

Spring 2010
GSE/BIOL/GEOG 792
**INTRODUCTION TO GLOBAL
CLIMATE CHANGE**
M,W 10:00-11:30 – 100 Wecota Hall
Prof. Mark A. Cochrane (mark.cochrane@sdsstate.edu)



Climate is unstable and has changed throughout Earth's history. Why then is global climate change of such concern now? Scientific concern relates to the current rates of climate change and the factors driving them. Are we seeing an end of the relatively benign climate that has been in place since the end of the last ice age? Is this a natural process or are human activities somehow responsible? Will future climates be a little bit warmer or completely changed? What are the consequences of projected climate changes? These are some of the subjects that will be examined in this course.

The course will provide a multidisciplinary examination of the drivers of the Earth's climate, how they interact, and how they change over time. We will critically examine the roles of greenhouse gases and anthropogenic land cover/use in affecting these changes as well as the types, strengths and limitations of global climate models. Class will combine lectures on various aspects of the Earth's climate system with class discussion of a variety of scientific papers exploring the current controversies and ideas central to climate research. Students will be challenged to develop their own projects/papers on course-related topics and use the most recent scientific research to decide for themselves about the importance of global climate change.