

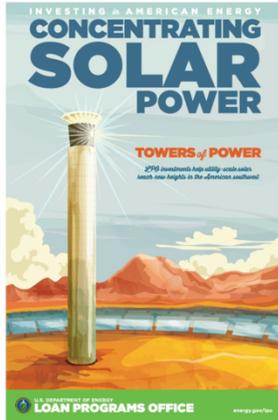
Energy Justice ENVI/POLI 394

T/R 1:20-2:50 SPRING 2020 OLRI 270

Dr. Roopali Phadke

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Office Hours: Monday 1:30-3 and by appointment



Political mobilizations around Standing Rock, and more locally Line 3, have drawn attention to the politics of energy use and development. “Energy justice” builds on the concepts of environmental and climate justice, with a focus on the visible and invisible energy infrastructures that produce, deliver, maintain and transform our economies and societies. The first part of the course will introduce students to analytical tools for understanding the design and impact of energy systems, with a focus on electricity. We will then move to studying energy justice conceptual frameworks. The third part of the courses focuses in on a set of community research partnerships. We will end with a deep dive into the Green New Deal and the potential for green capitalism to create just energy transitions.

The main learning goals for this course are:

- Gain interdisciplinary analytical tools for understanding the technical, material and socio-economic components of design of energy infrastructure and policy.
- Gain skills in collaborative research, visual and spatial analysis/representation, and oral presentation

Student Evaluation

We will do lots of different kinds of writing, reading and presenting in this course. Our texts include research reports, legal briefs, journalistic accounts and films. We will learn to approach each of these differently, with attention to argument and evidence.

Students will be evaluated on the basis of 1) attendance and participation (20%); 2) submission of reading responses and homework assignments (10 in all) by 10pm the night before class or when noted on the syllabus (25%); 3) a community research project (35%) and 4) a final take home exam (20%). See the Moodle site for more information on submitting reading responses and homework.

I expect all of the assignments to be turned in on time. Reading responses will NOT be accepted late because it sets us both back in the course. Some reasons I WILL reschedule an assignment submission are: 1) You will be out of town on a Macalester-related event (sports, music, etc.), 2) You are genuinely ill, 3) You must leave town for a family emergency. If you are dealing with a long-term crisis or illness (either you or a family member), I encourage you to come and talk to me so I can better support your work in class and accommodate your needs.

If you submit an assignment late, you WILL be graded down one full step for each day past the deadline. For example, an assignment handed in one day late will begin with a B+; two days late a C+. Late reading reflections will not be accepted because it sets us both back in the course.

Academic Integrity: It is assumed that all members of the class will act with academic integrity and will not engage in behavior such as plagiarism, academic dishonesty, misrepresentation, or cheating. Please refer to the college's policy on academic honesty. A first offense will cause you to get a failing grade on the assignment, and a second offense means you fail the class. Please speak to me if you are in doubt about what constitutes cheating or plagiarism.

I will assign a **final** term grade by taking the following into account:
90-100% = A 80-89% = B 70-79% = C 60-69% = D

The top 2% of each category will typically receive a "+" (i.e., 88-89% will receive a B+), and the lower 3% will receive a "-" (92% is an A-).

I have high expectations of your work in this course. It is important to know up front that I think an A means OUTSTANDING in all ways – in terms of effort, engagement, comprehension, and skills.

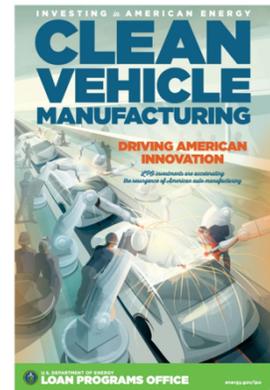
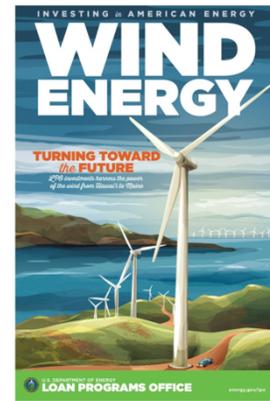
Office hours/appointments: I am happy to talk with you either before or after class. If the topic needs privacy or more time, you are welcome to come to my office, but I can't guarantee an 'on the spot' meeting. I do have office hours on Mondays 1:30-3pm. I do not often answer emails outside of the typical work day (M-F 9-5 pm), so please do not expect an immediate reply if you email me at 10 pm! Please check Moodle often.

Accommodations: I am committed to providing assistance to help you be successful in this course. Reasonable accommodations are available for students with documented disabilities. Additional information regarding the accommodations process for students with disabilities can be found at: www.macalester.edu/studentaffairs/disabilityservices/

Student Health and Well-being: College life is stressful for most students. I know that you do a lot every day in and for our community. It is important to acknowledge any stressors you may be facing, which can be mental, emotional, physical, financial, etc., and how they can have an academic impact. If you are having difficulties maintaining your well-being, please don't hesitate to contact me to find support.

Readings/Assignments: <http://moodle.macalester.edu> is where you will find readings, assignments, helpful weblinks and announcements. Check it frequently!

All readings are available through the Moodle page. I reserve the right to add/change the reading assignments during the course.



Summary of Topics and Readings (Subject to Change)

* Denotes when a reading reflection or homework assignment is due

Part I: Energy Literacy

Thurs Jan 23: Introduction to energy literacy

***Tues Jan 28: Overview on power, energy and electricity**

- DOE site: What is energy <https://www.eia.gov/energyexplained/what-is-energy/>
- G. Bakke's *Power Grid* Pp. ix-56.

***Thurs Jan 30: What's the grid? Game night recap and power grid demonstration with guest Michael Arquin, KidWind Project**

In your game night group, play your assigned game: [Power Grid](#), [The Manhattan Project](#) or [Energetic](#). Then, work together to submit the game review on Moodle.

***Tues Feb 4: District Energy tour and discussion with Nina Axelson (Vans leave at 1pm)**

Fieldtrip assignment due on Moodle on Jan 31 midnight

- Wear flat, closed-toe shoes and traction.
- During tour, we will need to wear hard hats, safety glasses and ear plugs. They will be provided.

Thurs Feb 6: No class - Roopali in Denver

Part II – Energy Justice Conceptual Frameworks

Tues Feb 11: How/Why energy injustice? Pipelines, mountaintop removal and fracking

Final readings TBA but likely to include:

- H. Appel, A. Mason and M. Watts (eds). 2010. "Introduction" to *Subterranean Estates: Life Worlds of Oil and Gas*. Pp. 1-25.
- K. Whyte. 2017. "The Dakota Access Pipeline, Environmental Injustice, and U.S. Colonialism," *Red Ink: An International Journal of Indigenous Literature, Arts, & Humanities* 19.1.
- J. Barry. 2012. "Chapter One," *Standing Our Ground: Women, Environmental Justice, and the Fight to End Mountaintop Removal*. Ohio University Press

***Thurs Feb 13: Clean Energy Justice**

- S. Welton and J. Eisen. 2019. "Clean Energy Justice: Charting an Emerging Agenda," *Harvard Law Review* Vol. 43: 2.
- S. Fuller and D. McCauley. 2016. "Framing energy justice: perspectives from activism and advocacy," *Energy Research and Social Science*, Vol 11: January:1-8.

***Tues Feb 18: Energy Citizenship**

- B. Lennon. 2019. "Citizen or consumer? Reconsidering energy citizenship," *Journal of Environmental Policy and Planning*
- M. Ryghaug, T. M. Skjølsvold and S. Heidenreich. 2018. "Creating energy citizenship through material participation," *Social Studies of Science* Vol 48(2).

***Thurs Feb 20: Clean Cars and the electrification of transit with guest Jukka Kukkonen and Anjali Bain, Fresh Energy**

- Watch the film "Who Killed the Electric Car" on Netflix or other streaming service
- Review the Clean Cars MN program at <https://www.pca.state.mn.us/air/clean-cars-mn>
- *Homework:* Submit on Moodle questions for our guests based on the history of the e-vehicle transition and/or modern policy challenges.

***Tues Feb 25: Decolonizing Energy**

- C. Daggett. 2018. "Petro-masculinity: Fossil Fuels and Authoritarian Desire," *Millennium – Journal of International Studies* 47(1): 25-44.
- M. Lennon. 2017. "Decolonizing energy: Black Lives Matter and technoscientific expertise amid solar transitions," *Energy Research and Social Science* 30: 18-27.
- "[N.A.A.C.P. Tells Local Chapters: Don't Let Energy Industry Manipulate You](#)," *NY Times*. Jan 5.

Part 3 – Community Energy Projects

Thurs Feb 27: Presentations from Citizen Utility Board, CERTs, Sen. Marty's Office, Community Power Familiarize yourself with all four organizations. You will be asked at the end of class to list your 1st, 2nd and 3rd choice.

***Tues March 3: Social Barriers and Community Opposition**

- M. J. Pasqualetti. 2011. "Social Barriers to Renewable Energy Landscapes." *Geographical Review*, 101 (2): 201-223.
- F. Laird. 2013. "Against Transitions? Uncovering Conflicts in Changing Energy Systems," *Science as Culture* Volume 22 (2).

Thurs March 5: NIMBY, PIMBY and DAD

You will be assigned to one of these cases:

On Solar:

- D. Mulvaney. 2013. "Opening the Black Box of Solar Energy Technologies: Exploring Tensions Between Innovation and Environmental Justice," *Science as Culture* Vol 22: 2.

On Wind:

- D. Bell et al. 2007. "The 'Social Gap' in Wind Farm Siting Decisions: Explanations and Policy Responses," *Environmental Politics* Vol 14: 460-477.

On Fracking:

- C. Jerolmack and E. T. Walker. 2018. Please in My Backyard: Quiet Mobilization in Support of Fracking in an Appalachian Community *American Journal of Sociology*. Vol 124 (2).

Tues March 10: Meet with your community partner at their work site

Thurs March 12: In class group work time - project Workplan due by end of class

**** Spring Break ****

Tues March 24: Small group scheduled meetings with Roopali

Thurs March 26: Janiece Watts and Ben Passer, Energy Access & Equity Program, Fresh Energy Reading TBA

Tues March 31: Fieldtrip to Exoplexus Solar Garden, Cottage Grove with Nathan Lief (Macalester Director of Facilities) and David Wheaton (Macalester VP for Finance)
Reading TBA

Thurs April 2: Draft report due to Roopali and project partners at end of class (with 7-10 day turnaround for edits)

Tues April 7: Bob Blake, Solar Bear (meet in Olin Rice 305 - we will be joined by Prof. Garvey's Environmental Justice course)

- For background on Red Lake tribe and solar, visit <https://www.mprnews.org/story/2016/02/19/red-lake-nation-solar-power>
- For background of MIPL's just solar program, visit <https://mnipl.org/what-we-do/take-action/just-solar/>
- Also visit Honor's the Earth's energy justice site http://www.honorearth.org/energy_justice

Thurs April 9: Revising your draft – group meetings with Roopali

Tues April 14: Practice presentations with a few invited guests

Thurs April 16: Final presentations with project partners. Projects due dates TBA.

Part 4: Just Transitions and the Green New Deal

***Tues April 21: What is the Green New Deal?**

- Read it yourself: Ocasio-Cortez, A. et al. "Congress H.R. 109. Recognizing the Duty of the Federal Government to Create a Green New Deal". Washington DC: Congressional Research Service. <https://www.congress.gov/116/bills/hres109/BILLS-116hres109ih.pdf>

Choose 2 out of 3 of the following journalistic pieces:

- D. Roberts. 2019. "The Green New Deal, Explained," Vox.com (March 30) with video
- L. Friedman and T. Gabriel. 2019. "A Green New Deal is Technologically Possible. It's Political Prospects are Another Question," *The New York Times* (Feb. 21).
- O. Waxman. 2019. [The Legacy of FDR's Original New Deal](#). *Time Magazine* (Feb)

***Thurs April 23: Just Transitions – Case studies**

- J. M. Cha. 2019. "[A roadmap to an equitable low-carbon future](#): Four pillars for a just transition"

Tues April 28: Is Green Capitalism the solution?

- L. Lohmann. (2015). "[Questioning the Energy Transition](#)." *Boletin ECOS* 33.
- K. Tienhaara. 2014. "Varieties of green capitalism: economy and environment in the wake of the global climate crisis." *Environmental Politics*, 23 (2): 187-204.

Thurs April 30: Green New Deal class debate (details TBA)

Friday May 8: Take home final due Friday May 8 5pm on Moodle