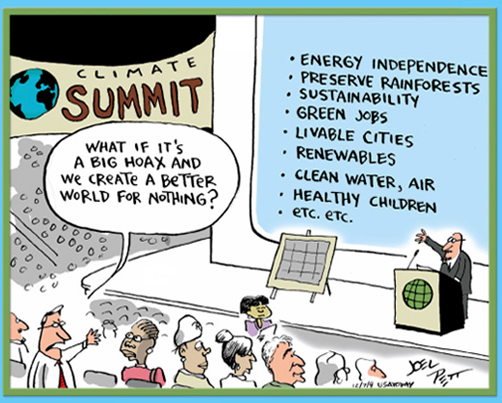
**Ecological Economics (Econ 288) Spring 2012**

**Professor John D. Abell**

“A human being is part of a whole, called by us the Universe, a part limited in time and space. He experiences himself, his thoughts and feelings, as something separated from the rest a kind of optical delusion of his consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest us. Our task must be to free ourselves from this prison by widening our circles of compassion to embrace all living creatures and the whole of nature in its beauty. The true value of a human being is determined primarily by the measure and the sense in which he has attained liberation from the self (i.e. ego). We shall require a substantially new manner of thinking if mankind is to survive.” Albert Einstein (as quoted in Moh Hardon: *A Little Book of Love*, 2011)

“We can't solve problems by using the same kind of thinking we used when we created them.” Albert Einstein



**Office Hours:** M-W: 10:00-11:30 AM, or by appointment. Main #7. Phone # 947-8502 (office).

**Subject matter:**

Ecological economics is a disciplinary synthesis of ecology and economics. It assesses the effects of human economies on the natural world. From a pre-analytic vision of a closed ecological system, the course examines the relative impacts of economic growth, material abundance, population growth, and technological innovations on the ability to live sustainably within the earth's carrying capacity.

**Books, readings:**

* *Beyond Growth* (1996). Herman Daly.
* *Prosperity without Growth?* *- The transition to a sustainable economy* (2009)*.* UK Sustainable Development Commission, Tim Jackson author: <http://www.sd-commission.org.uk/publications.php?id=914>
* *World Development Report* 2010, *Development and Climate Change*. World Bank: <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTWDRS/EXTWDR2010/0,,contentMDK:21969137~pagePK:64167689~piPK:64167673~theSitePK:5287741,00.html>
* *Solutions for a sustainable and desirable future*: <http://www.thesolutionsjournal.com/>
* *Ecological Economics*: <http://www.journals.elsevier.com/ecological-economics/>
* Library reserve selections from:

1. Berry, W. *What Matters? Economics for a Renewed Commonwealth*. (2010).
2. Daly, H. and Cobb, J. *For the Common Good* (1994).
3. Daly, H. and Farley, J. *Ecological Economics* (2010).
4. Daly, H. and Townsend, K. *Valuing the Earth: Economics, Ecology, Ethics* (1993).
5. Victor, Peter. *Managing Without Growth* (2008).
6. The Worldwatch Institute*. State of the World 2011: Innovations that Nourish the Planet*.

**Course goals:**

This is a brand new course. It therefore doesn’t come with all the historical assemblage of *things* (topics, assignments, tests, and such) that absolutely have to be accomplished. There are obviously a number of assigned readings, basic core issues to be covered, and yes, assignments, including a research paper, but I am hoping that you will help me discover along the way the concepts that will make this a meaningful course, not only for this semester, but for semesters to come. Yes…, there is a course outline that follows, but there is also a lot of flexibility in the outline for us to explore newly discovered interests. My hope is that you will be full participants as we explore this latest addition to Randolph College’s curriculum.

**Grading/Assignments:**

Your grade will come from two broad areas: a) daily readings/assignments/conversation/class participation and b) a research paper:

1. Daily readings/assignments/conversation/class participation: We will be reading/covering new material every class period. There will always be an assigned reading associated with the new material and either a brief written assignment and/or or the expectation of class participation. Note: There are only three of you; you won’t have the luxury of sitting on the back row and listening. All of you will need to actively participate.

There is a standing assignment for every reading unless I direct you to do something else:

After reading the assigned pages please choose *either* of the following (double-spaced typed, stapled):

1. Rank order three important points from the assigned reading and explain with appropriate detail why you think these points are important. Please offer your own reflections or thoughts about these points or any other parts of these two readings.\*
2. Provide a summary and personal reflection of the assigned reading.\*

\* Note: I am looking for well-written essays (both in terms of your understanding of the subject matter, and in terms of your writing: syntax, grammar, and spelling). **Also, the essays that will earn you the best grades will make connections both across the curriculum, and across material within this course.** For example, you may find that some material in this course directly challenges the concepts you will have learned in your other economics courses. Make note of such differences in your essays. Or, you may discover that within the assigned readings for this semester, the carefully written, 417 page *World Development Report* focused on development and climate change seems to differ greatly from ecological economists’ views of climate change. Make note of such differences in your essays.

**60% of grade**. Approximately ½ of this grade will come from written assignments and ½ from class room conversation and general class participation.

1. Research paper: Brand new subject matter in economics gives you a chance to explore a topic previously unknown to you in some depth. Select any topic (by such and such a date) and write a 10 page max (double-spaced, stapled, APA style research paper). Suggestion: Conduct a product life-cycle assessment. Select a product and analyze its ecological impact from “cradle to grave”; see suggestions at end of syllabus\*\*. Due date (for hardcopy) **April 24**. If you wish for me to make comments on an earlier draft I will do so if you get it to me by **April 12**. I will do my best to return a copy with comments by April 17. You will each make a Power Point (or other appropriately formal) presentation of your findings on the last day of class: **April 26**. Presentation time 15-20 minutes, leaving 5-10 minutes for Q&A. The grade on the paper itself will be based on both your attention to the economics and to the quality of writing. See Economics Writing Tips for assistance. I am also placing a paper I had published a few years back that uses APA style into the P: drive. Location: P:\Economics\Econ 288\Fuel Efficient Stoves Final version March 2008.doc. The grade on thepresentation will be based on the quality and effectiveness of your delivery, the use of the Power Point (or Power Point equivalent), and how well you filed questions. **40% of grade**. Approximately ¾ of this grade will come from the paper itself and ¼ will come from the presentation.

**Course outline:**

**1. Jan 17**

- Introductory class. Review of neo-classical growth theory. Abel and Bernanke, *Macroeconomics* 4e. Ch. 6, Long-run economic growth (Library e-Reserve).

**2. Jan 19**

- World Bank *World Development Report 2010*: Focus A. The Science of Climate Change. <http://siteresources.worldbank.org/INTWDR2010/Resources/5287678-1226014527953/Focus-A.pdf>

- NASA, Global Climate Change. <http://climate.nasa.gov/>. From the home page, read the following four sections (active tabs/links on the left): **Key Indicators**, **Evidence**, **Causes**, **Effects**, **Uncertainties**.

Note: In addition to the standing assignment, make note of what you learned about climate change that you didn’t already know.

**3. Jan 24**

- Berry, W. *What Matters? Economics for a Renewed Commonwealth*. Foreword, by H. Daly and Ch. 1, Money vs. Goods. Library e-reserve.

**4. Jan 26**

- H. Daly. *Beyond Growth*. Introduction: The shape of current thought on sustainable development, pp. 1-23.

**5. Jan 31**

- H. Daly. *Beyond Growth*. Introduction to Part I, pp. 27-30.

- Daly and Townsend, *Valuing the Earth*, Ch. 2: Ehrlich, Ehrlich, and Holdren, Availability, entropy, and the laws of thermodynamics, pp. 69-73. Also, Ch. 3: Georgescu-Roegen, The entropy law and the economic problem, pp. 75-88. Also, Ch. 4: Georgescu-Roegen, Selections from “Energy and Economic Myths,” pp. 89-112.

**6. Feb 2**

- H. Daly. *Beyond Growth*. Ch. 1, Moving to a steady-state economy, pp. 31-44.

- Daly and Farley. *Ecological Economics*, pp. 19-21 (for a closer look at the concept of optimal scale arising from marginal analysis). Electronic book (1e):

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| <http://www.netLibrary.com/urlapi.asp?action=summary&v=1&bookid=118237> |

**7. Feb 7**

- Daly and Farley. *Ecological Economics.* Ch. 3, Ends, means, and policy, pp. 37-56. Electronic book (1e):

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| <http://www.netLibrary.com/urlapi.asp?action=summary&v=1&bookid=118237> |

**8. Feb 9**

- H. Daly. *Beyond Growth*. Ch. 2, Elements of Environmental Macroeconomics, pp. 45-60.

- P. Victor. *Managing Without Growth*. Ch. 2, Why manage without growth? Selected pages: pp. 27-32. Electronic copy:

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| <http://www.netLibrary.com/urlapi.asp?action=summary&v=1&bookid=233057> |

**9. Feb 14**

- H. Daly. *Beyond Growth*. Ch. 3, Consumption: value added, physical transformation, and welfare, pp. 61-70. Also from Daly and Townsend, *Valuing the Earth*, Ch. 14: Daly, H. Sustainable growth: an impossibility theorem, pp. 267-273.

**10. Feb 16**

- H. Daly. *Beyond Growth*. Ch. 4, Operationalizing sustainable development, pp. 75-87. Also, Ch. 5, Fostering environmentally sustainable development: four parting suggestions for the World Bank, pp. 88-93.

**11. Feb 21**

- H. Daly. *Beyond Growth*. Ch. 6, Toward a measure of sustainable net national product, pp. 99-102. Also, Ch. 7, On sustainable development and national accounts.

- Case of Japan: <http://www.nytimes.com/2012/01/08/opinion/sunday/the-true-story-of-japans-economic-success.html?src=me&ref=general>

**12. Feb 23**

- H. Daly. *Beyond Growth*. Introduction to Part IV, pp. 119-120.

- Daly and Townsend, *Valuing the Earth*, Ch. 1: Ehrlich and Ehrlich, Why isn’t everyone as scared as we are?

- Recommended: Daly and Cobb. *For the Common Good*. Ch. 12, Population, pp. 236-251.

**13. Feb 28**

H. Daly. *Beyond Growth*. Introduction to Part V, pp. 143-4. Ch. 10, Free trade and globalization vs. environment and community, pp. 145-157.

**14. Mar 1**

H. Daly. *Beyond Growth*. Ch. 11, From adjustment to sustainable development: the obstacle of free trade, pp. 158-167.

**Spring Break: No classes on Mar 6 and mar 8**

**15. Mar 13**

- Video documentary: PBS, *Journey to Planet Earth*: Plan B 4.0, Mobilizing to Save Civilization. Lester Brown (2009).

**16. Mar 15**

P. Victor. *Managing Without Growth*. Ch. 4, Limits to growth – sources, pp. 47-71.

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| <http://www.netLibrary.com/urlapi.asp?action=summary&v=1&bookid=233057> |

**17. Mar 20**

P. Victor. *Managing Without Growth*. Ch. 5, Limits to growth – sinks and services, pp. 72-88.

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| <http://www.netLibrary.com/urlapi.asp?action=summary&v=1&bookid=233057> |

**18. Mar 22**

Eco-system services: From thesolutionsjournal.com <http://www.thesolutionsjournal.com/> Special issue on ecosystems services:

* <http://www.thesolutionsjournal.com/node/1010>
* <http://www.thesolutionsjournal.com/node/1026>
* <http://www.thesolutionsjournal.com/node/1025>
* <http://www.thesolutionsjournal.com/node/1016>
* <http://www.thesolutionsjournal.com/node/1014>

**19. Mar 27**

Tim Jackson, (UK) Sustainable Development Commission (2009). *Prosperity without Growth?* Ch. 5, The Myth of Decoupling. <http://www.sd-commission.org.uk/publications.php?id=914>.

**20. Mar 29**

Application of the I=PAT equation and the problem of decoupling: Andrew Revkin. Dot Earth: Wal-Mart, sustainability, and greenwashing. <http://dotearth.blogs.nytimes.com/2012/01/12/can-wal-mart-push-both-sustainability-and-consumption/>, plus the following active links from the article:

[Green Room](http://www.walmartgreenroom.com/welcome-to-the-green-room/)

([Times review](http://www.nytimes.com/2011/05/15/business/15shelf.html))

[I pointed out in my 2008 post](http://dotearth.blogs.nytimes.com/2008/10/23/wal-mart-china-ethics-environment/)

[the push to start Black Friday on Thanksgiving Thursday](http://www.nytimes.com/2011/11/10/business/wal-mart-to-start-sales-at-10-pm-on-thanksgiving.html).

[points raised by Matthew McDermott](http://www.treehugger.com/corporate-responsibility/walmart-wants-conversation-the-green-room-blog.html)

[[Read the rest.](http://www.walmartgreenroom.com/2012/01/taking-care-of-our-planet-together-2/)]

[a multi-part takedown of the company’s green push](http://www.grist.org/people/Stacy+Mitchell)

“[Have I Fallen in Love with Wal-Mart](http://www.marcgunther.com/2011/12/04/have-i-fallen-in-love-with-walmart/)?”

[a section on Wal-Mart](http://books.google.com/books?id=YoVpW0zJIgYC&pg=PA113&lpg=PA113&dq=walmart+%22the+rational+optimist%22&source=bl&ots=NyWR54XCF8&sig=ljBr0HY0S4-YjGZ4Dwuel4MihGs&hl=en&sa=X&ei=f04PT53iM4Xg0QHMrLSCAw&sqi=2&ved=0CDEQ6AEwAw#v=onepage&q&f=false)

**21. Apr 3**

J. Twitchell, (Aug/Sept 2000). In praise of consumerism. *Reason*, 19- 23, <http://reason.com/archives/2000/08/01/in-praise-of-consumerism> ;

**22. Apr 5**

Ethics of consumption: Selections from Professor David Schwartz’ book *Consuming Choices*.

Book: <http://web.ebscohost.com/ehost/detail?sid=c7ff3ae6-ea3e-4b86-b423-3f7826ca6a04%40sessionmgr15&vid=1&hid=122&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=nlebk&AN=336994>

Ch. 5 (Toward a practical consumer ethic): <http://web.ebscohost.com/ehost/ebookviewer/ebook/nlebk_336994_AN?sid=c7ff3ae6-ea3e-4b86-b423-3f7826ca6a04@sessionmgr15&vid=1&lpid=lp_85>

**23. Apr 10**

Paul Kingsnorth. Confessions of a recovering environmentalist, *Orion Magazine*, (Jan/Feb 2012): <http://www.orionmagazine.org/index.php/articles/article/6599>

**24. Apr 12**

No class. DC economics trip.

**25. Apr 17**

- WDR 2010 Ch. 8 Overcoming behavioral and institutional inertia.

- Issue of framing: <http://www.nrdc.org/globalwarming/f101.asp>

**26. Apr 19**

- Coffee and sustainability.

**27. Apr 24**

- Video documentary: *Vanishing of the Bees.*

**28. Apr 26**

Student presentations of research papers.

\*\* Life-cycle assessment (LCA) research project. Here is description of an LCA from the EPA: <http://www.epa.gov/nrmrl/lcaccess/pdfs/chapter1_frontmatter_lca101.pdf>

“Life cycle assessment is a “cradle-to-grave” approach for assessing industrial systems. “Cradle-to-grave” begins with the gathering of raw materials from the earth to create the product and ends at the point when all materials are returned to the earth. LCA evaluates *all stages* of a product’s life from the perspective that they are interdependent, meaning that one operation leads to the next. LCA enables the estimation of the cumulative environmental impacts resulting from all stages in the product life cycle, often including impacts not considered in more traditional analyses (e.g., raw material extraction, material transportation, ultimate product disposal, etc.). By including the impacts throughout the product life cycle, LCA provides a comprehensive view of the environmental aspects of the product or process and a more accurate picture of the true environmental trade-offs in product and process selection. The term “life cycle” refers to the major activities in the course of the product’s life-span from its manufacture, use, and maintenance, to its final disposal, including the raw material acquisition required to manufacture the product.”

The following is *a highly abbreviated* LCA comparing the environmental impacts of an i-Pad vs. a book.

<http://www.nytimes.com/interactive/2010/04/04/opinion/04opchart.html>

I would expect you to go into much greater depth with your own analysis than that of the i-pad/book example. There is also one additional expectation. An LCA tends to focus only on the environmental impacts of a product or project. I would like for you to approach your own LCA in a more holistic manner, assessing not only the environmental impacts, but also the human impacts. How are workers treated at the various stages of production? Do they receive *living* or *poverty* wages? What are the conditions and hours of their work? How are they able to live? Do they have access to clean water? Do they get bathroom breaks? Are they allowed to join a union? Are there provisions for social security. Are their children able to attend school? What are the short-term, as well as long-term effects of their employment?

There are endless interesting retail products to evaluate. A cup of coffee, a cell-phone, a Big-Mac, a bag of M&Ms, and so on. The choice is yours. An interesting twist for some products, especially food products, would be to compare a commercial food with an organic, fairly traded food.