



## **BIOL 0630: Climate Change** (online, 3 credits)

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**Dr. Jennifer A. Hanselman**

[jhanselman@wsc.ma.edu](mailto:jhanselman@wsc.ma.edu)

Office Hours (online): TBD

### **Course Description (Graduate Catalog):**

This course will review current research topics in the area of biological responses to climate change. Students will read, analyze, and discuss primary literature regarding how climate change affects various natural communities (e.g. tropical forests, coral reefs, fisheries, estuaries). Students will analyze raw data from the WDC for Paleoclimatology website (<http://www.ncdc.noaa.gov/paleo/data.html>) for the purposes of reviewing how past climate change has affected biological systems. Students will be assessed on their contributions to class discussions and activities, summaries of primary literature, and a final paper.

**Prerequisites:** Ecology or permission of the instructor

**Required textbook:** Lovejoy, T.E. and Hannah, L. 2005. Climate Change and Biodiversity. Yale University Press. 440 pgs. ISBN-13: 978-0300104257

### **What is climate change? How does it affect biological systems?**

In this course, we will discuss the climate forcing mechanisms responsible for these long-term patterns. After we look at the science behind climate forcing mechanisms, we will investigate fossil evidence of such changes over hundreds of thousands of years in a variety of ecosystems. We will investigate scientific data and interpret research. I will provide content through online lectures, activities, and videos. We will have significant discussions online and I expect you to participate as you would normally during a face-to-face class. I also expect that many of you may teach climate change in your own course. I will provide you with activities and other resources that you may use in your own classroom. My goal is to develop a pool of educated citizens who understand the concepts associated with climate change.

### **A note about online learning:**

Online learning is geared for a student who is disciplined enough in academics to be successful. Time management is the greatest hurdle, many students find it difficult to motivate him or herself to spend the time without someone "telling them" to do so. On the other hand, online courses are excellent for those who are commuting or trying to finish a degree while employed. I expect all students who are enrolled in an online course to be proactive and I encourage all

students to ask me questions using the Plato system. I will hold virtual office hours so you will be able to communicate with me from the comforts of your home or office. In addition, if you need to meet in person, we will work together to find a time that works for both of us.

Although there is some flexibility with the time when you complete assignments, you must note the specific due dates that I have assigned. We will work on a 7 day schedule. Materials will be assigned on Day 1 and due on Day 7.