This course explores the dual relationship between natural resources and economics. First, natural resources provide essential raw material and energy inputs for an economy. Consequently, the relative abundance of these resources establishes certain physical constraints within which the economy must function. From this relationship comes a fundamental concern in resource economics: whether or not resource constraints limit economic growth.

At the same time, the economic philosophy and institutions of a society determine how it exploits its resources. This second relationship enables us to study the utilization of particular resources (i.e. water, fisheries, or minerals) from an economic perspective. Of particular interest in this respect is whether or not a resource is being used in an efficient manner and if not, then what steps can be taken to correct the inefficiency.

The text, Environmental and Natural Resource Economics by Tom Tietenberg (Boston: Scott, Foresman and Co., 1988), was selected for this course because it addresses this dual relationship in an extensive manner. In addition to theoretical discussions of limits to growth and efficient resource usage, the author includes a wealth of practical material in the form of case studies and policy analyses. Additional readings in the course listing that follows will be provided.

Note: This course is intended for non-economics majors. Students cannot receive credit for both Econ 3535 and Econ 4535. Econ 2010 (Principles of Microeconomics) is a prerequisite for this course.

Grading

Final grades will be determined by three exams, classroom participation and assignments in the following manner:

- 25% Mid-term 1
- 25% Mid-term 2
- 25% Final exam
- 25% Classroom participation/assignments

The exams will have a short answer/essay format. Dates for mid-term exams will be announced at least two weeks in advance. The final exam is scheduled for Tuesday, Dec. 17 at 3:30-6:30 p.m.

Office Hours

Monday 9:00-10:00
Wednesday 12:30-2:30
Other times by appointment

During office hours you can reach me by calling 492-6875. At other times leave a message with the Economics Main Office, 492-6394.
Course outline

Introduction:
Limits to Growth
Tietenberg, Chapter 1

Economic Theory
Tietenberg, Chapter 2

Mid-term 1
Economic Analysis of Specific Resources:
Nonrenewable Resources:
Energy Tietenberg, Chapter 7
Minerals Tietenberg, Chapter 8
Renewable Resources:
Water Tietenberg, Chapter 9
Grain Tietenberg, Chapter 10
Forests Tietenberg, Chapter 11
Fisheries Tietenberg, Chapter 12

Mid-term 2
Scarcity and Growth:
Population and Growth
Tietenberg, Chapter 5
Resource Scarcity
Tietenberg, Chapter 13

Economic Growth
Tietenberg, Chapters 21, 22