

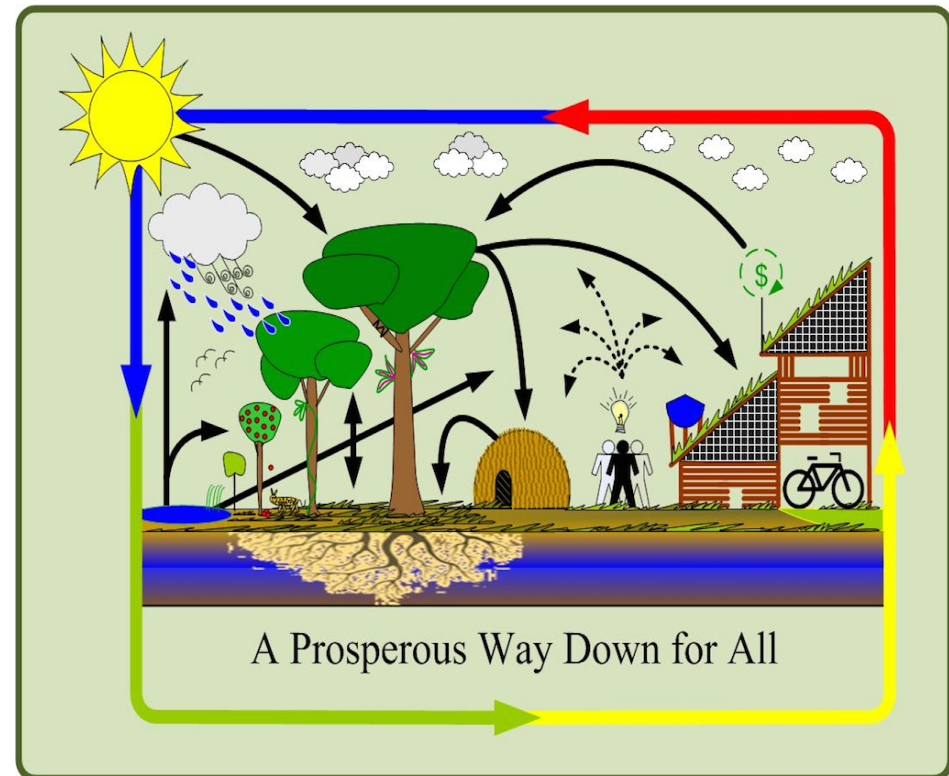
Lecture 1: Course Overview

(Un)Common Read: A Prosperous Way Down (IDH 3931)
Week 1

David Kaplan, Ph.D. (dkaplan@ufl.edu) and Mark Brown, Ph.D. (mtb@ufl.edu)
UF Engineering School of Sustainable Infrastructure and Environment
Department of Environmental Engineering Sciences

Today's Outline

1. Introductions and Motivations: why are we here?
2. Course Overview: expectations (yours and ours)
3. Prosperity and Descent: defining a “paradox”

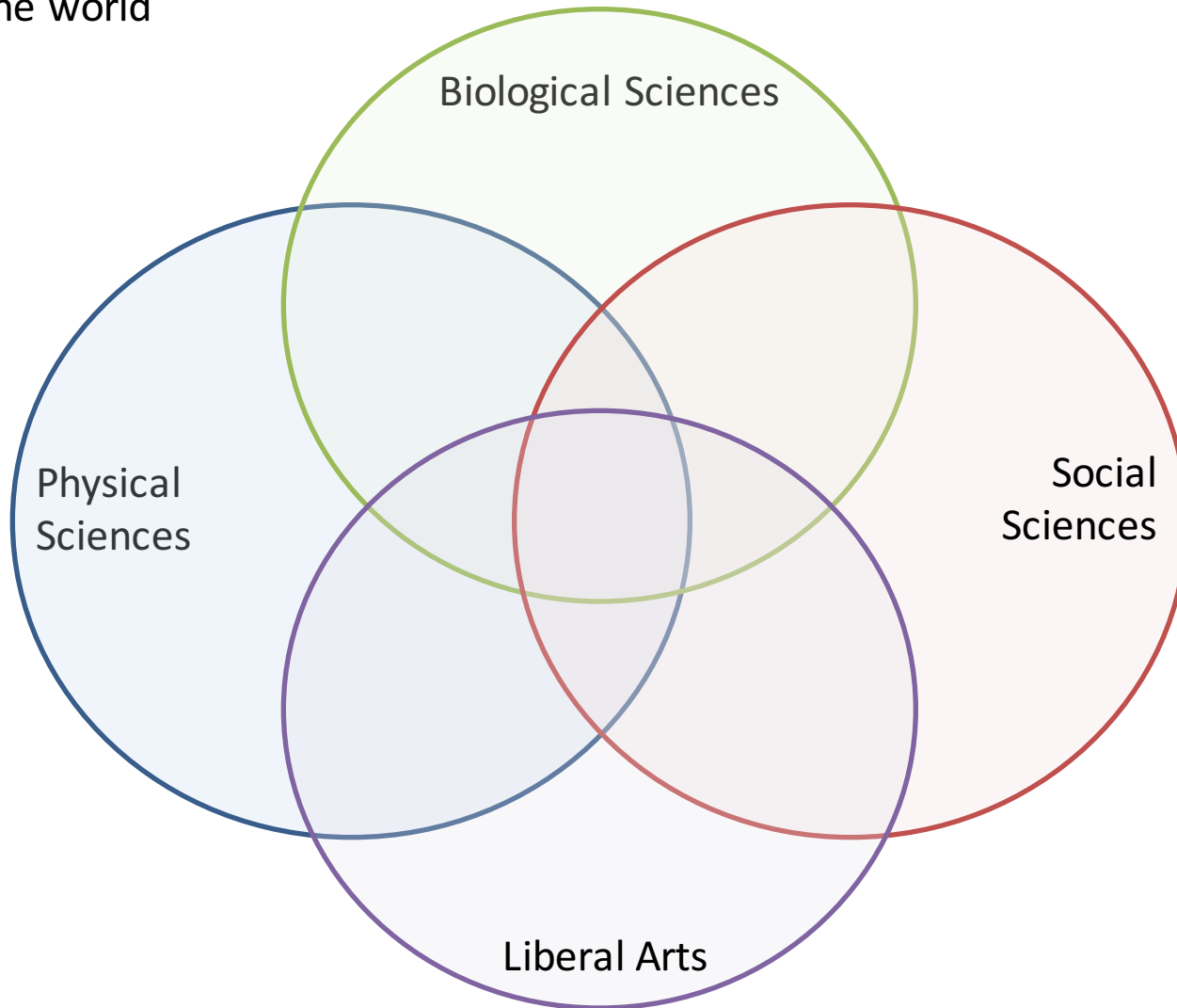


Motivations: Why are we here?



Motivations: Why are you here?

The rest of the world



Course Overview

This Course Is:

- a place where all perspectives and ideas are respected...
- ...but where you are expected to support your ideas and arguments with solid evidence.
- a chance to explore ideas beyond your chosen major.
- a crash-course; there's much more to learn!

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This Course Is Not:

- an endorsement of one particular political ideology or set of ideals.
- a free ride; your input and participation is critical.
- a memorize/regurgitate class; you have to think.
- the end; our hope is that these ideas fuel further (life-long) thought about humans and the three E's: *environment, energy, & economy*

Course Overview: Syllabus

(Un)Common Read: A Prosperous Way Down

IDH 3931 (Section 07A9) – Fall 2015

Instructors:

Dr. David Kaplan, Environmental Engineering Sciences (dkaplan@ufl.edu)

Dr. Mark Brown, Environmental Engineering Sciences (mtb@ufl.edu)

Contact:

- Class website (UF e-Learning): <https://lss.at.ufl.edu>
- Course e-mail: use e-Learning for **ALL** correspondence
- Office Hours: immediately after class and by appointment (6 Phelps Lab)

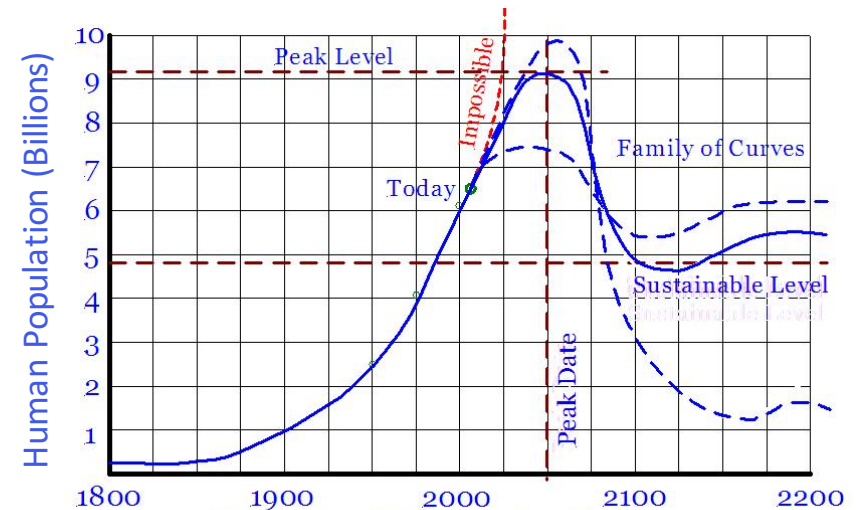
Time and Location:

- Thursday, 10:40 – 11:30 am (P4), 119 Little Hall



Syllabus – Course Objectives

1. Describe the way that human societies use (and reuse) material & energy resources;
2. Discuss the issue of human population sustainability based on resource use;
3. Compare different approaches to understanding the significance of resource scarcity;
4. Discuss the potential for human societies to achieve long-term sustainability without suffering massive & catastrophic decline.
5. Understand & discuss important local- & global-scale environmental issues and events.



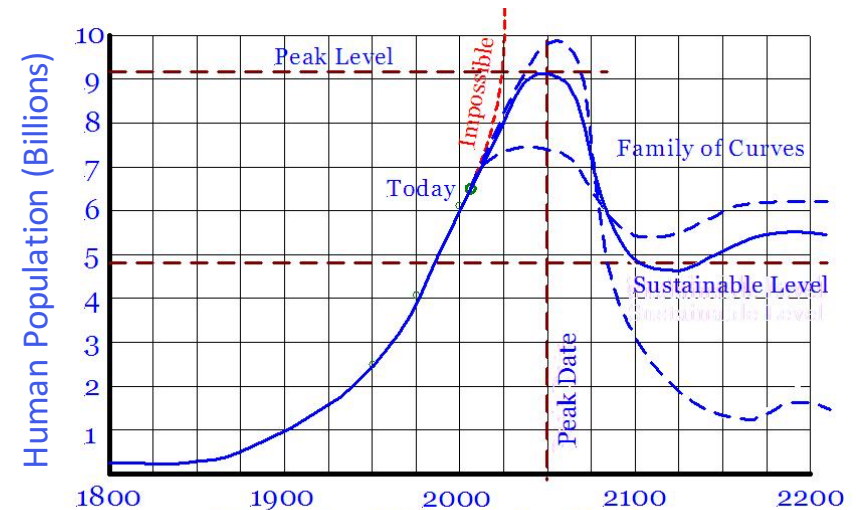
<http://www.lunarpedia.org/index.php?title=File:WorldPopulation01.jpg>



© AP/Getty Images

Syllabus – Course Objectives

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<http://www.lunarpedia.org/index.php?title=File:WorldPopulation01.jpg>



© AP/Getty Images

Syllabus – Course Expectations and Grading

- **Attend class and arrive on time.** Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies:
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.
- Complete assigned readings **prior to the class for which they are assigned.**
- **Participate** in class discussions, including your thoughts on the assigned readings and lectures. Learning is more than passive accumulation of information, and we will be asking a lot of questions in class to encourage discussion.
- **Grading Scale:** A (≥ 93), A- (≥ 90 & < 93), B+ (≥ 87 & < 90), B (≥ 83 & < 87), B- (≥ 80 & < 83), C+ (≥ 77 & < 80), C (≥ 73 & < 77), C- (≥ 70 & < 73), D+ (≥ 67 & < 70), D (≥ 63 & < 67), D- (≥ 60 & < 63), E (< 60). GPA info.: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.



Syllabus – Course Expectations and Grading

Participation (15%): You cannot receive an A in this course without actively participating. Students earn their participation grade by consistently attending class, asking and answering questions (**based on your reading assignments ahead of time**), and offering opinions on course topics and current events

“Participation—that's
what's gonna save the
human race.”

PETE SEEGER 1919 - 2014
rest in peace

<https://www.pinterest.com/pin/150026231311610932/>

Syllabus – Course Expectations and Grading

Current Events Posts (30%): Every other week students are required to seek out, post, and comment on one current event related to the environment, ecology, energy, human populations, and/or their interactions. Current events may come from any source (newspaper, magazine, journal article, internet resource) as long as they are **citable** (i.e., you are able to identify the author, publisher, and publication date) and **recent** (within the past month).

THE HILL

2015 CHEVROLET MALIBU
DRIVE TO YOUR HEART'S CONTENT
WITH AN EPA-EST. 36 MPG HWY

TRENDING: Donald Trump | Iran | Planned Parenthood | Sunday shows
SPONSORED: America's Nuclear Energy Future

NEWS POLICY REGULATION BLOGS BUSINESS CAMPAIGN OPINION CONTRIE

BALLOT BOX
State Dept. turns up thousands of emails...
03:05pm

FINANCE
IRS: Taxpayer breach larger than first...
02:36pm

HEALTHCARE
Lawmakers ask DOJ for enforcement info on...
03:15pm

FLOI
Senators: Korean W...
02:07pm

HOME | POLICY | ENERGY & ENVIRONMENT

Rivers begin reopening after mine spill

11 COMMENTS



By Devin Henry - 08/17/15 08:27 AM EDT

Officials in Colorado and New Mexico have lifted their bans on using river water flooded by toxic sludge in an Environmental Protection Agency (EPA) spill earlier this month.

New Mexico officials reopened the Animas and San Juan rivers for water treatment purposes, as well as irrigation and recreational use, on Saturday night, the Farmington, N.M., *Daily Times*



Getty

White House: 'We will not back down' on climate fight

The plan that is the centerpiece of President Obama's climate change strategy would give states two more years to meet the first implementation goals.

By ALEX GUILLÉN | 7/29/15 9:08 AM EDT | Updated 7/29/15 3:25 PM EDT

Share on Facebook

Share on Twitter

President Barack Obama's top aide vowed on Wednesday that the White House won't yield to Republican attacks on its landmark climate change rule, even as the administration prepared to soften a deadline for states to cut the greenhouse gases from their power plants.

OPINION:

Energy & Environment

+ Follow (30)



Goodbye Mercury Rule, Hello Clean Power Plan?

BY BRIAN POTTS AND ABIGAIL BARNES - The Supreme Court's recent decision could pave the way for another landmark (and nearly just as expensive) EPA regulation, the Clean Power Plan.

Capital Flows, Contributor

Global Energy Targets For The Next 15 Years

Bjorn Lomborg, Contributor

Oil Economy In ND Remains Strong Despite Myths

James Taylor, Contributor

Fossil Fuel Divestment: Flight From Reality

Robert Bradley Jr., Contributor

Syllabus – Course Expectations and Grading

Each post (*worth up to 10 points*) will consist of a **two-paragraph write-up**. In the first paragraph students must identify the author, publisher, and publication date of the source material and briefly summarize the content (e.g., who, what, when, where, why?).

In the second paragraph students should assess the validity of the information presented (is it backed up by scientific study & consensus?), discuss the event's relevance/importance, & describe connection between the event and the course.

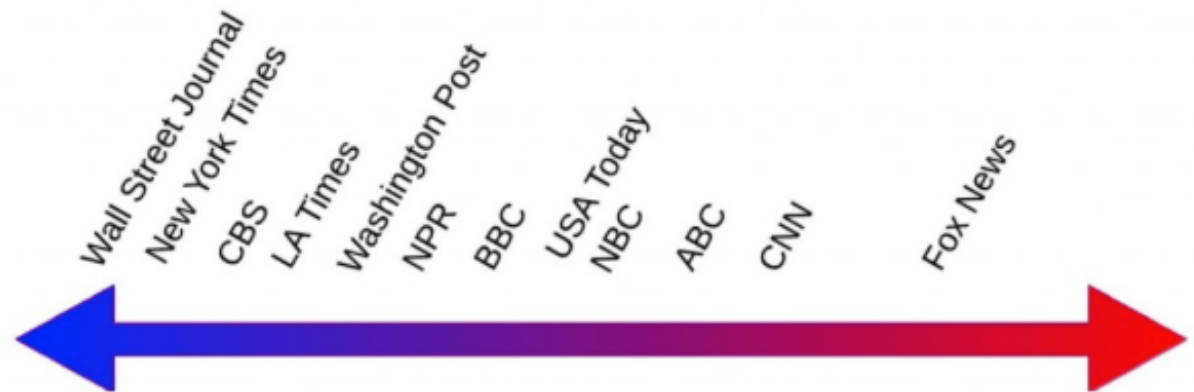
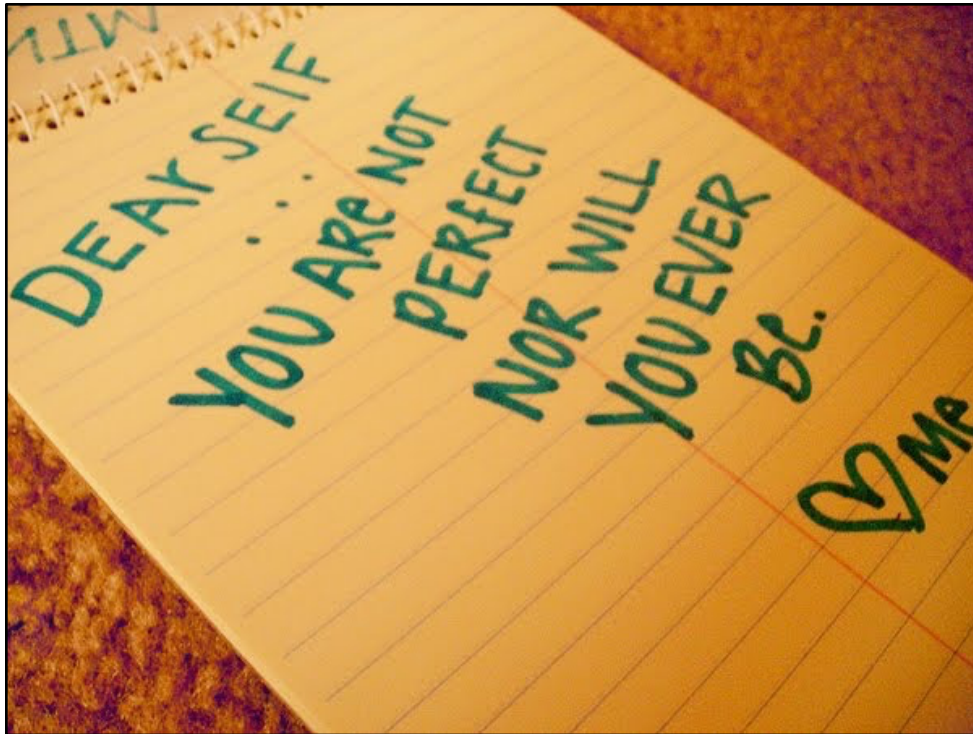


Figure from Harbold (2013), using data from Groseclose and Milyo (2004).

Syllabus – Course Expectations and Grading

In alternating weeks, students will be assigned one of their classmates' write-ups to formally review. Each review (*also worth up to 10 points*) must assess: 1) Did the write-up adequately identify the source and sufficiently summarize the event? 2) Was it overly critical or not critical enough? 3) What (if any) elements of the event's relevance and connection to the course were missed?



Syllabus – Course Expectations and Grading

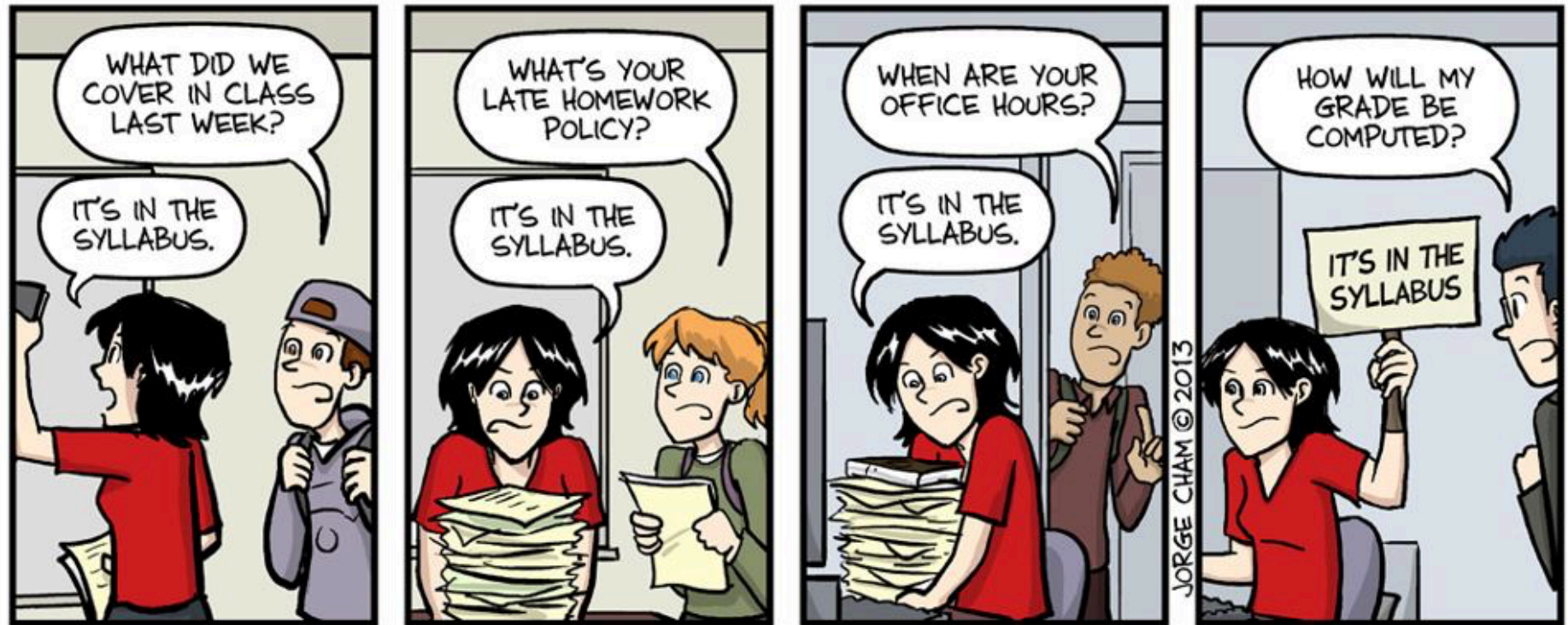
Presentations (30%): Working in small groups, students will research specific topics over several weeks and prepare two **in-class presentations**. Additional details to follow. See syllabus for schedule.

Final Paper (25%): Students will write an original, well-written and thoroughly researched synthesis paper (≥ 6 pages, single spaced, 12-pt font, 1" margins), focused on an emerging topic or event in the broadly defined area of "sustainability."

A brief (2-paragraph) summary of your chosen topic is due to the instructors by September 24th. Identify potential topics by drawing from your own experiences and interests, current event posts (yours *and* your classmates'), and material from the book and other relevant courses. Contact the instructors if you have a hard time identifying a topic of interest.

Week	Date	Topic	Readings*	Assignments**
1	8/27/15	Course Overview, Syllabus Review	---	---
2	9/3/15	Introduction to PWD and the “State of the Planet”	Chapters 1-2	CE, Presentation 1 Topic Assigned
3	9/10/15	Visions of the Future	Chapter 3	CE Review
4	9/17/15	Introduction to Systems Ecology	Chapter 4	CE
5	9/24/15	IN-CLASS PRESENTATION 1	---	CE Review, Presentation 1 Due
6	10/1/15	Systems Review & the Pulsing Paradigm	Chapter 5	CE
7	10/8/15	It's All About the Money: Population, Economy, and Wealth	Chapters 6-8	CE Review, Presentation 2 Topic Assigned
8	10/15/15	Introduction to Policy & Global Networks	Chapter 9	CE
9	10/22/15	Energy Policy	Chapter 10	CE Review
10	10/29/15	National vs. Personal “Sustainability”	Chapter 11-12	CE
11	11/5/15	Transitioning: The Way Down	Chapters 13-14	CE Review
12	11/12/15	Undoing Damage: Ecological Restoration	Chapters 15-16	CE
13	11/19/15	IN-CLASS PRESENTATION 2	---	CE Review, Presentation 2 Due
14	11/26/15	Thanksgiving, no class	---	---
15	12/3/15	Get Ready! Sharing Knowledge and Preparing for Action	Chapters 17-19	Final Paper Due

Syllabus – Questions?



IT'S IN THE SYLLABUS

This message brought to you by every instructor that ever lived.

WWW.PHDCOMICS.COM

Prosperity?



Prosperity?



Prosperity: the state of being prosperous. Syn: *success, profitability, affluence, wealth, opulence, luxury, the good life, milk and honey, (good) fortune, ease, plenty, comfort, security, well-being*

Prosperous: successful in material terms; financially successful; flourishing physically; growing strong and healthy.



<http://everlution.co/wp-content/uploads/2015/02/prosperity.png>

Prosperity?

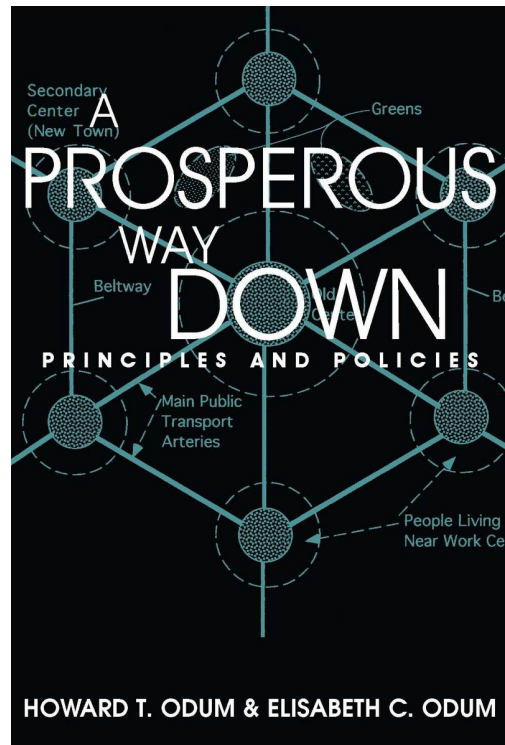
Raises three (probably more) important questions:

1. **How do we measure prosperity?**
2. Why are we in such a prosperous time (relatively speaking)?
3. Does it have to end? If so, can we control the descent?

A PROSPEROUS WAY DOWN Principles and Policies



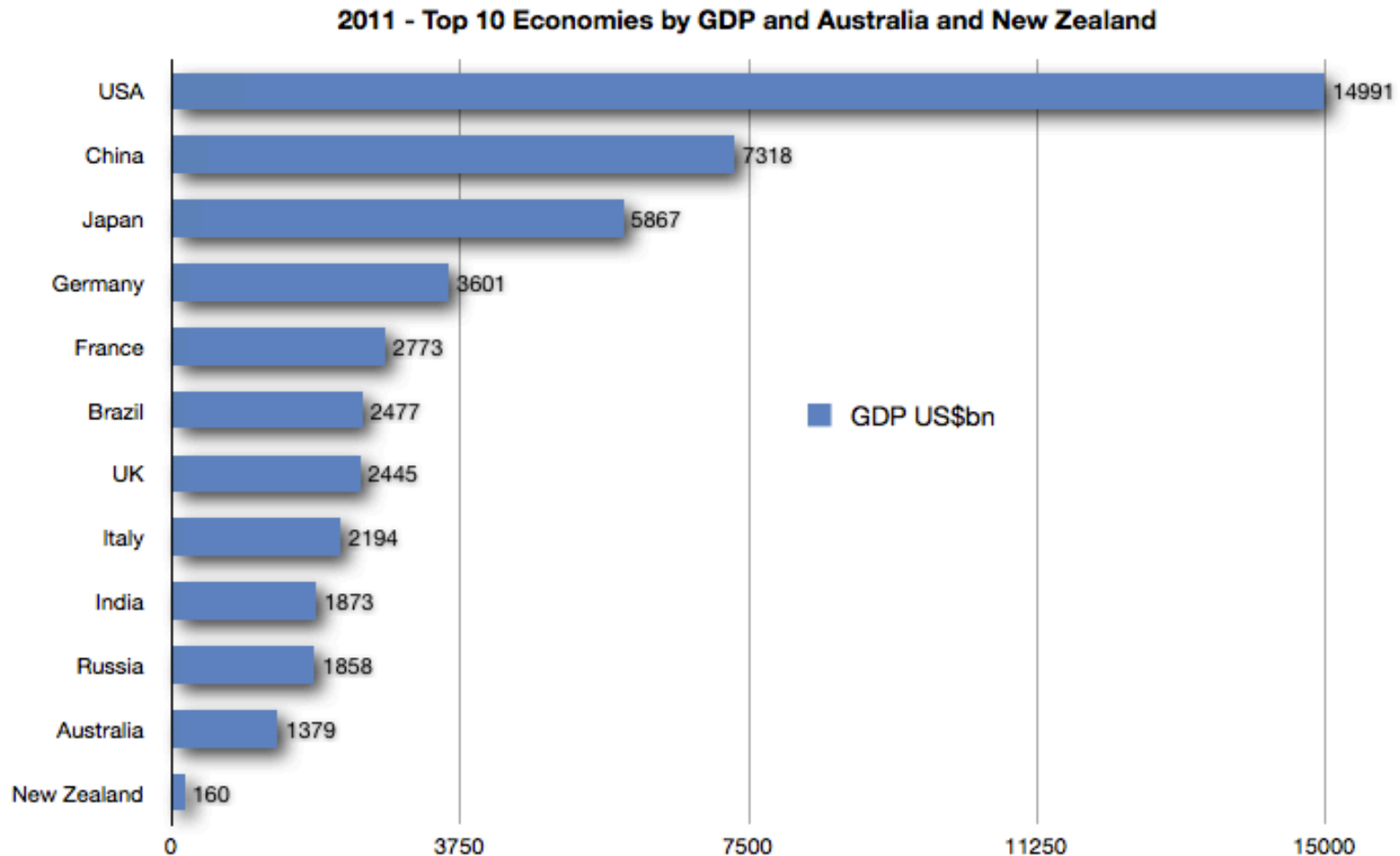
Howard T. Odum with
Elisabeth C. Odum



How Do We Measure Prosperity?

How Do We Measure Prosperity?

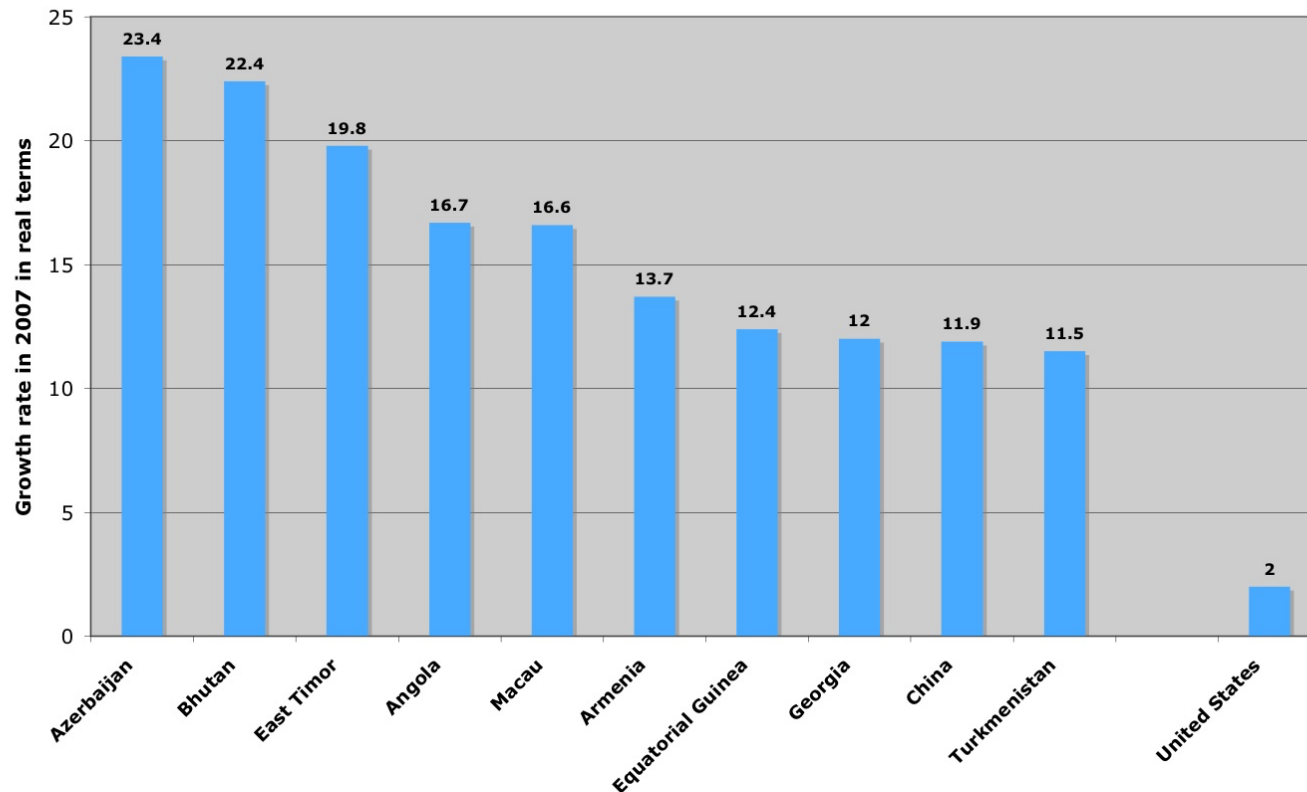
Gross Domestic Product (GDP): the monetary value of all goods and services produced within a nation's geographic borders over a specified period of time



How Do We Measure Prosperity?

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Top Ten Countries in GDP Growth, and the United States

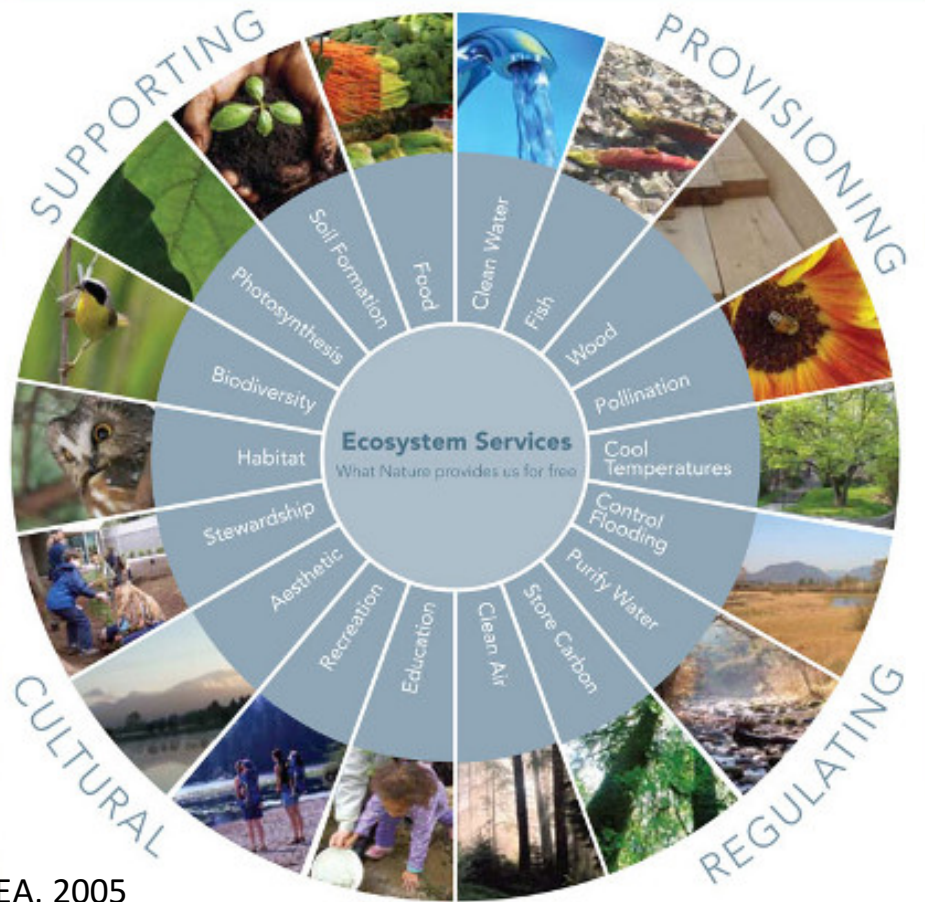


Data from nationmaster.com

http://www.nationmaster.com/graph/eco_gdp_rea_gro_rat-economy-gdp-real-growth-rate

How Do We Measure Prosperity?

Natural Capital: the land, air, water, living organisms of the Earth's biosphere (and their functions) that provide us with ecosystem goods and services imperative for survival and well-being; the basis for all human economic activity.



How Do We Measure Prosperity?



**GROSS NATIONAL
HAPPINESS**

The essence of the
philosophy of Gross
National Happiness is the
peace and happiness of
our people and the
security and sovereignty
of the nation.



How Do We Measure Prosperity?



GROSS NATIONAL HAPPINESS

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GNH

Living Standards

- Assets
- Housing
- Household per capita income

Psychological Wellbeing

- Life satisfaction
- Positive emotions
- Negative emotions
- Spirituality

Health

- Mental health
- Self reported health status
- Healthy days
- Disability

Time Use

- Work
- Sleep

Education

- Literacy
- Schooling
- Knowledge
- Value

Cultural Diversity and Resilience

- Speak native Language
- Cultural Participation
- Artistic Skills
- Driglam Namzha

Good Governance

- Gov't performance
- Fundamental rights
- Services
- Political Participation

Community Vitality

- Donations (time & money)
- Community relationship
- Family
- Safety

Ecological Diversity and Resilience

- Ecological Issues
- Responsibility towards environment
- Wildlife damage (Rural)
- Urbanization issues

References

- Groseclose, T., & Milyo, J. 2005. A measure of media bias. *The Quarterly Journal of Economics*, 1191-1237.
- Harbold, K. 2013. Exploring Political Bias with the Bitly Media Map. datascience@berkeley Blog: <http://datascience.berkeley.edu/data-media-map-bitly/> [verified 19 Aug 2015].
- MEA. 2005. *Ecosystems and human well-being*. Vol. 5. Washington, DC: Island Press, 2005.

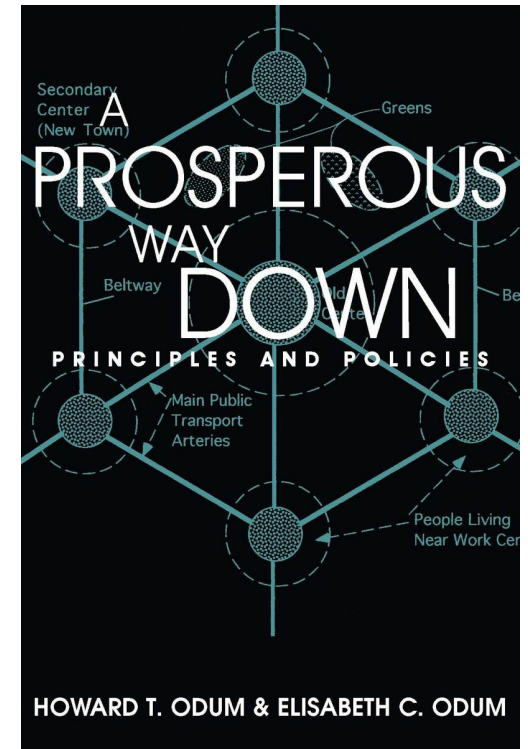
Coming Up

For Next Week

- Read Chapters 1-2 in PWD (before class)
- Current Events 1 Due (11:55 PM, 9/2/15)

Thursday 9/3/15 Lecture

- Introduction to PWD and “State of the Planet”
- Presentation 1 Assigned



By 9/24/15

- Submit 2-paragraph summary of your chosen topic for final paper