DESCRIPTION & OBJECTIVES

This course examines issues at the intersection of national energy security/sustainability and international conflict/cooperation. Is oil import dependence a foreign policy liability or cause war? Does “energy dominance” confer geopolitical influence? Alternatively, do globalization and the interdependence of energy markets favor international cooperation and peace? More specifically, can Saudi Arabia and Russia use hydrocarbon exports as energy weapons? Or, will low oil prices, as well as the promise of natural gas exports lock in a strategic pivot away from the Persian Gulf and reinvigorate U.S. global leverage, especially amid growing local demand across the Middle East and East Asia? Will this give grist to future U.S. energy sanctions on Russia, Iran, Venezuela and other strategic rivals, or stoke instability across the Middle East and Eurasia? Are the U.S. and China doomed to compete for access to global energy supply? Will there be a nuclear energy renaissance, and if so, will it increase the probability of weapons proliferation and regional conflict? Similarly, do efforts aimed at distributing renewable energy and promoting local sustainability generate incentives for cross-border conflict?

Students are introduced to major theoretical and policy analytical lenses used to examine critical geopolitical and geoeconomic issues associated with energy security and sustainability. The above questions and others will be probed by dissecting the complex interaction between resource endowments, technologies/innovation, economics, politics, power, and strategy in the oil, natural gas, nuclear, and alternative energy sectors; and by analyzing the implications for broader themes and concepts of security and sustainability in international relations. Accordingly, the course is structured around historical and comparative analysis of core issues in each sector that cut across different states and regions related to resource scarcity, market dynamics, trade vulnerability, corporate behavior, policymaking, national welfare and threat perceptions, and strategic interaction.

Learning Outcomes

Students will demonstrate proficiency at critiquing alternative explanations for international energy competition/conflict/war and assessing systematically the respective policies, institutions, and technologies adopted to bolster energy security and sustainability by different actors across the international system. By embracing comparative perspectives, they also will become more aware of the diversity of political,
cultural, and normative approaches to energy security across the international system. In addition, students will enhance their professional development by learning to communicate effectively in applying critical analysis to generate concrete policy recommendations on international security issues at the nexus of energy resources, technologies/infrastructure, trading, governance, and sustainable social systems at the local, national, and global levels.

**FORMAT & REQUIREMENTS**

The course consists of lectures and discussion, with in-class documentaries and prominent guest speakers occasionally interspersed. Students are expected to complete the required reading before each class and to contribute actively to all discussions.

Each student will have to write a *one page* (single-spaced) brief on a selection of the week’s reading *four times* throughout the semester (or on a reading or argument advanced by a guest speaker of her/his choosing). Each brief must summarize a relevant debate, specify an analytical critique, and identify the practical significance of the analytical critique. Each brief is due the date that the specific reading will be assigned for the class.

In addition, graduate students will be expected to develop, draft, and guide a policy simulation. Although participation in the actual course simulation that will take place during the weekend of April 14th-15th is optional, each graduate student is required to write several short preliminary concept papers and a group scenario. Upon collectively identifying a topic, each student will write two concept papers (3-5 pages each, double spaced). The *first* will specify and explain prevailing conditions that constrain options and behavior among contending actors, as well as assess alternative driving forces that motivate the behavior of contending actors. The *second* paper will identify critical uncertainties that can alter constraints, motivations, and/or behavior. All graduate students will then collectively draft a *specific scenario* around the issue for distribution to the class on April 10th. Those graduate students who opt to participate in the simulation, will be required to play the role of control by guiding events and responding to student inquiries. Students who do not participate in the simulation will be required to script a set of events that would inform actor behavior (as derived from their preliminary analyses) throughout the exercise. This is to be handed in by April 14th, prior to the onset of the simulation. The process of scenario writing will be discussed in class and informed by reading Peter Schwartz’, *Art of the Longview*.

Each student also will be responsible for drafting a critical review (5-7 pages double-spaced) of official and/or scholarly/expert commentary on the international security implications of the changing energy landscape or climate change. Specific details will be discussed in class. This can be handed in any class on or before April 19th.
Finally, each student will write a policy memo (12-15 pages double-spaced) on a contemporary case study or topic of her/his choosing. Each memo will be addressed to a client—a head of a government agency or international institution, or a policy strategist at a firm or NGO—and will briefly summarize the geopolitical significance of the event or issue, critique alternative theoretical/conceptual explanations for the event/issue, outline attendant policy options, and explain how to choose among them. The idea behind these memos is not to do extensive additional research but to analyze critically contending hypotheses and to tease out logistically consistent policy choices. The final paper will be due on April 30 at 6:00pm. No late papers will be accepted.

**GRADING**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Briefs (5% each)</td>
<td>20%</td>
</tr>
<tr>
<td>Simulation</td>
<td>30%</td>
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<tr>
<td>Background Papers (5% each)</td>
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</tr>
<tr>
<td>Simulation (10%)</td>
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<tr>
<td>Participation/Script (10%)</td>
<td></td>
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<tr>
<td>Critical Review</td>
<td>15%</td>
</tr>
<tr>
<td>Individual Policy Memo</td>
<td>25%</td>
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</tbody>
</table>

**READING**

(Available for Purchase at GT Barnes & Noble Bookstore)


Andrew T. Price-Smith, *Oil, Liberalism, and War* (Cambridge: The M.I.T. Press, 2015);

Steve A. Yetiv, *Myths of the Oil Boom* (New York: Oxford University Press, 2015);

Charles L. Glaser and Rosemary A. Kelanic, eds., *Crude Strategy: Rethinking the U.S. Military Commitment to Defend Persian Gulf Oil* (Washington, DC: Georgetown University Press, 2016); and


*Recommended*


USEFUL LINKS

Harvard University, Belfer Center, Energy Technology Innovation Policy http://belfercenter.ksg.harvard.edu/project/10/energy_technology_innovation_policy.html
Harvard University, Belfer Center, The Geopolitics of Energy Project http://belfercenter.ksg.harvard.edu/project/68/geopolitics_of_energy_project.html
Oil Drum Blog: http://www.theoildrum.com/
Stanford University, Precourt Center for Energy Research, http://pie.stanford.edu/

LexisNexis accesses hundreds of energy sources: Platts, Oil and Gas Journal, Petroleum Economist, among many others.

SERVE LEARN SUSTAIN

This course is part of Georgia Tech’s Serve-Learn-Sustain (SLS) initiative, uniting classroom learning with community action. SLS works with all six colleges to offer courses and programs connecting sustainability and community engagement with real-world partners and projects, allowing students to use their disciplinary expertise related to science and technology to help “create sustainable communities” where humans and nature flourish, now and in the future, in Georgia, the U.S., and around the globe. More
information about SLS can be found at [www.serve-learn-sustain.gatech.edu](http://www.serve-learn-sustain.gatech.edu). Visit the website to sign up for the SLS Email List, view the full list of affiliated courses, and find links to Facebook, Instagram and Twitter.

Accordingly, students in this course are urged to attend SLS lectures/discussions across campus throughout the semester, and/or to participate in an SLS-run student focus group at the end of the semester. Interested students must notify Professor Stulberg by Feb 1st. In addition, "What is SLS?" information sessions will take place in Clough Lounge (Tuesday, Jan. 23, from 11-12, Tuesday, Jan. 30, from 5-6 and Thursday, Feb. 1, from 11-12).

**DECORUM & INTEGRITY**

Learning together requires that everyone must feel welcome and able to trust others in the class. A central aim of the course is to encourage students to think and be critical. Accordingly, all students are expected to exchange freely ideas while respecting the opinions of each other. Similarly, each student must recognize that academic dishonesty (such as cheating on a test/quiz or plagiarism on a paper) completely undermines the mission of this class, is surprisingly easy to detect, and is taken very seriously by your professor and the Institute. Don’t be tempted to take a short cut to complete an assignment—consult the GT honor code/Honor Advisory Council [http://www.policylibrary.gatech.edu/student-affairs/academic-honor-code](http://www.policylibrary.gatech.edu/student-affairs/academic-honor-code) (esp. graduate addendum)-- if there are any questions.

All lectures and discussions are not to be taped or recorded, unless approved by the professor. Students must turn off cell phones, pagers, and other electronic devices that could be distracting during class. Exceptions for emergency situations can be made upon prior consultation with the professor.
PART I: HISTORY & FUNDAMENTALS

Jan. 9: Introduction

Jan. 11-16: Energy Basics (Oil, Natural Gas, and the Nuclear Fuel Cycle)
(t-square);
“Alternative Energy: Historical Time-Line” (peruse)
Ferguson, Chps. 1, 2, 7, 8;
“The Energy Story,” Chps. 1, 2, 8, 9 (peruse)
http://www.energyquest.ca.gov/story/chapter08.html
Kalicki & Goldwyn, Chp. 1;
“The Energy Story,” Chps. 1, 2, 8, 9 (peruse).
http://www.energyquest.ca.gov/story/chapter08.html

*Yergin, Intro, 16, 18 (peruse 19-20);

Jan. 18-25: From “King Coal” to the Rise of “Big Oil” & OPEC
In-class Film: The Prize, Part 6)
Price-Smith, Chps. 1 & 4;
James D. Hamilton, “Historical Oil Shocks,” unpublished draft (February 2011)
http://econweb.ucsd.edu/~jhamilton/oil_history.pdf
Kalicki & Goldwyn, Chps. 3 & 5;

*The Prize (documentary, YouTube), Part 5
*Parra, Chp. 3-4, 12-14.
*Watch “The Prize” Parts 2 & 7.
*Yergin (peruse rest of book)
**Note:** Jan. 23- Meeting with Chris McDermott to discuss scenario writing Completion of Schwartz, *Art of Long View*.

**Jan. 30:**  
**Peak Oil Debate & Beyond Hydrocarbon Man?**  
(*In-class Film: “4Corners: Peak Oil?”*)

O’Sullivan, Section 1;  
Campbell-Lynch Debate, *Oil & Gas Journal*, 14 July 2003 (t-square);  
(t-square);  
(t-Square).  
(Library: e-journals).

* Yergin, Chps. 11, 12 (peruse 14);

**Feb. 1:**  
**Nuclear Energy: Past & Future**

Ferguson, Chps. 3-5;  
“Final Report,” Investigation Committee on the Accident at the Fukushima Nuclear Power Station, Executive Summary (T-square), peruse;  
(Library: e-journals);  
“Is Nuclear Power Ever Coming Back?” *The Atlantic* (June, 24, 2014),  

*Charles Ferguson, “Think Again: Nuclear Power, *Foreign Policy* (November 2011)  
http://www.foreignpolicy.com/articles/2011/10/11/think_again_nuclear_power*

**Feb. 6:**  
**International Political Economy of Energy Security (Definitions, Producers vs. Consumers, Independence vs. Interdependence)**

Shaffer, Chps. 1-2;  
Klare, Chp. 1 (t-square).  

Feb. 8-13 International Political Economy of Energy Security (Resource Nationalism, Resource Curse, IOCs vs. NOCs; Financial & Market Power)
Price-Smith, Chp. 2
Yetiv, Chps. 2-4
Kalicki & Goldwyn, Chp. 2 & 5;

*Parra, Chp. 17;
*Yergin, Chps. 4-6, 13

PART II: ENERGY SECURITY & REGIONAL CONFLICT/COOPERATION

Feb. 15: Changing Landscape: Emerging Global Trends
Kalicki & Goldwyn, Chp. 1

*Yergin, Chp. 8 (peruse)

2/20 Guest Speaker: Richard Nephew, Senior Research Scholar, Center for Global Energy Policy, Columbia University.

2/22 Scenario Writing Discussion (TBD)

(Feb. 27-
1st Sim
Concept
Paper Due)

O’Sullivan, Section 2, Chp. 11;
Shaffer, Chps. 9, 11, 12;
Glaser & Kelanic, Chps. 1 & 8; and 4 or 7;
Price-Smith, Chps. 3 & 5;
Yetiv, Chps. 5-7;
Kalicki & Goldwyn, Chp. 10;
Robert D. Blackwill and Meghan O’Sullivan, “America’s Energy Edge,” Foreign Affairs (March/April 2014), (Library: e-journals)
http://energypolicy.columbia.edu/research/commentary/re-establishing-deterrence-moscow-through-energy-sanctions

*Mr. Y, “A National Strategic Narrative,” Woodrow Wilson International Center for Scholars
*Parra, Chp. 15.
*Kalicki & Goldwyn (peruse rest of Part III)

March 1: Russia & Eurasia: Energy Superpower and Great Game Redux

O’Sullivan, Chp. 9;
Kalicki & Goldwyn, Part II
Shaffer, Chps. 7-8;
Tatiana Mitrova, The Geopolitics of Russian Natural Gas (February 24, 2014),

*Klare, Chp. 3;
* Yergin, Chp. 1.

March 6: **China and the Rise of Asia**

* Yergin, 9-10.

March 8: **Latin America & Africa**
Kalicki & Goldwyn, Chp. 15 & 16.

**PART III: ENERGY & STRATEGIC INTERACTION**

March 12-27: **The Energy Weapon, Conflict & Security Dilemmas**
Paper Due: Price-Smith, Chp. 4;
Glaser & Kelanic, Chps. 3 & 5;
Jeff D. Colgan, “Oil and Revolutionary Governments: Fuel for International Conflict,” *International Organization* 64 (Fall 2010), pp. 661-94. (Library: e-journals);
Michael Ross, “Blood Barrels”, *Foreign Affairs*, May/June 2008 (Library e-journals);
Jeff D. Colgan, “Fueling the Fire: Pathways from Oil to War,” International Security 38:2 (Fall 2013), pp. 147-189. (Library: e-journals);

* James D. Fearon, “Primary Commodity Exports and Civil War,” Journal of Conflict Resolution 49 (2005). (Library: e-journals);

March 29: Pipeline Politics
Shaffer, Chp 3-4;
EIA, “Oil Transit chokepoints”
http://www.eia.gov/countries/regions-topics.cfm?fips=WOTC
www.chathamhouse.org/sites/default/files/.../r0309_pipelines.pdf
Adam N. Stulberg, “Eurasia’s Pipeline Tangle,” Russia in Global Affairs (24 September 2011)
http://eng.globalaffairs.ru/person/p_2445

*Kalicki & Goldwyn, Chp. 8.
April 3-5: Policy Challenge: Link Between Changing Nuclear Landscape & Proliferation

Guest Speaker (4/5)- Dr. Nicholas Miller, Assistant Professor, Department of Government, Dartmouth College


Pierre Goldschmidt, “Multilateral Nuclear Fuel Supply Guarantees & Spent Fuel Management: What are the Priorities?” Daedalus (Winter 2010), pp. 7-19. (t-square);


April 10-12: Policy Challenge: Energy Dependency and International Terrorism

(April 10-Simulation Due)

Guest Speakers (4/12)- Dr. Philip Williams, Professor, Graduate School of Public and International Affairs, University of Pittsburgh and Peter Harrell, Adjunct Senior Fellow, Center for New American Security

Ferguson, Chp. 6;


April 14-15: **SIMULATION (TBA)**

April 17-19: **Policy Challenge: The Geopolitics of Global Energy & Climate Change**

**Guest Speaker (4/19)**- Dr. David Victor, Professor of International Relations and Industrial Policy, School of Global Policy and Strategy, UC San Diego.


* Yergin, Chps. 21-32 (peruse);

April 24: **Conclusion**

O’Sullivan, Conclusion


April 30: **FINAL POLICY MEMOS DUE 6:00PM**