EUTROPHICATION
MAR 20	CHEMICAL POLLUTION
MAR 23	AIR POLLUTION
MAR 25	ATMOSPHERIC CHANGES
MAR 27	PEST CONTROL
MAR 30	INDUSTRY BUDGETS
APR 1	EXAMINATION 2

APR 3	BIODIVERSITY AND CONSERVATION I
APR 6	BIODIVERSITY AND CONSERVATION II
APR 8	ENERGY - CONVENTIONAL
APR 15	ENERGY - ALTERNATIVES
APR 17	LAND USE
APR 20	WATER USE
APR 22	BIOTECHNOLOGY I
APR 24	BIOTECHNOLOGY II
APR 27	BIOTECHNOLOGY III
APR 29	MAKING A DIFFERENCE
MAY 1	SUMMARY
MAY 4-8	EXAMINATION 3

GRADING

Each examination (three in total) is worth 100 points. Grading scale:

92+	A
90-91.9	A-
88-89.9	B+
82-87.9	B
80-81.9	B-
78-79.9	C+
72-77.9	C
70-71.9	C-
60-69.9	D
<60	F

BIO 485 is organized into 3 parts. The first part of the course focuses on ecosystems, how they work and how they maintain a delicate balance in terms of energy transfer and material cycling. The second part of the course addresses man's activities and examines how these are threatening the stability of ecosystems in general. The final segment of the course looks at resources afforded by our ecosystems and explores ways to responsibly manage these resources. By the end of the course, students will have an appreciation for the environment and the importance of developing 'green' technologies which are environmentally sound.