

ECON 12 Course Outline as of Summer 2020**CATALOG INFORMATION**

Dept and Nbr: ECON 12 Title: INTRO ECON & 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 to 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. 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:

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

CID:

Certificate/Major Applicable:

Major Applicable Course

COURSE CONTENT

Student Learning Outcomes:

At the conclusion of this course, the student should be able to:

1. Explain economy-environment interdependence and examine its implications for transitioning to an environmentally sustainable economy.
2. Identify major environmental issues facing society today and explain how systemic economic drivers contribute to environmental degradation.
3. Identify and assess tools of economic thought and analysis, as well as methods of economic inquiry (drawing from both standard economics and ecological economics) that can be employed to alleviate environmental problems.

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
 - 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. Economic growth and human well-being
 - B. 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. Tim Jackson: "Prosperity without Growth"
 - C. Issues of macroeconomic scale
 - D. National income accounting conventions (such as GDP)
 - E. National income accounting and the environment
 - F. Greening the National Income Accounts
 1. Index for Sustainable Economic Welfare (ISEW) and Genuine

Progress Indicator (GPI)

2. Other alternative measures of economic progress

3. Environmental asset accounts

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. Ten to twelve take-home assignments and practice quizzes covering assigned readings

- and discussion topics. Quizzes may be multiple choice or short answer.
3. One or two midterm examination(s): Students must write in-class essays in response to questions on material covered in class and in texts and supplemental readings (50%). Students will answer multiple-choice questions on material covered in class and in assigned readings (50%).
 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. (Essays and multiple choice questions.)
 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 - 40%

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, multiple-choice exams

Exams
50 - 70%

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

None

Other Category
0 - 0%

Representative Textbooks and Materials:

An Introduction to Ecological Economics, 2nd ed. Costanza, Robert; Cumberland, John; Daly, Herman; Goodland, Robert and Norgaard, Richard. CRC Press: 2015

Economics and the Environment, 7th ed. Goodstein, Eban. John Wiley and Sons, Inc: 2014

Environmental and Natural Resource Economics a Contemporary Approach, 3rd ed. Harris, Jonathan M.; Roach, Brian. M.E. Sharpe: 2013

Environmental and Natural Resource Economics, 10th ed. Tietenberg, Tom; Lewis, Lynne
Pearson: 2014

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

State of the World 2013: Is Sustainability Still Possible? The Worldwatch Institute.
W.W. Norton and Company: 2013