



ARIZONA STATE UNIVERSITY

GENERAL STUDIES COURSE PROPOSAL COVER FORM

Course information:

Copy and paste current course information from Class Search/Course Catalog.

Academic Unit CLAS Department Geog Sci and Urban Planning
Subject GCU Number 171 Title The Thread of Energy Units 3
Is this a cross-listed course? (Choose one)
If yes, please identify course(s) SOS 171
Is this a shared course? (choose one) If so, list all academic units offering this course
Course description:

Requested designation: (Choose One)

Note - a separate proposal is required for each designation requested

Eligibility:

Permanent numbered courses must have completed the university's review and approval process. For the rules governing approval of omnibus courses, contact the General Studies Program Office at (480) 965-0739.

Area(s) proposed course will serve:

A single course may be proposed for more than one core or awareness area. A course may satisfy a core area requirement and more than one awareness area requirements concurrently, but may not satisfy requirements in two core areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirement and the major program of study.

Checklists for general studies designations:

Complete and attach the appropriate checklist

- Literacy and Critical Inquiry core courses (LI)
Mathematics core courses (MA)
Computer/statistics/quantitative applications core courses (CS)
Humanities, Fine Arts and Design core courses (HU)
Social and Behavioral Sciences core courses (SB)
Natural Sciences core courses (SQ/SG)
Global Awareness courses (G)
Historical Awareness courses (H)
Cultural Diversity in the United States courses (C)

A complete proposal should include:

- Signed General Studies Program Course Proposal Cover Form
Criteria Checklist for the area
Course Syllabus
Table of Contents from the textbook, and/or lists of course materials

Contact information:

Name Martin J Pasqualetti Phone 965-4548
Mail code MC 5302 E-mail: Pasqualetti@asu.edu

Department Chair/Director approval: (Required)

Chair/Director name (Typed): Kevin McHugh Associate Director Date: 7/22/13
Chair/Director (Signature): Kevin E. McHugh

## ASU--[SB] CRITERIA

**A SOCIAL AND BEHAVIORAL SCIENCE [SB] course should meet all of the following criteria. If not, a rationale for exclusion should be provided.**

YES	NO		Identify Documentation Submitted
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. Course is designed to advance basic understanding and knowledge about human interaction.	Highlight syllabus and accompanying descriptive table
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Course content emphasizes the study of social behavior such as that found in: <ul style="list-style-type: none"> <li>• ANTHROPOLOGY</li> <li>• ECONOMICS</li> <li>• CULTURAL GEOGRAPHY</li> <li>• HISTORY</li> </ul>	Highlight syllabus and accompanying descriptive table
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. Course emphasizes: <ul style="list-style-type: none"> <li>a. the distinct knowledge base of the social and behavioral sciences (e.g., sociological anthropological).</li> <li style="text-align: center;"><b>OR</b></li> <li>b. the distinct methods of inquiry of the social and behavioral sciences (e.g., ethnography, historical analysis).</li> </ul>	Highlight syllabus and accompanying descriptive table
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Course illustrates use of social and behavioral science perspectives and data.	Table of contents for principal texts.
		<b>THE FOLLOWING TYPES OF COURSES ARE EXCLUDED FROM THE [SB] AREA EVEN THOUGH THEY MIGHT GIVE SOME CONSIDERATION TO SOCIAL AND BEHAVIORAL SCIENCE CONCERNS:</b>	
		• Courses with primarily fine arts, humanities, literary, or philosophical content.	
		• Courses with primarily natural or physical science content.	
		• Courses with predominantly applied orientation for professional skills or training purposes.	
		• Courses emphasizing primarily oral, quantitative, or written skills.	



# *GCU 171*

# **The Thread of Energy**

## *Syllabus*

### **Purpose**

To provide students with the knowledge to make informed decisions about energy, and the concepts to understand how these decisions will affect their personal lives and the lives of others around the globe.

### **Course Description**

This course follows the thread of energy through every aspect of our lives. It stresses the social, behavioral, and political contexts of energy. It addresses energy use throughout history, cultural differences in energy use, the influence of energy on quality of life, the role energy plays in political strategies and environmental quality, how it shapes our neighborhoods and cities, its contribution to our personal comfort and national security, and how these relationships are reflected in the worlds of business and the humanities.

The course emphasizes the following topics:

- Energy in history (including energy transitions such as during the industrial revolution)
- The anthropology of energy (including how cultural differences affect energy decisions)
- The sociology of energy (including peer pressure, group dynamics)
- Energy in business (such as the impediments to energy start-up companies)
- Energy and politics (everything from making laws to making war)
- Energy behavior (including what motivates people to make their energy choices)
- Energy economics (such as calculating rate-of-return)
- Energy health and safety (everything from coal mining to nuclear accidents)
- Energy security (including how it affects decisions such as the Keystone XL pipeline)

Specific learning outcomes for each module in the course may be found on the course website

## Supporting Texts

(Specific readings for each lecture are identified on BlackBoard for each lesson.)

*Crude Domination: An Anthropology of Oil*, Andrea Behrends, Stephen P. Reyna, Gunther Schlee (eds). 2011.

*Crude Reality: Petroleum in World History*. New York: Rowman & Littlefield. 2012

*Energy Law in A Nutshell*, Joseph P. Tomain and Richard D. Cudahy, 2<sup>nd</sup> edition, West Publishing Company. 2011

*The Energy Reader*, Laura Rader

## General Studies Review Color Key to SB Criteria:

1. human interaction.
2. Course content emphasizes the study of social behavior such as that found in
  - ANTHROPOLOGY
  - ECONOMICS
  - CULTURAL GEOGRAPHY
  - HISTORY
  - LINGUISTICS
  - POLITICAL SCIENCE
  - SOCIAL PSYCHOLOGY
  - SOCIOLOGY
3. Course emphasizes:
  - a. the distinct knowledge base of the social and behavioral sciences (e.g., sociological anthropological).
  - OR**
  - b. the distinct methods of inquiry of the social and behavioral sciences (e.g., ethnography, historical analysis).
4. Course illustrates use of social and behavioral science perspectives and data.

n.b. Those that satisfy more than one evenly are multi-colored

## SCHEDULE

	Meeting	Topics
<b>Module 1</b>		<b>The Thread of Energy</b>
1.	1	The thread of energy and the fabric of our lives
2.	2	The history of energy transitions and how they have affected us
<b>Module 2</b>		<b>Energy and Society</b>
1.	3	Energy poverty and how it affects the quality of life
2.	4	The role of culture in energy decisions
3.	5	Energy security and what we do to maintain it
4.	6	Matching energy use with social class
<b>Module 3</b>		<b>The Geopolitics of Energy</b>
1.	7	The geopolitics of energy past and present
2.	8	Geopolitics and national security
3.	9	The quest for energy and the wars it can produce (1 <sup>st</sup> exam)
<b>Module 4</b>		<b>Energy Behavior</b>
1.	10	Energy use and personal habits
2.	11	Energy and cars
3.	12	Why people save and don't save energy
<b>Module 5</b>		<b>Energy Supplies</b>
1.	13	Fossil fuels and our way of life
2.	14	The nuclear renaissance and what it would mean
3.	15	Social barriers to renewable energy
4.	16	Meeting our energy needs through efficiency

<b>Module 6</b>		<b>Energy in the Built Environment</b>
1.	17	Energy choice and urban planning
2.	18	Energy use and architecture
3.	19	Energy and the operation of living spaces
<b>Module 7</b>		<b>The Choices we Make about Energy and Environment</b>
1.	20	Energy or environment: Can we have both?
2.	21	Energy and wilderness: the growing battle over our national parks
3.	22	Energy and water: the critical tradeoffs (2 <sup>nd</sup> exam)
<b>Module 8</b>		<b>Energy Economics</b>
1.	23	Energy in the world of business
2.	24	What we pay for energy: externalities and how they are measured
<b>Module 9</b>		<b>Energy Politics and Policy</b>
1.	25	Energy laws and how they are made
2.	26	The role of policy decisions on the choices we have
<b>Module 10</b>		<b>Energy in Different Cultures</b>
1.	27	Developing World
2.	28	Developed World
<b>Module 11</b>		<b>Energy Sustainability</b>
1.	29	Energy sustainability: myth or reality?
2.	30	Review and Discussion (Last day of class)

## **Course Outcomes and Key Concepts**

This course is appropriate for students at any level, but it is aimed primarily at students early in their academic careers. It is meant to serve as an introductory exposure to energy which can serve as a foundation for more focused classes in energy issues within several colleges. The course is unique in that a holistic of view of the various aspects of energy in society. Emphasis will be placed on providing a systems-thinking competence rather than any one specialized aspect of energy.

This course, as do all courses affiliated with the School of Sustainability, emphasizes the following themes:

<i>Systems Dynamics</i>	Social systems and environmental systems are linked. Changes in any part of any system have multiple consequences or <i>cascading effects</i> that reach far beyond the initial change. While some of the consequences of the decisions that we make are intended, <i>unintended consequences</i> , both positive and negative, are common.
<i>Scale</i>	Sustainability problems exist across multiple spatial scales. Solving a problem at a local level is a very different thing than solving a problem across international boundaries. Local activities might have impacts on other regions and even on the global scale.
<i>Long Term Development</i>	Sustainability hinges on an understanding of long-term consequences of the decisions that we make today. Solutions that work in the short term may pose problems over a longer time frame. Challenges that seem small in the present may magnify over time.
<i>Tradeoffs</i>	There is no one “solution” to address sustainability. Solving almost all problems related to sustainability involves tradeoffs involving the socio-economic needs of multiple stakeholder groups and environmental capacities. There are rarely perfect solutions with no costs, and there are often winners and losers.
<i>Collaboration and Participation</i>	Sustainability problems are caused by, and affect, multiple <i>stakeholders</i> with specific experiences, resources, perspectives and preferences. Solving sustainability problems requires strong collaborations and negotiations among scientists of all disciplines, politicians, entrepreneurs, artists, farmers, business and community leaders, and you.

## **Course Communication**

During the normal work week (M-F, 8am-5pm) I will try to respond to e-mails received promptly. I do not check e-mail as frequently during the weekend, so if you send a message to me after 5pm on Friday afternoon, do not expect a response until Monday. If you do not receive a response from me within 48 hours, please re-send your message as it may not have found its way to my inbox.

All communications (electronic and otherwise) that you have with me and your fellow students in this course should be professional. This means using proper grammar and sentence structure in your communication. Finally, always make sure that your inbox is not full and that your ASU email address (or forwarding account) is functioning properly, as I often distribute course communication through Blackboard’s announcements and email system which utilizes your ASU email address.

## **Academic Integrity**

Cheating and plagiarism is not tolerated. This includes, but is not limited to using the ideas and material of others without giving due credit, and/or aiding another person to cheat either actively or passively (e.g., allowing someone to look at your exam/quizzes; writing someone's paper for them). If a student is charged with academic dishonesty and found to be in violation, disciplinary action will be taken and a student's name will be kept on file. Disciplinary action may result in the student receiving an XE on her or his transcript, suspension or expulsion from the academic unit and/or referral to Student Judicial Affairs. For further information, please read the [Student Code of Conduct](#).

## **Disability Accommodations**

If you need disability accommodations for this class, please contact me as soon as possible to allow us to work with the Disability Resource Center (<http://www.asu.edu/studentaffairs/ed/drc/>) to meet your needs. Information regarding disability is confidential.

## **Sustaining Yourself**

Several offices on and off campus help students succeed at ASU. Please take advantage of these services as needed.

<i>Computer Help Desk</i>	provides assistance with computer-related problems and computer accounts. <a href="https://help.asu.edu">https://help.asu.edu</a>
<i>Counseling and Consultation</i>	provides confidential mental health and career counseling services for all ASU students. <a href="http://students.asu.edu/counseling">http://students.asu.edu/counseling</a>
<i>Disability Resources Center</i>	provides a comprehensive range of academic support services and accommodations for qualified students with disabilities. <a href="http://www.asu.edu/studentaffairs/ed/drc">http://www.asu.edu/studentaffairs/ed/drc</a>
<i>Student Financial Aid Office</i>	offers information and applications for student funding such as grants, loans, scholarships and student employment. <a href="http://students.asu.edu/node/40">http://students.asu.edu/node/40</a>
<i>Campus Health Service</i>	provides non-emergency medical health care to all ASU students. All insurance plans are accepted. <a href="http://students.asu.edu/health">http://students.asu.edu/health</a>
<i>Student Recreational Center</i>	offers individual and group fitness opportunities, as well as information on nutrition and wellness, and massages. Use of the general facilities (weights, circuit training and cardio machines) are free, other services (yoga classes, massages) are fee-based. <a href="http://src.asu.edu">http://src.asu.edu</a>
<i>Student Legal Assistance</i>	provides legal advice and counsel free of charge to all ASU students in areas such as landlord-tenant law, credit reports and collection issues, taxability of scholarships and grants, etc. Notary service is also available at no charge. <a href="http://www.asu.edu/studentaffairs/mu/legal">http://www.asu.edu/studentaffairs/mu/legal</a>
<i>Writing Center</i>	provides on-site tutors to help students increase their confidence as writers and improve writing skills free of charge. For information, see <a href="http://studentsuccess.asu.edu/writing/">http://studentsuccess.asu.edu/writing/</a>



*EMPACT Crisis  
Hotline*

offers free 24-hour support for mental health crises. Call (480) 784-1500 in the Phoenix area, (866) 205-5229 for the toll-free number outside of Phoenix, and (480) 736-4949 for the sexual assault hotline in Maricopa County. All services are free and confidential.  
[www.empact-spc.com](http://www.empact-spc.com)

**Course Website**

- This course has an accompanying myASU website. Log in to the site at <http://myasucourses.asu.edu/> using your ASURITE ID and password. You should see “GCU 194: The Thread of Energy”. The website contains the slides of lectures, reading materials for each topic, assignments, solutions, links, and email addresses for all in the class.
- **Note:** myASU uses your email address from ASU’s student records. This means that the students will have to check their ASU email, *or have it forwarded to their preferred account*, to get information sent from instructors or from their classmates.

**Instructional Methods**

Instruction will rely on mini-lectures, in-class exercises, guest speakers, assigned self-study, videos, and discussion of case studies. Written assignments, weekly journals and summary of guest oral presentations will enhance understanding and provide a proper appreciation of various facets of energy issues.

**Grading Policy**

ASU’s +/- grading will be used: A+ (99%-100%), A (93-98%), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (70-76), D (60-69), E (<60), XE (failure due to academic dishonesty).

Final grades will be assigned on the basis of the following categories and according to the indicated weights:

Assignments	20%
Quiz-1	20%
Quiz-2	20%
Final	<u>40%</u>
Total	100%

**Prerequisites**

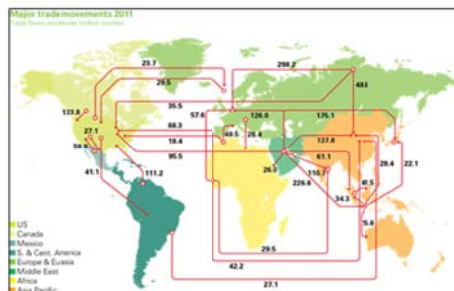
There are no prerequisites for this course

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## EXAMPLE ASSIGNMENTS

### **Module 3.2 – GEOPOLITICS AND NATIONAL SECURITY**

1. Learning Outcomes: After completing this unit, you should be able to:
  - a. Describe — Spatial factors that accompany the distribution of energy resources and energy demand
  - b. Explain — How and why these factors are important to energy security, environmental justice, transfer of wealth, and what we can do about it
2. Readings
  - a. Web sites:
    - i. <http://www.eia.gov/countries/> - this is an interactive map that will allow you to identify sources of various energy resources, plus a briefing of every country's energy picture
    - ii. Chokepoints - <http://www.eia.gov/countries/regions-topics.cfm?fips=WOTC>
    - iii. Natural Gas Analysis - [http://www.eia.gov/pub/oil\\_gas/natural\\_gas/analysis\\_publications/ngpipeline/impex.html](http://www.eia.gov/pub/oil_gas/natural_gas/analysis_publications/ngpipeline/impex.html)
  - b. Text
    - i. [Yergin: All of part two](#)
3. Videos
  - a. Pirating of oil tankers - <http://www.youtube.com/watch?v=G2zaB4INY4Q>
4. In Class
  - a. Introduce the Topic – Why are we examining this?
  - b. Mini-lecture 1: essential elements resulting from the geography of energy
  - c. Activity: draw a supply chain for gasoline used by a typical American consumer
  - d. Mini-lecture 2: what might the future geography of energy hold and what will be its impacts
  - e. Activity: What are the implications of oil trading patterns
  - f. Closure: Sum up, link to next class
5. Homework
  - a. Write up to one page on the implications of these trading patterns



### 6. Bibliography

- a. The complex network of global cargo ship movements, by Pablo Kaluza, Andrea Kölzsch, Michael T. Gastner and Bernd Blasius.  
<http://rsif.royalsocietypublishing.org/content/early/2010/01/19/rsif.2009.0495.full>
- b.

### **Module 6.3 – ENERGY AND THE OPERATION OF LIVING SPACES**

Learning Outcomes: After completing this unit, you should be able to:

- Explain — The importance of the use of energy in individual houses
- Describe — How houses can be designed and operated to reduce energy
- Readings
  - Web sites:
    - Weatherized Homes Saving Money for Families Across the U.S.  
<http://energy.gov/articles/weatherized-homes-saving-money-families-across-us>
    - Top 11 Things You Didn't Know About Saving Energy at Home: Summer Edition. <http://energy.gov/articles/top-11-things-you-didnt-know-about-saving-energy-home-summer-edition>.
  - Videos
    - Home Weatherization. <http://energy.gov/home-weatherization>
    - Amory Lovins on Building. (download or view from <http://www.rmi.org/Stanford%20Energy%20Lectures> (1 hour 36 minutes))
- In Class
  - Introduce the Topic – Why are we examining this?
  - Mini-lecture 1 – How houses use energy
  - Think-Pair-Share Activity or Group Activity: Identify the energy uses in your residences and calculate how much it is costing you.
  - Mini-lecture 2 – How energy use in houses can be reduced to zero
  - Think-Pair-Share Activity or Group Activity: Identify how you could reduce energy uses in housing in the Phoenix area
  - Closure: Sum up, link to next class
- Homework
  - Readings
    - Zero-Energy Buildings. [http://en.wikipedia.org/wiki/Zero-energy\\_building](http://en.wikipedia.org/wiki/Zero-energy_building).
    - Are Energy Vampires Sucking You Dry?  
<http://energy.gov/articles/are-energy-vampires-sucking-you-dry>.
    - Americans' Spending on Consumer Electronics Up 12% from Last Year: CEA (2010). <http://www.photoreporter.com/article/us-consumer-electronics-spending-market-research/1>

## Module 6.1 – ENERGY’S ROLE IN THE FORM AND FUNCTION OF CITIES

1. Learning Outcomes: After completing this unit, you should be able to:
  - a. Explain — The urgent need for more sustainable cities
  - b. Describe — The energy element of a sustainable city
2. Readings/BlackBoard
  - a. Tomorrow’s City - the urban energy enigma -  
<http://www.youtube.com/watch?v=5T2kjMwUh9Y>
  - b. The Future of Sustainable Cities & Energy -  
<http://www.youtube.com/watch?v=hhAIX7ZqKYA>
3. In Class
  - a. Introduction – The need for sustainable cities
  - b. Group Activity – Identify the ties between energy and the form and function of cities
  - c. Mini-lecture 1 - the central theme of energy in the form and function of cities
  - d. Group Activity – What can we do on the energy front to create more sustainable cities?
  - e. Mini-lecture 2 – Cities of the future
  - f. Closure: Sum up, link to next class
4. Homework
  - a. *30 Energy Cities’ Proposals for the Energy Transition of Cities and Towns*. (read on-line) <http://www.scribd.com/doc/97202740/30-Proposals-for-the-Energy-Transition-of-cities-and-towns>. Or look at the following Wiki:  
[http://www.energy-cities.eu/wiki/index.php/Energy\\_Cities%27\\_proposals\\_for\\_the\\_energy\\_transition\\_of\\_cities\\_and\\_towns](http://www.energy-cities.eu/wiki/index.php/Energy_Cities%27_proposals_for_the_energy_transition_of_cities_and_towns).
  - b. TED Talk
    - i. James Kunstler: How bad architecture wrecked cities -  
[http://www.ted.com/talks/james\\_howard\\_kunstler\\_dissects\\_suburbia.html](http://www.ted.com/talks/james_howard_kunstler_dissects_suburbia.html)  
(~ 20 minutes)
  - c. YouTube
    - i. Douglas Farr - Sustainable Urbanism: Urban Design with Nature -  
<http://www.youtube.com/watch?v=uSjurs4ZnlM&feature=related>  
(1:20:22)
5. Bibliography
  - a. Energy Cities - <http://www.energy-cities.eu/-Association,8->.
  - b. Grewal, P. S., & Grewal, P. S. Can cities become self-reliant in energy? A technological scenario analysis for Cleveland, Ohio. *J. Cities* (2012),  
<http://dx.doi.org/10.1016/j.cities.2012.05.015>
  - c. Banister D, Watson S, Wood C, 1997, "Sustainable cities: transport, energy, and urban form" *Environment and Planning B: Planning and Design* 24(1) 125 – 143

## TABLE OF SB CRITERIA

<b>SB Criteria</b>	<b>How course meets the spirit of the Criteria</b>	<b>Detailed Evidence of How the Course Meets the Criteria</b>
<p><b>1.</b> Course is designed to advance basic understanding and knowledge about human interaction</p>	<p>Energy is fundamental to every human activity and human interaction, yet it is customarily taught strictly as a matter of physics and engineering. This new course offers a different orientation, one where human interaction is the core element throughout</p>	<p><i>The class meetings that most directly apply to this criterion: 1,3,4,5,9,25,26 (i.e. poverty, culture, security, war, law, policy, sustainability)</i></p> <p>All people use energy and therefore all people can benefit from a greater understanding of how energy affects them. Especially in developed countries, however, we rarely link energy use with behavior. We usually supply of energy for granted. This course emphasizes how the use of energy differs in various cultures, how it may be the very highest priority in some cultures, even influencing such things as the allocation of tasks by gender. (This is true in many countries where women are tasked with fuel collection that often requires many hours per day to gather (in the case of wood) or preparation (in the case of dung).) Energy is also a major influence in the frequency and strategies in warfare. This is, regrettably, an old and continuing plague on humanity as it finds many examples from WWII through Iraq. As in national decisions about war, energy also influences local decisions about policy and legislation, as is illustrated by the recent debates between solar advocates in Arizona and the electric utility industry. This course discusses how such policy decisions influence society and behavior, and how the public can influence the trajectory of energy planning. Together, all these factors play a role in understanding the place of energy in establishing a more sustainable future</p>
<p><b>2.</b> Course content emphasizes the study of social behavior</p>	<p>Because energy is fundamental to human activity, understanding social behavior affects every aspect of its development, distribution and use.</p>	<p><i>The class meetings that most directly apply to this criterion: 1,2,3,4,6,10,15,23, 27,28. E.g. history, poverty, culture, geopolitics, security, personal habits, social barriers)</i></p> <p>It may be argued that nothing affects human behavior as directly, as deeply, and as consistently as energy. Everything we do revolves around having it, despite the fact that most people (especially in the US) do not pay it much attention except when their utility bill comes in the mail. Nevertheless, social behavior is underpinned by energy availability, price, and form. This course examines this premise through several examples. They include the role of energy in the migration of people, the growth</p>

		<p>of Arizona, employment opportunities, the choice and use patterns of automobiles, and the growing and consumption of food (some having much more 'embodied' energy than others). Such behavior, we will learn, has changed over time as new energy resources have become available. For example, in a hunting and gathering society, most activity circulated around the ceaseless need for energy in the form of food. Once plants and animals were domesticated, segments of society were freed from such activities and could engage in other tasks such as developing writing and scientific inquiry. Great population growth and industrialization followed the incorporation of the concentrated energy in the fossil fuels of coal and oil, leading to the social pattern that accompanied its use in Great Britain in the time of Dickens. Those billions still seeking the higher living standards that eventually evolved to some of the richer countries will in the future be putting pressure on the rest of the world to acquire the same benefits, and social behavior will change again.</p>
<p><b>3.</b> Course emphasizes: the distinct knowledge base of the social and behavioral sciences (e.g., sociological anthropological).</p>	<p>The emphasis is energy as a social issue with a technical component, rather than the other way around. Understanding energy from this perspective requires an understanding of society, culture, politics, cultural geography, history, and behavior</p>	<p><i>The class meetings that most directly apply to this criterion: 1,11,12,17,18,19,20,21,22. (e.g. cars, energy saving, energy choice, urban planning, architecture, home operations)</i></p> <p>This course uses readings from the disciplines of anthropology, history, cultural geography, and social psychology as it illustrates and explains human behavior. For example, who saves energy and who doesn't? This, as several studies have shown, is influenced through peer pressure as well as price and availability. Similarly, why does one brand of automobile carry more prestige than another? Partly, it comes from the implied understanding that flashier cars inherently are less energy efficient, suggesting that the owner can afford to pay for the extra fuel used to make and operate them. What are the characteristics of, for example, the installation of solar energy equipment on houses in Arizona? At present, most the installations are on houses owned by those with sufficient disposable income, although it could be argued that the most appropriate sector of society for solar power are those with less money to pay for standard forms of electrical generation.</p>
<p><b>4.</b> Course illustrates use of social and behavioral science perspectives and data.</p>	<p>The purpose of the course is to understand energy not from a technical point of view but from a social and</p>	<p><i>The class meetings that most directly apply to this criterion: 1,13,14,16,23,24 (e.g. ways of life, acceptance of nuclear power, energy efficiency, environmental costs of energy, energy and</i></p>

	<p>behavioral perspective. It emphasizes that we cannot address or solve our future energy needs without this perspective. The consideration of energy in this context depends on understanding how different cultures react to these needs.</p>	<p><i>water, business)</i></p> <p>Presentations associated with this class will often rely on understanding the principal societal driving forces in energy decisions. When such decisions are made from the perspective of different cultures and societal strata, rather than from the more common perspectives of technology and vested interests, we are often presented with a different variety of choices. Some of these choices will be influenced by a richer assortment of data than is commonly considered. Examples of topics covered here could include the future contribution from nuclear power, climate change, population growth, degrees of poverty, influence on business decisions, and balancing the need for water with the need for energy.</p>
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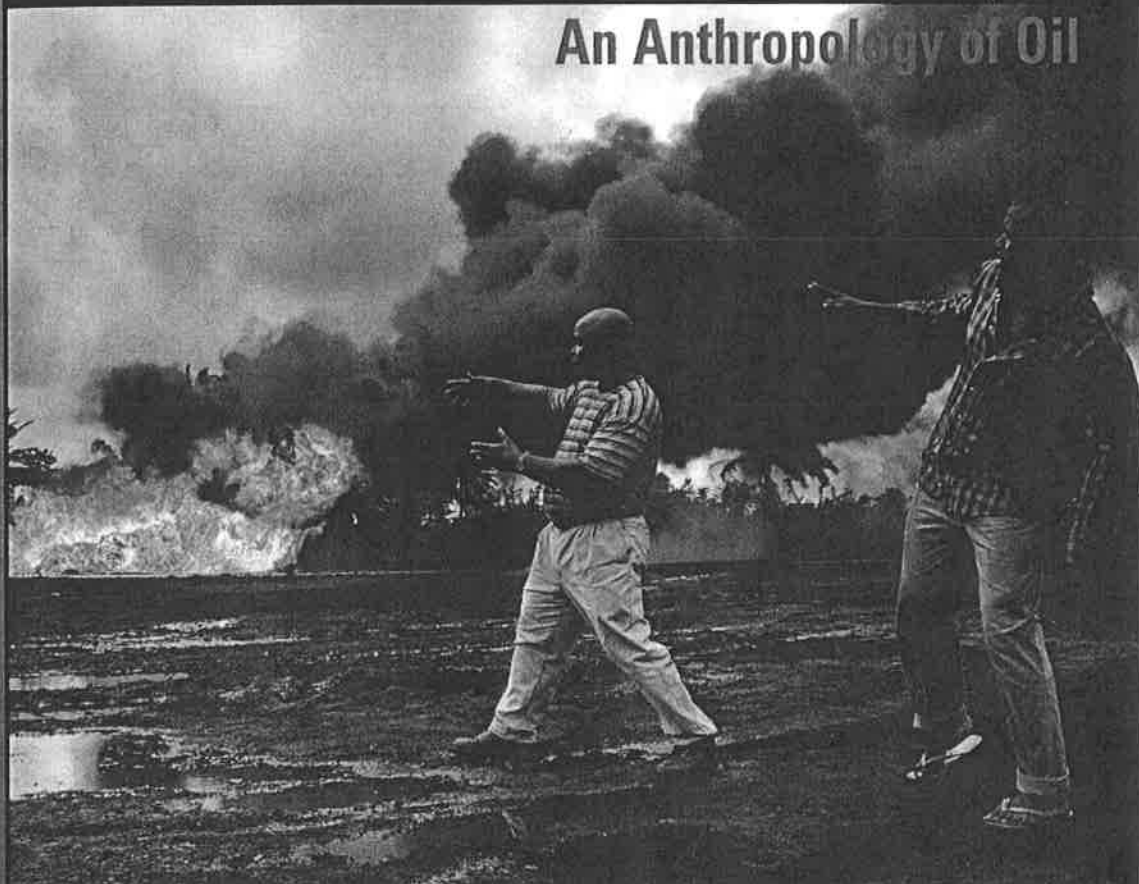
Tables of contents for principal texts are included on the following pages.





# Crude Domination

An Anthropology of Oil



Edited by  
**Andrea Behrends**  
**Stephen P. Reyna**  
**Günther Schlee**

BERGHAHN  
DISLOCATIONS  
VOLUME 9

d in 2011 by  
Books  
nbooks.com

hen P. Reyna and Günther Schlee  
n published in 2013

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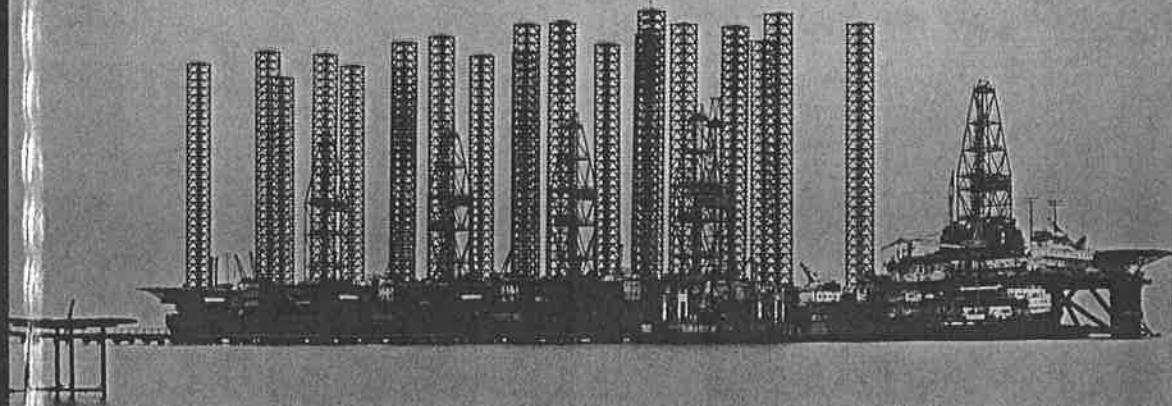
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