I. **Catalog Description**

EC 436 Seminar in Air Resource Economics (4)

Intensive study of air pollution, statute control of air pollution, economic ramifications of control and non-control on quality of life, income, employment, and growth; study tradeoffs involved with control. 4 seminars. Prerequisites: EC 201 or EC 202.

II. **Required Background or Experience**

EC 201 or EC 202.

III. **Expected Outcomes**

Students in EC 436 will:

a) define and describe the types of air pollution problems for the Southern California region, the U.S. and earth,

b) identify and summarize existing air pollution control measures, policies, and technologies for improving air quality,

c) apply basic microeconomic theory and legal statutes toward resolving air pollution problems,

d) summarize the economic impacts of air pollution on society, and

e) compare and contrast command-and-control air pollution controls with alternative, proposed solutions to air quality management.

IV. **Text and Readings**

Readings:


References:

- American Economics Review
- Economic Development and Cultural Change
- Economica
- *Journal of Environmental Economics and Management*
- *Journal of Law and Economics*
- *Journal of Political Economy*
- *Natural Resources Journal*
- *Oxford Economic Papers*
- *Quarterly Journal of Economics*

V. **Minimum Student Materials**

Textbooks, notebooks, and access to library research materials and personal computers.

VI. **Minimum College Facilities**

Classroom suitable for seminar discussions and presentations equipped with audio-visual and computer access, ie. "smart" classroom.

VII. **Course Outline**

A. Nature of Air Pollution Problems

1. Types of Air Pollutants

*Seminar in Air Resource Economics*
2. Regional Problems
3. National Problems
4. International Problems

B. Present Means of Control
1. Statute Law
2. Zoning
3. Economic Implications of Current Control
4. International Controls

C. Economic and Statute Solutions
1. Market Solutions
2. Market and Statute Solutions Combined
3. Other World Economic Solutions

D. Economic Implications of Solutions
1. Impact on Quality of Life
2. Impact on Income
3. Impact on Employment
4. Impact on Growth
5. Tradeoffs Associated with Control

E. Summary
1. Discussion of Relationship of Tradeoffs to Air Quality
2. International Economic Implications

Seminar in Air Resource Economics
VIII. Instructional Methods

There are four methods of instruction:

a) discussion of assigned readings,
b) presentation of lecture, audio-visual, and written material by the professor,
c) demonstration of how to prepare a written report concerning an air resource economics topic to guide students in writing their term papers, and
d) student development of answers to air resource economics policy issues on two take-home examinations.

IX. Evaluation of Outcomes

There are three methods of evaluation. Students will:

a) complete two take-home written examinations concerning the development of air resource policy issues to be no more than 10 pages in length,

b) write a term paper about a problem in air resource economics to be no more than 15 pages in length, and
c) contribute to seminar discussions.