



Course Outline

Business Undeclared
School of Business & Economics
ECON 6060 - **3.00** - Academic

Applications of Environmental and Natural Resource
Economics

Rationale

Based on recommendations from the Degree Quality Assessment Board, the following minor course changes are proposed:

- Change the course acronym from ESMN to ECON
- Change the name of the course from Applications of Economic Sustainable Management to Applications of Environmental and Natural Resource Economics
- Prerequisites were changed to ECON 6010, ECON 6020

Calendar Description

Students apply the principles of sustainable economic management to environmental and resource issues. Topics include population and the environment; agriculture and food; scarcity and abundance of resources; energy sector; renewable resource using in the fisheries and the forestry sector; water economics; pollution, impacts and policy responses; industrial ecology; trade and development and the environment; and institutions for sustainable development.

Credits/Hours

Course Has Variable Hours: No

Credits: 3.00

Lecture Hours: 3.00

Seminar Hours: 0

Lab Hours: 0

Other Hours: 0

Clarify:

Total Hours: 3.00

Delivery Methods: (Face to Face)

Impact on Courses/Programs/Departments: None is expected

Repeat Types: A - Once for credit (default)

Grading Methods: (G - Graduate Programs)

Educational Objectives/Outcomes

1. Discuss the possible limits to economic growth.
2. Evaluate the economics of the interaction of population dynamics with the environment.
3. Appraise the economics of renewable resources.
4. Assess the economics of non-renewable resources.
5. Apply the principles of economic sustainability to agriculture systems.
6. Use the concepts of economic sustainability towards energy efficiency.
7. Evaluate the principles of economic sustainability to the fisheries.
8. Appraise the principles of economic sustainability to the forestry sector.
9. Assess the economics of water resource.
10. Describe the impact of pollution and pollution control.
11. Discuss the economics of industrial ecology.
12. Review the institutions for sustainable development.

Prerequisites

ECON 6010-Principles of Environmental and Natural Resource Economics or equivalent and
ECON 6020-Applied Microeconomics for Sustainable Management or equivalent

Co-Requisites

Recommended Requisites

Exclusion Requisites

Texts/Materials

Other

1. **Required** Textbooks

Jonathan M. Harris, Environmental And Natural Resource Economics, A Contemporary Approach, Houghton Mifflin Company, 2006. Other Resources

Tom Tietenberg and Lynne Lewis, Environmental And Natural Resource Economics, Pearson, Eight Edition, 2009.

Barry Field, Natural Resource Economics, An Introduction. Waveland Press, 2001.

Frank A. Ward, Environmental And Natural Resource Economics, Pearson Education Ltd., 2006.

Student Evaluation

The Course grade is based on the following course evaluations.

Poster Presentation (20.00%) Online Discussion (10.00%) Topic Presentation (20.00%) Midterm Exam (20.00%)
Final Exam (30.00%)

Course Topics

1. Resources, Environment, and Economic Development
 - A brief history of economic growth and the environment
 - Limits to growth model
 - A summary of recent growth
 - Future of economic growth and the environment
 - Introduction to sustainable development
2. Population and the Environment
 - Dynamics of population growth
 - Theory of demographic transition
 - Population growth and economic growth
 - Ecological perspectives on population growth
 - Future population policies
3. Agriculture, Food, and the Environment
 - Population and food supply
 - Trends in global food production
 - Agriculture impact on the environment
 - Sustainable agriculture
4. Scarcity and Abundance of Resources
 - Supply of nonrenewable resources
 - Economic theory of nonrenewable resource use
 - Global scarcity or increasing abundance
 - Economics of recycling
5. Energy Sector
 - Energy and economic systems
 - Economic and ecological analysis of energy
 - Energy trends and projections
 - Economics of alternative energy futures
 - Policies for future energy development
6. Renewable Resource Use in Fisheries
 - Principles of renewable resource management
 - Ecological and economic analyses of fisheries
 - Economics of fisheries in practice
 - Policies for sustainable fisheries management
7. Renewable Resource Use in the Forestry Sector
 - Economics of forest management
 - Forest loss and biodiversity
 - Policies for sustainable forest management
8. Water Economics
 - Global supply and demand for water
 - Addressing water shortages
 - Water pricing
 - Water markets and privatization
9. Pollution, Impacts and Policy Responses

- Economics of pollution control
- Pollution control policies: standards, taxes, permits
- Pollution control policies in practice
- Cumulative and global pollutants

10. Industrial Ecology

- Economic and ecological views of production
- Potential of industrial ecology
- Industrial ecology on a global scale
- Policies to promote industrial ecology
- 11. Environment, Trade, and Development Environmental impact of trade
- Trade and environment: policies and practice
- Trade agreements and the environment
- Strategies for sustainable development

12. Institutions for Sustainable Development

- Economics of sustainable development
- Reforming global institutions
- Policies for sustainable development

Methods for Prior Learning Assessment and Recognition

Students can apply for PLAR but it cannot be used to meet the program residency requirement.

Last Action Taken

Implement by Graduate Studies Committee Chair Debbie (Proxy GSC Chair) Krebs

Current Date: 27-Oct-20