

## **ENERGY & INTERNATIONAL SECURITY**

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Office Hrs: Thrs. 1:00-3:00pm; OBA

INTA 8803-AS  
Spring 2013  
TTh. 4:35-5:55pm  
Instructional Center Rm. 219

### ***OBJECTIVES AND DESCRIPTION***

This course examines issues at the intersection of national energy security and international conflict and cooperation. Is oil import dependence a foreign policy liability or cause war? Do globalization and the interdependence of energy markets favor international cooperation and peace? Will the global financial crisis precipitate energy conflict? More specifically, can Saudi Arabia, Russia, and Iran use hydrocarbon exports for strategic leverage? 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 conflict?

The course introduces students to the major theoretical and policy analytical lenses that can be used to examine such critical geopolitical and geoeconomic issues. Accordingly, the above questions and others will be probed systematically by dissecting alternative theories regarding 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 of international security. The course is structured around conceptual and comparative analysis of core issues in each sector that cut across different states and regions related to resource scarcity, market dynamics, corporate behavior, state policymaking, national welfare and threat perceptions, and strategic interaction. By the end of the course, students will be able to critique alternative explanations for international competition/conflict/war and to assess systematically the respective policies adopted to bolster energy security by different actors in the international system. In addition, students will learn to apply critical analysis to generate concrete policy recommendations on related issues.

### ***FORMAT & REQUIREMENTS***

The course consists of lectures, as well as in-class and occasional out-of-class discussion. Students are expected to complete the required reading for each class and to contribute actively to all discussions. The format and timing of the out-of-class discussion will be reviewed in class. The out-of-class discussions will be devoted to a focused critique of the reading, and deliberation of relevant theoretical puzzles and attendant policy debates. Each student will have to write a one page (single-spaced) brief on a selection of the

reading four times throughout the semester (on a reading 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, each student will be expected to participate actively in a course simulation that will take place during the weekend of April 13-14, 2013. The specific format of the simulation will be discussed in class. Each student will be responsible for working with respective undergraduate teams, and will be required to write two short background papers (5-7 page double-spaced) that diagnose the prospective sources and potential significance of the generated scenarios. Furthermore, each student will participate actively in all group exercises during the simulation, as well as to contribute to the drafting of a group policy position paper (7 pages double-spaced).

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.

Finally, each student will write a policy memo (20 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 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<sup>th</sup> at 5:00pm. No late papers will be accepted.

### ***GRADING***

Class Participation	10%
Briefs (5% each)	20%
Simulation	25%
Background Papers (5% each)	
Group Position Paper (5%)	
Participation (10%)	
Critical Review	15%
Individual Policy Memo	30%

## **READING**

(Available for Purchase at GT Barnes & Noble and Engineer's Bookstore)

Brenda Shaffer, *Energy Politics* (Philadelphia, PA: UPenn Press 2009);  
Daniel Yergin, *The Quest* (New York: Penguin Press 2011);  
Michael Klare, *Rising Power, Shrinking Planet* (New York: Holt, 2008);  
Charles Ferguson, *Nuclear Energy: What Everyone Needs to Know* (New York: Oxford University Press, 2011);  
Steve A. Yetiv, *The Petroleum Triangle* (Ithaca: Cornell University Press, 2011);  
Daniel Moran and James Russell, eds., *Energy Security and Global Politics* (Boulder: Routledge, 2009);  
Andreas Goldhau and Jan Martin Witte, *Global Energy Governance: The New Rules of the Game* (Washington, DC: Brookings Institution Press, 2010); and  
Carlos Pascual and Jonathan Elkind, *Energy Security: Economics, Politics, Strategies, and Implications* (Washington, DC: Brookings Institution Press, 2010).

\*Jan Kalicki and David Goldwyn, eds., *Energy & Security: Toward a New Foreign Policy* (Baltimore: The Johns Hopkins University Press, 2005); and

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

\*Recommended

## **USEFUL LINKS**

Baker Institute, Energy Forum Research, <http://www.rice.edu/energy/research/>  
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/asp/cda/public1/home/home.aspx>

Energy Policy Research Foundation, Inc., [http://eprinc.org/?page\\_id=58](http://eprinc.org/?page_id=58)  
Harvard University, Belfer Center, Energy Technology Innovation Policy  
[http://belfercenter.ksg.harvard.edu/project/10/energy\\_technology\\_innovation\\_policy.html](http://belfercenter.ksg.harvard.edu/project/10/energy_technology_innovation_policy.html)

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

Oil Drum Blog: <http://www.theoil Drum.com/>

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.

### ***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.honor.gatech.edu/index.php>), 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. 8: Introduction**

**Jan. 10: Conventional Wisdom**

Yergin, "Introduction & Prologue;"

Shaffer, "Introduction;"

Moran and Russell, "Introduction;"

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>

- Jan. 15-17: Energy Basics (Oil, Natural Gas, and the Nuclear Fuel Cycle)**  
 Ferguson, Chps, 1, 2, 7, 8;  
 Yergin, 16, 18 (peruse 19-20);  
 “The Energy Story,” Chps. 1, 2, 8, 9  
<http://www.energyquest.ca.gov/story/chapter08.html>
- \*Kalicki & Goldwyn, Chp. 7.
- Jan. 22-29: From “King Coal” to the Rise of “Big Oil” & OPEC**  
**In-class Film: *The Prize*, Parts 2 & 5)**  
 Parra, Chp. 2, 5 (T-square);  
 James D. Hamilton, “Historical Oil Shocks,” unpublished draft (February 2011)  
[dss.ucsd.edu/~jhamilto/oil\\_history.pdf](http://dss.ucsd.edu/~jhamilto/oil_history.pdf)
- \*Parra, Chp. 3-4, 12-14.  
 \*Kalicki & Goldwyn, Chp. 3
- Jan. 31: Peak Oil Debate & Beyond Hydrocarbon Man?**  
**(In-class Film: “4Corners: Peak Oil?”)**  
 Yergin, Chps. 11, 12 (peruse 14);  
 Campbell-Lynch Debate, *Oil & Gas Journal*, 14 July 2003 (T-square);  
 K.S. Deffeyes, *Hubbert’s Peak-The Impending World Oil Shortage* (Princeton University Press, 2003), Chp. 7. (T-Square);  
 Robert L. Hirsch, Roger Bezdek, and Robert Wendling “Peaking of World Oil Production: Impacts, Mitigation, & Risk Management,” *SAIC Report* (February 2005). (T-Square).
- Feb. 5: Nuclear Energy: Past & Future**  
**(Guest Lecture: Dr. Charles Ferguson, President, Federation of American Scientists)**  
 Ferguson, Chps. 3-5;  
 “Final Report,” Investigation Committee on the Accident at the Fukushima Nuclear Power Station, Executive Summary (T-square), peruse;  
 Ernest Moniz, “Why We Still Need Nuclear Power: Making Clean Energy Safe and Affordable,” *Foreign Affairs* 90:6 (Nov/Dec 2011). (Library: e-journals);  
 TBA
- \*Charles Ferguson, “Think Again: Nuclear Power,” *Foreign Policy* (November 2011)  
[http://www.foreignpolicy.com/articles/2011/10/11/think\\_again\\_nuclear\\_power](http://www.foreignpolicy.com/articles/2011/10/11/think_again_nuclear_power)

**Feb: 7-19: International Political Economy of Energy Security (Definitions, Independence vs. Interdependence, Resource Nationalism, IOCs vs. NOCs; Financial & Market Power)**

Klare, Chp. 1, 2, 8;

Shaffer, Chps. 1-2;

Yergin, Chps. 4-6, 13;

Moran & Russell, Chp. 1;

Goldhau & Witte, Chps. 6 & 7;

Kalicki & Goldwyn, Chp. 4;

Llewelyn Hughes and Sean J. Kreyling, "Understanding Resource Nationalism in the 21st Century," *Journal of Energy Security* (July 2010) (Library e-journals).

Pascual & Elkind, Chp. 5

David G. Victor, David R. Hulst, and Mark C. Thurber, "Major Conclusions and Implications for the Future of the Oil Industry," in Ibid., eds., *Oil and Governance: State-owned Enterprises and the World Energy Supply* (New York: Cambridge University Press, 2012) (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>

\*Parra, Chp. 17;

\*Pascual & Elkind, Chp. 6;

\*Moran & Russell, Chp. 2

\*El-Gamal and Jaffe.

**PART II: ENERGY SECURITY & REGIONAL CONFLICT & COOPERATION**

**Feb. 21: Changing Landscape: Emerging Global Trends**

IEA, "World Energy Outlook, 2012," Executive Summary

<http://www.iea.org/weo/>

EIA, "International Energy Outlook," Highlights, Chp. 1

<http://www.eia.gov/forecasts/ieo/>

Yergin, Chp. 8;

National Intelligence Council, *Global Trends 2030: Alternative Worlds* (December 2012):

<http://www.dni.gov/index.php/carousel-items/778-global-trends-2030-alternative-worlds-available-for-download>

**Feb. 26:**        **NO CLASS (Briefs)**

**Feb. 26-:**        **U.S. Energy Security & Middle East Supply**

**Mar. 5**            Yergin, Chp. 5-7

EIA, “How Dependent is the US on Oil Imports”

[http://www.eia.gov/energy\\_in\\_brief/foreign\\_oil\\_dependence.cfm](http://www.eia.gov/energy_in_brief/foreign_oil_dependence.cfm)

Klare, Chp. 7;

Shaffer, Chp. 9, 11, 12;

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>

Moran and Russell, Chps. 4-5, 11;

Yetiv, “Introduction;”

Eugene Gholz and Daryl G. Press, “Protecting the ‘Prize’: Oil and the U.S. National Interest,” *Security Studies* 19:3 (August 2010). (Library: e-journals).

CNA, *Powering America’s Defense, Energy and the Risks to National Security*, May 2009

<http://www.cna.org/nationalsecurity/energy/>

Pascual & Elkind, Chps. 2 & 3;

Ed Morse, et. al, “Energy 2020: North America, the New Middle East?” *CITI-GPS: Global Perspectives and Solutions* (20 March 2012), (T-square).

\*Parra, Chp. 15.

**Mar. 7:**            **Russia & Eurasia: Energy Superpower and Great Game Redux**

**(1<sup>st</sup> Paper**        Klare, Chps. 4-5;

**Due)**            Shaffer, Chps. 7-8;

Yergin, Chp. 1;

Moran & Russell, Chps. 6-8;

\*Kalicki & Goldwyn, Part II.

**Mar. 12-14:**    **China and the Rise of Asia**

Shaffer, Chp. 10;

Klare, Chp. 3;

Yergin, 9-10;

Moran & Russell, Chp. 10;

Pascual & Elkind, Chp. 4;

Gabe Collins, Andrew S. Erikson, Yufan Hao, Mikkal E. Herberg, Llewelyn Hughes, Weihua Liu, and Jane Nakano, "Asia's Rising Energy and Resource Nationalism: Implications for the United States, China, and the Asia-Pacific Region," *The National Bureau of Asian Research Special Report #31* (September 2011)  
[www.nbr.org/publications/specialreport/.../SR31\\_EnergySecurity.pdf](http://www.nbr.org/publications/specialreport/.../SR31_EnergySecurity.pdf)

\*Kalicki & Goldwyn, Part IV.

**Mar. 19-21: SPRING BREAK: NO CLASS**

**Mar. 26: Latin America & Africa**

Klare, Chp. 6;  
Kalicki & Goldwyn, Chp. 16;  
Moran and Russell, Chp. 9.

\*Kalicki & Goldwyn, Chps. 9-10.

### **PART III: ENERGY & STRATEGIC INTERACTION**

**Mar. 27-: The Energy Weapon, Conflict & Security Dilemmas**

**April 4  
(2<sup>nd</sup> Paper  
Due)**

Yergin, Chp. 2-3;  
David Victor and Rebuttals, "What Resource Wars", *The National Interest*, Nov/Dec 2007 and Jan/Feb, 2008 (Library e-journals);  
Clive Schofield, ed, "Maritime Energy Resources in Asia," *National Bureau of Asian Research* (December 2011)  
<http://www.nbr.org/publications/issue.aspx?id=248>  
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](http://www.foreignpolicy.com/articles/2009/08/12/the_strait_dope)  
Yetiv, Chps. 2-3;  
Jeff D. Colgan, "Oil and Revolutionary Governments: Fuel for International Conflict," *International Organization* 64 (Fall 2010), pp. 661-94. (Library: e-journals);  
Joshua R. Itzkowitz Shifrinson and Miranda Priebe, "A Crude Threat: The Limits of an Iranian Missile Campaign against Saudi Arabian Oil," *International Security* 36:1 (Summer 2011), pp. 167-201. (Library e-journals);  
Caitlin Talmadge, "Closing Times: Assessing the Iranian Threat to the Strait of Hormuz," *International Security* 33:1 (Summer 2008), pp. 82-117. (Library: e-journals).



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

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

Goldhau & Witte, Chp. 2.

\*Mary Kaldor, "Oil and Conflict: The Case of Nagorno-Karabakh, in Mary Kaldor, Terry Lynn Karl, and Yahia Said, eds., *Oil Wars* (Ann Arbor, MI: Pluto Press, 2007), pp. 157-182.

**April 2-4: SIMULATION PREPARATION (NO CLASS)**

**April 9: Pipeline Politics**

Shaffer, Chp 3-4;

EIA, "Oil Transit chokepoints"

<http://www.eia.gov/countries/regions-topics.cfm?fips=WOTC>

Paul Stevens, "Transit Troubles: Pipelines as a Source of Conflict," A Chatham House Report (2009).

[www.chathamhouse.org/sites/default/files/.../r0309\\_pipelines.pdf](http://www.chathamhouse.org/sites/default/files/.../r0309_pipelines.pdf)

E.J. Omonbude, "The Transit Oil and Gas Pipeline and the Role of Bargaining: A Non-Technical Discussion," *Energy Policy* 35:12 (December 2007). (Library: e-journals).

Adam N. Stulberg, "Eurasia's Pipeline Tangle," *Russia in Global Affairs* (24 September 2011)

[http://eng.globalaffairs.ru/person/p\\_2445](http://eng.globalaffairs.ru/person/p_2445)

\*Kalicki & Goldwyn, Chp. 6.

**April 11: Policy Challenge: Global Nuclear Energy Renaissance & Internationalization of the Fuel Cycle?**

Leonard Weiss, "Reliable Energy Supply and Nonproliferation," *Nonproliferation Review* 16:2 (July 2009). (T-square);

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

TBA

**April 13-14 SIMULATION**

**April 16: Policy Challenge: Energy Dependency and International Terrorism**  
(NF Critical Review Due) Ferguson, Chp. 6;  
Steve A. Yetiv, *The Petroleum Triangle: Oil, Globalization, and Terror*  
(Ithaca: Cornell University Press, 2011), remainder but esp. Chp. 6.

**April 18-23: Policy Challenge: Global Climate Change, the Rise of Unconventional and Alternative Energy Sources, and International Security**  
Ferguson, Chp. 3;  
Shaffer, Chp. 6;  
Pascual & Elkind, Chps. 9 & 10;  
Goldhau & Witte, Chps. 5, 9, 11, 12  
Yergin, Chps. 21-32 (peruse);  
TBA.

**April 25: Conclusion**  
Yergin, Chps. 33-35 (peruse);  
Goldhau & Witte, Chps. 13, 14, 16;

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

**April 30: FINAL POLICY MEMOS DUE 5:00PM**