

**Topics: Climate of the Holocene
Geology 510/610, Cramer 69
Tuesday-Thursday 10:00 - 11:50**

Text: Earth's Climate – Ruddiman, and assigned outside readings
Website: <http://glaciers.pdx.edu/fountain/>

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Climate change has been a normal feature of the Earth as far back as the record can be traced. Humans have experienced and adapted to amazing changes in climate over the relatively short time they have been on Earth. This class focuses on the Holocene, or that part of the geologic time since the last Ice Age and coincident with the rise of complex societies and civilization.

The class will be largely seminar in style in which students will take on readings initially from the text and then from the original scientific literature to lead a class discussion about that topic. Initially, the presentations will be chosen from a pre-existing list of topics, but as the class develops over the quarter, students may suggest journal articles for potential presentation and discussion.

Approximate Schedule	Anticipated Topics
Week 1	Climate Processes
Week 2	Climate Processes
Week 3	Methods of assessing past climate
Week 4	Mid-Pleistocene Transition
Week 5	Pleistocene-Holocene Transition
Week 6	8.2kyr Event
Week 7	Global Holocene Changes
Week 8	Changes in North America
Week 9	Changes in Western North America
Week 10	Project Reports



Grading is based on class participation, readings, presentations, and term project presentation and report. To keep everyone up to date with the readings a short summary of each journal article read will be due the day of the discussion, except for the presenter, who will turn in their presentation outline and power point presentation. During the last week of the quarter, each student will make an oral presentation of their report and turn in their written report. There will be no final exam.