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 first two hours of class involve a short lecture followed by seminar discussion. In the third hour, we will work on assignments, in particular the archival collection that will be the basis of your major research essay: the Environment Canada archival collection of 1820s-1960s
meteorological and climatological material that was recently transferred to Western. You will be the first students – in some cases the first researchers – to use these sources.

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, and
- continue to improve your writing skills.

Required texts:

Supplementary course material is available through the course OWL site.

Grade breakdown:
All assignments will be discussed further in class.
- Participation 20%
  Student participation is essential to the success of a seminar course. You are expected to read all assigned readings and participate in each class. Attendance is not in and of itself participation: participation demands speaking, and speaking demands knowledge of the material under discussion.

- Primary research short essay xxxx 15%
  You are to choose from a series of excerpts, provided to you by the instructor, of 17th-19th century European explorers, settlers, priests, and others reporting on the weather or climate of Canada. In 750 words, discuss how the writer was interpreting Canadian climate/weather and in particular how that interpretation related to understanding of climate/weather in (and of) Europe at the time.

- Primary research major essay
  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,
some other documents or documents, determined in consultation with the instructor, related to a defining moment in the international debate on global warming.

**Presentation xxxx  5%**
Toward the end of the course (weeks 8-9), you will give a 10-minute presentation that introduces your draft research essay, raises any issues you are facing, and opens up discussion where you can seek input for improvement. The draft need not be submitted to either the students or professor, although you are free to provide a handout.

**Initial draft xxxx  10%**
You will submit a draft of your completed essay, to be graded and returned by 27 March at the latest.

**Final draft xxxx  25%**

**Take-home exam xxxx  25%**
This exam will be distributed on xxxx, to be completed and returned within a week. Students will be given six questions and asked to write essays on three.

**Schedule and readings:**

1. **Introductions**

2. **Climate: what we know, how we know it**

3. **Climate change, adaptability & collapse during the Holocene**
   - Behringer, ch.2

4. **The Little Ice Age**
   - Behringer, ch.3-4

5. **The Little Ice Age & why it matters**
6. The Little Ice Age in Canada

7. Climate & Canadian identity

8. A science of the Canadian weather (1)

9. A science of the Canadian weather (2) / Energy transitions
- Zeller, ch.9.
- Behringer, ch.5.

10. The discovery of global warming (1)
- Weart, ch.1-4.

11. The discovery of global warming (2)
12. A more intentional anthropocene?

13. Conclusions
- Qapirangajuq: Indigenous Knowledge and Climate Change.