

University of Florida
Department of History
Spring 2024

WOH3404: Global History of Energy

Professor Sean Adams
MWF 4 (MWF 10:40-11:30)
Keene-Flint Hall 0111

Course Introduction and Objectives

This course will address several questions involving the relationship of energy to human society. It is global in size and scope, meaning that we will cover a large swath of human history on several continents. Such an ambitious size means that the course lectures and readings will be wide ranging and not attempt to provide a comprehensive account of the production and consumption of energy. Instead, we will move around the globe in order to engage themes such as energy transitions, the impact of energy on political and social structures, and the ways in which energy needs drive historical change.

After completing this course, students will have a greater appreciation of the historical development of energy from a global perspective. We will discuss these issues in class, providing you the opportunity to work through some of these very complex concepts. Over the course of the semester, students will also have the opportunity to hone verbal and written arguments that use both primary and secondary sources in order to address complex historical questions.

Required Readings

There are six (6) required texts available for purchase at the UF Bookstore. If you choose to purchase these books online, please make sure that you leave enough time for shipping. A tardy delivery will not be an acceptable excuse for not having the reading materials. In addition to these books, there will be various readings, images, and other sources available online via the course e-learning site at <https://elearning.ufl.edu>. These are required readings and will form the basis of many assignments. Whether you print them out as hard copy or not is up to you, but please be sure that you can access them in time for class.

Rolf Peter Sieferle, *The Subterranean Forest: Energy Systems and the Industrial Revolution*. Cambridge, UK: White Horse Press, 2001. ISBN 1874267537

Miguel Tinker Salas, *The Enduring Legacy: Oil, Culture and Society in Venezuela*. Durham, NC: Duke University Press, 2009. 082234419X

Matthew Huber, *Lifblood: Oil, Freedom, and the Forces of Capital*. Minneapolis: University of Minnesota Press, 2013. ISBN 0816677859

Arbella Bet-Shlimon, *City of Black Gold: Oil, Ethnicity, and the Making of Modern Kirkuk*. Palo Alto, CA: Stanford University Press, 2019. ISBN 9781503609136

Jonathan Fetter-Vorm, *Trinity: A Graphic History of the First Atomic Bomb*. New York: Hill and Wang, 2012. ISBN 0809093553

Andrew Needham, *Power Lines: Phoenix and the Making of the Modern Southwest*. Princeton, NJ: Princeton University Press, 2014. ISBN:9780691139067

Grading Policy

Your grade in this class will be determined largely by your performance on a variety of brief written assignments, as well as longer papers. These exercises will allow you to hone your skills in critical thinking and writing in addition to providing thoughtful commentary on the global history of energy; this work is essential for success in both academic and professional settings. Improvement over the course of the semester is not only encouraged, but rewarded. My hope is that the work you do in this class will pay dividends—the market reference is quite intentional here—for years after you leave UF and Gainesville.

There will be six (6) brief response assignments of roughly 500-750 words each, with the option of dropping the three (3) lowest grades. There will also be three (3) longer, mandatory essays of 1,500-2,000 word length due at the end of each major unit. All written work in this class will be evaluated with three major assessment tools in mind. First, the clarity and coherence of an argument made in the essay, with the clear use of supporting evidence will be required of all successful papers. Second, a logical and clear organization, in which the case study materials are marshaled in support of the essay's argument, is a necessary component of a successful paper. Finally, proper grammar, punctuation, citation methods, and other elements of clear writing are an important part of this evaluation. All evaluated materials will be returned with qualitative feedback from the instructor, as well as a quantitative grade, within two (2) weeks of being handed in for evaluation. Please contact the instructor to receive your final essay following the conclusion of the semester.

Regular attendance in this course is not optional, but mandatory. Any more than five (5) unexcused absences will result in a reduction of the participation grade by a full letter. More than nine (9) unexcused absences will result in a failing grade for the course. Please be respectful to your fellow students by turning off all cell phones and tablets, arriving on time, and please avoid making excessive noise. You may use a computer to take notes, but any distracting web surfing, game playing, texting or other behavior will not be tolerated. Students who do not abide by these simple rules of courtesy will be asked to leave.

Your final grade will be calculated on the following basis:

Grade Calculation	Grading Scale	Grade Value
First Essay Exam: 15%	100-93=A	A=4.0
Second Essay Exam: 20%	92-90=A-	A-=3.67
Brief Assignments: 30%	89-87=B+	B+=3.33
Participation/Attendance 10%	86-82=B	B=3.00
Third Essay Exam 25%	82-80=B-	B-=2.67
	79-76=C+	C+=2.33
	75-72=C	C=2.00
	71-69=C-	C-=1.67
	68-66=D+	D+=1.33
	65-62=D	D=1.00
	61-60=D-	D-=0.67
	59-0=E	E=0.00

Please do not hesitate to contact the instructor during the semester if you have any individual concerns or issues that need to be discussed. Students requesting classroom accommodation must first register with the Disability Resource Center (<https://disability.ufl.edu/>). The DSO will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation.

Plagiarism will not be tolerated in this class, as it constitutes intellectual theft and academic dishonesty. If you turn in the work of others and try to pass it off as your own, you will fail that assignment and risk expulsion from the University of Florida. I will give you the guidelines, expectations, and other information regarding the written work in this course, so you really have no reason to cheat. I take these matters very seriously and will prosecute vigorously if provoked. Any possible rewards derived from plagiarism simply don't justify the risk! All students must conform to UF's honesty policy regarding cheating, plagiarism, and the use of copyrighted materials. Your major assignments will be monitored with the Turnitin Anti-Plagiarism Service, so please keep in mind that cheating on the assignments in this course will be much more difficult than actually doing the work. All students must conform to UF's honesty policy regarding cheating, plagiarism, and the use of copyrighted materials, which you can find at the following address:

<https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>

No late work can be accepted for full academic credit. Any make-up exams or essays must be approved by the instructor after the submission of appropriate documented evidence that supports why a make-up exam or essay is appropriate. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Graded material with feedback will be posted on Canvas, but you should always remember that those grades are unofficial and subject to change. If you have any questions or concerns with your grades over the course of the semester, please contact me as soon as possible.

Contacts, Confidentiality and Recording Policies

It's always a good idea to meet with an instructor to track your progress in a college course. I am happy to meet with you in person during office hours—keep in mind that you can schedule a meeting with me outside of the scheduled hours—to discuss grades, assignments, or other course-related concerns during my regular office hours or appointments. If you have a brief question about the course, feel free to drop me an e-mail. However, I cannot accept assignments as e-mail attachments in this course without prior arrangement. I also cannot discuss grades over e-mail or the phone, as student records are confidential. UF views each student, not their parent(s), as the primary contact for all communication. For more information, see:

<http://www.registrar.ufl.edu/ferpa.html>

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Honor Code and Student Conduct Code.

I may keep a personal recording of class sessions, but am bound by the same restrictions on publication and distribution. These audio recordings are for my own use only.

Lecture and Readings Schedule (Subject to Change)

Week One: Course Introduction

- January 8 Course Introduction
- January 10 Why a Global History of Energy?
- January 12 Why “Regimes”?
Readings: Huber, *Lifeblood*, pp. vii-xxi; 1-26

Section 1: Organic to Mineral Energy

Week Two: Origins

- January 15 Dr. Martin Luther King Day—No Class Session
- January 17 Energy in Ancient Agriculture
Readings: Sieferle, *The Subterranean Forest*, pp. 1-46
- January 19 The First Renewables
First Brief Response Due

Week Three: Organic Energy Regimes

- January 22 The Human Body as Energy

January 24 The Domestication of Animals

January 26 "The Face of a Fire"
Readings: Sieferle, *Subterranean Forest*, pp. 47-77.

Week Four: Organic Regimes in Crisis

January 29 The First Fossil Fuel Power: England and Coal
Readings: Sieferle, *The Subterranean Forest*, pp. 78-137

January 31 Early Steam

February 2 The Disappearing Forest
Readings: Sieferle, *The Subterranean Forest*, pp. 138-180
Second Brief Response Due

Week Five: Energy Transitions: The Rise of Coal

February 5 The Deepest, Darkest Abode of Men

February 7 Home Heating and Fossil Fuel Dependence
Readings: Adams, "How Mineral Heat Came to American Cities," from *Home Fires: How Americans Kept Warm in the 19th Century*, pp. 39-64 (e-learning)

February 9 Smoke and Fog

Week Six: The Organic Industrial Economy

February 12 The Horse as the Living Machine

February 14 Leviathan: How Whales Became Energy Sources

February 16 **First Major Essay Due**

Section 2: The Rise of Oil

Week Seven: Origins

February 19 Rock Oil and Petrolia

February 21 Early Oil Production in Russia and America

February 23 Importing a Petroleum Industry: Venezuela

Readings: Salas, *The Enduring Legacy*, pp. 1-72

Week Eight: Petroleum as Transformative

February 26 Oil and War

February 28 Ethnic Identity in the Petroleum Age
Readings: Bet-Shlimon, *City of Black Gold*, pp. 19-77; Salas, *The Enduring Legacy*, pp. 73-106

March 1 Automobiles and the Paving of America
Third Brief Response Due

Week Nine: Oil Comes of Age

March 4 Better Living Through Petroleum
Readings: Huber, *Lifeblood*, pp. 27-95

March 6 World War II

March 8 Making the American Sunbelt
Readings: Needham, *Power Lines: Phoenix and the Making of the Modern Southwest*, pp. 1-90

Week Ten: National Identity in the Petroleum Age

March 18 Iran

March 20 Venezuela
Readings: Salas, *The Enduring Legacy*, pp. 106-205

March 22 Mexico
Fourth Brief Response Due

Week Eleven: Fueling Civil Strife

March 25 The Rise of Arab Nationalism
Readings: Bet-Shlimon, *City of Black Gold*, pp. 79-164

March 27 Nigeria and the "Oil Curse"

March 29 The Fall of the Petrostate
Readings: Salas, *The Enduring Legacy*, pp. 205-250

Section 3: Problems of Scarcity and Abundance

Week Twelve: Shocks to the System

- April 1 The Energy Crisis of the 1970s
Readings: Huber, *Lifeblood*, pp. 96-169
- April 3 Making the Desert Bloom in Arizona and Saudi Arabia
Readings: Needell, *Power Lines*, pp. 91-182
- April 5 **Second Major Essay Due**

Week Thirteen: The Search for Alternatives

- April 8 Falling Waters: Hydroelectric Dreams
- April 10 Atoms for Peace
Readings: Fetter-Vorm, *Trinity* (entire book)
- April 12 The Rise (and Fall) of Nuclear Energy
Fifth Brief Response Due

Week Fourteen: Conflicts Over Scarcity and Abundance

- April 15 The High Cost of Cheap Energy
Readings: Needham, *Power Lines*, pp. 186-257
- April 17 Blackout! America's Failing Grid
- April 19 Energy and the Gulf War(s)
Readings: Bet-Shlimon, *City of Black Gold*, pp. 165-198

Week Fifteen: Energy's Legacy So Far

- April 22 Anthropocene: Assessing the Impact of Fossil Fuels
Readings: Sieferle, *Subterranean Forest*, pp. 181-205.
- April 24 The Future
Sixth Brief Response Due

Final Exam Period: Thursday, 2 May 2024 7:30-9:30 am

Contact Information

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Office Hours: Mondays 3-4 pm; Wednesdays 12-1 pm; & by appointment

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.