

**Simon Fraser University  
Political Science Department  
ENERGY POLICY  
(POL 452W/855)**

Updated: Sept. 2 2019

Fall 2019  
T 8:30-12:20  
WMC3511  
Office: AQ6048

Prof. Hira  
tel. 778 782-3286  
e-mail: ahira@sfu.ca  
website: www.sfu.ca/~ahira

Description

**Objectives**

This writing-intensive undergraduate/graduate course is designed to examine one of the most pressing issues of our time- how to develop alternative energy sources in the face of climate change. The course starts with a technical introduction to how energy works. It then moves to an historical perspective focusing on how we developed our petroleum-based economy. It then moves to a review of energy policy frameworks in economic, political, and regulatory terms. The course is centered around helping students to learn how to write a policy memo, which is a standard document of analysis in the public, private, and non-profit arenas. The policy memo will develop an analysis of the feasibility of implementing an alternative energy source or policy, using both quantitative and qualitative analysis. The policy memo will serve as a well-vetted and reviewed writing sample for students. The course is supplemented by site visits and guest speakers.

**Required Materials**

This is an upper level course, and the topics are wide ranging. All material will be available through article databases and reserve materials from Canvas, SFU library reserves and energy policy organization websites. There is an important link through the SFU library designed for this course to help you with your research:

<http://www.lib.sfu.ca/help/research-assistance/subject/political-science/pol452w>

**Assignments**

The keys to success in any course for both the professor and student are thorough preparation and active participation. Students must not only attend every session, but also be prepared to participate in each meeting. In order to accomplish this, students should prepare an outline of the readings for each meeting and work ahead of time on all assignments. Detailed instructions and examples will be given for every stage, but students are advised to work well ahead of time on project stages in order to get appropriate feedback.

Students will be graded upon participation and writing assignments culminating in the policy brief, as well as the ability to demonstrate knowledge of the basic concepts of energy policy.

The assignments are the following:

- 1- Thorough preparation and active participation in every class. Students should make notes from the readings and come prepared to discuss them in class. The powerpoint slides, available from Canvas will be a good guide to the topics of the lecture and

discussion for each class. Quizzes test basic understanding of the topics covered in lecture and the readings.

- 2- A policy memorandum that makes a policy proposal, developed in the following stages:
  - a. Identification of problem to be solved and annotated bibliography of sources.
  - b. Background and context of the region's energy profile (including supply and demand trends), current policies, and future needs or literature review on policy alternatives and study of comparable cases.
  - c. Background and details of the costs and technical requirements of the alternative energy source or policy studied (presentation to class on designated week).
  - d. Policy Options- how well does this alternative energy or policy fit into the region's needs, including trade-offs with other sources
  - e. Recommendations & Executive Summary
  - f. Rough Draft
  - g. Final Draft

### **Grading**

The assignments will be graded proportionally as follows:

- participation, including attendance and discussion, 10%,
- quizzes based on the readings, 10%
- peer review assignments, worksheets will be given, 5%
- class powerpoint presentation of research paper, 10%
- debate preparation and participation, 10% (5% oral, 5% written); 2 bonus marks for the winning team
- Policy memorandum, 55% broken down as:
  - 10% preliminary proposal incl. lit. review, annotated bibliography, & data sources (7 pp)
  - 10% statistical analysis and brief context paper on energy trends in the region (15 pp)
  - 10% Policy options section (5 pp) & Recommendation section (5 pp)
  - 15% Rough Draft (20 pp)
  - 10% Final Draft (15-20 pp)

Projects can be individual or group projects. If group, for each additional member, there should be an additional site examined. Group members receive the same grade. Assignments are due promptly at the beginning of class. There will be an increasing penalty for any work that is late. Pls. see Canvas for grading templates, lecture slides and examples of previous outstanding essays that you can download. Graduate students will be held to appropriately higher standards while completing the same assignments.

**Office Hours** I am generally available 9-3 M-F for you to drop in or e-mail, except for teaching and meeting times. Do send me an e-mail to confirm a time to meet. I will set up a class e-mail list.

### **Research Paper Topic Suggestions/Examples:**

Find an existing policy/project and derive lessons for a specific location. Examples: Energy efficiency/consumption- what can be done to reduce fossil fuel use and improve renewables uptake (eg insulation programmes);

- remote communities- what can be done to improve the switch from diesel fuel to small scale renewables;
- Mass transportation- how can we fund it or use it more (ex. European bike lane/sharing policies)
- Evaluate one aspect of Vancouver's greenest city policy

#### Schedule

The schedule is planned by weeks. Readings should be done prior to each class.

### I. Introduction to Course, (Sep 3)

- About the Professor, the students, and the course
- Lecture and Discussion: - How energy works- traditional and renewable sources in the context of climate change

*Readings:*-Christopher A. Simon, *Alternative energy: political, economic, and social feasibility*, Lanham, MD: Rowman and Littlefield, 2007 HD 9502 U52 S544 2007, 39-61.

Film: Daniel Yergin's *The Prize*, parts 1 & 2, watch on Google Videos

Recommended: Yergin, Daniel, *The Prize: epic quest for oil, money, and power*. NY: Free Press 2003, HD 9560.6 Y47 2003 19-77.

Recommended Film: *There Will be Blood*, 2007.

**W** Possible research sources for Energy Topics

**W** Walkthrough of Research Policy Memo professional examples, and examples from previous students

**W** Quick Write- What are your initial thoughts about what would be some appropriate topics; what is a reasonable scope, and what is your assessment of the feasibilities of each?

### II. Energy Basics including Alternative Fuels; History of Petroleum Markets and Oil and Gas Subsidies (Sep 10)

-quiz on and discussion of film: *the Prize*

Lecture: Fossil Fuels- technical, economic and political aspects

-what should go into your analysis of an alternative energy source- technical, cost, political and social issues

**Guest Speaker: Ean Henninger, SFU Library Energy Policy Sources, 9:00**

**W**-How to write a preliminary proposal and annotated bibliography: Guest Speaker **-Amanda Goldrick Jones, Student Learning Centre, How to organize for a big writing project; writing a lit review and annotated bibliography, 11:30**

**W**-Scope and feasibility- common problems in choosing a topic. Example group exercises.

*Readings:* MIS, *60 Years of Energy Incentives: Analysis of Federal Expenditures for Energy Development*, 2011, download at: <http://www.misi-net.com/publications/NEI-1011.pdf>

& check out energy basics on US EIA website

### III. Sources of Supply and Demand of Energy and Future Trends (Sep 17)

-Lecture on the natural resource curse

Discussion: What are the principle sources of supply and demand in international energy markets? What do these imply for geopolitics? What are potential future trends? Why do estimates vary so widely?

*Readings:* -BP 2015 Statistical Energy Workbook, download excel file at:  
<http://www.bp.com/en/global/corporate/about-bp/energy-economics/statistical-review-of-world-energy/statistical-review-downloads.html>

-International Energy Statistics database, find at:

<http://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm>

**W: Bring a rough draft of your preliminary proposal for peer review in class.** Brief presentation of your idea and feedback from the class.

**Q:** Walking through a basic statistical analysis using excel and interpreting the results. Bring your laptop.

### **No Class Sept 24- instructor at a conference**

#### IV. The Natural Resource Curse (Oct. 1)

-Quiz on the natural resource curse readings

-Lecture on energy and electricity regulation

-Walkthrough of technical documents on regional energy profiles to understand their structure and jargon, so you can prepare your own.

*Readings:* Terry Karl, *The Perils of the Petro-State: Reflections on the Paradox of Plenty.*

*Journal of International Affairs* 53, 1 (Fall 1999): 31-48, avail. through library subscription.

-Jeffrey Frankel, *The Natural Resource Curse: A Survey*, NBER paper, will be sent electronically

Assignments due: **Preliminary proposal**

**W:** Elements of a regional context paper and analysis, including political analysis; the status quo section; and how to set up and interpret the statistical analysis.

**Guest Speaker: Jae Mather, Director, Carbon Free Group**

#### V. Electricity Regulation and Integration: Latin American Case (Oct 8)

-Quiz on electricity regulation readings

-Lecture on biofuels

Class review and discussion of research issues and context of the region or energy source you are researching.

-Focusing in on key elements of a research project without drowning in the details.

*Readings:*

-Hira, brief explanation of electricity regulation and integration, from *Political Economy of Energy in the Southern Cone*, will be sent electronically.

Recommended: -Barry Barton, ed., *Regulating energy and natural resources*, NY: Oxford U, K 3981 R44 2006, 9-33 (3)

-Denise Warkentein, *Electric Power Industry: In Nontechnical Language* Tulsa, OK: PennWell, HD 9685 A2 W28 1998, 3-25 (4).

**W:** Discussion of proposals; group exercise on improvements.

**W:** Quick write on what you see as your refined research question and how you will proceed.

#### VI. Energy in Transportation (Oct 15)

-Quiz on biofuels readings

-Lecture on energy efficiency

*Readings:* Anil Hira, “How Brazil developed its Biofuels Sector” and “Paraguayan Biofuels Study”

**Guest Speaker: Ian Neville, City of Vancouver Sustainability Group**

VII. Site Visit (Oct. 22) 10am Waste Water Heat Facility, City of Vancouver

*Assignments due:* **Regional analysis study, for peer review**

VIII. Energy Efficiency (Oct 29)

-Quiz on energy efficiency readings

-Lecture on climate change

*Readings:* -Lorna A. Greening, David L. Green, and Carmen Difiglio. 2000. Energy efficiency and consumption- the rebound effect- a survey. *Energy Policy* 28: 389-401.

-Gregory C. Unruh. 2000. Understanding carbon lock-in. *Energy Policy*. 28: 817-30.

-Lisa Wood. No date. The Future of Energy Efficiency: Technology and strategies to improve energy efficiency. *Business Insights*.

**W: Regional analysis study**

**W:** -Walkthrough and group exercises of policy options and recommendations, including political feasibility analysis.

**Guest Speaker: Paul Kariya, Coastal First Nations, 11:30**

IX. Climate Change- Policy Obstacles (Nov 5)

-Quiz on climate change readings

In class: use of one of the many websites to figure out your carbon footprint, such as

<http://www.carbonfootprint.com/calculator.aspx>

**W:** -Return of regional and context analysis; discussion on how to improve it

*Assignment:* Prepare policy options and recommendations.

**W:** -What is needed to develop a solid rough draft- integration and flow issues. Walkthrough of “rough” draft and final paper revisions.

-How to write an executive summary.

*Readings:*

-Elizabeth Shove, Beyond the ABC: climate change policy and theories of social change, *Environment and Planning A*. 42(2010): 1273-85.

-Anthony Leiserowitz, Climate Change Risk Perception and Policy Preferences: The Role of Affect, Imagery, And Values, *Climatic Change* (2006) 77: 45–72.

-Hira, renewable energy in Central America, article on Canvas

*Recommended:* latest IPCC report

*Assignment due:* **Policy options and recommendations- Flow Chart/Infographic.**

X. Debate of Best Ways to Reduce Consumption and to Address Climate Change in Canada (Nov 12)

-Questions for debate will be given ahead of time, class will form groups for the debate

**W:** Return of policy options and recommendations section and group discussion on how to improve them.

XI. Class Projects Presentations (Nov. 19)

*Assignment Due:* **Rough Draft**, returned within 3 days

XII. Class Projects Presentations (Nov. 26)

*Assignment Due:* **Final Draft**

## **AN IMPORTANT REMINDER:**

**Plagiarism involves using another author's words without attribution or otherwise presenting another person's work as one's own. It is a fraudulent and serious academic offence that will result in a severe academic penalty. Also, close paraphrasing of another author's work & self-plagiarism, including submitting the same, or substantively the same, work for academic evaluation more than once, are unacceptable practices that will result in a severe academic penalty.**

The university policies on academic honesty are available at:

<http://www.sfu.ca/policies/gazette/student.html>

The Department of Political Science's interpretation of this policy can be found at:

<http://www.sfu.ca/content/dam/sfu/politics/undergraduate%20docs/PLAGIARISM%20Policy%20-%20%20Pol%20Dept.%20Jan.pdf>, and is available in hard copy format outside our General Office. All students are responsible for familiarising themselves with these policies.

A helpful SFU Library tutorial on plagiarism is at

<http://www.lib.sfu.ca/researchhelp/tutorials/interactive/plagiarism/tutorial/introduction.htm>

### **The DOs and DON'Ts of AVOIDING PLAGIARISM**

#### **Do not:**

- submit an entire paper or part(s) of a paper or papers that has been written or researched by any other person(s);
- submit a paper as an assignment that has been bought from another person or from a 'paper mill' or essay service;
- submit a paper or other written assignment that has been submitted at another time or for a different course by yourself or any other student or former student;
- submit material that has been downloaded from a website, without acknowledging (using appropriate citation style) that you have done so;
- take someone else's idea(s) and represent it/them as your own;
- copy any text verbatim, or with only slight variation from the original text, without using quotation marks and documenting the source with proper citation style;
- do not closely paraphrase another's material; either paraphrase completely in your own words, or cite as a direct quotation using quotation marks (in either case, give full credit and details regarding authorship and location of the original material);

#### **Do:**

- learn how to cite material properly (there are many good guides on this, including the departmental one);
- use a recognized citation style (eg. APA, MLA, Chicago), according to instructions given by the course instructor, and be consistent in the use of the style throughout any single piece of written work;
- carefully read and make sure you understand the university's policy on academic honesty;
- ask the instructor of this course or other faculty members if you have any questions about plagiarism.