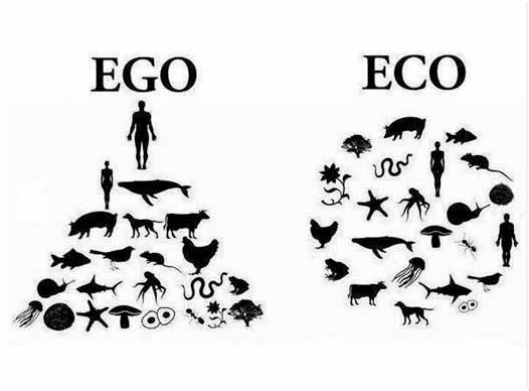

Version 1.1.2017

Power and Environment (LAS 6938 section 014G & ANG 6930 section 2245)
Political ecology perspectives on conservation and development

Spring 2017, Wednesdays period 7-9 (1:55-4:55)
First class & most classes meet in Grinter Hall 376 (Backup classroom is TUR 2303)
Susan Paulson: spaulson@latam.ufl.edu, (352) 273 4730, Grinter Hall 319F
Office hours: Tuesdays 11:00-3:00. Other times always welcome by appointment

This course brings together natural and social scientists and practitioners to ask: How does power work in and through ecosystems, economies, environmental governance systems, institutions, bodies and science itself? Participants explore environmental challenges and conflicts on scales ranging from local farms and forests to earth systems of atmosphere, hydrosphere and biosphere. Attention is drawn to unequal distribution of environmental benefits and burdens, asymmetrical exchange of material and energy, and contested understandings of human and other nature.

Latin American cases, visions and responses are foregrounded. Materials include recent publications like Pope Francis' Encyclical on Care for Our Common Home, The EcoModernist Manifesto, UN Sustainable Development Goals, and the new Framework Convention on Climate Change. As course participants critically analyze diverse approaches to conservation and development, they also work toward building positive alternatives for the future.

See the accompanying weekly schedule for readings and assignments

Issues to be explored

Sustainable development: option or oxymoron?
Food, health and bodies in uneven environments
Gender, race and class in conservation and development
Biodiversity and biopolitics: genes, transgenes, genomics
Commoditization and privatization of nature, people, pollution
Market-driven approaches: ecosystem services, certification schemes, REDD
Urban social metabolism from slums and McMansions to bright green cities
Environmental social movements: indigenous, ecofeminist, landless, etc.
Ecological footprints, carbon footprints, water footprints
Sustainable transportation strategies
Nature preserves, parks and people
Degrowth and postdevelopment
Deep Ecology and eco-spirituality
Conservation and conflict

"Despite, and because of, great acceleration of scientific knowledge and technology over the last few hundred years, human-nature systems are in danger of collapse" (Parra and Walsh 2016: 229).

"Anyone who believes in indefinite growth on a physically finite planet, is either mad or an economist."
— Economist Kenneth E. Boulding

LITERATURE AND OTHER MATERIALS

- Students are not required to purchase any books or other course materials.
- Most required **readings** are available through UF libraries.
- Book chapters and forthcoming 2017 publications are posted on Canvas.
- V**ideos, podcasts, news and other materials** are available on the internet OR on Canvas.
- A number of assigned readings are available in English, Portuguese and Spanish.

Degrowth: A vocabulary for a new era, edited by D'Alisa, G., F. Demaria and G. Kallis (2014), can be downloaded for free from the Academia.edu site of instructor, Susan Paulson.

LEARNING OBJECTIVES

The overall goal of this course is to motivate and empower participants to see and to analyze environmental issues in new and transformative ways.

Students who engage actively in this course will develop the capacity to:

1. Identify and describe power-environment dynamics in empirical cases involving agriculture, forests, wildlife, urban environments, energy, and other domains.

2. Define and apply contested concepts including conservation, development, sustainability and nature.

3. Investigate the distribution and exchange of natural resources and waste.

4. Interpret and contrast visions and discourses on human-environment relations, including sustainable development, eco-modernism, eco-spiritualism, buen vivir and degrowth.

5. Use analytic methods including ecological footprint, value chain analysis, ecosystems assessment, embodied consumption, consumption diaries and material flows analysis.

6. Assess various institutional and sociocultural arrangements for environmental governance, together with competing models for conservation and development.

7. Observe how diverse socio-natural worlds are produced, reproduced and sometimes transformed.

8. Explore visions and projects for building more equitable and sustainable futures.

9. Reflect critically on their own consumption and lifestyles, the socio-environmental impact of their life choices, and ways to forge more meaningful and sustainable lifestyles.

COURSE POLICIES

Attendance is required. Class meetings are a vital part of this course. All students are expected to complete assignments and readings before class, to arrive on time for each class, and to participate actively in classroom learning. Absences will be reflected in grades. The class will involve a great deal of interaction and discussion, and students will be rewarded for efforts to learn collaboratively with respect, enthusiasm and open minds.

Personal technology in the classroom. During regular class time students may not use personal technology devices (laptops, smartphones, mobile phones, iPads, and similar technologies). The instructor will indicate when devices may be used for select class activities. Exceptions will be made for students who use personal technology devices due to documented disabilities, students who anticipate emergency calls, etc.

UF HELPING RESOURCES

- **Latin American and Caribbean Collection at UF Libraries**: Specialized staff support use and enjoyment of the 500,000 volumes, 50,000 microforms, thousands of current and historical serial titles and digital resources in this world-class collection. LACC library staff provide expert help in online searches for research and study materials.

- **Academic Writing, Grammar and Style:** The UF Writing Studio is committed to helping University of Florida students and faculty meet their academic and professional goals by becoming better writers. We support independent learning and scholarship by providing one-on-one consultations, workshops tailored to specific classes (graduate and undergraduate), and faculty retreats focusing on publishing original research. Students and faculty at all levels and in every discipline are welcome!

- **Technical difficulties with E-learning in CANVAS**: Contact the UF Help Desk at Learning-support@ufl.edu or (352) 392-HELP, then select option 2.

- **Personal Challenges:** Students experiencing crises or personal problems that interfere with general wellbeing are encouraged to utilize the university's counseling resources. The Counseling Center and Student Mental Health both provide confidential counseling services at no cost for enrolled students. Resources are also available for students seeking to clarify career and academic goals and to deal with academic challenges.
  - University Counseling Center, 301 Peabody Hall, 392-1575; personal and career counseling.
  - Student Mental Health, Student Health Care Center, 392-1171, personal counseling.
  - Sexual Assault Recovery Services (SARS), Student Health Care Center, 392-1161.
  - Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

UF POLICIES

- **Students with Disabilities Act:** The Dean of Students Office coordinates needed accommodations of students with disabilities. This includes the registration of disabilities, academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services, and mediating faculty-student disability related issues. *Dean of Students Office*, 202 Peabody Hall, 392-7066.
- **Software Use:** All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator.
- **Academic Misconduct:** Academic honesty and integrity are fundamental values of the University community. Work submitted for credit by UF students should not include any form of plagiarism, cheating or unauthorized aid. Unless an assignment is explicitly identified as collaborative, all work should be completed independently. Students should understand and follow the Student Honor Code that they signed upon enrollment at the University of Florida: *"I understand the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."*

LEARNING METHODS

This course brings together ideas and approaches from disciplines including biology, ecology, anthropology, geography, forestry, economy, sociology, agronomy, political science, environmental studies, development studies, and religious and spiritual studies. Attention is paid to tensions and possibilities among the different assumptions, purposes, and criteria for truth or usefulness.

Course participants meet in person once each week, while conversations and interactions develop continually through a virtual intellectual community interconnected through the course website. Most classes start with a short presentation by a student, and may include a lecture by instructor, discussion about the week's readings, and some kind of participatory learning activity. Grades will be based on engagement in a series of learning activities; detailed guidelines for each, together with expectations for student performance, are included below.

GRADED LEARNING ACTIVITIES

Learning activity	**Maximum points to be earned**
Discussion board: comments and questions on weekly readings posted in CANVAS	20 **(**10 commentaries @ 2 points each)
Analysis paper, written collaboratively in pairs	20 (10 pts. draft + 10 pts. final)
Attendance and participation	10
Critical reviews of 2 relevant events outside-of-class	10 (2 @ 5 points each)
5-part activity (40 points total)	
Consumption diary: practice and meaning	5
Critical engagement w ecological footprint (short paper)	5
Embodied material consumption (short paper)	5
Synthesis paper: Analysis of my role in ecological and economic flows and of power and pathways available for me to influence global value chains	20
Presentation of work via slide(s) and 3 minute talk	5

Letter grades will be implemented using the following scale

		78-79.99	C+	60-62.99	D-
95-100	A	73-77.99	C	0-59.99	F
90-94.99	A-	70-72.99	C-		
88-89.99	B+	68-69.99	D+		
83-87.99	B	63-67.99	D		
80-82.99	B-				

GUIDELINES AND ASSESSMENT CRITERIA FOR LEARNING ACTIVITIES

Written work

All written work for this course should use US punctuation and follow standards in Chicago Manual of Style, accessible online at UF libraries. Resources and quotes should be properly cited, and references listed as described in The Chicago Manual of Style Author-Date system. Written materials should be uploaded onto CANVAS in Word documents (**not PDF**), unless images or figures require other format. Please include your name in document title.

Every student is encouraged to visit the UF writing studio for support in developing scholarly writing skills and strategies: http://writing.ufl.edu/writing-studio/ On each student's first paper, instructor will mark punctuation and style errors, but not subtract points. Errors that are repeated in later papers are penalized.

Comments and questions on weekly readings posted in CANVAS discussion space

Before midnight each Tuesday, students may post on CANVAS critical reflections on readings and videos assigned for the week, especially selected options. Keep entries under 300 words, respond briefly to postings by classmates, and try to move from monologue statements toward dialogue conversations among diverse voices.

Each posting should do *at least one* of the following:

- Identify and define one key concept in the readings.
- Provide and discuss a quote from readings/videos that expresses an idea or argument that you think is valuable or interesting.
- Provide and discuss a quote from readings/videos that expresses an idea or argument that you doubt or disagree with, or that raises questions or confusions.

The insights and questions circulated on our electronic discussion board serve to enrich classroom conversations. For each class meeting, two students will work together to guide and curate discussion board posts and to lead in-class discussion motivated by readings and posts.

Power-environment analysis paper written in pairs

Working in pairs, students produce papers that engage two or three contrasting responses to an environmental issue, and that identify power operating on various scales and places in each position and approach. An example of an issue might be: How to supply global demand for food without further degrading the environment? Competing responses might be: (A) Expand high tech agroindustries and GMOs. (B) Minimize waste, lower global meat consumption, and redistribute nourishment to reduce obesity *and* starvation. (C) Shift support to local food grown via agroecology, permaculture and other low-impact means. Papers draw on course concepts and materials, and complement these with resources discovered outside of class.

Target length is 2000 to 3000 words. All resources and quotes should be properly cited, and full references listed as described in: http://www.chicagomanualofstyle.org/tools_citationguide.html

Each writing pair will submit two versions of the paper: an initial version that will be ruthlessly critiqued by instructor, and a final version that responds to suggestions.

Each version of the paper may earn up to 10 points according to the following criteria:

Criteria	A successful debate paper will:	points
name challenge	Clearly identify the environmental challenge to be addressed	1
data	Present key data and information on the challenge, citing sources	1
context	Describe relevant history, geography and cultural background, identifying power dynamics operating in each	1
connect w. course	Use relevant ideas and information from at least three materials assigned for this course	2
competing responses	Identify 2 or 3 ways to address the challenge, review literature on each w attention to positioning of authors/orgs	2
analysis	Assess pros and cons of each alternative (for differently located people and places), with special attention to power	2
writing and references	Show correct punctuation and grammar, subject-pronoun coordination, full attribution of quotes and paraphrases, complete reference list according to The Chicago Manual of Style Author-Date system	1

In class, each student pair will present a very brief (2-3 minute) presentation on their debate paper.

Critical review of 2 relevant events outside of class

Go to 2 lectures, performances, workshops or other events that address environmental issues in Latin America. Write a one-page paper on each event, in which you

- indicate the title, place, time and presenter(s) of the event
- identify the main message(s) communicated by the event
- discuss an aspect of the event that you found interesting, motivating, insightful
- discuss an aspect of the event that provoked disagreement, frustration, boredom
- connect the event to content or ideas covered in our course readings and lectures
- include one sentence, statement or image that impacted you
- Post a report/comment/photo of the event to social media, either tagging the Center for Latin American Studies or using the hashtag #UFLAS.

All reviews must be submitted via canvas before the last day of class.

Center events calendar: http://www.latam.ufl.edu/calendar/
Tropilunch seminar, 12:45 every Tuesday in Grinter 376 http://www.tcd.ufl.edu/news/tropilunch
TCD news and events http://www.tcd.ufl.edu/news-events
UF Center for Latin American Studies Annual Conference, "Cuba and the US in the 21st Century," March 30 - April 1, 2017

Presentation

Most class meetings start with an educational presentation by one or more students. Presentations communicate issues that students are passionate about and/or personally involved in, and find ways to make connections with one or more course readings and concepts. Presentations may include power point slides or other audiovisual aids. Solo presentations/discussion should last 10 to 15 minutes; two students may work together on a presentation/activity/discussion that takes 20 to 30 minutes.

5-part activity

(1) Consumption diary: practice and meaning

Keep a diary of everything you consume during 24 hours. In addition to obvious commodities (food, water, shampoo) pay attention to the light, heat, electricity, transportation services you use; the technology you access (television, books, computers); the information and entertainment you "consume." Feel free to add any additional information about your consumption habits. Multiple approaches and schema are welcome: students doing this exercise have identified between 20 and 200 instances of consumption.

Select five acts or moments of consumption, and write about the meanings, emotions, decisions that are attached to or evoked by each for you. Be aware of the feelings and thoughts (or lack thereof) that accompany each act, and search for any forces or relations of power operating therein.

(2) Critical engagement with ecological footprint (short paper)

Write a brief paper (600-800 words) that addresses the following.

- Define an ecological footprint, and explain how it is calculated. Mention water footprint, carbon footprint, etc.
- Describe how National Footprints are calculated, and how these calculations are (and may be) used by governments.
- Discover something interesting or curious about eco-footprint patterns across countries.

- Name two online footprint calculators that serve as interactive learning experiences for children and/or adults; describe and compare your experiences doing each exercise.
- Using your **quantitative** results, describe your ecological footprint as determined in online activities. Point out differences in your experiences and results with different calculators you used.
- What insights did the experience provide about how you might reduce your footprint?
- What are some of the benefits and limitations of each of these personal footprint calculators as educational and awareness-raising tools?

Process:
Study Eco Footprint on main site http://www.footprintnetwork.org/en/index.php/GFN/
Look at Global Footprint Network's National Footprint Accounts 2016 Public Data Package
Check out year 2016 national footprint materials

Using at least two of the following websites (or similar ones that you identify), do exercise that explore your personal ecological footprint and provide suggestions for managing your footprint.

Some basic quizzes ~~ search for more online
http://www.footprintnetwork.org/en/index.php/GFN/page/personal_footprint/
http://www.earthday.org/footprint-calculator
https://islandwood.org/footprint-calculator/
http://ecocamp.us/eco-footprint-calculator
http://www.myfootprint.org/

(3) Embodied material consumption (short paper)

Write a brief paper (500-800 words) about 1 good or service selected from your consumption diary.

- Research the life cycle of selected commodity.
- Identify material and energy that may be embodied during its life cycle, and emissions/wastes produced along the way.
- Comment on use of emergy, HAANP, material flows analysis or other measurement systems.
- Map out a model life cycle of your chosen good or service.
- Chart and analyze power dynamics that support and shape the process.

"Embodied Material Consumption" is the energy, water and all other resources that have been used to produce a good or service and to transport it to the place of consumption, together with the waste and emissions generated along the way. When I do a web search, for example, I not only use the electricity powering my laptop, but also the energy and materials used to produce the laptop and—more substantially—giant servers and distant data processing centers. You may not be able to trace the life cycle of the exact kiwi that you ate for breakfast; instead look on company websites and other sources to find out what you can about the life cycle of an average kiwi sold by a certain company or consumed in the US. You are welcome to use information and quantifications already compiled by others – just cite the sources.

The report should include a timeline roughly representing the life cycle of your good or service. Here is an (incomplete) example of some elements that make up the embodied material consumption of a hamburger:

- Water, sun, soil to grow grass for cow pasture
- Water, sun, soil to grow soy and corn crops for feed
- Agrochemicals to fertilize, insecticide, etc.
- Tractor and fuel to plant and harvest crops
- Factory that turns soy and corn into balanced feed
- Fuel to transport feed to cattle farms
- Methane greenhouse gas emissions in form of cow farts
- Veterinary drugs, growth hormones, nutraceuticals for cattle
- Truck/train and diesel to transport cattle to slaughterhouse
- Materials to construct, light, power and clean slaughterhouse

- Materials to construct, light, power and clean slaughter and packing machines
- Energy for freezer compartments to store meat
- Freezer truck and diesel to transport meat to restaurant
- Energy for fridge or freezer in restaurant
- Gas to cook on grill
- Styrofoam shell to serve burger

  Physical consumption of one Yummy Hamburger
- To landfill: styrofoam shell, serving bag, napkins
- To atmosphere: emissions from cooking
- Etc.

Finally, identify some forces and relations of power that support the current dynamics of value chains, and that might be activated to change them in positive ways. The following news brief, for example, suggests that the enormous impacts of energy use and emissions related to internet use could be mitigated by using human brain power to achieve certain technological innovation.

Your Video Binging Is Killing The Planet, But There May Be A Solution

Following are excerpts from our reading, and other links that might be interesting.

People and the Planet 2012, 48-49. As international trade increases, the production of goods can become increasingly detached from direct consumption. Goods exported from one country to another carry with them **"embodied" material consumption**, which is necessary for their manufacture. Thus the water use and CO2 emissions of More Developed Countries appear lower than they would under full accounting, because they are partially outsourced to Less Developed Countries.

Embodied Water. People and the Planet 2012, 51. Virtual or **embodied water** refers to the amount of freshwater (including soil water) used during the production process of a good or service. Producing goods and services generally requires water (Hoekstra 2003). For example, it requires about 1,000 cubic meters of water to produce a ton of grain (Hoekstra and Hung 2003). Countries limited in available freshwater rely on importing food to compensate for lack of production ability (Brown and Matlock 2011).

Embodied Energy. From wiki Embodied Energy is the sum of all the energy required to produce any goods or services, considered as if that energy was incorporated or 'embodied' in the product itself. The concept can be useful in determining the effectiveness of energy-producing or energy-saving devices, or the "real" replacement cost of a building, and, because energy-inputs usually entail greenhouse gas emissions, in deciding whether a product contributes to or mitigates global warming. One fundamental purpose for measuring this quantity is to compare the amount of energy produced or saved by the product in question to the amount of energy consumed in producing it.

Embodied energy is an accounting method which aims to find the sum total of the energy necessary for an entire product life-cycle. Determining what constitutes this life-cycle includes assessing the relevance and extent of energy into raw material extraction, transport, manufacture, assembly, installation, disassembly, deconstruction and/or decomposition as well as human and secondary resources. Different methodologies produce different understandings of the scale and scope of application and the type of energy embodied.

I sandwich

Embodied energy

You can find a pdf of the book Stuff: The Secret Lives of Everyday Things on the following link, and/or read it online with Google books.

The Secret Life of Your COMPUTER. This article was extracted with permission from *Stuff: The secret lives of everyday things* by J. Ryan and A. Durning. Published by Northwest Environment Watch, Seattle WA, 1997.

(4) Synthesis paper: Analysis of my role in ecological and economic flows and my power to influence global value chains

Write a paper that synthesizes aspects of research and thought from steps 1, 2 and 3. The essay of 2000-3000 words may include excerpts from your consumption diary, value chain model, or other, as appendices.

The paper should focus on one item or instance of consumption. Build on your embodied material consumption work to develop a LIFE CYCLE of the item from its roots in natural resources to its consumption and waste disposal. Identify several dimensions of the process that involve unequal exchanges (economic or ecological), and that are conditioned by relations of power. Discuss ways in which those relations work: did a powerful corporation get the rights to extract valuable resources from a poor country? Did certain actors perform low paid and dangerous work in mines? Or exhaust their local soils and ecosystems intensifying agricultural production? Did lobbyists pressure lower regulations?

Look at Juliet Schor's article, finding inspiration in the ways that she analyzes power relations in the value chains of bananas and clothing. Note her identification of **precise** salary and benefit advantages obtained through off-shore labor, **specific** expressions of military and political power (invasion of Guatemala), **particular** manipulation of international convention (WTO), etc.

Schor, Juliet. Prices and quantities: Unsustainable consumption and the global economy. Ecological Economics 55 (2005) 309 – 320

Check out papers in Special Section on "Ecologically unequal exchange and ecological debt," edited by Alf Hornborg and Joan Martinez-Alier.

(5) Presentation

The last step requires portraying your analysis visually in one or two slides, and conveying it to the group in a 3 minute presentation. A key part of this challenge is finding ways to present complex systemic research in concise clear messages.