SUSTAINABILITY POLICY & PRACTICE (STS 364)
SCIENCE, TECHNOLOGY & SOCIETY PROGRAM
NEW JERSEY INSTITUTE OF TECHNOLOGY
COURSE SYLLABUS
SPRING 2024

Organizational Details

Instructor: Dr. Maurie Cohen
Location: CKB 217
Time: Tuesdays 6:00–8:50pm
Office: Cullimore 433
Office Hours: Tuesdays 4–5:30pm and by appointment
Telephone: 973.596.5281
E-mail: mcohen@njit.edu
Course Website:
Personal Website: https://mauriecohen.net
Prerequisite: Satisfactory completion of STS 363 with a grade of C or higher

Overview

Earth systems scientists advise that we now live in a newly designated era referred to as the "Anthropocene." This term – *Anthropo-* meaning "man" or "human" and *-cene* meaning "new" – has been coined in recent years to distinguish the last approximately 250 years of human activity on the planet from other periods of geological history (though there is debate on the starting point with some appraisals suggesting either a longer or shorter timeframe). It has also become evident that efforts to date to modify human practices to conform to biospheric limits based on public regulations and remedial technologies have not been successful and we have already crossed several "planetary boundaries." Despite progress on some local and regional issues, most global-scale ecological problems have perversely and persistently worsened due to growing demand for energy and other resources.

At the same time, familiar systems of social organization in affluent countries are starting to erode in the face of demographic aging, growing income inequality, decline of wage-based labor, political paralysis, and resource scarcity. There is building public awareness that a sustainable future depends on more than individually implemented behavior changes that modestly reduce the environmental impacts of human activities. Also necessary is a systemic understanding of the numerous interlinked challenges that we face – including climate change, freshwater availability, population growth, biodiversity loss, food sufficiency, energy security, social inclusion, and financial stability – and the need *for large-scale system innovation and social change*. But what will propel the necessary processes? And how can we ensure that they unfold in directions that ameliorate rather than exacerbate extant conditions? It is clear that the COVID-19 pandemic has powerfully accelerated some trends and impeded others.

This course examines several popular conceptual strategies currently "in the air" for moving toward conditions of sustainability during the 21st century (sharing economy, small-scale provisioning, and relocalization). (Some analysts refer to the coming decade as the "Transition 20s.") We also consider the social, economic, and environmental implications of sweeping technological changes that are poised to disrupt conventional arrangements for supporting contemporary livelihoods. Throughout this course, we will consider the general

notion of social change and how we might steer transpiring developments in ways that can lead to a more sustainable future. Students will also complete a research project that will provide an opportunity to learn about current and ongoing developments taking place with respect to "sustainable lifestyles" intended to contribute to more environmentally tenable and socially equitable outcomes.

Learning Outcomes

- To understand in scientific terms the scale and scope of current socio-environmental challenges.
- To acquire basic comprehension of the complexity and the need for systems approaches for addressing sustainability from the standpoint of policy and practice.
- To recognize the inadequacies of current disciplinary modes for apprehending contemporary social and environmental dilemmas.
- To become conversant in several contemporary strategic frameworks for implementing sustainability-focused interventions at different geographic scales.
- To appreciate the need to transform existing systems of production and consumption to achieve more sustainable lifestyles.

Course Materials

Reading materials and other associated items are mostly available via the course website. Items are organized into weekly folders and can be viewed online or saved. A valid UCID is required to access the website. Students should plan to acquire the following three books which are available in a variety of formats.

Cohen, Maurie. 2021. *Short Introductions: Sustainability*. Cambridge: Polity Press (https://politybooks.com/bookdetail/?isbn=9781509540310).

Cohen, Maurie. 2017. *The Future of Consumer Society: Prospects for Sustainability in the New Economy*. Oxford: Oxford University Press (https://global.oup.com/academic/product/the-future-of-consumer-society-9780198768555?cc=us&lang=en&).

Bregman, Rutger. 2019. *Humankind: A Hopeful History*. New York: Back Bay Books (https://www.littlebrown.com/titles/rutger-bregman/humankind/9780316418553).

Useful organizations:

Business Alliance for Local Living Economies (https://bealocalist.org)
Center for the Advancement of the Steady State Economy (https://steadystate.org/)
Centre for Understanding Sustainable Prosperity (http://www.cusp.ac.uk)
Degrowth Network (https://degrowth.net/)
Democracy Collaborative (http://democracycollaborative.org)
Ellen MacArthur Foundation (https://ellenmacarthurfoundation.org/)
Great Transition Initiative (http://www.greattransition.org)
Green Economy Coalition (http://www.greeneconomycoalition.org)
Hot or Cool Institute (https://hotorcool.org)
Institute for New Economic Thinking (https://www.ineteconomics.org)
New Economics Foundation (http://www.greeneconomycoalition.org)
New Economy Coalition (http://neweconomy.net)

One Earth Living (https://www.oneearthliving.org)
Orion Magazine (https://orionmagazine.org)
P2P Foundation (https://p2pfoundation.net)
Post-carbon Institute (http://www.postcarbon.org)
Post-Growth Institute (https://www.postgrowth.org)
Redefining Progress (http://rprogress.org)
Rocky Mountain Institute (https://rmi.org)
Schumacher Center for New Economics (http://www.centerforneweconomics.org)
Stockholm Resilience Centre (https://www.stockholmresilience.org)
Sustainability Transition Research Network (https://transitionsnetwork.org)
Sustainable Consumption Research and Action Initiative (http://scorai.org)
The Next System Project (http://thenextsystem.org)
Yes! Magazine (http://www.yesmagazine.org)

Evaluation

This course does not have a midterm or a final exam. Instead, student performance is evaluated on the basis of five dimensions: class attendance, participation in class sessions, engagement in online (via Canvas) discussions, project presentation, and project report.

1. ***Class Attendance (10%):*** Students are expected to attend each session and arrival more than twenty minutes after the start will be treated as an absence. Each student will be granted two "free absences" during the semester; every subsequent absence will mean a full letter-grade reduction in the attendance portion of your final grade (i.e., three absences is a B, four absences is a C, and so forth).

2. ***Class Participation (20%):*** Students are expected to engage actively in class discussions by offering comments, posing questions, and demonstrating familiarity with the course material. *Consult the rubric posted to the course website for information on the assignment of grades for class participation.*

3. ***Participation in Online (via Canvas) Discussions (20%):*** Students are encouraged to participate on an active and consistent basis (at least twice per week for ten weeks) throughout the semester in the online forum for this course. The focus of these discussions will be Rutger Bregman's book, *Humankind: A Hopeful History*. One student is pre-assigned to serve as the lead discussant for each chapter (see accompanying calendar) and during the scheduled week it will be their responsibility to facilitate a discussion (with the aim of recruiting everyone to engage. Regardless of whether you are a lead discussant, the expectation is that you will engage in an ongoing and meaningful manner on a weekly basis. Postings should be concise but substantive.

Number of Postings During Semester	Grade
18–20	A
16–17	B

14–15	C
12–13	D
<11	F

4. ***Group/Individual Research Project (20% for Presentation and 30% for Report):*** Students will be required to complete a group or individual research project focused on a theme of your own choosing related to the pursuit of sustainable lifestyles (see accompanying list). If undertaken on a group basis, the team should not have more than three members (but can also be a single person). Groups should be assembled on a self-organizing basis but I am glad to provide assistance if necessary. Project teams need to be organized by January 30 and proposals (~250 words) should be submitted by February 6. Each team will provide a preliminary overview of its project on March 5 and final presentations will be held during the last three weeks of the semester. In addition to the presentation, the group is required to submit a final report (15 pages, double-spaced) summarizing the results of their research (in cases of individual projects the final report should be 10 pages, double spaced).

Determination of Final Grades

Final Percentage	Grade
90–100	A
87-89	B+
80–86	B
77–79	C+
70–76	C
60–69	D
<60	F

Important Notices

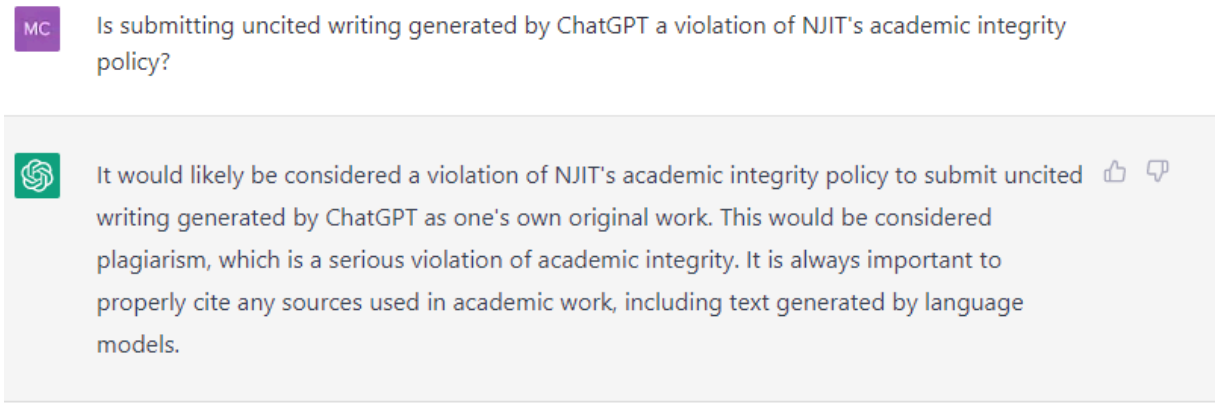
Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at: http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary

action. This may include a failing grade of F, and/or suspension or dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu.

Use of ChatGPT

ChatGPT and other language models can be important and valuable research tools, but remember that they should never be used as substitutes for your own creative work. As highlighted below, even ChatGPT itself "knows" the limits of its capabilities and appropriate use



Also, keep in mind that just like mothers always know when their children are not telling the truth, professors have spider-like instincts that alert them when students have submitted work that is not their own. And when those instincts might be less than perfect, there is an arsenal of tools to assist.

Schedule

Week 1 (January 16): Introduction

Short Introductions: Sustainability, Chapter 1: What is sustainability? pp. 1–21.
The Future of Consumer Society, Chapter 1: Introduction, pp. 1–14.
Jackson, M. 2024. How to thrive in an uncertain world. *The New York Times*, January 13 (https://www.nytimes.com/2024/01/13/opinion/uncertainty-anxiety-psychology.html).
Malesic, J. 2023. The key to success in college is so simple, it's almost never mentioned. *The New York Times*, January 3. (https://www.nytimes.com/2023/01/03/opinion/college-learning-students-success.html).

Week 2 (January 23): What is the Anthropocene?

Short Introductions: Sustainability, Chapter 2: The science of sustainability, pp. 22–46 and Chapter 3: Engineering a more sustainable future, pp. 47–67.
Kolbert, E. 2010. The Anthropocene debate: marking humanity's impact. *Yale Environment 360*, May 17.
Nijhuis, M. 2015. When did the human epoch begin? *The New Yorker*, March 11.

Meyer, R. 2021. The cataclysmic break that (maybe) occurred in 1950. *The Atlantic*, April 16.
Zhong, R. 2022. For Planet Earth, this might be the start of a new age. *The New York Times*, December 17.

Week 3 (January 30): Social Change and Systems Thinking

Short Introductions: Sustainability, Chapter 4: Planning sustainability transitions, pp. 68–93.
Cloud, J. 2012. Systems thinking concepts for environmental education, *Systems Thinker*, 23(5):7–9.
Kay, J. 2008. An introduction to systems thinking, pp. 3–13 in *The Ecosystem Approach: Complexity, Uncertainty, and Managing for Sustainability*, edited by D. Waltner-Toews, James Kay, and N.-M. Lister. New York: Columbia University Press.
Meadows, D. 1999. *Leverage Points: Places to Intervene in a System*. Hartland, VT: The Sustainability Institute.

Deadline for Notification about Formation of Project Teams

Week 4 (February 6): "Doughnut" Economics

Monbiot, G. 2017. Finally, a breakthrough alternative to growth economics – the doughnut, *The Guardian*, 17 April.
Raworth, K. 2012. *A Safe and Just Space for Humanity: Can We Live Within the Doughnut?* Oxford: Oxfam.
Deaton, A. 2018. The U. S. can no longer hide from its deep poverty problem. *The New York Times*, 24 January.
The Future of Consumer Society, Chapter 2: Fathoming consumer society, pp. 15–43.

Deadline for Project Proposals (~250 words)

Week 5 (February 13): Sustainability and the Platform (Sharing) Economy

Short Introductions: Sustainability, Chapter 5: Social innovation and sustainability, pp. 94–122.
Schor, J. 2014. Debating the sharing economy. *Great Transition Initiative*, October (and associated commentary and author's response).
Kessler, S. 2014. Pixel and dimed: on (not) getting by in the gig economy. *Fast Company*, March 18.
Strauss, I. 2017. The original sharing economy. *The Atlantic*, January 17.
Chandler, A. 2016. What should the "sharing economy" really be called? *The Atlantic*, May 27.
The Future of Consumer Society, Chapter 3: The (mostly) empty promise of the sharing economy, pp. 44–69.

Week 6 (February 20): Maker Movement and DIY Production

Science Museum. 2020. A brief history of DIY, from The Shed to the Maker Movement. *Science Museum*, April 23.

Fallows, J. 2016. Why the maker movement matters: part 1, the tools revolution. *The Atlantic*, June 5.
Fallows, J. 2016. Why the maker movement matters: part 2, agility. *The Atlantic*, June 9.
Morozov, E. 2014. Making it. *The New Yorker*. January 13.
The Future of Consumer Society, Chapter 4: The mass-market maker movement, pp. 70–91.

Week 7 (February 27): Economic Relocalization

Berry, W. 2001. The idea of a local economy. *Orion*, Winter.
Benfield, K. 2011. Place and sustainability: the case for thinking locally. *The Atlantic*, July 13.
Shuman, M. 2010. Relocalizing business, pp. 110–115 in *State of the World: Transforming Cultures From Consumerism to Sustainability*. New York: W. W. Norton.
Boyer, M. 2012. 100-mile houses expand the locavore movement from food to architecture. *Good Design*, February 24.
The Future of Consumer Society, Chapter 5: Localization fallacies, pp. 92–114.

Week 8 (March 5): Research Projects: Preliminary Presentations

March 12: Spring Break – No Class Session!

Week 9 (March 19): Digital Automation and Sustainability

Chui, M., J. Manyika, and M. Miremadi. 2016. Where machines could replace humans – and where they can't (yet). *McKinsey Quarterly*, July.
West, D. 2015. What happens if robots take the jobs? The impact of emerging technologies on employment and public policy. *Center for Technology Innovation at Brookings*, October.
Hu, Jane. 2022. The problem with blaming robots for taking our jobs. *The New Yorker*, May 18.
The Future of Consumer Society, Chapter 6: Consumption in the era of digital automation, pp. 115–132.

Week 10 (March 26): Sustainability When Work Disappears

Thompson, D. 2015. A world without work. *The Atlantic*, July/August.
Beckett, A. 2018. Post-work: the radical idea of a world without jobs. *The Guardian*, 19 January.
Strauss, I. 2016. Would a work-free world be so bad? *The Atlantic*, June 28.
Frayne, D. 2016. Stepping outside the circle: the ecological promise of shorter working hours. *Green Letters* 20(2):197–212.

Week 11 (April 2): Current Perspectives on Sustainability in the Post-COVID-19 Era

Week 12 (April 9): Project Presentations 1

Week 13 (April 16): Project Presentations 2

Week 14 (April 23): Project Presentations 3

Project reports are due by 11:59pm on May 6