DRAFT – Version 4 August 21, 2018

Course Syllabus

POGO 750: Geopolitics of Energy Security
Course Credits: 3
Fall 2018
Days/Time: Wednesday, 4:30 PM – 7:10 PM
Classroom: Founders Hall Room 468
Instructor: Richard D. Kauzlarich
Co-Director, Center for Energy Science and Policy (CESP) and Distinguished Visiting Professor, Schar School of Policy and Government (Schar School)
My Office: Founders Hall 709
Office Hours: TBD.
Email: rkauzlar@gmu.edu
Phone number (O): 703-993-9652

Course Description

Warning: Not everyone taking this course will receive an A as a final grade.

This course will introduce students to the complex global setting where energy security, national security, and geopolitics intersect, and the implications for policy makers. Particularly important is the practice – what can policymakers do to address energy security in a complex geopolitical environment?
Nation-states have a geopolitical identity or geopolitical aspirations for influence. Energy security is an important factor in those aspirations. Even small states (like Israel and Azerbaijan) can play a global geopolitical role that impacts on energy security. Indeed, geopolitics is about nation-states -- individual states or groupings (formal or informal) of nation-states like the EU. Nation-states can influence developments beyond their borders related to access to, and transportation of, natural resources. Call this geo-economics. Students will learn about hard and soft power impacts and the political significance of strategically important geography. Students will learn: (a) how energy security relates to unhindered access to energy from domestic or foreign sources. (b) What is the role of transportation of energy at competitive world prices without hindrance? (c) Where does domestic and international energy infrastructure intersect? (d) How to conceptualize the important relationship among national security, climate change, and energy security. The class will consider the implications of all this for the United States in particular against the global shift from the geopolitics of energy scarcity to the geopolitics of energy abundance.

Energy security is about the security of supply, demand, infrastructure, environment, and the global climate. People everywhere want abundant, reliable (accessible on demand), clean and affordable energy from diverse sources. Energy security may have political, economic, commercial, and military aspects. Perceptions of energy security are more important than reality – a reality that is changing more rapidly and unpredictably than at any time in the past 100 years.
Blackboard

This class will use Blackboard (mymasonportal.gmu.edu) as the authoritative source of all information related to POGO-750. It will contain the class syllabus, course readings (except for the required books as noted below), session content, and assignments. All written assignments must be submitted via Blackboard. Assignments submitted via e-mail or in hard copy will not be accepted. All grades and feedback will be provided via Blackboard.

Course Materials

Required books
O’Sullivan, Meghan L. Windfall, Simon & Shuster, New York, 2017
These will be the core texts for the course. Specific sections of the texts will be assigned as relevant to the topics under discussion in each session.

Recommended books

Periodical literature
For your weekly discussion outline regularly read from among
- New York Times
- Platts www.platts.com
- Financial Times
- Moscow News
- Times of India
Economist
China Daily
Oil Price.com http://oilprice.com/
RIGZONE www.rigzone.com
Breaking Energy http://breakingenergy.com/
POLITICO Energy http://www.politico.eu/section/energy/
Real Clear Energy http://www.realclearenergy.org/
Center for Energy Science and Policy (CESP) Facebook @CESPATGMU

Additional related resource material and sources
Energy Information Administration (EIA), www.eia.doe.gov
International Energy Outlook 2018
https://www.eia.gov/outlooks/ieo/executive_summary.php
International Energy Agency (IEA), www.iea.org
OPEC, World Oil Outlook, 2017,
http://www.opec.org/opec_web/static_files_project/media/downloads/publications/AR%202017.pdf
BP Statistical Review of World Energy, 2018
UK Department of Energy and Climate Change, http://www.decc.gov.uk/
Belfer Center The Geopolitics of Energy Project,
http://belfercenter.ksg.harvard.edu/project/68/geopolitics_of_energy_project.html
Carnegie Endowment Program on Energy and Climate
http://carnegieendowment.org/programs/energyclimate/
Clingendael International Energy Programme (CIEP) http://www.clingendaelenergy.com/
Congressional Research Service (CRS), http://www.fas.org/sgp/crs/index.html
Independent Petroleum Association of America (IPAA) http://www.ipaa.org/economics-analysis-international/economic-reports/
Course Learning Objectives

Knowledge and Understanding
-- Understand and assess causes and effects of geopolitics, and energy policy and practice on energy security, including climate change – and vice versa.
-- Relate the past, present and likely future developments in the global energy sector to geopolitical changes and global trends.
-- Distinguish between the role national and corporate interests and personal economic and political power objectives of leaders.
-- Assess the interrelationships among energy security, national security, environmental and climate change objectives.

Analytical Skills and Abilities
-- Develop skills for processing information, developing hypotheses, and exploring cause and effect relationships.
-- Determine reliable information sources in an environment filled with conflicting, self-serving information designed to influence as much as inform.
-- Understand how analysis affects policy making and implementation (practice).

Professional Development
-- To effectively communicate policy-oriented research and analytical conclusions in written and oral form.
-- To learn tools and approaches for delivering presentations to senior policy makers.
-- To conceptualize complex technical issues for policy-makers in terms that enable senior officials to make and implement decisions.
-- To follow instructions.

Teaching and Learning Methods

Students are required to attend class.
Students will prepare to discuss the reading assignments each week. These classes will be discussion-based and lead off with an oral presentation of a relevant energy topic by selected students. Each student should be prepared to present each class. If there is a guest speaker, you will be expected to ask questions. You also will be expected to participate during class in critiquing both the oral presentations and assigned reading. If you do not contribute, you will lose participation points. Unlike life in general, showing up is not enough to demonstrate participation in the class.
Grade Table

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<th>Grade</th>
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Grading and Performance

A. Weekly Presentations 15%
B. Written Policy Paper 25%
C. Oral Policy Briefing 15%
D. Final exam 35%
E. Attendance & participation in class 10%

NOTE: Final class grades are non-negotiable.

Submission of documents

Students should use Microsoft Word (or MS Word compatible) word processing software. Please use Times New Roman font with a font size of 12. Left, right, top and bottom page margins should be 1 inch only. All papers should be double-spaced. Assignments that do not follow these rules will lose 10% of total scored points. Deadlines will be indicated on assignments in Blackboard. All documents must be submitted on time via Blackboard.

Writing help

Diana Hacker's A Pocket Manual of Style is the standard style manual for the School. It is available in the Bookstore. If you would like help with learning about how to compose your arguments or write more clearly, please contact the University Writing Center, http://writingcenter.gmu.edu

Disabilities

If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center (DRC) at 993-2474. All academic accommodations must be arranged through the DRC.
Schar School Policy on Plagiarism

The profession of scholarship and the intellectual life of a university, as well as the field of public policy inquiry, depend fundamentally on a foundation of trust. Thus any act of plagiarism strikes at the heart of the meaning of the university and the purpose of the Schar School of Policy and Government (Schar School). It constitutes a serious breach of professional ethics, and it is unacceptable.

Plagiarism is the use of another’s words or ideas presented as one’s own. It includes, among other things, the use of specific words, ideas, or frameworks that are the product of another’s work. Honesty and thoroughness in citing sources are essential to professional accountability and personal responsibility. The appropriate citation is necessary so that arguments, evidence, and claims can be critically examined.

Plagiarism is wrong because of the injustice it does to the person whose ideas are stolen. But it is also wrong because it constitutes lying to one’s professional colleagues. From a prudential perspective, it is shortsighted and self-defeating, and it can ruin a professional career. The Schar School faculty takes plagiarism seriously and has adopted a zero-tolerance policy. Any plagiarized assignment will receive an automatic grade of F. This may lead to failure for the course, resulting in dismissal from the University. This dismissal will be noted on the student’s transcript. For foreign students who are on a university-sponsored visa (e.g., F-1, J-1 or J-2), dismissal also results in the revocation of their visa.

To help enforce the Schar School policy on plagiarism, all written work submitted in partial fulfillment of course or degree requirements must be available in electronic form so that it can be compared with electronic databases, as well as submitted to commercial services to which the School subscribes. Faculty may at any time submit student’s work without prior permission from the student. Individual instructors may require that written work be submitted in electronic as well as printed form. The Schar School policy on plagiarism is supplementary to the George Mason University Honor Code; it is not intended to replace it or substitute for it.

Resources:
Avoiding Plagiarism https://writingcenter.gmu.edu/tutoring/policies-and-restrictions
Assignment Details

I. Weekly Discussion
A. A short discussion of energy topics relating to this specific session that:
   i) Have geopolitical significance
   ii) Relate to energy security or climate change
   iii) Technological developments with geopolitical or energy security implications
B. Outline your presentation (in writing one-page) — 3 ½ minutes maximum oral brief
   i) The key point for policy maker (What’s going on?)
   ii) Why important? (Why is it going on? What does it mean?)
   iii) Policy recommendations (What should the policy do about it?)
C. Sources – separate page. Specify source. Not just a link.
D. Criteria for grading:
   Follow instructions/format;
   Understand outline;
   Usefulness for oral presentation;
   Clarity of written/oral presentation.

II. Policy Paper -- 10 page paper on a topic you suggest (see attached list of ideas on page 22)
organized as follows (A-F):

A. Key policy question (s)
B. Time period
C. Executive Summary
D. Assumptions
E. Analysis
   i. Drivers
   ii. Wild Cards
   iii. Alternative outcomes
F. Policy recommendations
G. Criteria for grading
   i. Follow instructions/format
   ii. Understanding of Drivers/Wild Cards/Alternative Outcomes
   iii. Executive Summary
   iv. Clarity
   v. The connection between policy recommendations & key policy question
Due Dates for elements in policy paper process:
   A. Concept paper (1 page) – September 12
   B. Outline (2 page) – October 10
   C. First draft (10 pages) – November 7
   D. Final (10 pages) – December 5 (??)

III. Policy Oral Briefing – December 7

You will be assigned to teams representing Russia, India, China, the United States, and the EU. Your task is to brief your country's foreign, environment and energy ministers (in the case of the EU, Commissioners) on: (1) three significant changes that have taken place in US energy and climate change policy under a Trump Administration; (2) how these objectives affect your country's energy security (be sure to define); (3) the impact on geopolitical relations of your country.

You can have no more than two power point slides (not required).

Criteria for grading
   Follow instructions
   Segue between presenters
   Clarity of presentation
   “Presidential”
   Meet time limits

IV. Final Exam A take-home assignment (details to be provided toward the end of the semester)
Tentative Class Schedule

Readings will be adjusted throughout the semester. Details will be posted on Blackboard in the course Content folders for each session.

August 29 -- Session 1: Overview/Introduction -- Geopolitics and Energy Security

O’Sullivan
Preface, Introduction and Chapter 1 – Behind the Price Plunge


September 5 -- Session 2: Energy Outlook -- Next Five Years  IN LIEU OF CLASS
PLEASE ATTEND ANNE MARIE SLAUGHTER DWIGHT SCHAR COLLOQUIUM

O'Sullivan
    Chapter 2 The New Oil Order
    Chapter 3 Gas Becomes More Like Oil

Yergin
    Chapter 8 The Demand Shock
    Part 2 Securing the Supply

Kalicki and Goldwyn
    Chapter 1 The Global Energy Outlook 25-68


BP Statistical Review of World Energy, 2018


OPEC, World Oil Outlook, 2017,
http://www.opec.org/opec_web/static_files_project/media/downloads/publications/AR%202017.pdf

ExxonMobil 2018 The Outlook for Global Energy: A View to 2040

EIA Annual Energy Outlook 2018 https://www.eia.gov/outlooks/aeo/

Statoil Energy Perspectives 2017

September 12 -- Session 3: Energy Security, Climate Change, and National Security

O’Sullivan
  Chapter 7 Energy Abundance, Climate and the Environment
Yergin
  Part 4 Climate and Carbon
Kalicki and Goldwyn
  Chapter 21 Energy, Environment, and Climate 483-498


https://www.iss.europa.eu/sites/default/files/EUISSFiles/ESPAS_report_01_0.pdf


Espach, Ralph; Duncan Depledge .Tobias Feakin. The Climate and Energy Nexus: Challenges and Opportunities for Transatlantic Security, CNA. Washington DC June 2013 (CK)


World Oil Transit Chokepoints. Energy Information Administration. Updated July 25, 2017
http://www.eia.gov/beta/international/analysis_includes/special_topics/World_Oil_Transit_Chokepoints/wotc.pdf
**September 19 -- Session 4: Energy Security, Energy Infrastructure, and Foreign Policy**

Kalicki and Goldwyn  
Conclusion: Energy, Security and Foreign Policy 545-581


Tobby Simon. Critical Infrastructure and the Internet of Things,” Chatham House 2017  
[https://www.cigionline.org/sites/default/files/documents/GCIG%20no.46_0.pdf](https://www.cigionline.org/sites/default/files/documents/GCIG%20no.46_0.pdf)

Andy Greenberg “How and Entire Nation Became Russia’s Test Lab for Cyberwar,” *Wired*, June 20, 2017,  
[https://www.wired.com/story/russian-hackers-attack-ukraine](https://www.wired.com/story/russian-hackers-attack-ukraine)


Remarks by President Trump At the Unleashing of American Energy Event, June 29, 2017,  
September 26 -- Session 5: Turkey/Russia/Caspian: Energy Geopolitics in Flux

O’Sullivan
   Chapter 9 Russia

Yergin
   Chapters 1 Russia Returns
   Chapter 2 The Caspian Derby
   Chapter 3 Across the Caspian

Kalicki and Goldwyn
   Chapter 8 Russia and Eurasia 187-204

Turkey Country Analysis Brief. Energy Information Administration, February 2, 2017,
https://www.eia.gov/beta/international/analysis_includes/countries_long/Turkey/turkey.pdf

Russia Country Analysis Brief. Energy Information Administration. October 31, 2017
https://www.eia.gov/beta/international/analysis_includes/countries_long/Russia/russia.pdf

Azerbaijan Country Analysis Brief. Energy Information Administration. June 22, 2016,
http://www.eia.gov/beta/international/analysis_includes/countries_long/Azerbaijan/azerbaijan.pdf

Kazakhstan Country Analysis Brief. Energy Information Administration. May 10, 2017,
https://www.eia.gov/beta/international/analysis_includes/countries_long/Kazakhstan/kazakhstan.pdf

Caspian Sea Region. Energy Information Administration. August 26, 2013,
http://www.eia.gov/beta/international/analysis_includes/regions_of_interest/Caspian_Sea/caspian_sea.pdf

Global and Russian Energy Outlook Up To 2040. The Energy Research Institute of the Russian Academy of Sciences and Analytical Center for the Government of the Russian Federation Moscow April 21, 2014,


https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/files/66_final.pdf
October 3 -- Session 6: The: Far North -- “The Last Frontier.”
Guest Lecturer: Ambassador Kenneth Yalowitz Georgetown University

Kalicki and Goldwyn
Chapter 9 The Arctic: Promise or Peril? 205-220


October 10 – Session 7: The Far East and South Asia -- Energy Moves East

Guest Lecturer: TBD

O’Sullivan
Chapter 10 China

Yergin
Chapter 4 Supermajors
Chapter 9 China Rise
Chapter 10 China in the Fast Lane

Kalicki and Goldwyn
Chapter 13 China, India and Asian Energy 283-302

China Country Analysis Brief. Energy Information Administration. May 14, 2015,
http://www.eia.gov/beta/international/analysis_includes/countries_long/China/china.pdf

India Country Analysis Brief. Energy Information Administration. June 14, 2016,
http://www.eia.gov/beta/international/analysis_includes/countries_long/India/india.pdf


Jian, Dr. Zhang China’s Energy Security: Prospects, Challenges, and Opportunities, the Brookings Institution Center for Northeast Asian Policy Studies, July 2011

India’s Draft National Energy Policy. June 27, 2017,

Sun-Joo Ahn and Dagmar Graczyk Understanding Energy Challenges in India IEA, 2012
https://www.iea.org/publications/freepublications/publication/India_study_FINAL_WEB.pdf

South China Sea. Energy Information Administration. February 7, 2013,
https://www.eia.gov/beta/international/analysis_includes/regions_of_interest/South_China_Sea/south_china_sea.pdf
October 17 -- Session 8: “Resource Curse” – Corruption

Yergin
  Chapter 5 Petro State
(Find Levine and Tsalik readings at e-reserves on Blackboard.)
  Tsalik, Svetlana. Caspian Oil Windfalls: Who Will Benefit? Open Society Institute
  Chapter 2 Natural Resource Funds: Case Studies in Success and Failure
  Chapter 1 The Barons
  Chapter 2 A Visitor from Sweden
  Chapter 3 Revolutions
  Chapter 4 Soviet Days


National Resource Governance Institute. 2017 Resource Governance Index
http://resourcegovernanceindex.org/about/global-report
October 24 -- Session 9: Technological Change and Low Carbon Approaches -- Impact on Rentier States

Yergin
   Part 5 New Energies
   Part 6 Road to the Future

Kalicki and Goldwyn
   Chapter 17 Technology, Development and Energy Security 378-421

This is Advanced Energy. Advanced Energy Economy. 2016
https://info.aee.net/hubfs/docs/this-is-advanced-energy-160114-1400.pdf

BP Technology Outlook. 2018


IEA Energy Technology Perspectives 2017 (Executive Summary) OECD/IEA, 2017
https://www.iea.org/etp2017/summary/


October 31 -- Session 10: North Africa, Middle East, and Africa – Something Old, Something New

O’Sullivan  
Chapter 11 Middle East  
Kalicki and Goldwyn  
Chapter 5 OPEC: Can the Cartel Survive Another 50 Years? 121-139  
Part III The Middle East and Africa 225-277

http://www.eia.gov/beta/international/analysis_includes/countries_long/Angola/angola.pdf

http://www.eia.gov/beta/international/analysis_includes/countries_long/Algeria/algeria.pdf


http://www.eia.gov/beta/international/analysis_includes/countries_long/Qatar/qatar.pdf

Saudi Arabia Country Analysis Brief. Energy Information Administration. October 20, 2017,  
http://www.eia.gov/beta/international/analysis_includes/countries_long/Saudi_Arabia/saudi_arabia.pdf

Iran Country Analysis Brief Energy Information Administration. April 9, 2018,  
https://www.eia.gov/beta/international/analysis_includes/countries_long/Iran/iran.pdf


OPEC Revenues Fact Sheet. Energy Information Administration May 15, 2017,  
https://www.eia.gov/beta/international/analysis_includes/special_topics/OPEC_Revenues/opec.pdf
November 7 -- Session 11: Western Hemisphere -- Energy Exporter for how long?

O’Sullivan
Chapter 4 America’s Unrequited Love
Kalicki and Goldwyn
Part V. The Western Hemisphere 323-371

Annual Energy Outlook 2018. Energy Information Administration, February 2018


November 14 -- Session 12: European Energy Security
Guest Lecturer: TBD

O’Sullivan
  Chapter 8 Europe
Kalicki and Goldwyn
  Chapter 7 European Gas Supply: Unfinished Business 169-186


Hecking, Dr. Harland. Options for Gas Supply Diversification for the EU and Germany in the Next Two Decades. Cologne/London October 2016.

November 28 -- Session 13: Do Nuclear and Coal Have a Future?

Yergin
Part 3 The Electric Age


December 5 -- Session 14: Class Oral Policy Briefing

December 12 (??) – Final Exam
Ideas for Papers in POGO 750 Geopolitics of Energy Security

- Securing energy production and distribution systems in zones of conflict.
- Ensuring electrical grid security – international aspects
- Who has the comparative advantage on non-conventional oil and gas development – US or China?
- Do subsidies work? A case study of solar power in Germany, China, and the US.
- Mexican energy sector reform – geopolitical impact of new government?
- New energy technologies – the next three game-changer energy developments.
- Arctic energy development – can it compete with non-conventionals and low-carbon alternatives?
- Future of OPEC in an ever-changing global energy market.
- Is there a “safe” nuclear power (or “safe” coal) alternative?
- Energy efficiency as the “fifth fuel source.”