

Energy and Power

HIST 4000
Call # 39-748
Spring 2011
MWF 11:15 AM – 12:05 PM
LeConte Room 230

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Office Hours M 3:30-4:30 & by appt.

Course Description

Energy and Power examines the origins and demands of energy production and consumption in the United States and the world. We will: define energy, compare fuel sources, assess how culturally informed decisions influence energy regimes and society, and identify the environmental implications of energy systems. Additionally, we will study the shift from organic and renewable energy sources to mineral and fossil fuel sources. This course will also interrogate the politics of – or the power that comes with – energy, and analyze social responsibilities and regulatory impulses. Finally, this course will evaluate what constitutes clean energy and energy independence.

Evaluation will be based upon two (2) exams, two (2) papers, a presentation, a personal water and energy audit, class participation, attendance, and periodic attendance quizzes. This syllabus is subject to change, and I will make every effort to notify students of any change that might influence student performance.

Required Books and Reading

- These books are available in the university book store. You may also consider price shopping for used copies of these books through www.Amazon.com OR www.Half.com OR other vendors. Be sure to calculate delivery costs and times. I will also place copies of these books on two-hour reserve in the Main Library.
- Virginia DeJohn Anderson, *Creatures of Empire: How Domestic Animals Transformed Early America* (New York: Oxford University Press, 2004) ISBN-10: 0195304462
- Richard White, *The Organic Machine: The Remaking of the Columbia River* (New York: Hill and Wang, 1995) ISBN-10: 0809015838
- Jay Hakes, *A Declaration of Energy Independence: How Freedom from Foreign Oil Can Improve National Security, Our Economy, and the Environment* (Hoboken, N.J.: J. Wiley & Sons, 2008) ISBN-10: 0470267631
- Other readings should be accessed via eLC or links as instructed. **You are responsible for tracking them down and printing them out.** If eLC is “down,” most of the articles are available via databases in Galileo, JSTOR, EBSCO or Project Muse. If you are still having problems locating the readings, please contact me via email ASAP and I can send you a PDF version.

Course Policies

How to succeed in this Course? It's very simple.

- Read this syllabus from front to back.
- Come to class every day and participate.
- Take thorough notes on readings, lectures, and discussions.

- Keep up with the reading. Please plan ahead as some weeks have a lighter load than others.
- Monitor your UGA eLC and email accounts – this is how I will contact you or make announcements.
- Follow instructions and listen to the instructors’ advice – I do want you to succeed.
- Ask questions.

I expect to you to be able to talk about all reading materials in class on the days for which they have been assigned. I expect everyone to participate actively in these discussions. I ask that you come to class ready and willing to actively listen – that is, not to just take notes (or copy them), but to think about, chew on, and examine what is being said. As in any educational endeavor, ask questions about things you do not understand and treat your neighbors kindly.

eLearning Commons: Please monitor this course on eLC. I will post this syllabus (with hyperlinks), readings, instructions, and other information to this course’s electronic blackboard. To access eLC, point your browser here: <https://www.elc.uga.edu/webct/entryPageIns.dowebct>. If eLC is down, you have options. First, you can always search for readings through the UGA Libraries’ databases or simply key in the URL as printed in this syllabus. Second, contact me ASAP and I can email you PDFs of the course readings.

Contacting Me: Please note my office hours on the top of page one. I will be available immediately after class to answer questions and you do not need to make an appointment for these informal sessions. If you would like to speak with me outside of class – during or outside of office hours – please make an appointment. Please **do not** contact me via eLC; it is much easier for me to monitor one email account for these types of questions. Please schedule all appointments via email: cmango@uga.edu.

Attendance: Since this is an upper level class, I expect you to treat this class as you would any professional endeavor. In short, I expect you to attend class. Timeliness and attendance will affect your grade. This is a reading, discussion, and lecture heavy class. If you do not read or attend class, your grade will suffer. I will take roll every day within the first five minutes of class, and if you are more than five minutes late and/or the door is closed, your lateness counts as half an absence; please see me after class to record your presence. Leaving class early will also influence your attendance grade; if you leave early I consider this an absence and will not grade any assignments collected on that day. You may miss up to three classes (excused or unexcused) for whatever reason. After the third absence, each additional absence will result in your final course grade being lowered by 1/2 (half) a letter grade. If you have something unusual going on, please let me know if I can be of assistance. In the case of something related to a major medical, family, or other emergency, we may need to involve the Office of the Vice President of Student Affairs.

Grading Policy: Late papers will be docked ten (10) points for every 24 hour period that elapses from the due date (which I consider the beginning of class). Makeup Exams must be arranged with the instructor prior to the scheduled exam and *well in advance*. There are no official makeup exams. The only exceptions to these rules are, first, in the case of the final exam if you have three finals scheduled the same day or, second, in the case of a major medical, family, or

other emergency serious enough that you are working with the Office of the Vice President of Student Affairs. But let me repeat once more, if something is going on that affects your performance in this course, get in touch me and your other professors immediately.

Mid-Term Exam	15%	A+= 97 to 100, A = 93 to 96, A- = 90 to 92
Final Exam	20%	B+= 87 to 89, B = 83 to 86, B- = 80 to 82
Review Paper	15%	C = 70 to 79 (see B for plus/minus scale)
Research Paper/Presentation	20%	D = 60 to 69 (see B for plus/minus scale)
Personal & Home Audit	15%	F = 00 to 59
Attendance & Participation	15%	

Personal & Home Audit: Each student will conduct a Personal & Home Audit. You can think of this as a daily journal for two weeks. I expect each student to collect personal data on daily water, fuel, and electrical consumption every day for two weeks (weeks #5 and #6). You will collect and update this information in a running spreadsheet and submit to me via eLC. I will be the only person who will see this information. I recognize that many of you live on campus, so specific instructions for completing the audit will follow.

Exams: I will discuss exam formats in advance of the exams. Please show up early on exam day. If you are more than five minutes late and the exams have been passed out, *you will not be able to sit for the exam*. No exceptions. There are no official make-up exams.

Review Paper: Your Review Paper will be six to eight pages long and will respond to White, *The Organic Machine*. I expect you to evaluate this book in the context of relevant course readings and material. In other words, if you keep up with the regular course readings, your paper will be a better paper. Specific instructions will follow and will be posted to eLC.

Research Paper and Presentation

Your objective: You will write a five page paper on an individually selected topic and present your findings in a short five to ten minute presentation on your topic. Take a look at the list of potential topics (and additional instructions) I have compiled and posted to eLC. If nothing jumps out at you, I encourage you to propose a topic that captivates your intellectual imagination. Furthermore, I want non-history students to select a topic that fits their program of study. Ask yourself what these (or other) topics have to do with energy, power, environment, technology, and society. How do these things shape economic development, social conflict, energy security, international relations, and environmental health? **NOTE:** *You must set up an appointment to speak with me about your topic before the Mid-Term exam.*

How will I grade your papers? Treat all of your written work as if your professional life depended upon getting into graduate school, the job, the promotion, the raise, or in this case, a grade you own. If you would not write something for a boss, I probably do not need to read it either. Below is a general outline of how I will grade your written work (and I will give “+” and “-” grades):

A – Excellent Work is: original, *exceptionally* insightful and convincing, very well written/presented, efficiently organized (introduction/thesis, body paragraphs, conclusion), and thorough, with perhaps a few grammatical mistakes and a professional appearance (a title that

encapsulates your paper). 'A' papers will demonstrate that you read and followed all instructions.

B – Good Work is: insightful and convincing, clearly written/presented, organized (introduction/thesis, body paragraphs, conclusion), and thorough, with few mistakes and a professional appearance (a title that encapsulates your paper).

C – Satisfactory Work is: solid but unremarkable in terms of insight, reads like a summary, lacking some organization and/or clarity, and adequately written/presented but with several mistakes. Did you do the reading?

D – Poor Work is: un-insightful, disorganized, poorly written, mistake-ridden, and reflective of a general lack of effort.

F – Failing Work is: work that fails to meet the most basic requirements of the assignment and does not follow instructions (such as a paper turned in late, etc.)

Formatting and Style Guidelines: Your papers will be typed in New Times Roman 12 point font, double-spaced with 1" (one inch) margins all around, will include page numbers, have a title, and papers MUST be stapled. If you do not follow these simple instructions, I will deduct 5 points for each omission. Please do not use a cover page – just put your name and the date at the top of the first page. Finally, I recommend you read your paper aloud and run spell check to catch simple mistakes.

Dropping the Course: Students who decide to drop this course after the add-drop period is over will receive either a WP or a WF, depending on how they are doing at the point of withdrawal. In other words, if you are a no-show in this course and then drop it just before the midpoint withdrawal deadline, you will receive a WF. I also reserve the right to withdraw students from the course who stop attending sections and completing assignments. Additionally, if you scored lower than a 70 on the first exam and then wish to drop the course before the final withdraw point, you will receive a WF.

Academic Honesty: I take UGA's Academic Honesty Policy (Culture of Honesty) seriously and expect you to do the same. Any work that is not yours and that is plagiarized will receive at least a "0" and means that you will most likely fail the course. ALL the work (exams, papers, quizzes, writing assignments, etc.) you do in this course is subject to the Academic and Culture of Honesty policy. It is your responsibility to be familiar with this policy. It is especially important that you never commit *plagiarism*, which is both dishonest and illegal. ALL work – including wording and ideas – must be your own or you must provide proper quotation and citing. If you are at all worried that you might be in danger of an academic honesty violation, you should ASK me in advance. You should also review the Academic Honesty policy at: <http://www.uga.edu/honesty/index.html>

Classroom Etiquette: I expect you to act professionally and in a civil manner; you should expect the same of me. I will, from time to time, declare a digital device free zone. Please be prepared to take notes without a digital device. Please turn **OFF** – *not just silence* – all mobile phones, pagers, watch alarms, or anything else that might "chime." Additionally, please do not text-message, surf the Internet or listen to MP3 players during class time. These things and behaviors disrupt the teaching and learning environment for me and your neighbors. Repeated offences will result in a grade penalty. Additionally, if any student's behavior is disruptive to the

class's teaching and learning environment (including but not limited to updating your facebook account, sending out a tweet or a text, sleeping, crossword puzzles, etc), I reserve the right to ask the student to leave. Please separate yourself from these distractions and maintain professional courtesy for the duration of our class meeting.

Week #1 Energy beginnings

January 10 Introduction to the Course
January 12 Environment, Energy and Power
January 14 Food and Land

Week #2 Wood and Animals

January 17 NO CLASS – Martin Luther King Day
January 19 Slavery, Naval Stores, and the Atlantic World
 READ eLC, Robert Outland, "Slavery, Work, and the Geography of the North Carolina Naval Stores Industry," *Journal of Southern History* 62, 1 (February 1996): 27-56.
January 21 Property and Power
 READ ALL Anderson, *Creatures of Empire*

Week #3 Water Power

January 24 Navigating and Getting Around
January 26 Waterwheels, fish, and people
 READ eLC, Harry L. Watson, "The Common Rights of Mankind: Subsistence, Shad, and Commerce in the Early Republican South," *Journal of American History* 83, 1 (June 1996): 13-43.
January 28 Irrigation and Food
 READ eLC, Donald Worster, "Hydraulic Society in California," in *Under Western Skies* (New York: Oxford University Press, 1992), and Mark Fiege, "Habitat," from *Irrigated Eden* (Seattle: University of Washington Press, 1999).

Week #4 The Urban Ecosystem

January 31 Nature's Metropolis
February 2 Urban Pollution
 READ eLC, Joel Tarr, "The Search for the Ultimate Sink: Urban Pollution in Historical Perspective," in *The Search for the Ultimate Sink: Urban Pollution in Historical Perspective* (Akron, Ohio: University of Akron Press, 1996).
February 4 Jim Crow Environments
 READ eLC, Craig E. Colten, "Basin Street Blues: Drainage and Environmental Equity in New Orleans, 1890-1930." *Journal of Historical Geography* 28, 2 (2002): 237-257.

Week #5 Black Coal

- **Begin collecting data for your Two Week Personal Audit**
- **Remember to speak with me about your Research Paper topic before the Mid-Term Exam**

February 7 Why Coal?
 READ eLC, Christopher F. Jones, "A Landscape of Energy Abundance: Anthracite Coal

Canals and the Roots of American Fossil Fuel Dependence, 1820-1860,” *Environmental History* 15, 3 (July 2010): 449-484.

February 9 Supply and Demand

February 11 Mining and Labor

READ eLC, John McPhee, “Coal Train,” from *Uncommon Carriers* (New York: Farrar, Straus and Giroux, 2006).

Week #6

February 14 Field Trip – UGA facilities tour – REQUIRED

February 16 Field Trip – UGA facilities tour – REQUIRED

Two Week Personal Audit Due

February 18 **Mid-Term Exam**

Week #7 Oil in the Gilded Age

February 21 Crude Drilling

READ eLC, Brian Black, “Oil Creek as Industrial Apparatus,” *Environmental History* 3, 2 (April 1998): 210-229.

February 23 “There Will Be Blood:” Automobiles & Imperialism

February 25 National and Transnational Power

READ eLC, Alison Frank, “The Petroleum War of 1910: Standard Oil, Austria, and the Limits of the Multinational Corporation,” *American Historical Review* 114, 1 (February 2009): 16-41.

Week #8 Hydroelectric Power

February 28 Transnational White Coal

March 2 Corporate dams and transmission

March 4 Regionalism, New Deal and TVA

Review Paper Due: Richard White, *Organic Machine*

Week #9 Nuclear Age

March 7 The Nature of the Bomb

READ eLC, Mark Fiege, “The Atomic Scientists, the Sense of Wonder and the Bomb,” *Environmental History* 12 (July 2007): 578-613.

March 9 Nuclear Regulation

READ eLC, Terrence R. Fehner and F. G. Gosling, “Coming in From the Cold: Regulating U.S. Department of Energy Nuclear Facilities, 1942-96,” *Environmental History* 1, 2 (1996): 5-33.

March 11 Meltdowns: From Three Mile Island to Chernobyl

Spring Break – March 14 through 18

Week #10 Postwar Oil

March 21 The Gulf of Mexico

READ eLC, Joseph A. Pratt, “A Mixed Blessing: Energy, Economic Growth, and Houston’s Environment, in Melosi and Pratt, eds., *Energy Metropolis: An Environmental History and the Gulf Coast* (University of Pittsburgh Press, 2007).

March 23 OPEC & the Middle East

READ eLC, Harry Hurt, III, “The New Energy Crisis: OPEC versus OPEC,” and “From the University of Texas to the World,” both in *Texas Monthly* (August 1982): 103-.

March 25 Alaska: Pipelines & the Arctic Refuge

Week #11 Nexus

March 28 Energy Water Nexus I

READ eLC, Alexey Voinov and Hal Cardwell, “The Energy-Water Nexus: Why Should We Care?” The Energy-Water Nexus Issue of the *Journal of Contemporary Water Research & Education* 143 (December 2009): 17-29.

March 30 Energy Water Nexus II

READ eLC, Peter H. Gleick, “A Look at Twenty-First Century Water Resources Development,” *Water International* 25, 1 (March 2000): 127-138; Peter H. Gleick, “Global Freshwater Resources: Soft-Path Solutions for the 21st Century,” *Science* 28 (November 2003): 1524-1528.

April 1 Water and Power

READ eLC, Alwyn Rouyer, “Basic Needs vs. Swimming Pools Water Inequality and the Palestinian-Israeli Conflict,” *Middle East Report* 227 (Summer 2003): 2-7; Peter Brabeck-Lemathe, “H₂O,” *Foreign Policy* 172 (May/June 2009): 93.

Week #12 Regulatory Impulses

April 4 Environmentalism

VISIT the Gaylord Nelson & Earth Day Project at University of Wisconsin

<http://www.nelsonearthday.net/>

READ eLC, Adam Rome, “‘Give Earth a Chance’: The Environmental Movement and the Sixties,” *Journal of American History* 90, 2 (September 2003): 525-554

April 6 Environmental Justice

READ eLC, Eileen Maura McGurty, “From NIMBY to Civil Rights: The Origins of the Environmental Justice Movement,” *Environmental History* 2, 3 (1997): 301-23.

April 8 Corporate Power, Regulatory Capture & the Revolving Door

LISTEN to this NPR Planet Money Podcast, “Sex, Drugs and Regulation”

<http://www.npr.org/blogs/money/2010/06/11/127772998/the-friday-podcast-sex-drugs-and-regulation>

Week #13 Food Politics

April 11 Hunger in America

READ: eLC, Nik Heynen, “Bending the Bard of Empire from Every Ghetto for Survival: The Black Panther Party’s Radical Antihunger Politics of Social Reproduction and Scale,” *Annals of the Association of American Geographers* 99, no. 2 (2009): 406-422.

April 13 Country Chicken

READ: eLC, William Boyd, “Making Meat: Science, Technology, and American Poultry Production,” *Technology and Culture* 42, no. 4 (2001): 631-64.

April 15 Locavores?

Week #14 Renewable Energy

April 18 Solar

READ eLC, Steffan Jacobsson and Volkmar Lauber, “The Politics of Energy System Transformation – Explaining the German Diffusion of Renewable Energy Technology,” *Energy Policy* 34 (2006): 256-276; Arif Hepbasli and Onder Ozgener, “Turkey’s Renewable Energy Sources: Part 1. Historical Development,” *Energy Sources* 26, 10 (August 2004): 961-969.

April 20 Wind

READ eLC, Mick Sagrillo, “Putting Wind Power’s Effect on Birds in Perspective,” American Wind Energy Association (2003), online; Robert Bryce, “Windmills Are Killing Our Birds,” *Wall Street Journal* op-ed, September 7, 2009, online; Allison Rogers, “Do Wind Turbines Really Kill Birds?” *Mother Earth News*, March 4, 2009, online.

April 22 Biofuel Production [Today is Earth Day]

READ eLC, WWF, *Sustainability Standards for Bioenergy* (2006), pp. 1-33; Enrique Rieglehaupt and Teresita Arias Chalico, “Opportunities and Challenges for Biofuel Production in Latin America: A Forester’s Perspective,” *CIFOR Environment Brief* (June 2009).

Week #15 A Future Without Dirty Energy?

April 25 Climate Change

READ eLC, Paul Sabin, “‘The Ultimate Environmental Dilemma’: Making a Place for Historians in the Climate Change and Energy Debates,” *Environmental History* 15, 1 (2010): 76-93.

April 27 Beyond Petroleum in Nigeria?

April 29 Energy Independence

Research Paper Due

Week #16

May 2 **Research Presentations**

Final Exam

May 4 12:00 PM – 3:00 PM

<http://www.reg.uga.edu/calendars/final-exam-dates/finalExamDatesSpring2011>