

Department of History, Western University

History 3721G – Climate of the Past, Present, & Future
Winter 2015
Tuesdays 2:30-5:30 in STVH3166

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office hours Wednesdays 9:30-11:30 or by appointment

This is a December 2014 DRAFT syllabus.
The FINAL syllabus will be distributed to students in the first class, 6 January.
(The required texts will remain the same.)
If you are reading this after 6 January, you are reading an old, out-of-date version.



William Notman, *Young Canada*, 1867

Calendar description: This course explores the role of climate in history, from the last ice age to the present. There are special emphases on Canadians' relationship with climate, the development of meteorology in the 19th and 20th century, and the part that history plays in documenting and understanding global warming.

Course description: This seminar course explores the role of climate in history, from the last ice age to the present. Using the tools of environmental history, we examine how the climate has changed, how it has influenced human societies and how, now more than ever, humans are influencing it. Beyond that broad span, the course has three somewhat inter-related emphases:

- ✦ *Canada's relationship with climate.* From Voltaire's taunt about "a few acres of snow" to the true North strong and free, climate has figured heavily in our national development and identity.
- ✦ *The development of meteorology.* Advances in meteorology in the mid-19th century meant not only that humans, for the first time, were able to make rudimentary weather predictions, but that they gained much better understanding of longer-term climate trends.
- ✦ *The discovery of global warming.* Scientists in the 20th century discovered that global temperatures and CO₂ levels were on the rise, coincident with the rise of fossil fuel use. Historical data – whether from ice cores, lake sediments, or more traditional textual sources such as farmer's diaries or photographs showing glacial retreat – has proven critical in documenting and understanding climate change.

The class meets for 3 hours each week. The first 2 hours involve a short lecture followed by seminar discussion. In the final hour, we will discuss assignments, and in particular work with the archival collection that will be the basis of students' major research essay: the Environment Canada archival collection of 1820s-1960s meteorological and climatological material that was recently transferred to Western.

Learning outcomes:

Upon completion of this course, students will be able to

- ✦ Identify major concepts and periods in the history of climate, climatology, and meteorology.
- ✦ Discuss the role of climate in the evolution of Canada's national identity.
- ✦ Consider contemporary environmental issues from a long-term perspective.
- ✦ Assess and analyze secondary sources, including their argument, methods, strengths, limitations, and significance for the field and/or implications for broader public discourse.
- ✦ Assess and analyze primary source texts, utilizing them in an original research essay.
- ✦ Continue to improve their writing skills.

Required texts:

- ✦ Wolfgang Behringer, *A Cultural History of Climate* (Cambridge: Polity Press, 2010).
- ✦ Spencer Weart, *The Discovery of Global Warming*, revised ed. (Cambridge, MA: Harvard University Press, 2008).

The remainder of the readings is available on the password-protected Owl course website, the Western Libraries website, or course reserve.

Grade breakdown:

- ✦ ***Participation (including presentation)* 20%**

Student participation is essential to the success of seminar courses. Students are expected to read all assigned readings and participate in each class. Note that attendance is not in and of itself participation: participation demands speaking, and speaking demands knowledge of the material under discussion.

Toward the end of the course (weeks 8-10), students will make 10-minute presentations that introduce their draft research essays, raise any issues they are facing, and seek input. The draft need not be submitted to either the students or professor.

✦ **Book review - *Finding history in climate* - week 5** **15%**

A lot has been written about climate change of late: Western Libraries lists more than 2000 titles published since 2000 with “global warming” or “climate change” in the name. Many of these implicitly or explicitly detail the history of climate. Students will write a 750-word review of a contemporary book on climate change, from a list provided by the instructor, providing an analysis as to how history figures and is applied in this contemporary work.

✦ **Primary research essay - *Finding climate in history***

Initial draft – week 10 **10%**

Final draft – week 13 **25%**

Students will utilize primary sources as the foundation of a 2500-word research essay.

Students may use:

an item or items from the Environment Canada collection acquired by Western Archives on long-term loan in 2014. The collection consists of 1000 volumes of the Meteorological Service of Canada’s extant meteorological observations from its beginnings until 1960, and another 250 items, from the 1820s on, related to the history of Canadian climate and meteorology.

or

an 1816 newspaper available online or on microfilm in Weldon Library, to chronicle the Canadian experience of “the year without a summer.”

or

documents, determined in consultation with the instructor, related to a defining moment in the international debate on global warming.

In week 10, students will submit a draft of their completed essay to be graded and returned in week 11. The revised essay will be due in week 13.

✦ **Final (take-home) exam** **30%**

This exam will be distributed in the last class, to be completed and returned one week later. Students will be asked six questions and expected to write essays on three.

The fine print:

All assignments will be discussed further in class.

Students are required to submit a copy of their written assignment in electronic form to [Turnitin](#) for plagiarism checking. The Faculty of Social Science’s policy statement on plagiarism and the use of plagiarism detection software is attached to this syllabus.

The [Western Academic Handbook](#) declares that an essay course such as this “must be so structured that the student is required to demonstrate competence in essay writing to pass the course.” As such, students must receive a passing grade on the combined value of the book review and research essay to pass the course.

No extensions will be granted for late essays, except for reasons defined by Senate regulations. Pressure of work or computer/printer problems are not acceptable excuses for late essays. Five per cent will be deducted from the essay grade for the first day that any assignment is overdue, three per cent each day after (including Saturdays and Sundays).

Students with special requirements are advised to contact the [Student Development Centre](#). The SDC will handle all documentation and make arrangements with the instructor for academic accommodation. Students encountering serious problems that might affect their performance in a course should inform Academic Counselling in their home faculty immediately. See also the Faculty of Social Science’s policy statement on medical accommodation, which is appended to the plagiarism statement attached.

Schedule and readings:

Readings are available online, through the course’s Owl website, or in the required texts, which are also on reserve.

- ✎ 6 Jan **1. Introduction**
 - John R. McNeill, “Can History Help Us with Global Warming?” *Climatic Cataclysm: The Foreign Policy and National Security Implications of Climate Change*, ed. Kurt M. Campbell (Washington, DC: Brookings Institution Press, 2008), 26–48.

- ✎ 13 Jan **2. What we know & how we know it**
 - Wolfgang Behringer, *A Cultural History of Climate* (Cambridge: Polity Press, 2010) [henceforth, Behringer], Introduction and ch.1.
 - Spencer Weart, *The Discovery of Global Warming*, revised ed. (Cambridge, MA: Harvard University Press, 2008) [henceforth, Weart], ch.1.

- ✎ 20 Jan **3. Adaptability & collapse during the Holocene**
 - Behringer, ch.2
 - Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed*, revised ed. (New York: Penguin, 2011), ch.7 and 8.
 - Joel Berglund, “Did the Medieval Norse Society in Greenland Really Fail?” in *Questioning Collapse: Human Resilience, Ecological Vulnerability, and the Aftermath of Empire*, eds. Patricia A. McAnany and Norman Yoffee (New York: Cambridge University Press, 2010), 45–70.

- ✎ 27 Jan **4. The Little Ice Age**

- Behringer, ch.3-4
 - Christian Pfister, "[Climatic Extremes, Recurrent Crises and Witch Hunts: Strategies of European Societies in Coping with Exogenous Shocks in the Late Sixteenth and Early Seventeenth Centuries](#)," *Medieval History Journal* 10 (2007): 33–73.
- ✿ 3 Feb **5. The Little Ice Age: A Canadian case study**
- Kevin Harrison, "[Early Canadian Weather Observers and the Year Without a Summer](#)," *Bulletin of the American Meteorological Society*, 67/5 (1986): 524-32.
 - Liza Piper, "Colloquial Meteorology," *Method and Meaning in Canadian Environmental History*, eds. Alan MacEachern and William J. Turkel (Toronto: Nelson, 2009), 102-23.
 - Selections from C.R. Harington, ed., *The Year Without a Summer? World Climate in 1816* (Ottawa: Canadian Museum of Nature, 1992).
- ✿ 10 Feb **6. Climate & Canadian identity**
- Carl Berger, "The True North Strong and Free," *Nationalism in Canada*, ed, Peter Russell, ed. (Toronto: McGraw-Hill Co., 1966), 3-26.
 - Desmond Pacey, "Summer's Heat, and Winter's Frigid Gales: The Effects of the Canadian Climate Upon Canadian Literature," *Proceedings and Transactions of the Royal Society of Canada* 8 (1970): 3-23.
 - Kenneth F. Hare, "Does Nature Bind Canada Together?" *Transactions of the Royal Society of Canada* 16 (1978):27-37.
- ✿ 24 Feb **7. A science of the weather**
- James R. Fleming, *Historical Perspectives on Climate Change* (New York: Oxford, 1998), ch.2 and 3.
 - Katharine Anderson, *Predicting the Weather: Victorians and the Science of Meteorology* (Chicago: University of Chicago Press, 2005), Intro. and ch.1.
- ✿ 3 Mar **8. A science of the weather: Canada as a case study**
- Tim Ball, "The Hudson's Bay Company Journals as a Source of Information for the Reconstruction of Climate," *Rendezvous: Selected Papers of the Fourth North American Fur Trade Conference* (St. Paul, MN: North American Fur Trade Conference, 1984): 43-50.
 - Morley Thomas, "[A Brief History of Meteorological Services in Canada](#)," *Atmosphere*, 9, 1-2-3 (1971): 3-15, 37-47, 69-79.
 - Patrick Duncan McTaggart-Cowan, "The First Century of the Meteorological Service of Canada (or From Canoe to Candu)," *Meteorological Challenges: A History*, ed. D.P. McIntyre (Ottawa: Information Canada, 1972), 313-19.
- ✿ 10 Mar **9. The accidental anthropocene**

- Vaclav Smil, "[World History and Energy](#)," in *Encyclopedia of Energy*, Vol. 6, ed. C. Cleveland (Amsterdam: Elsevier, 2004), 549-61.
- Paul J. Crutzen and Eugene F. Stoermer, "[The 'Anthropocene'](#)," *Global Change Newsletter* 41(2000), 17-18.
- Will Steffen, Paul J. Crutzen, and John R. McNeill, "[The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?](#)" *AMBIO: A Journal of the Human Environment* 36 (2007): 614–21.

✿ 17 Mar **10. The discovery of global warming**

- Behringer, ch.5
- Weart, ch.2-4.
- David Demeritt, "[The Construction of Global Warming and the Politics of Science](#)," *Annals of the Association of American Geographers* 91 (2001): 307-37. Plus, [response](#) and [counter-response](#).

✿ 24 Mar **11. The discovery of global warming**

- Weart, ch.5-6
- Selections from *The Changing Atmosphere: Implications for Global Security*, proceedings from Toronto conference of June 1988.
- Shardul Agrawala, "[Context and Early Origins of the Intergovernmental Panel on Climate Change](#)," *Climatic Change* 39 (1998): 605-20.

✿ 31 Mar **12. A deliberate anthropocene?**

- Weart, ch.7-8
- James R. Fleming, "[The Climate Engineers](#)," *Wilson Quarterly* 31 (2007), 46-60.
- Michael Specter, "[Climate by Numbers](#)," *The New Yorker* November 11, 2013.

✿ 7 Apr **13. Conclusions and review**

- Behringer, ch.6.
- Selections from Laurence C. Smith, *The World in 2050: Four Forces Shaping Civilization's Northern Future* (New York: Dutton, 2010).