

**ECON 12 Course Outline as of Fall 2009****CATALOG INFORMATION**

Dept and Nbr: ECON 12 Title: INTRO ECON &amp; ENVIRONMENT

Full Title: Introduction to Economics and the Environment

Last Reviewed: 10/11/2021

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	6	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00

Total Student Learning Hours: 157.50

Title 5 Category: AA Degree Applicable

Grading: Grade or P/NP

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

**Catalog Description:**

An introduction to environmental studies emphasizing the interplay of ecology, economics, ethics and their translation into public policy. Topics include macroeconomic design characteristics and market failure as causes of environmental degradation; socio-ecological requirements for a sustainable society; and economic tools of analysis and incentive-based policy prescriptions for resolving problems of resource scarcity and environmental pollution. Includes perspectives from microeconomics, macroeconomics, and ecological economics. Also examines the role of policy in addressing environmental issues at the local, national, and global levels.

**Prerequisites/Corequisites:****Recommended Preparation:**

Eligibility for ENGL 1A or equivalent

**Limits on Enrollment:****Schedule of Classes Information:**

Description: An introduction to environmental studies emphasizing the interplay of ecology,

economics, ethics and their translation to public policy. An introduction to environmental studies emphasizing the interplay of ecology, economics, and ethics and their translation into public policy. Topics include macroeconomic design characteristics and market failure as causes of environmental degradation; socio-ecological requirements for a sustainable society; and economic tools of analysis and incentive-based policy prescriptions for resolving problems of resource scarcity and environmental pollution. Includes perspectives from microeconomics, macroeconomics, and ecological economics. Also examines the role of policy in addressing environmental issues at the local, national, and global levels. (Grade or P/NP)

Prerequisites/Corequisites:

Recommended: Eligibility for ENGL 1A or equivalent

Limits on Enrollment:

Transfer Credit: CSU;UC.

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>		<b>Effective:</b>	<b>Inactive:</b>
	D	Social and Behavioral Sciences	Fall 2009	
	H	Global Perspective and Environmental Literacy		
<b>CSU GE:</b>	<b>Transfer Area</b>		<b>Effective:</b>	<b>Inactive:</b>
	D	Social Science	Fall 2009	
	D2	Economics		
<b>IGETC:</b>	<b>Transfer Area</b>		<b>Effective:</b>	<b>Inactive:</b>
	4	Social and Behavioral Science	Fall 2009	
	4B	Economics		
<b>CSU Transfer:</b>	Transferable	<b>Effective:</b>	Fall 2009	<b>Inactive:</b>
<b>UC Transfer:</b>	Transferable	<b>Effective:</b>	Fall 2009	<b>Inactive:</b>

**CID:**

**Certificate/Major Applicable:**

Major Applicable Course

## **COURSE CONTENT**

**Outcomes and Objectives:**

Upon completion of the course, students will be able to:

1. Define environmental sustainability and explain the ecological imperative underlying it.
2. Differentiate between ecological and economic perspectives, and identify ways in which these two perspectives can be combined to address environmental issues.
3. Describe the relationship between economic growth and the environment, explore the question of planetary limits, and posit a formulation for environmentally sustainable economic development.
4. Outline the shortcomings of current national income accounting measures in terms of their ability to serve as indicators of sustainable development; describe adjustments to these measures that would cause them to better reflect environmental and resource factors; and evaluate whether new, "greener" measures of national well-being are needed.

5. Explain how markets work and why they fail, and evaluate the market's ability to look after the environment as well as the case for government intervention.
6. Compare and contrast command-and-control type policies with incentive-based policies and evaluate their effectiveness in reducing environmental impacts.
7. On the basis of current evidence regarding global climate change, discuss the seriousness of the problem, evaluate the role of economics in creating the problem and appraise economic policy alternatives.
8. Evaluate the perspectives of women and those in the non-Western world regarding the interface between economics and the environment.

## **Topics and Scope:**

- I. An introduction to economics and the environment
  - A. Two methods of inquiry
    1. The traditional economics approach
    2. The ecological economics approach
  - B. Brief history of environment and economics
    1. The dominant Western perspective
    2. Non-Western alternatives
  - C. Science and ethics
  - D. Sustainability and sustainable development
- II. The environment; biophysical constraints
  - A. Energy
  - B. Ecology
- III. Humans in the environment - some history
  - A. History and human numbers
  - B. Human environmental impact
- IV. The economy in the environment - a conceptual framework
  - A. The big picture: circular flow model with economy-environment interdependence
  - B. Stocks and flows
  - C. Natural capital
  - D. Implications of the laws of thermodynamics
  - E. Threats to sustainability
- V. Macroeconomics and the environment
  - A. National income accounting conventions (such as GDP)
  - B. National income accounting and the environment
  - C. Economic growth and human well-being
  - D. Economic growth and the environment
    1. Kenneth Boulding: The Spaceship Earth
    2. Donella Meadows: The Limits to Growth and Beyond the Limits
    3. Herman Daly: Beyond Growth
    4. Marilyn Waring: "Who's Counting?"
  - E. Issues of macroeconomic scale
  - F. Greening the National Income Accounts
  - G. A Genuine Progress Indicator (GPI)
- VI. Microeconomics and the environment
  - A. How markets work
  - B. Limits to markets
    1. Market failure
      - a. Externalities
      - b. Public goods
      - c. Common-property resources

2. Correcting market failure. Markets and sustainability: The case for government intervention
- VII. Governance and the economics of a sustainable society
- A. Determining policy objectives
  - B. Operationalizing sustainability
    1. Weak and strong sustainability
    2. Precautionary principle
  - C. Environmental policy instruments
    1. Moral suasion
    2. Command and control
    3. Creation of property rights [including Coase Theorem, common assets]
    4. Taxation (Pigouvian taxes)
    5. Quotas, caps and tradable permits
    6. Others, may include: least cost theorem, environmental performance bonds, subsidies
  - D. General policy design principles: An ecological economics approach
    1. Sustainable scale
    2. Just distribution
    3. Efficient allocation
- VIII. Applications: Pollution (Topics may include some, not all, listed below)
- A. Pollution: impacts and policy responses
  - B. Global Climate Change
  - C. Industrial Ecology
  - D. Environmental Justice Considerations
- IX. Applications: Energy and Resources (Topics may include some, not all, listed below)
- A. Non-renewable resources
  - B. Energy: the great transition
  - C. Renewable resources
  - D. Ecosystem management/ biodiversity
- X. Environment, Trade and Development
- A. World trade and the environment
  - B. Institutions for sustainable development
    1. Muhammed Yunus and the Grameen Bank
    2. Vandana Shiva and Navdanya
  - C. Climate Change
  - D. Biodiversity Loss

**Assignment:**

1. Regular weekly reading assignments from course texts and supplementary materials. Typical reading assignments are 25 to 50 pages.
2. Weekly take-home assignments and practice quizzes covering assigned readings and discussion topics. Quizzes may be multiple choice or short answer.
3. Two to three midterm examination(s): Students must write in-class essays in response to questions on material covered in class and in texts and supplemental readings.
4. Final Examination: Students must complete an in-class final examination in response to questions on material covered in class and in texts and supplemental readings.
5. Additional written assignments such as critical analysis and personal response papers (250-1500 words) regarding topics from assigned readings, an additional book from a selected bibliography, SRJC Environmental Forum presentations, and relevant news articles.

## Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Critical analysis and personal response papers, reports on books and other readings, internet research.

Writing  
20 - 30%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework assignments

Problem solving  
10 - 20%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None

Skill Demonstrations  
0 - 0%

**Exams:** All forms of formal testing, other than skill performance exams.

Essay exams

Exams  
60 - 70%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

None

Other Category  
0 - 0%

## Representative Textbooks and Materials:

Ecological Economics, An Introduction. Common, Michael and Stagl, Sigrid. University Press: 2005

Environmental and Natural Resource Economics a Contemporary Approach, 2nd ed. Harris, Jonathan M. Houghton Mifflin Company: 2006

Natural Capital and Human Economic Survival. Prugh, Thomas. Lewis Publishers: 1999 (Classic)

Economics and the Environment, 4th ed. Goodstein, Eban. John Wiley and Sons, Inc: 2005

An Introduction to Ecological Economics. Costanza, Robert; Cumberland, John; Daly, Herman; Goodland, Robert and Norgaard, Richard. CRC Press: 1997 (in process of being updated)

Who Owns the Sky? Barnes, Peter. Island Press: 2001

Capitalism 3.0. Barnes, Peter. Berrett-Koehler Publishers, Inc.: 2006

State of the World 2008: Innovations for a Sustainable Economy. The Worldwatch Institute. W. W. Norton and Company: 2008.

