

GEO 430: Energy, History, and Society
Spring 2014 Mon/Wed 1245-205
Eggers 155
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COURSE DESCRIPTION AND OBJECTIVE

Energy is central to the existence of only human but *all* life on earth. Plants depend upon direct solar energy while many animals depend on those plants or other animals. While dependent on plants and animals like any other species for 99% of human history, about 250 years ago human societies began to take advantage of the concentrated energy of fossil fuels (coal, oil, and natural gas). On the one hand, fossil fuels have provided for incredible levels of productivity, electrification, and spatial mobility; on the other hand, the use of these fuels has led to specific social and ecological problems like air and water pollution, global climate change, and social and environmental injustice. Compounding the problem, unlike solar energy, fossil fuels are finite non-renewable resources; only the product of millions of years of geologic time it takes to congeal plant and animal matter into “fossilized” form. During the “fossil age,” humans have also developed different ways to make use of other forms of energy such as water, solar, wind, and nuclear energy. Today, we are realizing that a profound shift must take place in the ways societies use energy from fossil fuels toward “alterative” energy technologies.

In this course we will approach the societal relation to energy from a long-term historical perspective. We will cover the history of human energy use in a diversity of historical contexts (e.g., hunter-gather societies, modern industrial capitalism) and cover multiple conceptual themes (e.g., history, culture, politics, environmental justice). Although there are a number of issues bound up in the production of energy resources, we will concentrate on the role of energy consumption in shaping specific social and political relationships.

The aim of this course is for you to begin to think critically about energy in the past and future of human history. I hope you will take ideas from this course that are applicable to analyzing current events and politics, but also developing practical real-world solutions for our current energy challenges. It is a **reading intensive** course and dependent upon **substantive class participation and discussion**.

REQUIRED TEXTS

The following texts are available in the bookstore. Other assigned articles and book sections will be scanned and made available on the course "blackboard" website.

Crosby, A.W. 2006. *Children of the Sun: A History of Humanity's Unappeasable Appetite for Energy* (New York: W.W. & Norton Co)

Nye, D. 2010. *When the Lights Went Out: A History of Blackouts in America* (Cambridge, MA: MIT Press)

Jones, T.C. 2010. *Desert Kingdom: How Oil and Water Forged Modern Saudi Arabia* (Cambridge, MA: MIT Press).

Rodgers, H. 2013. *Green Gone Wrong: Dispatches from the Front Lines of Eco-Capitalism* (London: Verso)

ASSINGMENTS

READING

This course is designed as an upper-level seminar. Therefore, it will be reading intensive. Class discussions will thrive or flounder in relation to our collective commitment to careful reading. I will begin the semester by trusting you to do the reading. However, if I feel the class is not reading, I withhold the right to introduce more disciplinary measures (e.g., pop quizzes or in-class drills) that reward the students who do the reading.

PARTICIPATION

Participation takes up a large part of your class grade. There are two important aspects of participation. (1) Coming to class and (2) Actively participating in classroom discussion. This is a small enough class where we can expect *everyone* to offer ideas, opinions, and questions that spur wider discussion. While you will be expected to participate more formally in specific moments (discussion leader, presenter), *general* participation will be graded on how you participate in classes where you are not the center of attention. In addition to in-class participation, blackboard discussion threads will also be posted to give an outlet for those students who have difficulty speaking in-class. Although online participation cannot fully replace in-class contributions, it can help your participation grade.

DISCUSSION LEADERSHIP

Starting in Part 1 of the course, two of you will be responsible for leading discussion in every class period. Although I am open to other suggestions, my suggestion is that each period the discussion leader(s) prepare 4-5 questions **and responses** to share with the class. This means

you will not only be responsible for posing questions, but also must kick-start the discussion with your own **prepared** thoughts on the question (after which, the question will be opened up for the class as a whole to discuss). Obviously the questions cannot be of the “yes/no” variety, and must demonstrate substantial reflections on the period’s readings and themes. Also, I will begin each class with a short overview of the main concepts/points of the reading. Thus, do not feel like you need to summarize or give us an overview of the reading. Focus **only** on questions and spurring discussion. If the class total remains as it is today, it should work out that you will have to lead discussion 3 times over the course of the semester.

FOUND OBJECTS

Starting early in the semester, most class days will begin with one of you presenting a 2-3 minute “found object” on energy and society. This could be a newspaper article, television/movie clip, or any other cultural image/media object that you can show/summarize to the class. I encourage you to try to connect your found object to the day’s topic/readings, but this is not required. You will be graded on the relevance of the “object” to overall class themes and your presentation effectiveness. This should also be considered an easy 5 points.

SHORT ESSAYS

Throughout the semester, you will be given five essay assignments (1,000-1,500 words, double spaced, 1-inch margins, Times New Roman 12-point font). Essay questions will be distributed two weeks prior to the due date. In order to effectively answer the question, you will need to make an argument *using concepts and evidence* drawn from course lectures and readings. All course material *must be cited* thoroughly with a bibliography. You may not use outside/external sources unless you are told to do so. Class items should give you plenty of material to work with.

BOOK REVIEW

We will read three books during the second half of the semester. Although I will assign essay questions for each book covered, you will need to write a book review for one of the three (if the essay question doesn’t excite you it would be a good time to choose to write the review). The review should be between 1,000-1,500 words. I will hand out examples of book reviews, but generally a solid book review will begin by summarizing the book’s argument and structure, evaluate what the book’s strengths are, and end by offering critical comments on what was missing/ambiguous/problematic about the book.

FINAL RESEARCH PROJECT – ENERGY TRANSITIONS IN PLACE

Much of this course will deal with large-scale developments at the national and global scales of analysis. Your final project will attempt to construct a historical narrative of the relation between energy and a particular local place/region. An obvious choice might be Syracuse, your own hometown, or another place you have a special attachment to. In order to focus your project, your research will concentrate on the theme of “energy transitions” that fundamentally change the ways people relate to each other and the local landscape. For example, you might focus on the transition from an agrarian to industrial economy; the introduction of electricity to

a region; the transition from muscle or water to fossil fuel powered forms of transportation. If you focus on regional shifts in consumption, you should pay attention to how these energy transitions require new relationships with *specific* energy resources which themselves come from specific places. For example, if you are focusing on the introduction of electricity to a region, you should attempt to answer how that electricity was generated (e.g. coal, nuclear, hydropower). It may be difficult to trace completely the linkages between consumption and production, but I want to see evidence of an effort in this regard. You may also look a place of energy production (e.g., mountaintop coal mining in Appalachia; Oil in Alaska), and attempt to explain how this production landscape developed in relation to wider *energy transitions* in the societal *consumption* of energy. You may either focus deeply on one energy transition, or provide a broader overview of a succession of energy transitions. In other words, your project might span a shorter 20-50 year period, or several centuries.

You can learn more about your chosen places through historical documents.

- Many cities and towns throughout the country have historical societies/museums associated with them (e.g., for Syracuse and Onondaga County see, <http://www.cnyhistory.org/>). If your place is nearby, you should absolutely visit these places to seek out documents. If you cannot visit your place, you can still call them and speak with archivists on site who might be able to scan or copy documents and send them to you.
- Look at a series of maps of your place over time. The cartographic collection in the Bird Library has many excellent maps of central New York. You'd be surprised at what you can learn about Syracuse just by looking at maps from different periods.
- *Talk* with people who have lived in your place for a long time. Interview material cannot be used without passing Syracuse University's Institutional Review Board's policy of human subjects (<http://orip.syr.edu/humanresearch.php>) (there might be exceptions to this – see me), but talking with people can also help direct you to relevant documents, photos, maps, and other useful sources.
- Check out material available on the Library of Congress's American Memory website (<http://memory.loc.gov/ammem/index.html>). Click on "Cities and Towns" and search for the places you're writing about. The American Memory website is a *fabulous* place for digital documents of photos, maps, illustrations and much, much more.
- These are just preliminary suggestions. I strongly encourage you to talk with librarians at Bird Library, not just the reference desk, but in special collections and in the map section of the library.

Project Proposal

You must submit a 1 page project proposal on **Monday February 17th**. In this proposal, you must: (a) describe your chosen topic, e.g. both the place and the energy transition(s) in question and explain why the topic interests you (b) A list of at least five **reputable** references – books or journal/magazine/newspaper articles (any newspaper or magazine that also publishes their articles online can be used). This will count toward 2.5 points of your 20 point final project grade.

References and Bibliography

You will need to use the library to do this well. As noted above, there is some material online, but most relevant information that you will find of use will not be there. Want a good grade on this paper? *Use the library and find relevant, written sources.* You must have at least ten **reputable** references – historical documents, books or journal/magazine/newspaper articles (any newspaper or magazine that also publishes their articles online or is available through SU Library’s many useful electronic databases **can** be used). You may not use Wikipedia as a source but you are free to consult it for references and bibliographies. If you want to use any source within or beyond your ten that you are not sure is “reputable” (and usually will be online), **you must approve the sources with the instructor.**

Citation/Bibliography – **Any information or ideas you use from other works must be cited accordingly. When in doubt, cite!!!** You may use any citation system you like (footnotes or in-text parenthetical citation, e.g., (Huber 2009: 89)), as long as it is comprehensive and consistent. For specific information or quotes, you must provide a page number with the citation. Even if you repeat the same citation over and over again, it is better to cite each particular sentence than an entire paragraph. Bibliographies must include all the required information for books (author, title, publisher, place published, and year of publication) and articles (date/year, volume, issue number, pages). Consult this website for a series of examples of the standard “MLA” styles for a variety of sources:

http://library.csun.edu/egarcia/documents/mlcitation_quickguide.pdf

In-Class Presentation – (2.5 out of 20% toward final grade) – The last class period everyone will give a brief 3-4 minute presentation on their chosen topic and how the findings relate to class themes/geographical concepts.

THE PAPER MUST BE 12-15 PAGES, TYPED, DOUBLE-SPACED AND IN TIMES NEW ROMAN, 12-POINT FONT, WITH 1-INCH MARGINS, PAGE NUMBERS ON EACH PAGE IT IS DUE FRIDAY MAY 2ND AT 4PM IN EGGERS 144.

GRADING

Participation	20%	A (93-100)	C (73-76)
Discussion Leadership	5%	A- (90-92)	C- (70-72)
Four Short Essays	40%	B+ (87-89)	D+ (67-69)
Book Review	10%	B (83-86)	D (63-66)
Final Project	20%	B- (80-82)	D- (60-62)
Found Object	<u>5%</u>	C+ (77-79)	F (0-59)
	100%		

CLASSROOM POLICIES

It is of paramount importance that the classroom environment be conducive to discussions, questions, and debates. This can only be the case if there is an atmosphere of inclusion, fairness, and mutual respect both between and among the students and between the professor and the students. Please contribute to the creation of such an environment by following a few simple rules.

- 1) Turn off all cell phones, beepers, buzzers, etc. prior to entering the classroom
- 2) Be on time and if you unavoidably have to be late enter and sit down quietly in the back of the room
- 3) **Laptops are not allowed during class.** Because of extensive wireless coverage, students often use open computers claiming to 'take notes' as an excuse to web-surf and instant messaging. If you need to use a laptop for a medical reason, it must be cleared with the University disability services.
- 4) Please do not make personal comments about others or their opinions even if you disagree strongly with a comment – address the content of their comment only
- 5) Please hand in your assignments on time
- 6) Attendance is necessary to succeed in this course. I will notice if you do not show up. **If you need to miss class for any reason please let me know and explain the reason.**

Student Athletes

Many of you are student athletes. Athletics is an important part your time in college, and I will do my best to accommodate your travel schedules. Typically, your coaches or another official associated with the team or athletic department will give you a letter explaining your status and a list of your away games. Once you receive this material, I want you to give me a copy.

Academic Integrity

The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort.

For more information and the complete policy, see <http://academicintegrity.syr.edu>

Students with Disabilities

If you believe that you need accommodations for a disability, please contact the Office of Disability Services(ODS), <http://disabilityservices.syr.edu>, located in Room 309 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible. You are also welcome to contact me privately to discuss your academic needs although I cannot arrange for disability-related accommodations.

Religious Holidays

SU's religious observances policy, found at http://supolicies.syr.edu/emp_ben/religious_observance.htm, recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holy days according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice/Student Services/Enrollment/My Religious Observances from the first day of class until the end of the second week of class.

SCHEDULE FOR READING AND ASSIGNMENTS

(readings are due the day listed – all readings not from textbooks are posted to blackboard)

Monday January 13th – Introduction to Course:

Wednesday January 15th – Orientations – Anthropocene?

Will Steffen, Paul J. Crutzen and John R. McNeill. "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?" *Ambio* 36, no. 8 (2007): 614-621.

Dalby, S. 2007 "Ecology, Security, and Change in the Anthropocene" *Brown Journal of World Affairs* 13(2). 2007. 155-164

-----Monday January 20th– NO CLASS, Martin Luther King Day-----

PART 1 – ENERGY IN HUMAN HISTORY

Wednesday January 22nd – From Hunter-Gatherers to Agriculture

Crosby, *Children of the Sun*, preface + pp. 1-59

Monday January 27th – The Fossil Fuel Age – From Coal-Steam to Oil-Electricity

Crosby, *Children of the Sun*, pp. 63-116

Wednesday January 29th – Beyond Fossil Fuels?

Crosby, *Children of the Sun*, pp. 117-166

Smil, V. "21st Century Energy: Some Sobering Thoughts"

<<http://www.oecdobserver.org/news/fullstory.php/aid/2083/>>

PART II – INDUSTRIAL PRODUCTION AND ENERGY

Monday February 3rd– Monday February 7th – Pre-industrial production
SHORT ESSAY #1 DUE

Smil, V. *Energy in World History*, pp. 92-156

Wednesday February 5th –Industrial Shift I – Water

Nye, D. 1999. *Consuming Power*, pp. 42-68

Monday February 10th – Industrial shift II - Coal

Wrigely, E.A. *Continuity, Chance, and Change: The Character of the Industrial Revolution in England*, pp. 68-97

Mumford, L. *Technics and Civilization*, pp. 151-177

Wednesday – February 12th – Industrial Shift III – Electricity and Fordism

Nye, D. *Consuming Power*, pp. 131-154

PART III – MOBILE CULTURES

Monday February 17th – Mobilities I – Muscled Mobility and the Decline of the Horse

FINAL PROJECT PROPOSAL DUE

Tarr, J.A. “The Decline of the Urban Horse,” pp. 177-199

Wednesday February 19th – Mobilities II – Paving the way for the Car

Well, C.G. 2012. “Fueling the Boom: Gasoline Taxes, Invisibility, and the Growth of the American Highway Infrastructure, 1919–1956” *American Historical Review*, pp. 72-81

Monday February 24th – Mobilities III – Car Culture

Seiler, C. 2008. *Republic of Drivers*, pp. 1-10; 105-128; 149-152

Wednesday February 26th – Mobilities IV – Oil, Mobility and American Environmental Politics

Huber, M. *Lifeblood*, pp. 129-154

Henderson, J. “The Politics of Mobility in the South: A Commentary on Sprawl, Automobility, and the Gulf Oil Spill” pp. 641-649

PART IV - ELECTRICITY AND EVERYDAY LIFE

Monday March 3rd – Blackouts and American Culture I

SHORT ESSAY #2 DUE

Nye, D. 2010. *When the Lights Went Out*, pp. 1-66

Wednesday March 5th – Blackouts and American Culture II

Nye, D. 2010. *When the Lights Went Out*, pp.67-104

*****WEEK OF MARCH 10th SPRING BREAK*****

Monday March 17th – Blackouts and American Culture III

Nye, D. 2010. *When the Lights Went Out*, pp. 105-172

Wednesday March 19th – Blackouts and American Culture IV

Nye, D. 2010. *When the Lights Went Out*, pp. 173-232

PART V – ENERGY EXTRACTION, ENVIRONMENT AND POWER

Monday March 24th – The Case of Saudi Arabia I

SHORT ESSAY #3/BOOK REVIEW DUE

Jones, T.C. 2010. *Desert Kingdom*, pp. 1-54

Wednesday March 26th – The Case of Saudi Arabia II

Jones, T.C. 2010. *Desert Kingdom*, pp. 54-137

Monday March 31st – The Case of Saudi Arabia III

Jones, T.C. 2010. *Desert Kingdom*, pp. 138-216

Wednesday April 2nd – The Case of Saudi Arabia IV

Jones, T.C. 2010. *Desert Kingdom*, pp. 217-246

WEEK OF APRIL 7-9TH - NO CLASS ANNUAL GEOGRAPHY CONFERENCE

PART VI – GREEN CAPITALISM TO THE RESUCE?

Monday April 14th – Green Gone Wrong I

SHORT ESSAY #4/BOOK REVIEW DUE

Rodgers, H. 2013. *Green Gone Wrong*, pp. 1-68

Wednesday April 16th – Green Gone Wrong II

Rodgers, H. 2013. *Green Gone Wrong*, pp. 69-96

Monday April 21st – Green Gone Wrong III

Rodgers, H. 2013. *Green Gone Wrong*, pp. 97-178

Wednesday April 23rd – Energy for the Future?

Rodgers, H. 2013. *Green Gone Wrong*, pp. 179-222

Schwartzman, D. 2011, “Green New Deal: An Ecosocialist Perspective” *Capitalism, Nature, Socialism*, 22(3): 49-56.

Blackwater, B. 2012 “Two Cheers for Environmental Keynesianism” *Capitalism, Nature, Socialism*, 23(2): 51-74.

Monday April 28th

SHORT ESSAY #5/BOOK REVIEW DUE

IN CLASS PRESENTATIONS

FINAL PAPER DUE FRIDAY MAY 2 BY 4PM IN EGGERS 144