

MONT 104N – Modeling the Environment  
First “Debates” Day  
October 1, 2012

*Presenters*

Oriola Arapi, Tim Arnold, Lisa Balesano, Linnea Brandt, Jonah Choe, and Clare Crowell

*The very hot summer of 2012*

Especially in the middle of the US, the summer of 2012 was one of the warmest on record. Combined with a prolonged drought, the heat impacted agriculture and almost every other aspect of peoples’ lives for extended periods this year. There have been hotter than usual summers before, of course. And some variation from year to year is entirely normal and expected. So, just how unusual was the weather this summer? And was this year an indication of a trend kicking in, or was it just a chance occurrence or “blip” in the record? How can we tell?

This is an area where mathematics very close to what we have been talking about so far in our course can help to put things into perspective and perhaps shed some light on the situation.

The following web page has a number of ways to analyze just how unusual this hot summer was or not:

[www.climatecentral.org/news/2012-record-temperatures-which-states-led-the-nation-14951](http://www.climatecentral.org/news/2012-record-temperatures-which-states-led-the-nation-14951)

*Assignment*

Your group will be responsible for presenting both

- 1) a summary of the arguments given at this page for saying that the weather this past summer was something really out of the ordinary and we should be concerned about it, and
- 2) a rebuttal of that position that would take the analysis from the [climatecentral.org](http://www.climatecentral.org) website as a starting point but say that the evidence there is not convincing enough to cause concern and/or this is just a (perhaps extreme) instance of the possible variation in summer weather in this country.

Both sides can and should use the computer and projector in our classroom to display the page above and any other information they would like to bring in.

The natural way to do this will be to have three of you take each side and split up what you want to say in roughly equal sections so everyone presents part of the group’s case. If you want, I can assign who takes which side. But you can also sort that out for yourselves if you have strong feelings one way or another and you want to present your own opinions.

If everyone finds themselves convinced that this should be of concern, then the team doing the rebuttal will need to think about how to make as convincing as possible a case for that position even though that is not what you think yourself. Each side should plan to talk for about 12 - 15 minutes and we'll leave the rest of the for questions and discussion with the rest of the class.

I would like to meet with each three-person team before class on Monday, October 1 to see where you are and see if you have any questions about how to make your case. I'm free basically all morning on Thursday, September 27, and during office hours 10am to 12noon on Friday, September 28 for those meetings. I will not be in town over the weekend of September 29 and 30, though, and I will not be able to respond to email until the evening of Sunday, September 30. Be sure you get started on this early and don't leave it all to the weekend!