

POLI 4380 / 5380 Politics of Climate Change
Dalhousie University
Fridays, 10:35 a.m. – 1:25 p.m.
McCain 2017



Instructor: Dr. Anders Hayden
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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. 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. 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 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*. 2nd edition. London: Routledge.

Gough, Ian. 2017 *Heat, greed and human need: climate change, capitalism and sustainable wellbeing*. Cheltenham, UK: Edward Elgar.

WEEKLY THEMES AND READINGS

N.B. You can find the readings either in the required books, on the course website on brightspace, 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 Brightspace.

We have been given a schedule that puts 3 of the 12 classes (25% of our class time) within a five-day period at the end of the semester (April 6, 9, and 10). If we can agree on an alternative, the timing of at least one of the last two classes will be changed.

The reading list below from January 26 to April 10 is in draft form. It will be revised and a new version of the syllabus will be distributed in January.

January 12: Introduction

Required:

Gough, Introduction and Chapter 1, pp. 11-52.

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

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. [Brightspace]

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 [Brightspace]

January 19: Science and Climate Politics

How wide is the scientific consensus on climate change? Does the extent of consensus matter? Why have some political actors continued to resist the findings of mainstream climate science? Why is there such a wide gap between scientific understandings of climate change and public opinion about the state of the science? And between scientific understandings and the degree of political action?

What role have climate science “doubters” played in questioning/undermining the basis for political action on climate change?

What different forms can climate science “denial” take?

Required:

Dryzek, Norgaard, and Schlosberg. Chapter 2, “Constructing Science and Dealing with Denial.” [Brightspace]

Cook, John et al. 2016. “Consensus on Consensus: A Synthesis of Consensus Estimates on Human-Caused Global Warming.” *Environmental Research Letters* 11(4):048002.

Pearce, Warren et al. 2017. “Beyond Counting Climate Consensus.” *Environmental Communication* 11(6):723–30.

Cook, John. 2017. “Response by Cook to ‘Beyond Counting Climate Consensus.’” *Environmental Communication* 11(6):733–35.

Dunlap, Riley E. and Aaron M. McCright. 2015. “Challenging Climate Change: The Denial Countermovement.” Pp. 300–322 in *Climate Change and Society: Sociological Perspectives*, edited by R. E. Dunlap and R. J. Brulle. New York: Oxford University Press.

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. [Brightspace]

Kahan, Dan. 2012. “Why we are poles apart on climate change.” *Nature* 488(7411):255. [Brightspace]

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> [Brightspace]

Klein, Seth and Shannon Daub. 2016. “The New Climate Denialism: Time for an intervention.” *Policynote*, September 22. <http://www.policynote.ca/the-new-climate-denialism-time-for-an-intervention/> [Brightspace]

Highly Recommended:

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

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> [Brightspace].

Boussalis, Constantine and Travis G. Coan. 2016. “Text-Mining the Signals of Climate Change Doubt.” *Global Environmental Change* 36:89–100.

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.

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.

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.

- Dunlap, Riley E., Aaron M. McCright, and Jerrod H. Yarosh. 2016. "The Political Divide on Climate Change: Partisan Polarization Widens in the U.S." *Environment: Science and Policy for Sustainable Development* 58(5):4–23.
- 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.
- 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
- Hoggan, James and Richard Littlemore. 2009. *Climate Cover-Up: The Crusade to Deny Global Warming*. Vancouver: Greystone.
- Hulme, Mike. 2009. Chapter 3, "The Performance of Science." *Why We Disagree About Climate Change: Understanding Controversy, Inaction, and Opportunity*. Cambridge, UK: Cambridge University Press.
- Klein, Naomi. * Pp. 31-46.
- Marshall, George. 2014. *Don't Even Think About It: Why Our Brains Are Wired to Ignore Climate Change*. New York: Bloomsbury.
- 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.
- 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.
- Powell, James Lawrence. 2015. "Climate Scientists Virtually Unanimous: Anthropogenic Global Warming Is True." *Bulletin of Science, Technology & Society* 35(5-6):121–124.
- 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.
- Stern, Paul et al. 2016. "The challenge of climate-change neoskepticism." *Science* 353(6300):653-654.
- Union of Concerned Scientists. 2013. "Global Warming Science." Cambridge, MA: Union of Concerned Scientists. http://www.ucsusa.org/global_warming/science_and_impacts/science/
- Union of Concerned Scientists. 2015. "Climate Deception Dossiers: Internal Fossil Fuel Industry Memos Reveal Decades of Corporate Disinformation." Cambridge, MA: Union of Concerned Scientists. <http://www.ucsusa.org/sites/default/files/attach/2015/07/The-Climate-Deception-Dossiers.pdf>

January 26: 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. [Brightspace]

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.* [Brightspace]

Fitzroy, Felix R. and Elissaios Papyrakis. 2016. Pp. 158-177, 185-187 in *An Introduction to Climate Change Economics and Policy*. 2nd edition. London: Routledge.

Roberts, David. 2015. "Climate Wonks Focus on Economics. They Need to Pay More Attention to Politics." *Vox*, May 8. <https://www.vox.com/2015/8/20/9179001/clean-energy-political-economy>

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.

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/>

Anderson, Kevin, and Alice Bows. 2012. "A new paradigm for climate change." *Nature Climate Change* 2(9):639–640.

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>

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>

Drews, Stefan and Jeroen C. J. M. van den Bergh. 2017. "Scientists' Views on Economic Growth versus the Environment: A Questionnaire Survey among Economists and Non-Economists." *Global Environmental Change* 46(Supplement C):88–103.

Hayden, Anders. 2017. "Climate Change, Growth, and Sustainability." In *Handbook of Growth and Sustainability*, edited by P. Victor and B. Dolter. Cheltenham, UK: Edward Elgar. [Brightspace]

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/>

Lockwood, Matthew. 2015. "Stern Review 2.0? The Report of the Global Commission on the Economy and Climate." *The Political Quarterly* 86(1):146-51.

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

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.

*PwC (2014) *Two degrees of separation: ambition and reality -- Low Carbon Economy Index 2014*, London: PricewaterhouseCoopers LLP.

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 [Brightspace]

For the full Stern Review, see: 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.

York, Richard, Brett Clark, and John Bellamy Foster. 2009. "Capitalism in Wonderland." *Monthly Review*, May. <http://www.monthlyreview.org/090501-york-clark-foster.php>

February 2: No Class, Munro Day

February 9: 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?
Can carbon markets be reformed to address their initial problems or should they be abandoned?

Required:

Morrow, Adrian. 2015. "Cap and Trade Explained: What Ontario's Shift on Emissions Will Mean." *The Globe and Mail*, April 13. <http://www.theglobeandmail.com/news/politics/cap-and-trade-explained-what-ontarios-shift-on-emissions-will-mean/article23895285/> [Brightspace]

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 [Brightspace]

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. [Brightspace]

Wettstad, Jørgen. 2014. "Rescuing EU Emissions Trading: Mission Impossible?" *Global Environmental Politics* 14(2):64–81. [Brightspace]

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

Pearse, Rebecca and Steffen Böhm. 2014. "Ten Reasons Why Carbon Markets Will Not Bring about Radical Emissions Reduction." *Carbon Management* 5(4):325–37. [Brightspace]

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

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

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> [Brightspace]

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

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/> [Brightspace]

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]

World Bank. 2015. *State and Trends of Carbon Pricing*. Washington, D.C.: World Bank. <http://www.worldbank.org/content/dam/Worldbank/document/Climate/State-and-Trend-Report-2015.pdf>

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

February 16: Climate Capitalism & Ecological Modernization (II)

Required:

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

Eckersley, Robyn. 2016. "National Identities, International Roles, and the Legitimation of Climate Leadership: Germany and Norway Compared." *Environmental Politics* 25(1):180-201. [Brightspace]

Dent, Christopher M. 2015. "China's Renewable Energy Development: Policy, Industry and Business Perspectives." *Asia Pacific Business Review* 21(1):26-43. [Brightspace]

Recommended:

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

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.

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]

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.")

MacNeil, Robert. 2014. "Climate Policy, Energy Technologies, and the American Developmental State." Pp. 45-71 in *Climate Innovation: Liberal Capitalism and Climate Change*, edited by N. E. Harrison and J. Mikler. Palgrave Macmillan UK. http://link.springer.com/chapter/10.1057/9781137319890_3

Mazzucato, Mariana. 2015. "The green entrepreneurial state." Pp. 134-152 in *The Politics of Green Transformations*, edited by I. Scoones, M. Leach, Melissa, and P. Newell. London: Routledge.

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.

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> [Brightspace]

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

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

February 23: Study Break

March 2: 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. [Brightspace]

Gough, chapters 7-9.

Recommended:

D'Alisa, Giacomo, Federico Demaria, and Giorgos Kallis. 2015. *Degrowth: A Vocabulary for a New Era*. New York: Routledge.

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.

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

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>

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>

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

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.

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.

March 9: Alternatives to Climate Capitalism (II)

Required:

Klein, Naomi. 2011. "Capitalism vs. the Climate." *The Nation*, November 9.
<http://www.thenation.com/print/article/164497/capitalism-vs-climate> [Brightspace]

Klein, Naomi. 2014. Chapter 9, "Blockadia. Pp. 293-336 in *This Changes Everything: Capitalism vs. the Climate*. Toronto: Knopf Canada. [Brightspace]

Jackson, Tim. 2017. Chapter 9, "Towards a Post-Growth Macro-Economics." Pp. 159-184 in *Prosperity Without Growth: Foundations for the Economy of Tomorrow*. 2nd ed. Abingdon, UK: Routledge. [Brightspace]

Löwy, Michael. 2015. 'Laudato Si—The Pope's Anti-Systemic Encyclical'. *Monthly Review* 67(7):50–54. <http://monthlyreview.org/2015/12/01/laudato-sithe-popes-anti-systemic-encyclical/> [Brightspace]

Recommended:

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 [Brightspace]

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

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> [Brightspace]

Foster, John Bellamy. 2015. 'The Great Capitalist Climacteric'. *Monthly Review* 67(6):1–18.
<http://monthlyreview.org/2015/11/01/the-great-capitalist-climacteric/>

Pope Francis. 2015. *Encyclical Letter, Laudato Si, of the Holy Father Francis on Care for Our Common Home*. Vatican. http://w2.vatican.va/content/dam/francesco/pdf/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si_en.pdf

March 16: 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:

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. [Brightspace]

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 [Brightspace]
Pp. 3-9 are required.

Wellesley, Laura, Catherine Happer, and Antony Froggatt. 2015. *Changing Climate, Changing Diets: Pathways to Lower Meat Consumption*. London: Chatham House.
https://www.chathamhouse.org/sites/files/chathamhouse/publications/research/CHHJ3820%20Diet%20and%20climate%20change%2018.11.15_WEB_NEW.pdf [Brightspace]
Executive Summary (pp. viii-xi) and chapter 2 (pp. 9-16) required.

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. [Brightspace]

Warde, Alan. 2013. "Sustainable Consumption and Behaviour Change." *Discover Society*, October 1. http://discoversociety.org/wp-content/uploads/2013/09/Sustainability_Warde.pdf

Southerton, Dale and Jo Mylan. 2016. "Are We Too Busy to Be Sustainable?" *Discover Society*, January 5. <http://discoversociety.org/2016/01/05/are-we-too-busy-to-be-sustainable/>

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

Highly recommended if you didn't read it already in POLI 3385:

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. [Brightspace]

Recommended:

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

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. [Brightspace]

Hillman, Mayer. 2005. "Living beyond the planet's limits." *Open Democracy*.
http://www.opendemocracy.net/globalization-climate_change_debate/article_2460.jsp

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

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. [Brightspace]

Rosenthal, Elizabeth. 2009. "To Cut Global Warming, Swedes Study Their Plates." *New York Times*, October 22. www.nytimes.com/2009/10/23/science/earth/23degrees.html [Brightspace]

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 23: 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?

Beyond the change in tone, how significant is the difference in approach between the Harper and Trudeau governments?

What policy and political choices should Canada take to enhance its level of 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. [Brightspace]

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 [Brightspace].

MacNeil, Robert and Matthew Paterson. 2016. "This Changes Everything? Canadian Climate Policy and the 2015 Election." *Environmental Politics* 25(3):553–57. [Brightspace]

Potvin, Catherine et al. 2015. *Acting on Climate Change: Solutions from Canadian Scholars*. Sustainable Canada Dialogues. http://biology.mcgill.ca/unesco/EN_Fullreport.pdf [Brightspace] Pp. 27-39 required.

Jaccard, Mark. 2016. "Want an Effective Climate Policy? Heed the Evidence." *Policy Options*, February 2. <http://policyoptions.irpp.org/issues//want-an-effective-climatepolicy-heed-the-evidence/> [Brightspace]

Haley, Brendan. 2016. "Political Reality and Climate Policy: A Response to Mark Jaccard." *Policy Options*, February 9. <http://policyoptions.irpp.org/2016/02/09/political-reality-and-climate-policy-a-response-to-mark-jaccard/> [Brightspace]

2015. "The Leap Manifesto: A Call for a Canada Based on Caring for the Earth and for One Another." <https://leapmanifesto.org/en/the-leap-manifesto/> [Brightspace]

Notley, Rachel. 2017. "Economic Club of Canada Speech 2017." November 21. <https://www.alberta.ca/release.cfm?xID=50020C0F856AD-BDFC-46CB-296B675336E057D1> [Brightspace].

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>

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

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. [Brightspace]

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.

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.

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> [Brightspace].

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>

Trudeau, Justin. 2015. "Canada's National Statement at COP 21." Ottawa: Prime Minister's Office. <http://pm.gc.ca/eng/news/2015/11/30/canadas-national-statement-cop21> [Brightspace].

March 30: No Class, Good Friday

April 6: 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 strengths and limits of the Paris climate agreement? What are its implications for climate action around the globe?

Do we need to rethink the approach to global climate negotiations and expectations of what they can achieve?

Required:

Chasek, Pamela S., David L. Downie, and Janet Welsh Brown. 2017. Pp. 162-184 in *Global Environmental Politics: Dilemmas in World Politics*. 7th ed. Boulder, CO: Westview Press.

Bulkeley, Harriet and Peter Newell. 2015. *Governing Climate Change*. London: Routledge. Introduction and Chapters 1-2.

Cléménçon, Raymond. 2016. "The Two Sides of the Paris Climate Agreement: Dismal Failure or Historic Breakthrough?" *Journal of Environment and Development* 25(1):3-24. [Brightspace]

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.

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>

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.

April 9: Governance of Climate Change (II): Alternative Visions

Do we need to rethink the approach to global climate negotiations and expectations of what they can achieve?

What roles can transnational networks play in accelerating climate action around the globe?

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 3, 4, and 6. (Chapter 5 is optional).

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. [Brightspace]

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> [Brightspace]

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.

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

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.

N.B.: Climate Change as Security Issue

This class has 12 scheduled meetings compared to 13 in previous years. In the past, I have included a week on climate change and security. Although we likely won't have time to talk about these issues in detail in class, if you have a strong interest in these issues, you can choose to write your QIP for April 9 on the security-related readings. (You also have the option of submitting two QIPs for each set of themes.)

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 [Brightspace]

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 [Brightspace] [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. [Brightspace]

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

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

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. [Brightspace]

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> [Brightspace]

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

April 10: 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> [Brightspace]

Keith, David and Andy Parker. 2015. "Will solar geoengineering help us manage the risks of climate change?" Pp. 76-92 in *Our world and us: How our environment and our societies will change*, edited by K. Barysch. Munich: Allianz SE.

<http://keith.seas.harvard.edu/papers/175.Keith.Parker.WillSolarGeoengineeringHelpUsManageTheRisksofClimateChange.pdf> [Brightspace]

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/>

CBC Radio. 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]

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 [Brightspace]

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.
[Brightspace]

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 [Brightspace]