

**POLI 4380 / 5380 Politics of Climate Change**  
**Dalhousie University**  
**Mondays, 4:35 – 7:25 p.m.**  
**McCain 2016**



Instructor: Dr. Anders Hayden  
Office Hours: Wednesdays, 1:30-2:30, Mona Campbell Building, Room 1412 (inside the College of Sustainability, Mona Campbell Building, Room 1401)  
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### **Course Description**

This course examines the interactions between politics and climate change, including the emerging political responses that aim to limit greenhouse gas emissions and stabilize the climate as well as the impacts of a changing climate on political life. Among the key questions we will consider throughout the course: What are the key sources of disagreement in the political debate over how to respond to climate change? What does climate change mean for various political, social, and economic projects? What could be done politically to enable stronger responses to the challenge of climate change?

Topics include:

- the relationship between science and climate politics
- the controversial role of economic analysis in creating a basis for climate politics
- the emergence of a new climate capitalism that aims to link emissions reductions to economic expansion and business strategy
- demands for more politically-challenging alternatives that question economic growth, consumerism, and capitalist imperatives while emphasizing “climate justice”
- Canada’s climate record and reasons why climate change is a particularly difficult political challenge for this country

- the potential and limits of climate politics at the personal level through lifestyle and behaviour change
- international climate negotiations and the key sources of conflict among nations
- the growing acknowledgement of climate change as a security issue
- geo-engineering as a potential climate response and its political implications

The course emphasizes the political and social aspects of climate change. We will draw on understandings from the natural sciences where necessary for an informed analysis of the issues, but a natural sciences background is not necessary to take the course.

It is *highly recommended* that undergraduates take 3385 Politics of the Environment prior to this course.

### Course Format

The course will combine seminar discussion with some interactive lecturing, along with student presentations and the occasional use of short videos.

### Expectations and Grading

Attendance and Participation	20%
Weekly “QIPs”	20%
Presentation	20%
Research Paper	40%

#### Attendance and Participation 20%

You are expected to attend *every* class, having completed the assigned readings before class. (We only meet once a week, so each time you miss a class, you miss about 8 percent of the total class time.)

You are expected to participate actively and respectfully in group discussions *without dominating the discussion*. A good participant also demonstrates knowledge of the assigned readings and asks probing questions to the instructor and to fellow students.

Students will be assigned a participation mark for each class in accordance with the following guidelines:

Grade	Criteria
0	Absent.
1	Present, not disruptive. Tries to respond when called on but does not offer much. Demonstrates very infrequent involvement in discussion.
2	Demonstrates adequate preparation: knows basic case or reading facts, but does not show evidence of trying to interpret or analyze them. Offers straightforward information (e.g., straight from the case or reading), without elaboration or very infrequently (perhaps once a class). Does not offer to contribute to discussion, but contributes to a moderate degree when called on. Demonstrates sporadic involvement.

3	<p>Demonstrates good preparation: knows case or reading facts well, has thought through implications of them.</p> <p>Offers interpretations and analysis of case material (more than just facts) to class.</p> <p>Contributes well to discussion in an ongoing way: responds to other students' points, thinks through own points, questions others in a constructive way, offers and supports suggestions that may be counter to the majority opinion.</p> <p>Demonstrates consistent ongoing involvement.</p>
4	<p>Demonstrates excellent preparation: has analyzed case exceptionally well, relating it to readings and other material (e.g., readings, course material, discussions, experiences, etc.).</p> <p>Offers analysis, synthesis, and evaluation of case material, e.g., puts together pieces of the discussion to develop new approaches that take the class further.</p> <p>Contributes in a very significant way to ongoing discussion: keeps analysis focused, responds very thoughtfully to other students' comments, contributes to the cooperative argument-building, suggests alternative ways of approaching material and helps class analyze which approaches are appropriate, etc.</p> <p>Demonstrates ongoing very active involvement.</p>

Your overall attendance and participation grade will be based on the following formula:  
Attendance (one point per day, maximum of 13) + (average participation grade out of 4 x 1.75) = maximum of 20.

#### Weekly “QIPs” 20%

Starting in week 2, *at the beginning* of class, you will hand in a reflection on the week’s readings. The reflection will be 400-500 words in length for undergraduate students and 600-750 words for graduate students.

One possible model to follow in your reflection is to identify *at least* one Question (Q), Interesting or Important Point (I), and Problem (P) that you identified in the readings (or had with them)—hence the acronym QIP. However, if you find that model too constraining, you are not required to follow it, as long as you show that you have done the reading and reflected on it.

The main goal of the QIPs is to encourage you to think about the readings and the issues that you would like to discuss *before* coming to class. They also give the instructor an opportunity to identify any common questions or problems, which will then be discussed in class.

You will receive one point for each QIP you submit, up to a *maximum of 10*, over the semester. You will also receive an additional qualitative grade out of 10 on your QIPs throughout the semester. The qualitative grade will be based on three main grading categories: excellent (0.8 points), satisfactory (0.6 points), and less than satisfactory (0.3 to 0.5 points). Therefore if you submit a satisfactory QIP, you will receive  $1 + 0.6 = 1.6$  points, equivalent to an A-minus grade. An excellent QIP will earn 1.8 points, equivalent to an A-plus, while a less than satisfactory QIP could earn as little as 1.3 points, equivalent to a C. (In rare cases of particularly poor work, I reserve the right to give a lower grade.)

As you will see, the majority of the points are given for simply showing that you are doing the reading, understanding key themes, and reflecting thoughtfully upon them. If you do that *every week*, you will get a grade in the A-minus range on this component of the course. Higher grades

may be assigned to QIPs that show strong insights, particularly thoughtful commentary on key themes that cut across the readings for the week—rather than focusing on secondary details or looking at the readings in isolation—or an ability to make relevant links to wider issues in debates over climate politics beyond those specifically addressed in the readings.

Lower grades may be assigned to QIPs that do not illustrate an adequate effort in having completed the week's readings or in identifying and commenting upon relevant themes.

*You must hand in the QIPs at the beginning of class to receive credit for them. Please do not e-mail them to me.*

### Presentations 20%

Each student will make a *10 to 15 minute* presentation during the semester on a specific issue in the climate debate. Afterwards, they will lead a class discussion based on questions that they have prepared in advance. Further details on the content of presentations will be provided in class.

Students are encouraged to use their presentation as an opportunity to develop ideas for their research papers. A rubric indicating how the presentations are to be graded will be distributed in class.

### Research Paper 40%

Undergraduate students will write a paper of 4,000 words, while graduate student papers should be 6,000 to 8,000 words. Papers are due on the last day of class, April 4.

In previous years, some students have left the work on their papers to the last minute and received a lower grade than they were capable of. If you see that you will have a very busy end-of-semester (e.g. with an honours thesis to complete), I suggest that you either aim to complete work on your paper well in advance of the deadline or you ask for an extension well in advance. I will consider requests for extensions if you plan ahead and ask by February 26.

A list of possible paper topics will be distributed in class. You are also free to propose your own topic, subject to approval of the instructor. The main criterion is that it must be related to the *politics* of climate change.

You have the *option* of submitting a 1-2 page proposal, plus an initial bibliography, by February 26. You will not receive a grade for the proposal, but this is an opportunity to receive feedback as you develop your paper. This will also help to ensure that you begin work on your paper early in the semester and help avoid a last-minute rush.

### **Additional Information for Graduate Students**

As this is a cross-listed class, the requirements for graduate students are somewhat different from those for undergraduates. The number of and types of assignments are the same, but the expectations for these assignments are considerably higher:

1. In all assignments, graduate students are expected to show a deeper analytical ability when evaluating readings, to show familiarity with a wider variety of sources, and to illustrate greater sophistication of thought in both verbal and written forms.

2. The writing style for graduate students should illustrate greater sophistication, both in the construction of the argument and in the clarity of writing.
3. While all students are expected to be prepared for each seminar, graduate students are expected to be particularly able to identify and critically discuss key themes in the week's readings. Graduate students are expected to be particularly active in discussions.
4. At the graduate level, students should show greater understanding of the nuances of criticism, e.g. how to provide intellectually incisive criticism in a respectful and constructive manner.
5. Graduate students will be expected to write longer research papers and weekly "QIPs" (see details above). Graduate students may choose to tailor their research papers to their thesis work, but this should be discussed with the instructor in advance.

### **Late Penalties**

Research papers received after the due date will be subject to a late penalty of 1% on the first day, an *additional* 2% on the second day, an *additional* 3% on the third day ... and an additional 5 % on the fifth and every subsequent day, unless appropriate written documentation such as a doctor's note is provided. (For example, a paper submitted six days late will receive a penalty of 20%, i.e. 1+2+3+4+5+5%). Please plan your work well ahead of time to avoid late penalties. The late penalties are phased in gradually to give you some extra flexibility. For example, if you need one more day to finish your paper, you may decide it is worth taking the small penalty to have a little extra time, but the penalties increase substantially as the delay grows longer.

### **Plagiarism and Academic Integrity**

All students in this class are to read and understand the policies on plagiarism and academic honesty referenced in the Policies and Student Resources sections of the [plagiarism.dal.ca](http://plagiarism.dal.ca) website. Ignorance of such policies is no excuse for violations.

To ensure that you understand what plagiarism is, I suggest you take the following online quiz: <http://www.bc.edu/schools/cas/polisci/integrity/quiz.html> . You might find some surprises.

**N.B. I typically have to penalize at least one student for plagiarism each semester.** In some cases, the violations appeared to be unintentional as the students did not understand the rules for the proper citation of others' work. **Don't let it happen to you—or me** (it's no fun for anybody).

If you have any questions about academic integrity and plagiarism, please ask.

### **Required Books**

Bulkeley, Harriet and Peter Newell. 2015. *Governing Climate Change*. 2<sup>nd</sup> edition. London: Routledge.

Dryzek, John S., Richard B. Norgaard, and David Schlosberg. 2013. *Climate Challenged Society*. Oxford: Oxford University Press.

Klein, Naomi. 2014. *This Changes Everything: Capitalism vs. the Climate*. Toronto: Knopf Canada.

## WEEKLY THEMES AND READINGS

*N.B. You can find the readings either in the required books, on the course website on BbLearn, or electronic form through the Dal library. Class schedule is subject to change.*

*Since the politics of climate change is evolving rapidly, the instructor may choose to replace some scheduled readings if relevant new readings become available. Any changes in assigned readings will be announced in class and on BbLearn.*

**The reading list from January 18 to April 4 is in draft form. It will be revised and a new version of the syllabus will be distributed in January.**

### January 4: Introduction

#### *Required:*

Dryzek, Norgaard, and Schlosberg. Chapter 1, “Climate’s Challenges.”

Klein. “Introduction,” Pp. 1-10, 16-26.

IPCC. 2014. *Climate Change 2014: Synthesis Report – Summary for Policymakers*. Geneva: Intergovernmental Panel on Climate Change. [https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR\\_AR5\\_SPMcorr1.pdf](https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr1.pdf)

*Required: All the bold-faced boxes summarizing the key points in each section. In addition, read the full details of the following sections: 3.1, 3.2, 3.4, 4.1, 4.3, 4.4, 4.5, Figure SPM-4, p. 30.*

*Recommended: The details of any other sections of interest to you. [BbLearn]*

#### *Highly Recommended:*

Rapley, Chris and Duncan Macmillan. 2014. “Climate change is not just about science – it’s about the future we want to create.” *The Observer*, November 22.

<http://www.theguardian.com/science/2014/nov/22/-sp-climate-change-special-report>.

#### *Recommended:*

Hulme, Mike. 2009. Pp. xxi-xxxiv and Chapter 1, “The Social Meanings of Climate,” especially pp. 18-33. *Why We Disagree About Climate Change: Understanding Controversy, Inaction, and Opportunity*. Cambridge, UK: Cambridge University Press.

Potsdam Institute for Climate Impact Research and Climate Analytics. 2012. “Executive Summary.” Pp. xiii - xviii *Turn Down the Heat: Why a 4°C Warmer World Must Be Avoided*. Washington: World Bank. [http://climatechange.worldbank.org/sites/default/files/Turn\\_Down\\_the\\_heat\\_Why\\_a\\_4\\_degree\\_centrigrade\\_warmer\\_world\\_must\\_be\\_avoided.pdf](http://climatechange.worldbank.org/sites/default/files/Turn_Down_the_heat_Why_a_4_degree_centrigrade_warmer_world_must_be_avoided.pdf) [BbLearn]

### January 11: Science and Climate Politics

Why have some political actors continued to resist the findings of mainstream climate science? What role have climate “doubters” played in questioning/undermining the basis for political action on climate change?

What is the relationship between scientific findings and policy? Are there clear boundaries between “science” and “politics?”

*Required:*

Hulme, Mike. Chapter 3, “The Performance of Science.” *Why We Disagree About Climate Change: Understanding Controversy, Inaction, and Opportunity*. Cambridge, UK: Cambridge University Press. [BbLearn]

Dryzek, Norgaard, and Schlosberg. Chapter 2, “Constructing Science and Dealing with Denial.” Klein. Pp. 31-46.

Young, Nathan and Aline Coutinho. 2013. “Government, Anti-Reflexivity, and the Construction of Public Ignorance about Climate Change: Australia and Canada Compared.” *Global Environmental Politics* 13(2):89–108. [BbLearn]

Kahan, Dan. 2012. ‘Why we are poles apart on climate change’. *Nature* 488(7411):255. [BbLearn]

University of Maryland. 2015. “UMD Study Finds Climate Change Debate Fueled by 'Echo Chambers'.” *UMD Right Now*, May 27. <http://www.umdrightnow.umd.edu/news/umd-study-finds-climate-change-debate-fueled-echo-chambers> [BbLearn]

*Highly Recommended:*

Anderegg, William R. L. et al. 2010. “Expert credibility in climate change.” *PNAS* 107(27): 12107–12109. <http://www.pnas.org/content/107/27/12107.full.pdf+html> [BbLearn].

Hamilton, Clive. 2010. “Why We Resist the Truth About Climate Change.” [http://clivehamilton.com/wp-content/uploads/2012/11/why\\_we\\_resist\\_the\\_truth\\_about\\_climate\\_change.pdf](http://clivehamilton.com/wp-content/uploads/2012/11/why_we_resist_the_truth_about_climate_change.pdf) [BbLearn]

McCright, Aaron. M. and Riley E. Dunlap. 2010. “Anti-reflexivity: The American Conservative Movement’s Success in Undermining Climate Science and Policy.” *Theory, Culture & Society* 27(2–3):100–133. [BbLearn]

Watch PBS Frontline report, “Climate of Doubt.” October 23, 2012. <http://www.pbs.org/wgbh/pages/frontline/climate-of-doubt/>

*Recommended*

Boykoff, Maxwell T. and Shawn K. Olson. 2013. “‘Wise Contrarians’: A Keystone Species in Contemporary Climate Science, Politics and Policy.” *Celebrity Studies* 4(3):276–291. [BbLearn]

Boykoff, Maxwell T. and Jules M. Boykoff. 2004. “Balance as Bias: Global Warming and the US Prestige Press.” *Global Environmental Change* 14:125-136.

Brysse, Keynyn, Naomi Oreskes, Jessica O’Reilly, and Michael Oppenheimer. 2013. “Climate change prediction: Erring on the side of least drama?” *Global Environmental Change* 23(1):327-337. [BbLearn]

Cook, John et al. 2013. “Quantifying the Consensus on Anthropogenic Global Warming in the Scientific Literature.” *Environmental Research Letters* 8(2): doi:10.1088/1748-9326/8/2/024024.

Freudenberg, W., R. Gramling and D. Davidson. 2008. “Scientific certainty argumentation methods (SCAMs): Science and the politics of doubt.” *Sociological Inquiry* 78(1):2-38.

Geden, Oliver. 2015. “Climate Advisers Must Maintain Integrity.” *Nature* 521(7550):27–28.

Hoggan, James and Richard Littlemore. 2009. *Climate Cover-Up: The Crusade to Deny Global Warming*. Vancouver: Greystone.

McCright, Aaron. M. and Riley E. Dunlap. 2003. "Defeating Kyoto: The conservative movement's impact on U.S. climate change policy." *Social Problems* 50(3):348-373.

Oreskes, Naomi and Erik M. Conway. 2010. *Merchants of Doubt*. New York: Bloomsbury Press (especially ch. 6).

Painter, James, and Teresa Ashe. 2012. 'Cross-national comparison of the presence of climate scepticism in the print media in six countries, 2007–10'. *Environmental Research Letters* 7(4):1–8.

Schneider, S.H. and M.D. Mastrandrea. 2009. "The politics of climate science." Pp. 11-25 in *The Politics of Climate Change*, ed. M. Boykoff. London: Routledge/Europa.

Union of Concerned Scientists. 2013. "Global Warming Science." Cambridge, MA: Union of Concerned Scientists. [http://www.ucsusa.org/global\\_warming/science\\_and\\_impacts/science/](http://www.ucsusa.org/global_warming/science_and_impacts/science/)

### January 18: Economics and Climate Politics

How do we determine how much effort to make to combat climate change? Is the economic tool of cost-benefit analysis the right way to decide?

Is it feasible to reconcile the continued pursuit of economic growth with stabilization of the climate?

*Required:*

Hulme, Mike. 2009. Chapter 4, "The Endowment of Value." *Why We Disagree About Climate Change: Understanding Controversy, Inaction, and Opportunity*. Cambridge, UK: Cambridge University Press. [BbLearn]

Dryzek, Norgaard, and Schlosberg. Chapter 3, "The Costs of Inaction and the Limits of Economics."

Global Commission on the Economy and Climate. 2014. *Better Growth, Better Climate: The New Climate Economy Report – The Synthesis Report*.

<http://static.newclimateeconomy.report/wp-content/uploads/2014/08/NCE-SYNTHESIS-REPORT-web-share.pdf>

*Required: Pp. 8-10, 14-26.* [BbLearn]

Krugman, Paul. 2014. "Errors and Emissions: Could Fighting Global Warming Be Cheap and Free?" *New York Times*, September 18. <http://www.nytimes.com/2014/09/19/opinion/paul-krugman-could-fighting-global-warming-be-cheap-and-free.html> [BbLearn]

Williams, Jeremy. 2014. "Better Growth, Better Climate – But Not Better Enough." *Make Wealth History*, September 22. <http://makewealthhistory.org/2014/09/22/better-growth-better-climate-but-not-better-enough/> [BbLearn]

Anderson, Kevin. 2013. "Avoiding dangerous climate change demands de-growth strategies from wealthier nations." *Kevin Anderson (Blog)*, November 23.

<http://kevinanderson.info/blog/avoiding-dangerous-climate-change-demands-de-growth-strategies-from-wealthier-nations/> [BbLearn]



*Recommended:*

- Ackerman, Frank. 2009. "Much less wrong: the Stern Review versus its critics." Pp. 82-96 in *Can We Afford the Future? The Economics of a Warming World*. London: Zed Books. [BbLearn]
- Anderson, Kevin, and Alice Bows. 2012. "A new paradigm for climate change." *Nature Climate Change* 2(9):639–640. [BbLearn]
- Baer, Paul. 2007. "The worth of an ice-sheet: A critique of the treatment of catastrophic impacts in the Stern Review." *EcoEquity*. <http://www.ecoequity.org/docs/WorthOfAnIceSheet.pdf>
- BBC. 2006. "Expert reaction to Stern review." *BBC News*, October 30. <http://news.bbc.co.uk/2/hi/business/6098612.stm> [BbLearn]
- Beinhocker, Eric et al. 2008. "The carbon productivity challenge: Curbing climate change and sustaining economic growth." McKinsey & Co. [http://www.mckinsey.com/locations/swiss/news\\_publications/pdf/mgi\\_carbon\\_productivity\\_challenge\\_report.pdf](http://www.mckinsey.com/locations/swiss/news_publications/pdf/mgi_carbon_productivity_challenge_report.pdf) [BbLearn]. Pp. 7-17.
- Carbon Tracker. 2013. *Unburnable Carbon 2013: Wasted Capital and Stranded Assets*. London: Carbon Tracker and the Grantham Research Institute, LSE. <http://www.lse.ac.uk/GranthamInstitute/publications/Policy/docs/PB-unburnable-carbon-2013-wasted-capital-stranded-assets.pdf>
- Krugman, Paul. 2013. "Gambling with Civilization." *New York Review of Books*, May 7. <http://www.nybooks.com/articles/archives/2013/nov/07/climate-change-gambling-civilization/>
- Nordhaus, William. 2007. "Critical Assumptions in the Stern Review on Climate Change." *Science* 317(5835):201-202. [nordhaus.econ.yale.edu/nordhaus\\_stern\\_science.pdf](http://nordhaus.econ.yale.edu/nordhaus_stern_science.pdf) [BbLearn]
- Nordhaus, William. 2013. *The Climate Casino: Risk, Uncertainty, and Economics in a Warming World*. New Haven: Yale University Press.
- OECD. 2013. *Climate and Carbon: Aligning Prices and Policies*. Paris: Organisation for Economic Cooperation and Development. [http://www.oecd-ilibrary.org/environment-and-sustainable-development/climate-and-carbon\\_5k3z11hjg6r7-en](http://www.oecd-ilibrary.org/environment-and-sustainable-development/climate-and-carbon_5k3z11hjg6r7-en)
- Spash, Clive L. 2007. "The economics of climate change impacts à la Stern: Novel and nuanced or rhetorically restricted?" *Ecological Economics* 63(4):706-713.
- Stern, Nicholas. 2006. "The Economics of Climate Change: Summary of Conclusions." London: HM Treasury. [http://www.hm-treasury.gov.uk/d/CLOSED\\_SHORT\\_executive\\_summary.pdf](http://www.hm-treasury.gov.uk/d/CLOSED_SHORT_executive_summary.pdf) [BbLearn]  
For the full Stern Review, see:  
[http://webarchive.nationalarchives.gov.uk/http://www.hm-treasury.gov.uk/sternreview\\_index.htm](http://webarchive.nationalarchives.gov.uk/http://www.hm-treasury.gov.uk/sternreview_index.htm)
- Tol, Richard S.J. and Gary W. Yohe. 2006. "A Review of the Stern Review." *World Economics* 7(4):233-250.
- Wolf, Martin. 2012. "Living with Limits: Growth, Resources, and Climate Change." *Climate Policy* 12(6):772–83. [BbLearn]
- York, Richard, Brett Clark, and John Bellamy Foster. 2009. "Capitalism in Wonderland." *Monthly Review*, May. <http://www.monthlyreview.org/090501-york-clark-foster.php> [BbLearn]

January 25: Climate Capitalism & Ecological Modernization (I)

How is contemporary capitalism beginning to respond to the challenge of climate change?  
How are some countries trying to link climate policy to economic strategy?  
Does the carbon market offer a viable path to a low-carbon economy?

*Required:*

Newell, Peter and Matthew Paterson. 2009. "The Politics of the Carbon Economy." Pp. 80-99 in *The Politics of Climate Change: A Survey*, edited by M. Boykoff. London: Routledge. [http://cstpr.colorado.edu/students/envs\\_4800/newell\\_paterson\\_2009.pdf](http://cstpr.colorado.edu/students/envs_4800/newell_paterson_2009.pdf) [BbLearn]

Harrison, David, Andrew Foss, Per Klevnas, and Daniel Radov. 2011. "Economic Policy Instruments for Reducing Greenhouse Gas Emissions." Pp. 521-535 in *The Oxford Handbook of Climate Change and Society*, edited by J. S. Dryzek, R.B. Norgaard, and D. Schlosberg. Oxford: Oxford University Press. [BbLearn]

Newell, Richard G., William A. Pizer, and Daniel Raimi. 2013. "Carbon Markets 15 Years after Kyoto: Lessons Learned, New Challenges." *Journal of Economic Perspectives* 27(1):123–146. [BbLearn]

Spash, Clive L. 2011. "Carbon Trading: A Critique." Pp. 550-560 in *The Oxford Handbook of Climate Change and Society*, edited by J. S. Dryzek, R.B. Norgaard, and D. Schlosberg. Oxford: Oxford University Press. [E-book available through Dal library]

Klein. Pp. 218-229, "Trading in Pollution."

*Recommended:*

Böhm, Steffen, Maria Ceci Misoczky, and Sandra Moog. 2012. "Greening Capitalism? A Marxist Critique of Carbon Markets." *Organization Studies* 33(11):1617–38.

Buen, Jørund. 2013. "CDM Criticisms: Don't Throw the Baby out with the Bathwater." Lysaker, Norway: Fridtjof Nansen Institute. <http://www.fni.no/doc&pdf/FNI-Climate-Policy-Perspectives-8.pdf>

Caney, Simon and Cameron Hepburn. 2011. "Carbon trading: unethical, unjust and ineffective?" London: Centre for Climate Change Economics and Policy and the Grantham Research Institute on Climate Change and the Environment. [http://www.lse.ac.uk/GranthamInstitute/publications/WorkingPapers/Papers/40-49/WP49\\_carbon-trading-caney-hepburn.pdf](http://www.lse.ac.uk/GranthamInstitute/publications/WorkingPapers/Papers/40-49/WP49_carbon-trading-caney-hepburn.pdf)

Carbon Trade Watch. 2012. "Green is the Colour of Money: The EU ETS Failure as a Model for the 'Green Economy'." Barcelona: Carbon Trade Watch. [http://www.carbontradewatch.org/downloads/publications/EU-ETS\\_Report-web.pdf](http://www.carbontradewatch.org/downloads/publications/EU-ETS_Report-web.pdf)

Childs, Mike. 2012. "Privatising the atmosphere: A solution or dangerous con?" *Ephemera* 12 (1/2):12-18. <http://www.ephemerajournal.org/sites/default/files/12-1childs.pdf> [BbLearn]

Durban Group. 2004. "Climate Justice Now! The Durban Declaration on Carbon Trading." October 10. <http://www.carbontradewatch.org/durban/statementeng.pdf> [BbLearn]

Dryzek, Norgaard, and Schlosberg. Chapter 4, "Actions that Promise and Practices that Fall Short."

Newell, Peter and Matthew Paterson. 2010. *Climate Capitalism*. Cambridge, UK: Cambridge University Press.

Scrap the EU ETS. 2013. "Civil society organisations demand that the EU scrap its emissions trading scheme." <http://scrap-the-euets.makenoise.org/english/> and <http://scrap-the-euets.makenoise.org/organisations/> [BbLearn]

Other articles in special Issue of journal *Ephemera* on the "Atmosphere Business": <http://www.ephemerajournal.org/issue/atmosphere-business>

## February 1: Climate Capitalism & Ecological Modernization (II)

### *Required:*

Mikfeld, Benjamin. 2011. "Ecological Industrial Policy: A Strategic Approach for Social Democracy in Germany." Berlin: Friedrich-Ebert-Stiftung. <http://library.fes.de/pdf-files/id/08482.pdf> [BbLearn]

Hillebrand, Rainer. 2013. "Climate protection, energy security, and Germany's policy of ecological modernisation." *Environmental Politics* 22(4):664-682. [BbLearn]

Gough, Ian and James Meadowcroft. 2011. "Decarbonizing the Welfare State." Pp. 490-503 in *The Oxford Handbook of Climate Change and Society*, edited by J. S. Dryzek, R.B. Norgaard, and D. Schlosberg. Oxford: Oxford University Press. [E-book available through Dal library]

There are fewer pages of reading assigned this week than usual. You may want to get a head start on the reading for the next two weeks in the book by Naomi Klein.

### *Recommended:*

Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety. 2008. "Ecological Industrial Policy: Sustainable Policy for Innovation, Growth, and Employment." Berlin: BMU. [BbLearn]

Gawel, Erik, Sebastian Strunz, and Paul Lehmann. 2013. "Germany's Energy Transition Under Attack: Is There an Inscrutable German *Sonderweg*?" *Nature and Culture* 8(2):121-133.

Hess, David J. 2012. *Good green jobs in a global economy: Making and keeping new industries in the United States*. Cambridge, MA: MIT Press. (Especially chapter 3 on "Green Industrial Policy and the Eleventh Congress.")

Mazmanian, Daniel A. 2008. "California's Climate Change Policy: The Case of a Subnational State Actor Tackling a Global Challenge." *Journal of Environment & Development* 17(4):401-423.

Lovins, Amory. 2005. "More Profit with Less Carbon." *Scientific American*, September, 74-82. <http://www.scientificamerican.com/media/pdf/Lovinsforweb.pdf>

Porritt, Jonathon. 2007. *Capitalism As If The World Matters*. London: Earthscan.

Skocpol, Theda. 2013. "Naming the Problem: What It Will Take to Counter Extremism and Engage Americans in the Fight against Global Warming."

[http://www.scholarsstrategynetwork.org/sites/default/files/skocpol\\_captrade\\_report\\_january\\_2013\\_0.pdf](http://www.scholarsstrategynetwork.org/sites/default/files/skocpol_captrade_report_january_2013_0.pdf)

Strunz, Sebastian. 2014. "The German energy transition as a regime shift." *Ecological Economics* 100:150-158.

## February 8: Alternatives to Climate Capitalism (I)

Are "climate capitalism" and "ecological modernization" the only politically viable options to achieve deep emissions cuts?

Do we need to question the growth economy, consumerism, capitalism?

Do political movements focused on climate justice and resisting extractivism offer more hope for solutions than "climate capitalism?"

### *Required:*

Harris, Paul G. 2013. Chapter 7, "Consumption of Happiness: Sustainability and Wellbeing" in *What's Wrong with Climate Politics and How to Fix It*. Cambridge: Polity. [BbLearn]

Klein. Pp. 86-95; 96-119; 120-152.

*Recommended:*

Hulme, Mike. 2009. Chapter 8, "The Challenges of Development." *Why We Disagree About Climate Change: Understanding Controversy, Inaction, and Opportunity*. Cambridge, UK: Cambridge University Press.

Lucas, Caroline. 2008. "The Real Deal?" Pp. 223-230 in *Do Good Lives Have to Cost the Earth?*, ed. Andrew Simms and Joe Smith. London: Constable.

Jackson, Tim. 2009. *Prosperity Without Growth? The Transition to a Sustainable Economy*. London: Sustainable Development Commission. "Summary," pp. 6-12; "The Dilemma of growth," pp. 38-46; "Steps toward a sustainable economy," pp. 102-107. [BbLearn]

Miller, Asher and Rob Hopkins. 2013. "Climate After Growth: Why Environmentalists Must Embrace Post-Growth Economics and Community Resilience." Santa Rosa, CA / Totnes, UK: Post Carbon Institute / Transition Network. <http://www.postcarbon.org/reports/Climate-After-Growth.pdf> [BbLearn]

Monbiot, George. 2009. "This is bigger than climate change. It is a battle to redefine humanity." *The Guardian*, December 14. <http://www.guardian.co.uk/commentisfree/cif-green/2009/dec/14/climate-change-battle-redefine-humanity> [BbLearn]

Quality of Life Policy Group. 2007. Pp. 3, 8-27 in "Blueprint for a Green Economy." London: Conservative Party. [http://www.conservatives.com/tile.do?def=news.story.page&obj\\_id=138484](http://www.conservatives.com/tile.do?def=news.story.page&obj_id=138484)

Turner, Adair. 2008. "Dethroning growth." Pp. 90-97 in *Do Good Lives Have to Cost the Earth?*, ed. Andrew Simms and Joe Smith. London: Constable. [BbLearn]

Victor, Peter A. 2008. "Policies for managing without growth." Pp. 191-224 in *Managing Without Growth: Slower by Design, Not Disaster*. Cheltenham, UK: Edward Elgar.

Wintour, Patrick. 2009. "Green consumerism can avert climate disaster, say top firms." *The Guardian*, October 16. <http://www.guardian.co.uk/politics/2009/oct/16/climate-change-green-business> [BbLearn]

### February 15: Study Break

### February 22: Alternatives to Climate Capitalism (II)

*Required:*

Klein. Pp. 161-190; 293-336; 348-366; 449-466.

*Recommended:*

Remaining chapters in Klein.

Angus, Ian. 2009. "For a Society of Good Ancestors." *Climate and Capitalism*, April 21. <http://climateandcapitalism.com/?p=666>

Chawla, Ambika. 2009. "Climate Justice Movements Gather Strength." Pp. 119-121 in *State of the World 2009: Into a Warming World*, ed. Linda Starke. New York: W.W. Norton & Co. [http://www.worldwatch.org/files/pdf/SOW09\\_CC\\_climate%20justice.pdf](http://www.worldwatch.org/files/pdf/SOW09_CC_climate%20justice.pdf) [BbLearn]

Climate Space, World Social Forum. 2013. "Change the System, Not the Climate." *The Bullet*, April 25. <http://www.socialistproject.ca/bullet/810.php> [BbLearn]

Derber, Charles. 2010. Chapters 9-11. Pp. 105-147 in *Greed to Green: Solving Climate Change and Remaking the Economy*. Boulder, CO: Paradigm.

Ecosocialist International Network. 2008. "The Belem Ecosocialist Declaration." <http://www.rabble.ca/news/belem-ecosocialist-declaration> [BbLearn]

Li, Minqi. 2008. "Climate Change, Limits to Growth, and the Imperative for Socialism." *Monthly Review*, July-August. <http://www.monthlyreview.org/080721li.php>

Magdoff, Fred. 2008. "The Political Economy and Ecology of Biofuels." *Monthly Review*, July-August. <http://www.monthlyreview.org/080714magdoff.php> [BbLearn]

Simms, Andrew et al. 2009. "A Green New Deal." London: New Economics Foundation. [http://www.neweconomics.org/sites/neweconomics.org/files/A\\_Green\\_New\\_Deal\\_1.pdf](http://www.neweconomics.org/sites/neweconomics.org/files/A_Green_New_Deal_1.pdf)

Thompson, Sean. 2009. "The Limits of Green Keynesianism." *Climate and Capitalism*, October 9. <http://climateandcapitalism.com/?p=552>

### February 29: Making it Personal: Climate Politics, Lifestyle, and Behaviour Change

What does a low-carbon lifestyle look like?

Is lifestyle and behaviour change a key element of climate politics, or a distraction from more important issues?

How much impact can individual change have without wider social and political change?

*N.B. A short assignment, which involves calculating your carbon footprint and analyzing an action plan to reduce it, will be distributed the week before this class.*

#### *Required:*

Girod, Bastien, Detlef Peter van Vuuren, and Edgar G. Hertwich. 2014. "Climate Policy through Changing Consumption Choices: Options and Obstacles for Reducing Greenhouse Gas Emissions." *Global Environmental Change* 25:5–15. [BbLearn]

Emel, Jody and Roberta Hawkins. 2010. "Is it Really Easier to Imagine the End of the World than the End of Industrial Meat?" *Human Geography* 3(2):35-48. [BbLearn]

Rosenthal, Elizabeth. 2009. "To Cut Global Warming, Swedes Study Their Plates." *New York Times*, October 22. <http://www.nytimes.com/2009/10/23/world/europe/23degrees.html?pagewanted=print> [BbLearn]

Paterson, Matthew and Johannes Stripple. 2010. "My Space: governing individuals' carbon emissions." *Environment and Planning D: Society & Space* 28(2):341-362. [BbLearn]

Mackenzie, Hugh, Hans Messinger, and Rick Smith. 2008. "Size Matters: Canada's Ecological Footprint, By Income." Ottawa: Canadian Centre for Policy Alternatives. [http://www.policyalternatives.ca/documents/National\\_Office\\_Pubs/2008/Size\\_Matters\\_Canadas\\_Ecological\\_Footprint\\_By\\_Income.pdf](http://www.policyalternatives.ca/documents/National_Office_Pubs/2008/Size_Matters_Canadas_Ecological_Footprint_By_Income.pdf) [BbLearn] *Pp. 3-9 are required.*

Webb, Janette. 2012. "Climate Change and Society: The Chimera of Behaviour Change Technologies." *Sociology* 46(1) 109–125. [BbLearn]

#### *Recommended:*

Environment Agency. 2007. "The 50 things that will save the planet." *Your Environment* 17 (November 2007-January 2008).

Gilligan, Jonathan, Thomas Dietz, Gerald T. Gardner, Paul C. Stern, and Michael P. Vandenbergh. 2010. "The behavioural wedge: Reducing greenhouse gas by individuals and households." *Significance* 7(1):17-20. [BbLearn]

Hillman, Mayer. 2005. "Living beyond the planet's limits." *Open Democracy*.  
[http://www.opendemocracy.net/globalization-climate\\_change\\_debate/article\\_2460.jsp](http://www.opendemocracy.net/globalization-climate_change_debate/article_2460.jsp)

Maniates, Michael. 2002. "Individualization: Plant a Tree, Buy a Bike, Save the World?" Pp. 43-66 in *Confronting Consumption*, ed. Thomas Princen, Michael Maniates, and Ken Conca. Cambridge, MA: MIT Press.

Pralle, Sarah. 2006. "'I'm Changing the Climate, Ask Me How!': The Politics of the Anti-SUV Campaign." *Political Science Quarterly* 121(3):397-423. [BbLearn]

Willis, Margaret M., and Juliet B. Schor. 2012. "Does Changing a Light Bulb Lead to Changing the World? Political Action and the Conscious Consumer." *The Annals of the American Academy of Political and Social Science* 644(1):160-90.

### March 7: Climate Politics in Canada

How has Canadian climate policy evolved in recent decades?  
Why is climate change such a difficult challenge for Canada?  
What forces could potentially enable Canada to take stronger climate action?

#### *Required:*

Hayden, Anders. 2014. "Canada: Stuck Between Business-as-Usual and Ecological Modernization." Chapter 2 in *When Green Growth is Not Enough: Climate Change, Ecological Modernization, and Sufficiency*. Montreal: McGill-Queen's University Press. [BbLearn]

Oliver, Joe. 2012. "An open letter from the Honourable Joe Oliver, Minister of Natural Resources, on Canada's commitment to diversify our energy markets and the need to further streamline the regulatory process in order to advance Canada's national economic interest." Ottawa: Natural Resources Canada. <http://www.nrcan.gc.ca/media-room/news-release/2012/1/1909> [BbLearn].

Trudeau, Justin. 2015. "Canada's National Statement at COP 21." Ottawa: Prime Minister's Office. <http://pm.gc.ca/eng/news/canadas-national-statement-cop21> [BbLearn].

Houle, David, Erick Lachapelle, and Barry Rabe. 2014. "Climate Compared: Sub-Federal Dominance on a Global Issue." Pp. 222-246 in *Comparing Canada: Methods and Perspectives on Canadian Politics*, edited by M. Papillon, L. Turgeon, J. Wallner, and S. White. Vancouver: UBC Press [BbLearn].

Haley, Brendan. 2011. "From Staples Trap to Carbon Trap: Canada's Peculiar Form of Carbon Lock-In." *Studies in Political Economy* 88:97-132. [BbLearn]

#### *Recommended:*

Clarke, Tony, Diana Gibson, Brendan Haley, and Jim Stanford. 2013. *The Bitumen Cliff: Lessons and Challenges of Bitumen Mega-Developments for Canada's Economy in an Age of Climate Change*. Ottawa: Canadian Centre for Policy Alternatives / Polaris Institute.

Elgie, Stewart and Jessica McClay. 2013. 'BC's Carbon Tax Shift Is Working Well after Four Years (Attention Ottawa)'. *Canadian Public Policy* 39(0):S1-10.

- Gattinger, Monica. 2013. "A National Energy Strategy for Canada: Golden Age or Golden Cage of Energy Federalism?" Paper presented to Canadian Political Science Association Conference. June 4-6. University of Victoria. <http://www.cpsa-acsp.ca/papers-2013/Gattinger.pdf>
- Gibbins, Roger. 2010. "Creating a Canadian Energy Framework: If You Build It, They Will Come." *Policy Options*, May, 61-63. <http://www.irpp.org/po/archive/may10/gibbins.pdf>
- Harrison, Kathryn. 2010. "The Struggle of Ideas and Self-Interest in Canadian Climate Policy." In *Global Commons, Domestic Decisions: The Comparative Politics of Climate Change*, ed. Kathryn Harrison and Lisa McIntosh Sundstrom. Cambridge, MA: MIT Press.
- Hoberg, George. 2013. "The Battle over Oil Sands Access to Tidewater: A Political Risk Analysis of Pipeline Alternatives." *Canadian Public Policy* 39(3):371-91.
- Macdonald, Douglas. 2012. "Harper energy and climate policy: failing to address the key challenges." Pp. 127-144 in *How Ottawa Spends 2011-12*, edited by G.B. Doern and C. Stoney. Montreal: McGill-Queen's University Press. [BbLearn]
- Macdonald, Douglas and Matthew Lesch. 2013. "Competing Visions and Inequitable Costs: The National Energy Strategy and Regional Distributive Conflicts." *Journal of Environmental Law and Policy* 25:1-17. [http://www.academia.edu/3674177/Macdonald\\_Lesch\\_2013\\_Competing\\_Visions\\_and\\_Inequitable\\_Costs](http://www.academia.edu/3674177/Macdonald_Lesch_2013_Competing_Visions_and_Inequitable_Costs).
- Nisbet, Matthew C. 2013. "How Bill McKibben changed environmental politics and took on the oil patch." *Policy Options*, May, 29-41. <http://www.irpp.org/assets/po/arctic-visions/nisbet.pdf>
- NRTEE. 2012. *Framing the Future: Embracing the Low-Carbon Economy*. Ottawa: National Roundtable on the Environment and Economy.
- Palen, Wendy J. et al. 2014. "Consider the Global Impacts of Oil Pipelines." *Nature* 510(7506):465-67.
- Pembina Institute and David Suzuki Foundation. 2009. "*Climate Leadership, Economic Prosperity*." Drayton Valley, AB and Vancouver, BC: Pembina Institute and David Suzuki Foundation. <http://pubs.pembina.org/reports/climate-leadership-report-en.pdf>
- Simpson, Jeffrey. 2009. "Broken Hearts, Broken Policies: The Politics of Climate Change." Pp. 177-202 in *Carbon Shift*, ed. Thomas Homer-Dixon. Toronto: Random House.
- Smith, Heather A. 2009. "Unwilling Internationalism or Strategic Internationalism? Canadian Climate Policy under the Conservative Government." *Canadian Foreign Policy* 15(2):57-77.

### March 14: Governance of Climate Change (I): The Global Level

- What have been the key issues and sources of conflict among nations in global climate negotiations?
- What are the prospects for stronger global cooperation in combating climate change in the wake of the most recent climate negotiations?
- What could be done at the international level to produce stronger climate action?

*Required:*

Dryzek, Norgaard, and Schlosberg. Chapter 6, "Governance."

Bulkeley and Newell. Chapters TBA.

Articles on COP-21 in Paris TBA.

*Recommended:*

- Athanasίου, Tom et al. 2009. "Canada's Fair Share in a Climate Constrained World." EcoEquity, Stockholm Environment Institute, and Heinrich Böll Stiftung. <http://www.climateactionnetwork.ca/e/issues/climate-justice/gdr-canada-fair-share.pdf>
- Bossley, Liz. 2012. "Dealing with reality." *Journal of World Energy Law & Business* 5(4):345–365.
- Christoff, Peter. 2010. "Cold climate in Copenhagen: China and the United States at COP 15." *Environmental Politics* 19:637-656.
- Harris, Paul G. 2013. Chapters 2 and 3 in *What's Wrong with Climate Politics and How to Fix It*. Cambridge: Polity.
- Höhne, Niklas et al. 2012. *Greenhouse gas emission reduction proposals and national climate policies of major economies*. Utrecht / The Hague, Netherlands: Ecofys / PBL Netherlands Environmental Assessment Agency. [http://www.pbl.nl/sites/default/files/cms/publicaties/PBL-2012-Greenhouse-gas-emission-reduction-proposals-and-national-climate-policies-of-major-economies\\_0.pdf](http://www.pbl.nl/sites/default/files/cms/publicaties/PBL-2012-Greenhouse-gas-emission-reduction-proposals-and-national-climate-policies-of-major-economies_0.pdf)
- Hulme, Mike. 2009/. Chapter 9, "The Way We Govern." *Why We Disagree About Climate Change: Understanding Controversy, Inaction, and Opportunity*. Cambridge, UK: Cambridge University Press.
- Karlsson-Vinkhuyzen, Sylvia I., and Jeffrey McGee. 2013. "Legitimacy in an Era of Fragmentation: The Case of Global Climate Governance." *Global Environmental Politics* 13(3):56–78.
- Metz, Bert. 2013. "Making a Pledge and Review System Work: National Green Growth Plans, Policies, and a Different Approach to Equity." <http://controllingclimatechange.net/making-a-pledge-and-review-system-work>
- Okereke, Chukwumerije. 2009. "The politics of interstate climate negotiations." Pp. 42-61 in *The Politics of Climate Change*, ed. M. Boykoff. Routledge/Europa: London.
- Paterson, Matthew. 2009. "Post-Hegemonic Climate Politics?" *British Journal of Politics and International Relations* 11:140-158.
- Roberts, J. Timmons. 2009. "Climate Change: Why the Old Approaches Aren't Working." Pp. 191-208 in *Twenty Lessons in Environmental Sociology*, eds. Kenneth A. Gould and Tammy L. Lewis. Oxford: Oxford University Press.
- Schroeder, Heike. 2009. "The history of international climate change politics: three decades of progress, process and procrastination." Pp. 26-41 in *The Politics of Climate Change*, ed. M. Boykoff. Routledge/Europa: London.
- UNEP. 2012. *The Emissions Gap Report 2012*. Nairobi: United Nations Environment Programme. <http://www.unep.org/pdf/2012gapreport.pdf>

March 21: Governance of Climate Change (II): Alternative Visions

- Do we need to rethink what we expect from global climate negotiations?  
Is it necessary (and possible) to shift from nation-state centred to people-centred climate diplomacy?  
Do forms of climate governance at the local and community level have the potential to fill the void left by inadequate action at the global and national levels?

*Required:*

Bulkeley and Newell. Chapters TBA.

Jordan, Andrew et al. 2013. "Going Beyond Two Degrees? The Risks and Opportunities of Alternative Options." *Climate Policy* 13(6):751-769. [BbLearn]



Gordon, David J. 2013. "Between Local Innovation and Global Impact: Cities, Networks, and the Governance of Climate Change." *Canadian Foreign Policy Journal* 19(3):288-307. [BbLearn]

Alloun, Esther and Samuel Alexander. 2014. "The Transition Movement: Questions of Diversity, Power, and Affluence." Simplicity Institute Report 14g. <http://simplicityinstitute.org/wp-content/uploads/2011/04/TransitionMovement.pdf> [BbLearn]

*Recommended:*

Harris, Paul G. 2013. Chapters 5 and 6 in *What's Wrong with Climate Politics and How to Fix It*. Cambridge: Polity.

Hoffman, Matthew. 2011. *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto*. Oxford: Oxford University Press.

Miller, Asher and Rob Hopkins. 2013. "Climate After Growth: Why Environmentalists Must Embrace Post-Growth Economics and Community Resilience." Santa Rosa, CA / Totnes, UK: Post Carbon Institute / Transition Network. [https://www.scribd.com/document\\_downloads/171718124?extension=pdf&from=embed&source=embed](https://www.scribd.com/document_downloads/171718124?extension=pdf&from=embed&source=embed) [BbLearn]

### March 28: Climate Change as Security Issue

What are the security implications of climate change?

What are the political implications of framing climate change in security or military terms?

Should climate change be reframed as a matter of human rights and human security?

Is the threat of climate change equivalent to the threat of war?

*Required:*

CNA Military Advisory Board. 2014. *National Security and the Accelerating Risks of Climate Change*. Alexandria, VA: CNA Corporation. Pp. iii, 1-6. [http://www.cna.org/sites/default/files/MAB\\_2014.pdf](http://www.cna.org/sites/default/files/MAB_2014.pdf) [BbLearn]

Gilman, Nils, Doug Randall, and Peter Schwartz. 2011. "Climate Change and 'Security'." Pp. 251-266 in *The Oxford Handbook of Climate Change and Society*, edited by J. S. Dryzek, R.B. Norgaard, and D. Schlosberg. Oxford: Oxford University Press. [E-book available through Dal library]

Doyle, Timothy and Sanjay Chaturvedi. 2011. "Climate Refugees and Security: Conceptualizations, Categories, and Contestations." Pp. 278-291 in *The Oxford Handbook of Climate Change and Society*, edited by J. S. Dryzek, R.B. Norgaard, and D. Schlosberg. Oxford: Oxford University Press. [E-book available through Dal library]

Huhne, Chris. 2011. "The Geopolitics of Climate Change." Speech to Future Maritime Operations Conference at the Royal United Services Institute, London. July 7. [http://www.decc.gov.uk/en/content/cms/news/chsp\\_geopol/chsp\\_geopol.aspx](http://www.decc.gov.uk/en/content/cms/news/chsp_geopol/chsp_geopol.aspx) [BbLearn] [N.B. The author was the British government's energy and climate secretary.]

Cohen, Maurie. 2011. "Is the UK preparing for 'war'? Military metaphors, personal carbon allowances, and consumption rationing in historical perspective." *Climatic Change* 104(2):199-222. [BbLearn]

Delina, Laurence L., and Mark Diesendorf. 2013. "Is Wartime Mobilisation a Suitable Policy Model for Rapid National Climate Mitigation?" *Energy Policy* 58:371–80. [BbLearn]

*Recommended:*

Homer-Dixon, Thomas. 2008. "Climate Change, the Arctic, and Canada: Avoiding Yesterday's Analysis of Tomorrow's Crisis." [http://www.homerdixon.com/download/climate\\_change\\_the\\_arctic\\_and\\_canada.pdf](http://www.homerdixon.com/download/climate_change_the_arctic_and_canada.pdf)

Meacher, Michael. 2007. "Blitz spirit needed to face threat of climate change." *The Guardian*, May 9. <http://www.guardian.co.uk/society/2007/may/09/guardiansocietysupplement.greenpolitics>

Oreskes, Naomi. 2011. "Metaphors of warfare and the lessons of history: time to revisit a carbon tax?" *Climatic Change* 104(2):223–230. [BbLearn]

Parenti, Christian. 2011. *Tropic of Chaos: Climate Change and the New Geography of Violence*. New York: Nation Books.

Renner, Michael. 2007. "Security Council Discussion of Climate Change Raises Concerns About 'Securitization' of Environment." Worldwatch Institute. <http://www.worldwatch.org/node/5049> [BbLearn]

Wallace, Jennifer. 2009. "The Security Dimensions of Climate Change." Pp. 63-66 in *State of the World 2009: Into a Warming World*, ed. Linda Starke. New York: W.W. Norton & Co. [http://www.worldwatch.org/files/pdf/SOW09\\_CC\\_security.pdf](http://www.worldwatch.org/files/pdf/SOW09_CC_security.pdf)

#### April 4: Geo-Engineering Our Way Out of Crisis? And Concluding Thoughts

If political action to date has not been adequate to address climate change, do we need to consider risky geo-engineering solutions? Or do we need to re-double political efforts to cut emissions?

*Concluding Discussion:*

What does climate change mean for our wider political, social, economic, and personal projects? How does climate change push us to think about and possibly re-evaluate our over-riding goals?

*Required:*

National Academy of Sciences. 2015. "Climate Intervention: Carbon Dioxide Removal and Reliable Sequestration, Reflecting Sunlight to Cool Earth." Report in Brief. Washington, D.C.: National Academy of Sciences. <http://dels.nas.edu/resources/static-assets/materials-based-on-reports/reports-in-brief/climate-intervention-brief-final.pdf> [BbLearn]

CBC. 2014. "Give geoengineering a chance to fix climate change: David Keith." CBC Radio, March 29. <http://www.cbc.ca/news/technology/give-geoengineering-a-chance-to-fix-climate-change-david-keith-1.2586882> [click on audio play button on web page to listen to interview]

Klein. Pp. 256-290, "Dimming the Sun: The Solution to Pollution is ... Pollution?"

Dryzek, Norgaard, and Schlosberg. Chapter 8, "Transition, Resilience, and Reconstruction."

*Recommended:*

CBC Radio. 2011. "The Risks of Planet Hacking." November 30. <http://www.cbc.ca/thecurrent/episode/2011/11/30/the-risks-of-planet-hacking/>

Hamilton, Clive. 2013. *Earthmasters: The Dawn of the Age of Climate Engineering*. New Haven: Yale University Press.

Hamilton, Clive. 2011. "Ethical Anxieties About Geoengineering: Moral hazard, slippery slope and playing God." [http://clivehamilton.com/wp-content/uploads/2012/11/ethical\\_anxieties\\_about\\_geoengineering.pdf](http://clivehamilton.com/wp-content/uploads/2012/11/ethical_anxieties_about_geoengineering.pdf) [BbLearn]

Keith, David W. 2013. *A Case for Climate Engineering*. Cambridge, MA: Boston Review Books/MIT Press.

Leal-Arcas, R. and A. Filis-Yelaghotis. 2012. "Geoengineering a Future for Humankind: Some Technical and Ethical Considerations." *Carbon and Climate Law Review* 6(2):128-148.

Royal Society. 2011. *Solar radiation management: the governance of research*. London: Royal Society. [BbLearn]

Victor, David G., M. Granger Morgan, Jay Apt, John Steinbruner, and Katharine Ricke. 2009. "The Geoengineering Option: A Last Resort Against Global Warming?" *Foreign Affairs*, March/April. [http://iis-db.stanford.edu/pubs/22456/The\\_Geoengineering\\_Option.pdf](http://iis-db.stanford.edu/pubs/22456/The_Geoengineering_Option.pdf) [BbLearn]