

ECON G130: ENVIRONMENTAL ECONOMICS AND POLICY

Item	Value
Curriculum Committee Approval Date	11/17/2020
Top Code	220400 - Economics
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)
California General Education Transfer Curriculum (CaI-GETC)	<ul style="list-style-type: none"> • CaI-GETC 4 Social & Behavioral Sciences (4) • CaI-GETC 4G Interdiscipline Study (4G)
Intersegmental General Education Transfer Curriculum (IGETC)	<ul style="list-style-type: none"> • IGETC 4 Social&Behavioral Sci (4) • IGETC 4G Interdiscipline Study (4G)
California State University General Education Breadth (CSU GE-Breadth)	<ul style="list-style-type: none"> • CSU D Soc Politic Econ Inst (D)

Course Description

Formerly: ENV5 G100 Introduction to Environmental Studies. This course provides an introduction to environmental studies that focuses on resource allocation, environmental issues, and environmental policy. The course is an interdisciplinary perspective on the biological processes of air, soil, and water; an analysis of human impact on the environment; and policies to foster sustainable development. The course evaluates problems of natural resource use, environmental quality, and pollution. Examines policies used to correct market failures of natural resources both nationally and internationally. Transfer Credit: CSU; UC.

Course Level Student Learning Outcome(s)

1. Course Outcomes
2. Describe environmental issues of natural resource allocation as a result of economic development and population growth.
3. Analyze policies relating to environmental damage and sustainable resource use.
4. Differentiate different pollutants and sources of pollution.
5. Identify areas where environmental problems are most severe and areas of the world making progress towards sustainability.

Course Objectives

- 1. Incorporate laws from the Earth's biological processes to understand natural resource use, depletion, and sustainable practices.
- 2. Apply neoclassical economic theory to the allocation of natural resources including cost-benefit analysis, supply and demand, and market failures.
- 3. Develop an interdisciplinary perspective to population growth and economic development on environmental degradation and pollution.
- 4. Explain environmental policy and analyze the effectiveness of policy on local, national, and international environmental issues.
- 5. Describe the impact of production and consumption activities on natural resource use within the biosphere and ecological limitations.
- 6. Apply the scientific method to environmental issues.
- 7. Explain how sociological and behavioral aspects of people and societal groups impact natural resources and the environment.

Lecture Content

Economics and the Environment Economic View Environmental microeconomics Environmental macroeconomics Natural resource valuation Ecological View Ecological flows Biosphere Source and sink functions Biological cycles Water cycle Carbon cycle Nitrogen cycle Scientific method Economic Growth and the Environment Growth rates Energy use Sustainable development Behavioral Economics Human behavior applied to natural resource use Causes and consequences of environmental degradation Societal factors that impact the environment Impact of pollution on health of living organisms Environmental inequity: age, gender, race and ethnicity, income, and immigration status Analysis of Environmental Issues Environmental Externalities Negative externalities Positive externalities Property Rights Coase Theorem Corrective Policies Regulation Pigouvian tax Transferable permits (cap and trade) Open Access Goods Common goods Public goods Impact of group behavior on the environment Tragedy of the commons Free riders Valuing the environment Cost-benefit analysis Discount rate Non-market and ecological value Population and Agriculture Population growth Global population trends Fertility and mortality rates Carrying capacity Thomas Malthus Agriculture and Food Land use Soil erosion and degradation Pesticides Irrigation Sustainable agriculture Natural Resources Nonrenewable resources Resource use Recycling Energy Fossil fuels Alternative energy Global trends on energy use Renewable resources Fisheries Population biology Production levels Maximum sustainable yield Economic optimum Open access Sustainable fisheries management Forest Systems Growth rates Forest Loss and biodiversity Sustainable forest policies Water Systems Water cycle Water supply Pricing practices Global water use and policies Pollution Types of pollutants Local, regional, and global pollutants Damage effects Pollutant sources Policy to control pollution Industrial Ecology Global climate change Trade Agreements and the environment Sustainable Development U.S. environmental policy Global environmental policy International agreements Country comparisons on environmental issues

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- DE Online Lecture (02X)

Instructional Techniques

Lecture Analysis of case studies

Reading Assignments

Textbook Online readings and resources that enhance lecture content

Writing Assignments

Case studies analysis of course topics. Research and short writing assignments on current events and articles related to the environment.

Out-of-class Assignments

Problem solving applications that use economic models and theory applied to environmental issues. Homework assignments on course content.

Demonstration of Critical Thinking

Apply economic and ecological analysis to environmental issues around the world using case studies. Critically evaluate environmental policy and its effectiveness on sustainable development.

Required Writing, Problem Solving, Skills Demonstration

Written papers on current environmental issues and policy. Use of economic graphs and models to analyze environmental issues, resource use, and policy.

Eligible Disciplines

Ecology: Master's degree in ecology or environmental studies OR the equivalent OR see interdisciplinary studies. Master's degree required.
Economics: Master's degree in economics OR bachelor's degree in economics AND master's degree in business, business administration, business management, business education, finance, or political science OR the equivalent. Master's degree required.

Textbooks Resources

1. Required Hassenzahl, D., Hager, M., Gift, N., Berg, L., Raven, P. Environment, 10 ed. Wiley, 2019
2. Required Harris, J., Roach, B. Environmental and Natural Resource Economics: A Contemporary Approach, 4 ed. Routledge, 2017

Other Resources

1. Handouts from instructors