ENERGY & INTERNATIONAL SECURITY

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Office Hrs: Thrs 3:30-5:00pm; OBA

INTA 3042 (A & HP)
Spring 2018
TTh. 1:30-2:45pm
West Village Dining Commons 277

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 in-class discussions. Most classes will begin with a lecture on the designated topic, and conclude with a structured discussion or attendant policy debate.

In addition to the in-class *midterm exam* and regular *class participation*, each student will be responsible for drafting one short (3-4 pages, double-spaced) critical review of official and/or expert commentary on the international security implications of the changing energy landscape or climate change. This can include presentations on campus (e.g. SLS talks, in-class guest lectures); government statements; expert blogs or other internet-based commentary, articles in policy journals/outlets, etc. The review should consist at least of a brief summary of the main argument of the targeted commentary, and an analytical and empirical critique. Critical reviews can be turned in at the student's discretion **on or before April 19th**.

Moreover, each student will have the choice of writing a *research paper* (30 pages, double-spaced) OR participating in a dynamic *policy simulation.* The research paper will seek to explain the history and challenges related to a particular country's energy diplomacy. Specific attention will be devoted to describing patterns or trends in respective energy diplomacy; analyzing underlying political, economic, technical, and/or cultural causes; and assessing associated strategic implications. Students are expected to conduct extracurricular research on the topic. However, with approval, they can use this assignment to complement or extend research or analysis conducted for another course. A preliminary one-page outline will be due on **March 13th**; final papers will be due on **April 17th**.

Alternatively, each student can opt to participate in a course policy simulation that will take place during the weekend of **April 14th-15th**. To be clear, this is *optional* and in lieu of writing the research paper. The specific scenario and format of the simulation will be discussed in class. As part of the preparation, each student will be required to write two short background papers (3-4 pages double-spaced) and contribute to the drafting of a group policy position paper (7 pages double-spaced). For the first background paper (due **March 8th**), each student will summarize the policy issues at stake from their national, transnational, or corporate perspective. The second background paper (due **March 29th**) will focus on identifying the interests and strategic perspective associated with the institution or corporate actor represented by the student. The third paper will be written

collectively by each national/transnational/corporate team. Each student will participate actively in all group problem-solving and deliberative exercises during the two-day policy simulation. Students must notify Professor Stulberg via email of their preference to participate in the optional policy simulation by **February 22nd**.

Finally, students are required to 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, analyze the state of play of existing policy towards that event/issue, outline the policy options, and explain how to choose among them. The idea behind this memo is not to do extensive additional research but to synthesize what has been learned about the case/issue and to explain policy choices. Examples will be discussed in class. A single page summary of the paper topic and prospective argument must be submitted to Professor Stulberg no later than **April 19th**. The final paper will be due on **April 30th at 6:00pm**. No late papers will be accepted.

GRADING

Class Participation		10%
In-Class Midterm		20%
Research Paper or Optional Simulation		30%
Simulation Background Papers	(5% each)	
Group Position Paper	(10%)	
Participation	(10%)	
Critical Review		10%
Individual Policy Position Paper		30%

READING

(Available for Purchase at GT Barnes & Noble Bookstore)

Meghan O'Sullivan, *Windfall: How the New Energy Abundance Upends Global Politics and Strengthens America's Power* (New York: Simon & Schuster, 2017);
Brenda Shaffer, *Energy Politics* (Philadelphia, PA: UPenn Press 2009);
Andrew T. Price-Smith, *Oil, Liberalism, and War* (Cambridge: The M.I.T. Press, 2015);
Charles Ferguson, *Nuclear Energy: What Everyone Needs to Know* (New York: Oxford University Press, 2011); and
Jan Kalicki and David L. Goldwyn, *Energy and Security: Strategies for a World in Transition*, 2nd Edition (Baltimore: The Johns Hopkins University Press, 2013).

*Steve A. Yetiv, *Myths of the Oil Boom: American National Security in a Global Energy Market* (New York: Oxford University Press, 2015);
*Charles L. Glaser and Rosemary A. Kelanic, eds., *Crude Strategy: Rethinking the U.S.*

Military Commitment to Defense Persian Gulf Oil (Washington, DC: Georgetown University Press, 2016);

*Francisco Parra, *Oil Politics: A Modern History of Petroleum* (New York: Tauris, 2010); and

*Michael Klare, *The Race for What's Left: The Global Scramble for the World's Last Resource* (New York: Picador, 2012).

*Recommended

USEFUL LINKS

Baker Institute, Energy Forum Research, http://www.rice.edu/energy/research/

Atlantic Council Eurasian Energy Futures Initiative, http://www.atlanticcouncil.org/programs/dinu-patriciu-eurasia-center/eurasian-energy-futures

CIA "The World Fact Book", https://www.cia.gov/library/publications/the-world factbook/index.html

Council on Foreign Relations, Energy and Environment http://www.cfr.org/publication/20511/energyenvironment.html?breadcrumb=%2Fissue%2F17%2Fenergyenvironment

Energy Information Agency – Country Analysis Briefs. http://www.eia.doe.gov/cabs/

Cambridge Energy Resource Associates, http://www.cera.com/aspx/cda/public1/home/home.aspx

Energy Policy Research Foundation, Inc., http://eprinc.org/?page_id=58

MIT Energy Initiative, http://energy.mit.edu/

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

International Energy Agency: http://www.iea.org/

Oil Drum Blog: http://www.theoildrum.com/

Columbia University/SIPA Center on Global Energy Policy, http://energypolicy.columbia.edu/

Oxford Institute for Energy Studies, http://www.oxfordenergy.org/research.shtml

Stanford University, Precourt Center for Energy Research, http://pie.stanford.edu/

White House Blog: Energy and the Environment: http://www.whitehouse.gov/blog/issues/Energy-%2526-Environment

World Bank Energy: http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTENERGY2/0,,menuPK:4114636~pagePK:149018~piPK:149093~theSitePK:4114200,00.html

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. 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. In addition, they can receive extra credit (5%) by attending either one of the "What is SLS?" information sessions in Clough Lounge (Tuesday, Jan. 23, from 11-12, Tuesday, Jan. 30, from 5-6 and Thursday, Feb. 1, from 11-12); or by participating in a SLS-run student focus group at the end of the semester. Interested students must notify Professor Stulberg by **Feb. 1st.**

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 course, is surprisingly easy to detect, and is taken very seriously by the Institute. Do not 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 -- 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.

COURSE SCHEDULE

PART I: HISTORY & FUNDAMENTALS

Jan. 9: **Introduction**

Jan. 11-16: **Energy Basics (Oil, Natural Gas, and the Nuclear Fuel Cycle)**
National Petroleum Council, "Hard Truths: Executive Summary," pp. 5-32. (T-square);
"Alternative Energy: Historical Time-Line" (peruse)
http://alternativeenergy.procon.org/view.resource.php?resourceID=002475
Ferguson, Chps, 1-5, 7, 8;
"A World Turned Upside Down: *The Economist*, February 25, 2017;
https://www.economist.com/news/briefing/21717365-wind-and-solar-energy-are-disrupting-century-old-model-providing-electricity-what-will or (Library: LexisNexis)
"The Energy Story," Chps. 1, 2, 8, 9 (peruse)
http://www.energyquest.ca.gov/story/chapter08.html

*Recommended
*Kalicki & Goldwyn, Chp. 1.

Jan. 18-25: **From "King Coal" to the Rise of "Big Oil" & OPEC**
(In-class Film: *The Prize*, Parts 5 & 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, Chp. 3;
Brian C. Black, "Exxon's Rex Tillerson & the Rise of Big Oil in American Politics," *The Conversation* (January 31, 2017).
http://theconversation.com/exxons-rex-tillerson-and-the-rise-of-big-oil-in-american-politics-70260

*Parra, Chp. 3-4, 12-14.
*Watch "The Prize" Parts 2 & 7.

Jan. 30: **Peak Oil/Gas Debates & Beyond Hydrocarbon Man?**
(In-class Film: "4Corners: Peak Oil?")
O'Sullivan, Section 1
Campbell-Lynch Debate, *Oil & Gas Journal*, 14 July 2003 (t-square).

*****Roger Stern, "Oil Scarcity Ideology in US Foreign Policy, 1908-97," *Security Studies* 25:2 (2016), pp. 214-257. (Library: e-journals).

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.
"Is Nuclear Power Ever Coming Back?" *The Atlantic* (June, 24, 2014), http://www.theatlantic.com/technology/archive/2014/06/is-nuclear-power-ever-coming-back/373315/.

*Ernest Moniz, "Why We Still Need Nuclear Power: Making Clean Energy Safe and Affordable," *Foreign Affairs* 90:6 (Nov/Dec 2011). (Library: e-journals);

Feb 6: **International Political Economy of Energy Security (Definitions, Producers vs. Consumers, Independence vs. Interdependence)**
Shaffer, Chps. 1-2;
Klare, Chp. 1 (t-square).

*Benjamin K. Sovacool and Marilyn Brown, "Competing Dimensions on Energy Security: An International Perspective," GT/IAC Public Policy Working Paper #45 (13 January 2009) http://www.spp.gatech.edu/aboutus/workingpapers

Feb. 8-13: **International Political Economy of Energy Security**
(Resource Nationalism, Resource Curse, IOCs vs. NOCs; Financial & Market Power)
Kalicki & Goldwyn, Chps. 2 & 5;
Price-Smith, Chp. 2;
Michael Ross, "Does Oil Hinder Democracy," *World Politics* 53 (April 2001), pp. 325-61) (Library: e-journals)
Yetiv, Chp. 2 (t-square).

*Yetiv, Chps. 3 & 4;
*Parra, Chp. 17

*Andre Mansson, "A Resource Curse for Renewables?: Conflict and Cooperation in the Renewable Energy Sector," *Energy Research & Social Science* (2015) (t-square).

PART II: ENERGY SECURITY & REGIONAL CONFLICT/COOPERATION

Feb. 15: **Changing Landscape: Emerging Global Trends**

IEA, "World Energy Outlook, 2017," Executive Summary
http://www.iea.org/Textbase/npsum/weo2017SUM.pdf
ExxonMobil, "2017 Outlook for Energy: A View to 2040,"
http://cdn.exxonmobil.com/~/media/global/files/outlook-for-energy/2017/2017-outlook-for-energy.pdf. (peruse).
Kalicki & Goldwyn, Chp. 1

*National Intelligence Council, Global Trends 2030: Paradoxes of Progress" (January 2017),
https://www.dni.gov/files/documents/nic/GT-Full-Report.pdf

Feb. 20: **U.S. Energy Security & Middle East Supply**

Guest Lecturer: Richard Nephew, Senior Research Scholar, Center for Global energy Policy, Columbia University

O'Sullivan, Section 2, Chp. 11;
Price-Smith, Chps. 3 & 5;
Robert D. Blackwill and Meghan O'Sullivan, "America's Energy Edge," *Foreign Affairs* (March/April 2014). (Library: e-journals).

* Richard Nephew, "Re-establishing Deterrence with Moscow Through Energy Sanctions," July 13, 2017.
http://energypolicy.columbia.edu/research/commentary/re-establishing-deterrence-moscow-through-energy-sanctions

Feb. 22: **In Class Mid-term**

Feb. 27: **U.S. Energy Security & Middle East Supply**

Shaffer, Chp. 9, 11, 12;
Kalicki & Goldwyn, Chp. 10;
Glaser & Kelanic, Chp. 1 (t-square).

*Mr. Y, "A National Strategic Narrative," Woodrow Wilson International Center for Scholars
http://www.newsecuritybeat.org/2011/04/in-search-of-new-security-narrative.html
*Kalicki & Goldwyn (peruse rest of Part III)
*Glaser & Kelanic, Chp. 8.
*Yetiv, Chps. 5-7.

March 1: **Russia & Eurasia: Energy Superpower and Great Game Redux**
Shaffer, Chps. 7-8;
O'Sullivan, Chp. 9.

*Kalicki & Goldwyn, Part II;
*Klare, Chp. 3;
*Tatiana Mitrova, *The Geopolitics of Russian Natural Gas* (February 24, 2014), http://belfercenter.ksg.harvard.edu/files/MO-CES-pub-GeoGasGCC-102513.pdf.

March 6: **China and the Rise of Asia**
Shaffer, Chp. 10;
Kalicki & Goldwyn, Chp. 13;
O'Sullivan, Chp. 10;

*Kalicki & Goldwyn, Chp. 14;

March 8: (1st Sim Paper Due) **Latin America & Africa**
Kalicki & Goldwyn, Chp. 15 & 16;

March 20-22: Spring Break-- No Class

PART III: ENERGY & STRATEGIC INTERACTION

March 13-27: The Energy Weapon, Conflict & Security Dilemmas

Jeff D. Colgan, "Fueling the Fire: Pathways from Oil to War," *International Security* 38:2 (Fall 2013), pp. 147-189. (Library: e-journals);

(Research Paper Outline Due, 3/13)

David Victor and Rebuttals, "What Resource Wars", *The National Interest*, Nov/Dec 2007 and Jan/Feb, 2008 (t-square);

Price-Smith, Chp. 4;

Eugene Gholz, "The Strait Dope: Why Iran Can't Cut off Your Oil," *Foreign Policy* (Sept/Oct. 2009) http://www.foreignpolicy.com/articles/2009/08/12/the_strait_dope

Adnan Vatansever, "Energy Sanctions and Russia: What Comes Next," *Atlantic Council Issue in Focus* (September 2015). http://www.atlanticcouncil.org/publications/issue-briefs/energy-sanctions-and-russia-what-comes-next

*Glaser & Kelanic, Chps. 3 & 5;

*Jonna Nyman, "Red Storm Ahead: Securitization of Energy in US-China Relations," *Millenium* 43:1 (2014), pp. 43-65. (Library: e-journals).

*Michael Ross, "Blood Barrels", *Foreign Affairs*, May/June 2008 (Library: e-journals);

*Kenneth A. Schultz, "Mapping Interstate Territorial Conflict: A New Data Set and Applications," *Journal of Conflict Resolution* (2015). (Library: e-journals).

March 29: (2nd Paper Due)

Pipeline Politics

Shaffer, Chps. 3-4;

Adam N. Stulberg, "Eurasia's Pipeline Tangle," *Russia in Global Affairs* (24 September 2011) http://eng.globalaffairs.ru/person/p_2445

EIA, "Oil Transit chokepoints" http://www.eia.gov/countries/regions-topics.cfm?fips=WOTC

*Kalicki & Goldwyn, Chp. 8.

*Adam N. Stulberg, "Natural Gas and the Russia-Ukraine Crisis: Strategic Restraint and the Emerging Europe-Eurasia Gas Network," *Energy Research & Social Science* 24 (February 2017), pp. 71-85. (T-square).

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

Nicola de Blasio and Richard Nephew, *The Geopolitics of Nuclear Power and Technology* (Center on Global energy Policy, March 2017), http://energypolicy.columbia.edu/sites/default/files/The%20Geopolitics%20of%20Nuclear%20Power%20and%20Technology%20033017.pdf

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

Christoph Bluth, Matthew Kroenig, Rensslelear Lee, William C. Sailor, and Matthew Fuhrmann, "Civilian Nuclear Cooperation and the Proliferation of Nuclear Weapons," *International Security* 35:1 (Summer 2010) (Library: e-journals).

*Matthew Fuhrmann, "Spreading Temptation: Proliferation and Peaceful Nuclear Cooperation Agreements," *International Security* 34:1 (Summer 2009) (library reserves).

*Nicholas Miller, Why Nuclear Energy Programs Rarely Lead to Proliferation," *International Security* 42:2 (Fall 2017) (library reserves).

*Adam N. Stulberg, Internationalization of the Fuel Cycle and the Nuclear Energy Renaissance: Confronting the Credible Commitment Problem," in Adam N. Stulberg and Matthew Fuhrmann, eds., *The Nuclear Renaissance and International Security (*Stanford: Stanford University Press, 2013) (t-square).

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

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;

Steve A. Yetiv, *The Petroleum Triangle: Oil, Globalization, and Terror* (Ithaca: Cornell University Press, 2011), Chp. 6 (t-square).

Peter Toft, Arash Duero, Arunas Bieliauskas, "Terrorist Targeting and Energy Security," *Energy Policy* 38 (2010), pp. 4411-4421. (Library: e-journals).

ICSR Report, "Caliphate in Decline: An Estimate of Islamic State's Financial Fortunes," *ICSR Kings College* (2017), http://icsr.info/wp-content/uploads/2017/02/ICSR-Report-Caliphate-in-Decline-An-Estimate-of-Islamic-States-Financial-Fortunes.pdf.

* Wolfram Lacher and Dennis Kumetat, "The Security of Energy Infrastructure and Supply in North Africa: Hydrocarbons and Renewable Energies in Comparative Perspective," *Energy Policy* 39 (2011), pp. 4466-4478. (Library: e-journals).

April 14-15: SIMULATION (TBA)
(Group Decision Paper Due, 4/14)

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

(Research Paper Due, 4/17; Policy Memo Topic Due, 4/19)

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

Ferguson, Chp. 3;
Shaffer, Chp. 6;
Kalicki & Goldwyn, Chps. 20 & 22
Meghan O'Sullivan, Indra Overland, David Sandalow, *The Geopolitics of Renewable Energy* (Columbia/SIPA-Belfer Center Working Paper, June 2017), https://sites.hks.harvard.edu/hepg/Papers/2017/Geopolitics%20Renewables%20-%20final%20report%206.26.17.pdf
Robert O. Keohane and David G. Victor, "Cooperation and Discord in Global Climate Policy," *Nature-Perspective* (9 May 2016) (t-square).
Global Climate Report (NOAA)- November 2017, https://www.ncdc.noaa.gov/sotc/global/201711 (peruse)

*Yetiv, Chps. 10-12.

April 24: **Conclusion**

O'Sullivan, Conclusion

Robert McNally and Michael Levi, "A Crude Predicament," *Foreign* Affairs (July/August 2011) (Library: e-journals).

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