STAT 485/685 Lecture 1
Fall 2017
7 September 2017

- We covered slides 1-27 of "Introduction".
- We looked at half a dozen plots of time series.
- I used those series to introduce in intuitive terms only:
  - *stationary*: 'statistically' the same as time goes on.
  - *trend*: a systematic change in the level (up or down or perhaps periodic).
  - *transformation*: some series were more variable when the values are large than when they are small; transformation might be a tool to help with this.
  - *internal* vs *external* dynamics. Many of the models in this course will think about current Y values as being determined by past Y values; that is the nature of an internal dynamic. Temperature, by contrast, is substantially *externally forced* (by the sun).
- I worked through the `R` code to make the plots I showed.
- I emphasized the importance of good graphs, especially good axis labels.
- I introduce the notation $y_1, \ldots, y_T$ for the data.
- And Y_t for random variable that describe our *statistical model* for the data. We may have Y_t values conceptuall for $t \leq 0$ and for $t > T$.
- Often we want to predict future observed values of Y_t.
- I am working on material in Chapter 2 in the text.
- Next class I will finish Introduction and work through the next set of slides.
- You should be Reading all of Chapters 1 and 2.
- The first assignment is posted. I told you the due date was Monday 18 September but I am delaying that to Wednesday 20 September in the course's assignment box by noon at the latest.
- This lecture I did not make any hand written slides.