

Energy Humanities: Culture, Energy, and the Environment

Yale-NUS College, YID 2202

Mondays and Thursdays, 10:30 - 12:00

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Office Hours: Tuesdays 11:00 -12:00 and 1:00 – 2:00 and by appointment

Course Description: Humanity faces extraordinary challenges in an era of climate change and energy transition. These are often portrayed as technological, but they extend to every aspect of our culture and raise new questions about value, power, politics, behavior, and ethics that scholars are only beginning to grapple with. This course draws upon new research across the humanities to help students better understand the cultural and social dimensions of our current patterns of energy use, their environmental impacts, and the possibilities of different energy futures. As a survey of the emerging field of energy and environmental humanities, it is intended for students from all backgrounds and disciplines.

We will explore a fascinating body of interdisciplinary research from perspectives that include history, anthropology, geography, cultural studies, film, literature, and visual art. We will pay particular attention to oil and the ongoing energy transition beyond fossil fuels. First, we'll look at the role of energy in human history. Then we'll turn to the contemporary regime of energy sources, primarily fossil fuels, and their environmental consequences. Finally, we'll explore the imagination of alternative energy and environmental futures and their political, psychological and ethical implications. Our syllabus has two open dates, for which the class will suggest or select topics or specific readings.

Learning Objectives

- To evaluate the strengths and weaknesses of divergent arguments about the relationship between energy and the environment and different aspects of contemporary life, politics, and culture.
- To take your own positions on these questions and support these positions with sound reasoning and evidence.
- To communicate effectively by writing thoughtful reading responses and participating in class discussions.
- To write an engaging, clear, and well-organized research essay, which will apply the lens of energy and environmental humanities to a Common Curriculum text of your choosing.

What to Expect

Expect to attend class. Active attendance in every class is mandatory and crucial to your success in the course. Participation in class discussions forms a significant part of your final grade.

Expect to do a fair amount of reading. You will need to set aside time outside of class every day and start earlier on assignments than you might think you need to. Keeping up with the reading and writing is your responsibility.

Expect to succeed. If you apply yourself to doing the work in this class, you can expect to learn. On the other hand, if you don't commit to doing the work or attending class, don't expect to learn what the course is designed to teach.

Expect to learn new things. This course is a survey of different disciplinary takes on energy and environmental issues. You will be more familiar with some of these perspectives and less familiar with others. Expect to be surprised, confused, and even inspired.

Readings

The following books are required:

- Alfred W. Crosby, *Children of the Sun: A History of Humanity's Unappeasable Appetite for Energy*
- Timothy Mitchell, *Carbon Democracy: Political Power in the Age of Oil*
- Helon Habila, *Oil on Water*
- Paolo Bacigalupi, *The Windup Girl*

All other readings can be found on the course's Canvas site.

Assignments

Class Facilitation: In groups of two, each student will be responsible for facilitating a single class over the course of the semester. Facilitators should identify particularly important aspects of that meeting's reading or viewing; draw at least one connection between material covered in another ES class, and/or one connection to material covered in the Common Curriculum. Facilitators may also give short presentations or introduce class exercises.

Reading Responses: Each student will write up a total of four reading (or viewing) responses over the course of the semester, where they will formulate their own questions or thoughts regarding the material and/or issues we're engaging in this class. These will be posted on our blog *and* uploaded to Canvas. The responses should go into detail on a specific reading or viewing, or use it as a springboard to explore a subject we're covering in more detail than class time allows.

- One of the reading responses *must* build on topics covered in Introduction to Environmental Studies or another ES course.
- You are welcome to write a review of our field trip to the ExxonMobil refinery as one of your reading responses.

Research Essay: The major assignment for this course is a research essay (of 4000-5000 words) that will analyze the energy and environmental unconscious of a Common Curriculum text of your choosing. The methodology will be interdisciplinary – following the lead of many of our authors, you are asked to perform textual analysis supplemented with social, cultural and historical details that will place seemingly familiar texts in a new light. You will utilize course materials where appropriate. As one of our regular themes will be strategies for communicating complex environmental issues to a general educated audience, this essay should be clear, well-written, and engaging. You will be asked to meet with one of Yale-NUS's librarians to build your research skills, and utilize the Writers' Centre to polish your prose. Our energetic

analyses of Common Curriculum texts will be organized (by the class) into a handsome booklet, which will be distributed in print on campus and available online.

Class Participation: You should read any assigned materials before class and be prepared to participate in class discussions. You may ask about your participation grade (which includes attendance) at any point during the semester, and you will receive a preliminary evaluation of your class participation halfway through the semester. As part of your participation grade, you are expected to make at least eight substantive comments on other students' reading responses. Each student is expected to meet one-on-one with me for approximately 15 minutes outside of class during the first third of the semester.

Affect Journal: Every two weeks each student will spend 15-20 minutes reporting their emotional responses to course material. You will be graded only on the completion of the questionnaire, not on the content of your responses.

Midterm and Final: We will have a short, take-home midterm and final. They will be open-book, but timed. If you do the readings and attend all of our meetings, you should do well on these exams.

Evaluation Guidelines:

Class Facilitation:	5%
Participation:	20%
Affect Journal:	5%
Reading responses:	20%
Midterm:	10%
Final:	10%
Research Paper:	30%

If your performance shows significant improvement over the course of the semester, I reserve the right (but assume no obligation) to raise your final grade.

Grading

To calculate your final grades, your numerical scores will be converted to letters grades as follows:

A	93.3 – 100
A-	90 – 93.2
B+	86.6 – 89.9
B	83.3 – 86.5
B-	80 – 83.2
C+	76.6 – 79.9
C	73.3 – 76.5
C-	70 – 73.2
D+	66.6 – 69.9
D	63.3 – 66.5
F	0 – 63.2

Academic Integrity

When you submit assignments via Canvas, you will be required to check a box that confirms that all of your work is your own, and that all sources, quotations, and paraphrasing are noted and cited appropriately. Be especially diligent in this regard, and feel free to approach me with any questions or concerns about how to ensure that all the work you submit is truly “your own.”

By a vote of the faculty of Yale-NUS College, professors must refer any suspected instances of academic dishonesty to the Academic Integrity Committee for assessment and adjudication. In this regard, I reproduce here a passage on Academic Integrity from the Yale-NUS website:

Yale-NUS College expects its students to abide by the highest standards of academic integrity as a matter of personal honesty and communal responsibility. Acting with academic integrity requires that (a) students do their own work, (b) students not interfere with the work of others, (c) students accurately and honestly represent the content of their work, and (d) students properly attribute others’ work. Violations of the College’s academic integrity standards undermine both the community and the individual growth of students. Accordingly, they will be addressed with the utmost seriousness and sanctions ranging from grade penalties to expulsion. Examples of violations of academic integrity include plagiarism, copying or sharing homework answers, submitting work completed for one course as ‘new’ work for another course, or fabricating or falsifying research data. Professors are obligated to refer suspected lapses in academic integrity to the Academic Integrity Committee, which follows a set of policies and procedures approved by the faculty when investigating and adjudicating cases.

Class Participation

A significant portion of your overall course grade flows from your contributions to seminar discussion. I will provide guidelines for the successful completion of writing assignments as part of each essay or research assignment, but here I offer guidelines and criteria for the successful completion of the discussion component of the course:

A: An A grade class participation is awarded when students regularly initiate discussion. This means coming to class thoroughly familiar with the assigned reading and, therefore, prepared to raise questions, to open discussion, to identify topics of interest in the reading, and to engage other students in the discussion. (Obviously, this does not mean monopolizing a discussion, or shutting others out, or talking for its own sake rather than to make a point about the topic under discussion.)

B: A B grade for class participation is awarded to students who participate regularly and productively in class discussion, who are prepared, and who are willing to engage. B discussants differ from A students in that the latter are self-starters who do not rely on the instructor's questions to set the agenda for discussion.

C: A C grade for class participation is awarded to those who participate on a regular basis, though less frequently than the B student. C discussants will be prepared for class, but their contributions will indicate that less thought has been given to assigned materials.

D: A D grade for class participation is given to those who contribute only infrequently to the discussion and whose contributions do not appear to arise from thoughtful consideration of the assignments.

F: An F grade results from non-participation in class discussion or any pattern of behavior that interferes with responsible and mature group discussion. Of course, participation is impossible if the putative participant is not in class. Frequent absences mandate F grades.

Discussion Tips

1. *Come to class with things to say* – this implies careful reading and reflection beforehand.
2. Another version of #1: *Make notes as you read, and as you reflect on discussion.* Draw on these notes while in class.
3. Aim to contribute to discussion at least once a class meeting.
4. Don't go more than two class meetings without saying something.
5. *The name of the game is quality, not quantity. Too many less-than-useful contributions are worse than saying too little.*
6. *Listen carefully to what others are saying. Don't dominate.* Forget this, and you won't do well. That's because... good discussion is like a free-flowing conversation with friends that you value and respect. It is not "sequential opinion expression." It is characterized by building on what others have said and drawing your colleagues out with your comments.
7. Therefore, a promising contribution might begin with "I want to second what Lin said, but also add the following..." or "I see Bing's point, but another way to look at it is..." or "to build on Matt's ideas a bit more..."
8. Try not to focus on the professor when you're talking. *Address the entire class.*
9. *Questions for the group* are often a provocative way of framing discussion. For example, "it seems to me that Plato is obsessed with caves, and here's why – did others read him the same way?" Indeed, *asking good questions is usually more valuable than offering good answers.*
10. As others are talking, *resist the urge to rehearse in your own mind what you're going to say next.* You'll miss nuances that you'll need for discussion, and for your papers.
11. *Tolerate Silence. People need time to think. Tolerate Silence.*
12. Try to organize your thoughts before speaking. Sometimes jotting a few notes down helps. Thinking aloud is occasionally OK, but too much of it detracts from your ability to communicate your ideas. Resist saying the first thing that pops into your mind.
13. *Be cognizant of gender dynamics.*
14. *Don't be excessively polite.* I won't be. It's not personal. If someone says something with which you disagree, or that makes you uncomfortable (personally or intellectually), you owe it to them to say so. You'd expect nothing less.
15. Nevertheless, don't confuse effective seminar discussion with knock-down, drag-out debating. *Your aim isn't to score points, but to help the entire group explore the material and respectively identify areas of agreement and disagreement, and domains of "truth" and "ambiguity."*
16. *Wherever possible, draw from and refer to course material.* Demonstrate your command of the material.

Late Work

- Exceptions to the deadline policies may (rarely) be made at the instructor's discretion, but only when there are extenuating circumstances such as a personal emergency or an illness requiring professional medical attention. These circumstances must be documented and brought to my attention before the deadline for a paper arrives.
- You are also advised to start assignments early so that if an issue arises which prevents you from finishing on time but cannot be satisfactorily documented, you will still have at least some work to turn in by the deadline and thus avoid receiving no credit at all.

Additional Information

- **Nondiscriminatory Language and Conduct:** This course has a policy of non-discriminatory language and conduct. Students should not use racist, sexist or other discriminatory language in class discussions or written work.
- **Learning Disabilities:** Students with learning disabilities should contact the Vice Rector's office for support and guidance.

Schedule

Introduction

January 9

-No class

January 12

- Margaret Atwood, "It's Not Climate Change – It's Everything Change"

- Dipesh Chakrabarty, "The Climate of History: Four Theses" (26)

Deep History

January 16

- Alfred W. Crosby, *Children of the Sun: A History of Humanity's Unappeasable Appetite for Energy*, "The Largess of the Sun," "Fire and Cooking," "Agriculture," "The Columbian Exchange" (58)

January 19

- Crosby, "Fossilized Sunshine," "Coal and Steam," "Oil and the ICE" (42)

- Marilyn V. Longmuir, *Oil in Burma*, "The Celebrated Wells of Petroleum" (24)

- *Optional: Fueling Cultures*, "Kerosene," "Tallow," "Whaling"

Energy Histories

January 23

- Jean-Francois Mouhot, "Past Connections and Present Similarities in Slave Ownership and Fossil Fuel Usage" (26)

January 26

- Timothy Mitchell, *Carbon Democracy: Political Power in the Age of Oil*, "Machines of Democracy" (32) and "Fuel Economy" (35)

January 30

- Matthew Huber, *Lifeblood: Oil, Freedom and the Forces of Capital*, “Introduction” (21) and “The Power of Oil? Energy, Machines, and the Forces of Capital” (25)

February 2

- *Lifeblood*, “Fractionated Lives: Refineries and the Ecology of Entrepreneurial Life” (35)
- Ng Weng Hoong, *Singapore, The Energy Economy*, “Oil Refining: The Launchpad of the Economic Miracle” (21)

Ecocriticism

February 6

- Elizabeth Schultz, “Odysseus Comes to Know His Place: Reading the Odyssey Ecocritically”(12)
- Eng-Beng Lim, “Future Island”(11)
- Patricia Yaeger, “Literature in the Ages of Wood, Tallow, Coal, Whale Oil, Gasoline, Atomic Power, and Other Energy Sources” (22)

February 9

- Italo Calvino, “The Petrol Pump” (6)
- Graeme Macdonald, “The Resources of Fiction” (22)
- Gerry Canavan, “Retrofutures and Petrofutures: Oil, Scarcity, Limit” (16)

Resource Frontiers

February 13

- Michael Watts, “Oil Frontiers: The Niger Delta and the Gulf of Mexico” (18)
- Helon Habila, *Oil on Water*, 1-124

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Class trip to ExxonMobil refinery, date and time TBD

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February 16

- Watch “Curse of the Black Gold”
- Helon Habila, *Oil on Water*, 125-239

Spring break

Hydrocarbons Old and New

February 27

- Richard Martin, *Coal Wars: The Future of Energy and the Fate of the Planet*, “Shanghai” and “Huangzhou” (43)
- Play *Journey to the End of Coal*

March 2

- Mason Inman, *Scientific American*, “How to Measure the True Cost of Fossil Fuels”
- Elizabeth Kolbert, “Unconventional Crude: Canada’s Synthetic-Fuels Boom” (9)
- Play *Fort McMurray* for at least three hours

March 6

- Sandra Steingraber, *Raising Elijah*, “Bicycles on Main Street (and High-Volume Slickwater Hydraulic Fracturing)”
- Joe Nocera, “How to Extract Gas Responsibly”
- Michael Behar, “Fracking’s Latest Scandal? Earthquake Swarms”
- Joe Romm, “Methane Leaks Wipe Out Any Climate Benefits of Fracking”
Climate Justice

March 9

- Somini Sengupta, “Heat, Hunger and War Force Africans Onto a ‘Road on Fire’”
- Juan Cole, “Did ISIL Arise Partly Because of Climate Change?”
- Andrew Guzman, *Overheated: The Human Cost of Climate Change*, “Deeper Waters” (42)

Breaking the Impasse

March 13

- Petrocultures Research Group, *After Oil* (73)

Future Visions

March 16

- Naomi Oreskes and Erik Conway, “The Collapse of Western Civilization: A View from the Future” (14)
- Create your own timestream on *Futurecoast*

Artistic Interventions

March 23

- Linda Weintraub, *To Life! Eco Art in Pursuit of a Sustainable Planet*, selections

Climate Change Fiction

March 27

- Paolo Bacigalupi, *The Windup Girl*, 1-116

March 30

- *The Windup Girl*, 117-236

April 3

- *The Windup Girl*, 237-359

Open Dates

April 6

- Open date

April 10

- Open date

Wrapping Up

April 13

- Naomi Klein, *This Changes Everything: Capitalism vs. The Climate*, “Blockadia: The New Climate Warriors” (43)
- Kathleen Dean Moore, lecture on “Transformation Without Apocalypse: How to Live Well On An Altered Planet”