Ecology and the Economy

M,W 12 – 1:50 PM
Lawrence Hall, Room 254

Instructors:
Kevin Horan (horan@uoregon.edu)
Office Hours: Tuesday, 12-2PM, Columbia Hall, Room 47A

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Office Hours: Thursday, 3-5PM, Columbia Hall, Room 47A

Course Description:
This course outlines the concepts that underlie the burgeoning interdisciplinary field of ecological economics. This field takes a holistic perspective, incorporating our ever-expanding knowledge of ecology into traditional economic theory. We will be examining the historical development of economics as a discipline, as well as exploring the differences between ecological and environmental economics. While most economics courses take a strictly positive, value-neutral approach, we will be investigating the normative components of economic theories and policies in relation to the Earth's ecosystems. We will also provide an ethical context for traditional positive economic measurement and enable students to identify and assess the implicit values contained in metrics like GDP. This course is interdisciplinary in nature and will include concepts from other fields, especially physics, philosophy, ecology, and public policy.

Course Goals:
Students will develop a clear understanding of the principles and applications of ecological economics. They will be able to critically evaluate the underlying concepts and unspoken values implicit in neoclassical economic theory. Students will also be able to identify appropriate tools from ecological economics to address environmental issues and achieve viable, sustainable economies.

Required Reading:
DF: Ecological Economics: Principles and Applications by Daly and Farley

Requirements:
- **Attendance**: students are allowed one unexcused absence. Further absences will negatively affect attendance grade. We only meet 19 times, so attending each class meeting is crucial.
- **Participation**: students are expected to come to class prepared to discuss the readings and contribute to group discussions. Showing up is not enough. If you are uncomfortable speaking in discussions, talk to us so we can help you find another way to help your participation grade. Informed, respectful, focused discussion is a fundamental part of this class.
- **Reading Responses**: Students are required to turn in a one-page response to a reading of their choice for that day's lecture at the beginning of each class (with the exception of Class 1).
- **Presentation**: Students are required to give a 10-minute presentation on a topic chosen from the list provided (or approved by the instructors) from the perspective of ecological economics. Presentations will be graded on content, preparedness, delivery and quality of visual aids.
- **Exams**: There will be a midterm exam (10/28) and a final exam (12/9).

Grading:
- Attendance/Participation: 20%
- Reading Responses: 20%
- Midterm: 20%
- Presentation: 15%
- Final: 25%

Schedule

Week 1
Class 1 (9/30):

- Syllabus/Expectations/Goals/Course Outline
- *Reading:* DF: Introduction

Week 2

Intro to Ecological Economics

Class 2 (10/5):

- What is (Ecological) Economics? Introduction of main concepts
- Scale, Distribution, and Efficiency
- Pre-Analytical Visions: Full World and Empty World
- Growth and Development, Throughput, Efficiency and Utility
- Resources and Prioritization, Ends and Means
- *Reading:* DF: Chapters 1, 3

History of Economic Thought

Class 3 (10/7):

- Pre-Classical and Classical Economics
- Religious and Philosophical Origins – Judeo-Christianity, Classical Liberalism, Locke, Hobbes, Descartes, Philosophical Underpinnings
- Mercantilists, Physiocrats, Smith, Ricardo, Malthus, Bentham, Mill, Marx
- *Reading:* Robert Nadeau - "Classical Economics"
- *Reading:* Philosophical Origins of Economics

Week 3

Class 4 (10/12):

- Neo-Classical Economics and Its Legacy
- Senior, Jevons, Menger, Marshall, Keynes
- Natural Law v. Externalities/Market Failures
- Washington Consensus – Ayn Rand, Friedman, Greenspan, Reagan, Thatcher
- Economic Crises – Potential Causes and Solutions
- *Film*: portions of *Classic Economic Films 1940s-1950s*
- *Reading*: Robert Nadeau - "Neoclassical Economic Theory"
- *Reading:* E. Roy Weintraub - "Neoclassical Economics"
- *Reading:* John Cobb & Herman Daly – *For the Common Good* - Chapter 6
- *Reading*: Drake Bennett – "Paradigm Lost"

Contemporary Economic Thought

- Class 5 (10/14):
- Economic Concepts – Supply & Demand, Elasticity, Marginal Cost/Utility, Consumer/Producer Surplus
- "Myths" of Traditional Economics
- Cornucopian Perspective - Technological Optimism, Substitutability, Growth
- Marginalized Voices, Real World Implications of Economic Theories
- *Reading*: John Peet - *Energy and the Ecological Economics of Sustainability* – Chapters 4, 9
- *Reading:* DF: Chapter 9
- *Reading*: Vandana Shiva - "Principles of Earth Democracy"

Week 4

Environmental Economics

Class 6 (10/19):

- Human-Derived Value (Willingness to Pay & Pricing Mechanisms), Anthropocentric (& Egocentric), Replaceability, Discounting, Market Techniques
- Maximizing Utility, Optimal Pareto Efficiency, Market Failures/Externalities
- Deontological and Utilitarian Ethics (Rawls)
- Public v. Private Goods & Services (Excludability & Rivalness)
- *Reading*: Tom Tietenberg–Environmental & Natural Resource Economics–Chapters 1, 2, Example3.5
- *Reading:* DF: Chapter 10 (pp. 157 – 160)

Class 7 (10/21):

- Part and Whole
- Critiques of Measurement Tools and Market Techniques
- Discounting and Intergenerational Equity
- Undervaluing Natural Capital and Ecosystem Services
- *Reading:* J. Samuel Barkin – "Discounting the Discount Rate: Ecocentricism and Environmental Economics"
- *Reading:* John Bellamy Foster – "Chapter 2 – The Ecological Tyranny of the Bottom Line: The Environmental and Social Consequences of Economic Reductionism"
- *Reading:* DF: Chapter 10 (175 – 183)

Week 5

Ecological Economics

Class 8 (10/26):

- History/Context (Both Response to & Evolution of Traditional Economics)
- Benefits, Drawbacks, and Impediments of Interdisciplinarity
- Systems Perspective, Open and Closed Systems, Optimal Scale
- Paradigm Shift and the Pre-Analytic Vision
- *Reading:* DF: Chapter 2
- *Reading:* E. F. Shumacher – *Small is Beautiful* – "Chapter 3 - The Role of Economics"

Class 9 (10/28): **Midterm Exam**

Week 6

Economic Growth in a Finite World

Class 10 (11/2):

- Grounding Economics in the Biophysical World – Physical Limits to Growth
- Carrying Capacity and Ecological Footprints
- Laws of Thermodynamics
- Complexity and Irreplaceability of Ecosystems
- *Reading:* William E. Rees – "Urban Ecosystems: The Human Dimension"
- *Reading:* Arrow et al – "Economic Growth, Carrying Capacity, and the Environment"
- *Reading:* DF: Chapters 4, 7

Class 11 (11/4):

- Consumerism and Marketing – Creation of Wants, Designed/Perceived Obsolescence, Distortion of Utility
- Efficiency (Monetary v. Material, Short-Term v. Long-Term) and Throughput
- *Film*: *Consuming Kids*
- *Reading*: Mark Anielski – *The Economics of Happiness* – "Chapter 6 – Personal Genuine Wealth"
- *Film (Assigned)*: Annie Leonard - *The Story of Stuff*

Week 7

Metrics of Economic Progress: What Are We Really Measuring?

Class 12 (11/9):

- Quantitative Growth v. Qualitative Development
- Developing v. (Post)Industrial World – Socio-economic Needs, Environmental Impacts
- GDP v. ISEW, GPI, HDI, Happy Planet Index, Gross National Happiness
- Debt – Personal, National, and Intergenerational (Economic and Ecological)
- *Reading*: DF: Chapter 13
- *Reading*: Mark Anielski – "Chapter 5 – The Genuine Wealth Model"
- *Reading*: Mark Anielski - "The Alberta GPI Blueprint"

Class 13 (11/11):

- Pricing and Valuing Natural Capital and Ecosystems Services
- Incomplete Information and Transparency – (Mis)Informed Purchasing Decisions
- Modes of Internalizing Full Ecological Costs – Regulation v. Incentives

- *Reading*: DF: Chapter 23
- *Reading*: Costanza et al: *An Introduction to Ecological Economics* "Section 7 – Valuation, Choice, & Uncertainty" (pp. 35 – 42)
- *Reading*: Costanza et al: "The Value of the World's Ecosystem Services and Natural Capital"

Week 8

Inequity and Distribution

Class 14 (11/16):

- Is Economic Equity Essential to Sustainability?
- Discounting, Usury and Intergenerational Equity
- Relationship Between Spatial and Temporal Equity, Ecological Deficits
- Pareto Optimality (and Perpetuation of Status Quo)
- *Reading*: DF: Chapter 15, 22

Class 15 (11/18):

- Sustainable Development and Globalization
- Free Trade v. Tariffs/Subsidies, Comparative v. Absolute Advantage
- International Trade Organizations, Corporations, Wealth and Bias
- Global Food Security and Natural Resource Access
- *Reading*: DF: Chapters 17, 18
- *Reading*: Roldan Muradian "Trade and the Environment: from a 'Southern' Perspective"

Week 9

Class 16 (11/23): **Group Presentations Pt. 1**

Class 17 (11/25): **Group Presentations Pt. 2**

Week 10

The Vision for Our Future

Class 18 (11/30):

- Design Principles, Controlling Throughput & Scale
- Impact of Public Policy & Legislation
- Evolutionary (Incremental) v. Revolutionary (Radical) Change
- *Reading*: DF: Chapter 20, 21
- *Reading*: John Coates & Terry Leahy – "Ideology and Politics: Essential Factors in the Path Towards Sustainability"
- *Reading*: L. Hunter Lovins – "Natural Capitalism: Path to Sustainability"

Class 19 (12/2):

- Alternative Economic Models
- Final Discussion/Conclusion/Summary
- *Reading*: S. W. Verstegen & J. C. Hanekamp – "The Sustainability Debate: Idealism v. Conformism"
- *Reading*: Mark Anielski – "Chapter 4 – A Renaissance in Economics and Capitalism"
- *Reading*: Excerpts from Mike Carr Bioregionalism and Civil Society

Week 11

Final Exam: 10:15AM - Wednesday, 12/9