Extra credit is being offered that could potential increase your final grade by 10 percentage points.
A 5-10 page paper to be written on any of the following topics:

- An analysis of data you are interested in. It is expected that a thorough investigation of the data via graphical and numerical methods would be provided and that there would be some research question that is answered via confidence intervals and/or hypothesis testing. Make sure to provide a thorough overview of how the data was collected and what population any inferences would be allowed to be applied to.

- Research any of the following methods and provide a summary of what they are used for and an example of using them in practice

  - Smoothing splines
  - Kernel density estimation
  - Hypothesis tests for variance components
  - Non-linear regression
  - Clustering methods
  - Graphical methods that we did not specifically talk about in the class
  - Logistic Regression (doing regression with a binary outcome)
  - Poisson Regression (doing regression with count data)

- If you have an idea that was not mentioned you can always ask me to see if it would work.

No matter what you are interested in doing you MUST discuss what you want to look into with me before Friday, July 5th.