

BUTTE COLLEGE

COURSE OUTLINE

I. CATALOG DESCRIPTION

ECON 35 - Introduction to Environmental Economics

3 Unit(s)

Prerequisite(s): NONE

Recommended Prep: Reading Level IV; English Level IV; Math Level IV Algebra I strongly recommended

Transfer Status: CSU

51 hours Lecture

This course introduces students to contemporary environmental issues and policies meant to reduce environmental degradation. The course examines market failures, tools of policy analysis, government pollution reduction policies and their effectiveness.

II. OBJECTIVES

Upon successful completion of this course, the student will be able to:

- A. Evaluate the efficiency of market-based economies in contrast to command economies.
- B. Evaluate outcomes in markets with negative externalities and how and what government policies are able to minimize their effects.
- C. Calculate the marginal benefits and costs of environmental clean-up and contrast the economist's optimal solution versus competing views of valuing the environment.
- D. Evaluate the net present discounted value of various "green" policy solutions.
- E. Contrast the costs and benefits of incentive-based versus top-down environmental regulation.
- F. Evaluate the interdependencies and long-term thinking necessary to grow the world economy while also protecting environmental resources.
- G. Analyze competing sustainable economic development strategies in our local and world economies.

III. COURSE CONTENT

A. Unit Titles/Suggested Time Schedule

Lecture	
<u>Topics</u>	<u>Hours</u>
1. Introduction to Environmental and Natural Resources Economics	4.00
2. Value Systems and Economic Systems	6.00
3. The Economics of Market Allocation	4.00
4. Externalities: Why Markets Fail to Protect the Environment	4.00
5. The Economics of Natural Resource Systems	3.00
6. Pricing the Environment: Measurement and Analysis of Benefits and Costs	3.00
7. The Political Economy of Environmental Regulation and Resource Management	4.00
8. Motivating Regulatory Compliance: Monitoring, Enforcement, and Sanctions	3.00
9. Incentive Regulation: Economic Instruments for Environmental Protection and Resource Management	3.00
10. Global Warming: Uncertainty, Irreversibility, and Long-Term Policy Making	3.00
11. Introduction to the Sustainability Perspective	3.00

12. Recognizing Interdependencies and Thinking Long Term	2.00
13. Sustainable Economic Development	3.00
14. Issues in Sustainable Production and Consumption	4.00
15. Issues in the Economics of Sustainable Local Communities	2.00
Total Hours	51.00

IV. METHODS OF INSTRUCTION

- A. Lecture
- B. Group Discussions
- C. Class Activities
- D. Homework: Students are required to complete two hours of outside-of-class homework for each hour of lecture
- E. Discussion
- F. Problem-Solving Sessions
- G. Reading Assignments
- H. Multimedia Presentations

V. METHODS OF EVALUATION

- A. Exams/Tests
- B. Quizzes
- C. Papers
- D. Homework
- E. Written Assignments
- F. Class Discussion

VI. EXAMPLES OF ASSIGNMENTS

- A. Reading Assignments
 1. Read article titled, "Question of Global Warming" by Freeman Dyson from the New York Review of Books. Take notes while reading and bring to class for in-class quiz.
 2. Read chapter titled, "How Economists Approach Environmental Issues." Be prepared for in-class quiz.
- B. Writing Assignments
 1. In-Class Writing Assignment:
 - a. Can our emotions guide our decisions? Does this sometimes lead to poor decision making?
 - b. Are humans inherently altruistic, inherently selfish, or a combination of both?
 - c. Are humans rational, irrational, or a combination of both?
 2. Read the article titled "Getting ready for a wave of coal-plant shutdowns." Respond to the following questions with a minimum of a three-paragraph response:
 - a. What open-access resource is at issue?
 - b. What costs are not internalized by coal power?
 - c. How, exactly, is the use of coal-based power a market failure and why exactly does it have negative externalities?
 - d. As a result of what is discussed in the article, what will likely happen to the amount and severity of market failures associated with coal plants?
- C. Out-of-Class Assignments
 1. Write at least three paragraphs responding to the following prompt: A basic economic truth is that the employment growth rate = economic growth rate – productivity growth rate. Given this
 - a. Describe a scenario where growth can be brought down to 1%. Describe, in detail, what

this means in terms of population and productivity growth. What precisely would need to be done to achieve 1% growth and employ the 1% growth in population?

b. Describe a scenario where growth can be brought to 0%. Describe, in detail, what this means in terms of population and productivity growth. What precisely would need to be done to employ the population without any growth?

2. Write at least three paragraphs responding to the following prompt: If there are external costs associated with a product or service, what quantities will the free market produce relative to what is socially optimal.

VII. RECOMMENDED MATERIALS OF INSTRUCTION

Materials Other Than Textbooks:

- A. What Environmentalists Need to Know about Economics, Jason Scorse, Palgrave Macmillan, 2010.

Created/Revised by: Steve Price

Date: 04/01/2013