# GLOBAL CLIMATE CHANGE







Course covers the science of climate change as an Earth system. Learn how the complex dynamics of the climate system (i.e., the Earth, the oceans, the atmosphere) relate to each other and the science evidence for climate change. Learn how climate science and policy can interact. Climate Change Group Project will help broaden understanding of the science.

G-184, CRN #17444, 4 credits. Lecture and Laboratory sessions each night, plus a local field trip.

Dates: Monday and Wednesday evenings, 6 pm – 8:50 pm, Winter Quarter 2016, 10 weeks (starting January 4th).

Where: PCC-Southeast Campus, SE Division and SE 82nd, SCOM Room 308

Textbook: Climate Change: The Science of Global Warming, (2009), by Mathez (ISBN 9-780231-146425)

Instructor: Kyle Dittmer, (503) 731-1314 (day, office), email: kyle.dittmer@pcc.edu

#### COURSE TOPICS:

## Introduction

- -- Scientific Method
- -- Basics of Weather Science
- -- Basics of Ocean Science

## Climate Science

- -- Defining Climate
- -- Climate Zones
- -- The Carbon Cycle

# Climate Change

- -- Defining Climate Change
- -- Causes of Climate Change
- -- The Science Evidence
- -- The Greenhouse Effect
- -- Natural Forcings

### **Ancient Climate Change**

- -- The Pleistocene Ice Age
- -- The Holocene Period
- -- The Science Evidence
- -- Parallels to modern times

## Observed Modern Climate Change

- -- The 20<sup>th</sup> Century Record
- -- Strange Weather; Ocean Impacts
- -- Impacts in the Arctic, Antarctica

# Climate Models - Future Climate Change

- -- Modeling Efforts, Results, Reliability
- -- Future Prospects of Climate
- -- Dealing with Climate Skeptics
- -- Solutions scientific, policy, legal

It's easy to register! To register online, go to: <a href="http://www.pcc.edu/enroll/registration/non-credit-registration.html/">http://www.pcc.edu/enroll/registration/non-credit-registration.html/</a>. If you have taken a class since January 1998, you may use <a href="https://www.pcc.edu">my.pcc.edu</a>. You can also register by calling 971-722-8888. You will need to know the 5-digit CRN for the class you want to take.



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PCC is committed to supporting all students. If you need accommodations for a disability, please contact PCC Disability Services. Web: <a href="mailto:pcc.edu/disability">pcc.edu/disability</a>; Email: <a href="mailto:disability.services@pcc.edu">disability.services@pcc.edu</a>; Phone: <a href="mailto:971-722-4341">971-722-4341</a>; Video Phone: <a href="mailto:503-928-5875">503-928-5875</a>.