ENVS 4/555 Sustainability – Spring 2019

MW 2-3:50 199 Esslinger Hall; Credits: 4
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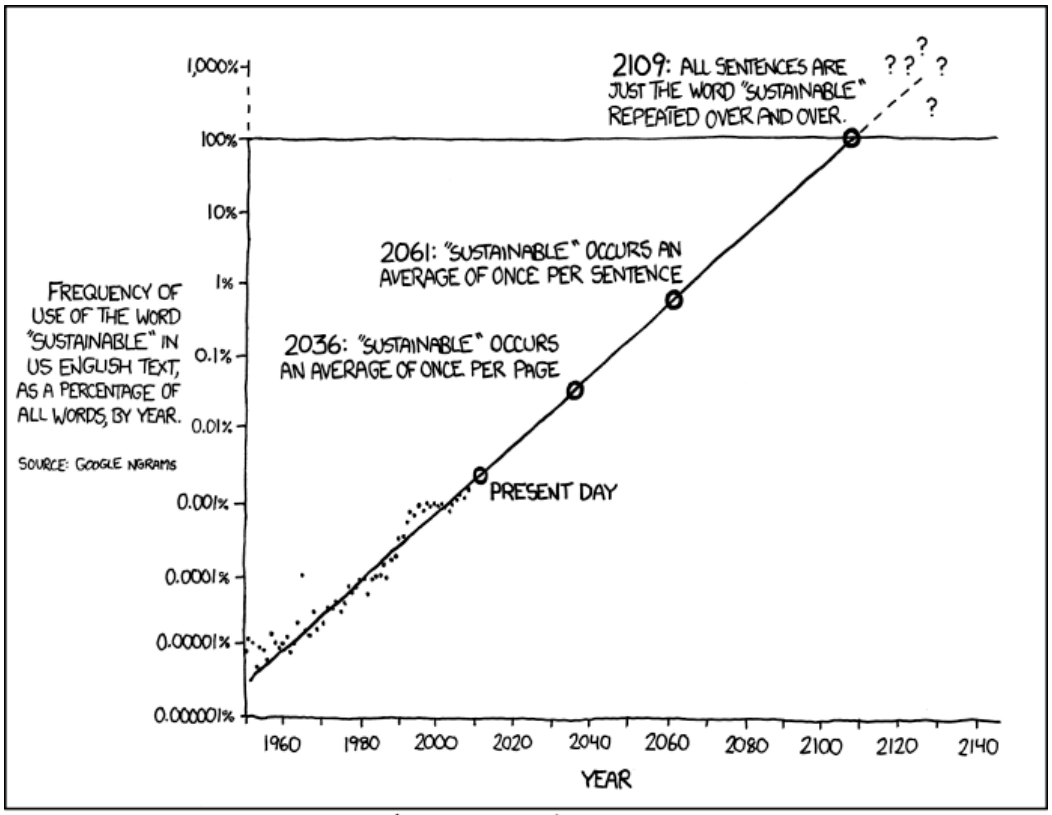

THE WORD "SUSTAINABLE" IS UNSUSTAINABLE.

In the last few decades we have heard the word "sustainability" used more and more frequently, but what does it *mean*? Some cynics would say, with some validity, that sustainability has become a buzzword—often with little or no clear meaning. Yet, with the world facing the greatest environmental crises (climate change, mass extinctions, etc.) that modern humans have ever known, we cannot afford cynicism. The concept of sustainability has a rich history and potentially great conceptual power. As a roadmap to the future, it is more important than ever that we utilize the power of sustainability to its fullest potential. As we work hard in practical ways to ensure a sustainable future, we will need to be hard-headed and rigorous in how we apply the ideas of sustainability. Fortunately, the concept of sustainability has been discussed and developed by scholars and scientists for generations. Unfortunately, many of our actions do not take advantage of that reservoir of knowledge. This course seeks to bring to the attention of a new generation of students the valuable conceptual tools of sustainability that are often neglected—tools that we need more today than ever.

As the dominant concept shaping our environmental actions today, it is essential that sustainability not be allowed to slip into intellectual muddiness, since, by *any* reasonable definition, the world is today becoming less sustainable. It may be said without exaggeration that how we *think* about sustainability today may shape the future of the planet.

A careful examination of the varying conceptions of sustainability reveals disagreements about core social, cultural, and ecological assumptions, such as: *What* is to be sustained (economic growth? ecosystems services? ecosystems and species independent of their economic value?). *Who* is to benefit (humans alive today? *which* humans? where? which future generations? what about other species?). Whose needs or values are to be sustained? And, how will we measure and know that we are making progress toward sustainability? An examination of sustainability is nothing less than of an examination of what we desire to be as a society, what values and cultures we prioritize, how we plan to achieve and measure our progress, how we understand our biophysical interactions with the planet, and what ethical obligations we have.

By learning the rich meanings of sustainability, students will be better positioned help achieve sustainability through rigorous thinking about how to make sustainability ecologically sound, socially effective, ethically and culturally defensible, and technologically achievable. This course is intended to help us find a path to a meaningful, just, and achievable sustainability.

course requirements

Preparation: This is a 4-credit class that meets two times a week, and ***this is a reading-intensive course***. Per UO policy, that means, students enrolled in this course must be prepared to devote four hours to reading and preparation for *each* class session in order to get a good grade. Additional time will be required to prepare sustainability reports.

In-class discussions: *This is a discussion-based course*. Full preparation for classes is essential in order to get a good grade in this class because 20% of your grade will depend on your participation and contributions to in-class discussions. The classroom will primarily be a forum for discussion rather than lectures. Fifty percent of your participation grade (10% of the overall grade) will be based on attendance and punctual arrival in class. Attendance will be taken during each class. The other half of your participation grade will be assigned on the basis of the consistency and quality of your contributions to discussions in class, including clear demonstration that you have read and understood the readings, as well as demonstrated improvement in quality of contributions to classroom discussions over the term.

Daily reading responses: To aid reading comprehension and reinforce the policy that students must come to class having read the assigned readings and be prepared to contribute to in-class discussions, students will submit the equivalent of a one-page reading response on the Blackboard Journals page. These are NOT just summaries of the readings; rather, these should describe your ideas in response to the readings, and what you see as their strengths, weaknesses, or omissions. These are the "so what" questions: what difference did these readings make in your understanding of the question of sustainability? Responses must be posted on the Canvas journals page before each day's class, and in total count for 40% of your grade.

Sustainability research reports: In addition to your contributions to classroom discussions and your daily reading responses, another 40% of your grade will be based on your contributions to a group "sustainability research report" that applies the concepts from the course to specific real-world problems or topics that invoke the concepts of sustainability. For example, businesses, governments, and non-governmental organizations often promote the idea of sustainability. A community may promote sustainable energy, transportation, or agriculture. Such projects exist at many scales, from global projects by international non-governmental organizations (such as the United Nations, or various environmental groups) or multinational firms (such as petrochemical firms who have recently promoted "sustainable energy"), to local communities or neighborhoods (for example, organic foods projects or local government activities such as the city of Eugene's "Sustainable Eugene" program). Your group will select a sustainability topic and then critically evaluate the principles and goals that underpin these programs by *specifically applying the concepts and readings we have covered in this course as tools for assessment. In short, in what ways do these projects, programs (businesses, etc.) think about and seek to achieve sustainability?* **Your group will do original scholarly research to answer these questions**. Groups will be required to post a 1-page prospectus of their project by Friday, April 26. In Week 10, each group will present to the entire class on whether and how these efforts uphold and achieve principles of sustainability.

Graduate requirements: Each graduate student must meet individually with the professor by the end of Week 2 to create a "Graduate responsibilities contract". Each contract will be drafted on the basis of the level of advancement and particular areas of need and interest for the graduate, but typically additional graduate responsibilities include at least four additional articles per week, or four books over the term. Articles must be from peer reviewed academic journals and must be at least 25 pages in length; books must be published by high quality academic publishers and must be at least 200 pages in length. The total number of additional graduate readings will be calculated to reach a total of 160 hours of engagement in the course. At least once during the term each graduate will be required to make a formal 20-minute presentation and discussion of their additional readings to the class as a whole, including a brief overview of the authors' arguments, a critical assessment, and synthesis of ideas from the additional readings with the "base" readings and concepts readings from the class. Graduates must be prepared to take questions on the additional readings from other students and the professor.

Classroom attendance and etiquette: Absences will be excused only in circumstances of serious and *documented* health or family emergency. If you are sick, go to a doctor or health center and get a note. Late reading responses will be accepted *only* in such circumstances. *Do not ask for exceptions*. To receive full credit for attendance and participation, students must display respectful and mature conduct, including: 1) TURN OFF YOUR CELL PHONE; 2) NO LAPTOPS (tablets, smartphones, etc.) WILL BE USED IN CLASS except when requested to do so; 3) show respect for all persons in the class, even if you do not agree. Failure to abide by these terms will result in a single warning, and then dismissal.

There are no required textbooks for this course. All required readings are posted on Canvas in PDF format

readings and schedule

Mon., April 3: Introduction and Overview

Wed., April 3: Collapse of Past Civilizations—Easter Island as Metaphor

Diamond, J. M. (Revised 2011). *Collapse: how societies choose to fail or succeed*. New York, Viking. Ch. 2

Week 2. The Fierce Urgency of Now

Mon., April 8: The Death of Birth

Kolbert, E. (2014). *The sixth extinction an unnatural history*. New York, Simon & Schuster Chs. 1, 8, 9

Wed., April 10: Uninhabitable Earth

Wallace-Wells, D. (2019). *The uninhabitable earth: life after warming*. NY, Tim Duggan Books. Pp. 3-48, 70-77

Week 3. Sustainability in the Past: History of the Future

Mon., April 15: Loathe this Growth—Ideas of Sustainability in Early Modernity

Caradonna, J. L. (2014). *Sustainability: A History*. New York, Oxford University Press. Chs. 1-2

Wed., April 17: Contemporary Sustainability Emerges

Caradonna, J. L. (2014). Ibid. Chs. 5-6

Week 4. Sustainable Capitalism

Mon., April 22 (Happy Earthy Day!): Green Capitalism

Lovins, A. B., et al. (1999). "A road map for natural capitalism." *Harvard Business Review* **77**(3): 145-158.

Wed., April 24: Green Capitalism in Action

Anderson, R. C. and R. A. White (2009). *Confessions of a radical industrialist: profits, people, purpose - doing business by respecting the earth*. New York, St. Martin's Press. Chs. 1, 4, 10 (in-class video: *A Passion for Sustainability*)

Week 5. Unsustainable Capitalism

Mon., April 29: Sustainable Capitalism—Anatomy of an Oxymoron

1) O'Connor, J. (1998). Is sustainable capitalism possible? *Natural causes: essays in ecological Marxism*. J. O'Connor. New York, Guildford Press**:** 234-253; **2)** Magdoff, F. and J. B. Foster (2010). "What Every Environmentalist Needs to Know About Capitalism." *Monthly Review* **61**(10): 1-30.

Wed., May 1 (May Day!): Degrowth & Socialist Alternatives

1) Exner, A. (2012). "Degrowth and Demonetization: On the Limits of a Non-Capitalist Market Economy." *Capitalism Nature Socialism* **25**(3): 9-27; **2)** Kapur, A. (1998). "Poor but Prosperous." *Atlantic* **282**(3): 40-45.

Week 6. Steady-State Economy

Mon., May 6: Why a Growth Economy Can't Work Ecologically

Jackson, T. (2017). *Prosperity without growth : foundations for the economy of tomorrow*. London; New York, Routledge, Taylor & Francis Group. Chs. 1, 3, 4, 6 (in-class archive video T. Jackson TED Talk, "Prosperity without Growth")

Wed., May 8: What Would an Ecologically-Based Economy Look Like?

1) Daly, H. (1993). "Steady-state economics a new paradigm." *New Literary History* **24**(4): 811; **2)** Jackson, T. (2017). (Ibid) Chs. 7-9, 11 (in-class archive video E.F. Schumacher *Small is Beautiful*)

Week 7. Measuring Sustainability

Mon., May 13: Ecological Footprint Analysis

1) Wackernagel, M., et al. (1999). "National natural capital accounting with the ecological footprint concept." *Ecological Economics* **29**(3): 375-390; **2)** Wackernagel, M., et al. (2002). "Tracking the ecological overshoot of the human economy." *Proceedings Of The National Academy Of Sciences* **99**(14): 9266–9271.

Wed., May 15: Getting Down to Business—Triple Bottom Line & Life Cycle Assessment

1) Elkington, J. (1998). *Cannibals with forks : the triple bottom line of 21st century business*. Gabriola Island, BC ; Stony Creek, CT, New Society Publishers; Finkbeiner, M., et al. (2010). Chs. **2)** "Towards Life Cycle Sustainability Assessment." *Sustainability* **2**(10): 3309-3322.

Week 8. Sustainability Science

Mon., May 20: The Scientists Get On Board

1) Kates, R. W. (2011). "What kind of a science is sustainability science?" *Proceedings Of The National Academy Of Sciences* **108**(49): 19449-19450. **2)** Turner, B. L., et al. (2003). "A framework for vulnerability analysis in sustainability science." *Proceedings Of The National Academy Of Sciences* **100**(14): 8074.

Wed., May 22: IN-CLASS GROUP PROJECT WORK TIME

Week 9. Resilience

Mon., May 27: Resilience and Sustainability

Saxer, S. R. and J. D. Rosenbloom (2018). *Social-ecological resilience and sustainability*. New York, Wolters Kluwer. Ch. 1 "Defining Resilience and Sustainability"

Mon., May 29: Resilience in an Age of Climate Change

Saxer, S. R. and J. D. Rosenbloom (2018). (Ibid.) Ch. 10 "Climate Change"; Environment & Energy News 2019 "Mozambique city fought climate change, but cyclone roared in" March 28

Week 10. In-Class Student Sustainability Reports