<u>AP Stats Final Project Guidelines:</u>

This is meant to be an individual project where you are able to demonstrate of mastery of the core concepts of the course. The core content includes univariate data analysis, bi-variate data analysis (including regression), probability and inference.

This project is a data analysis project and must include univariate, bivariate and inference procedures. Additionally, a set of general inference problems must be completed. Using data, the following components of your project must be submitted.

Reminder, this project is optional. So, if you are not meeting due dates, you are opting out and can plan to take a final exam in this course during the first week of June.

Components	Description	Due/check off when done
1	Data collection of two variables that are related. For example, rainfall and temperature. Explain your collection method, potential problems with your sample and how it may impact any conclusions or interpretations from the study. Document your process and sources.	First draft due Friday, May 7th 25% of grade!
2	A personal component. Explain why you chose your topic and why it is meaningful to you.	First draft due Friday, May 7th 25% of grade!
3	Univariate analysis of both variables. Full exploration: histograms, boxplots, comparisons of mean, median and mode, and which is the best measure of center and why. (Five-number summaries; shape, center and spread.)	First draft due Friday, May 7th 25% of grade!
4	Regression analysis: correlation, scatterplot, linear regression (possibly linearized), interpretation of results.	Second draft, due Friday May 21st. 50% of grade!
5	Inference procedures. You have some options here. Please discuss for guidance, if needed.	Second draft, due Friday May 21st. 50% of grade!
6	Electronic presentation: Slides, Prezi, video, other	Second draft, due Friday May 21st. 50% of grade!
7	Creative element. This is fairly open, but you may want to check in to make sure you are going in the right direction.	Final Draft due Friday June 4th. 25% of grade – must be on time!
9	**Final project due on Friday, June 4th. Late assignments will receive a maximum grade of 75%.**	Final Draft due Friday June 4th. 25% of grade – must be on time!

Special notes on due dates and drafts:

   a. **FYI: Due dates are hard dates! So, no excuses or extensions.** Try to get this done earlier than the due date. Part of your grade will be based on meeting the due dates for the drafts. **A missed due date will result in a 10% grade penalty.**

b. **First Draft - Idea stage:** What data elements are you looking at? **Complete components 1, 2 and 3. Due Friday May 7th**. This draft is worth 25% of your grade and requires you meet this deadline. Please try to turn this draft in earlier than May 7th. It does not need to be perfect, so just do it and turn it in. It's a draft!

c. **Second: with all components met, due Friday, May 21st**. You must fully source your resources: website used for guidance, data sources, textbook (if used), other sources. Any plagiarism will result in a zero for your project. If you are not sure whether or not you are plagiarizing, assume you are, put it quotes on it and cite it. This draft is worth 50% of your grade. Please try to turn it in earlier than May 21st.

d. **Final project due on Friday, June 4th. Late assignments will receive a maximum grade of 75%. You will be given class time to work on your drafts**.

Data Sources:

data.gov: https://www.data.gov/	US census: https://www.census.gov/data/data-tools.html
United Nations Development Programme http://hdr.undp.org/en/data	Baseball prospectus: https://legacy.baseballprospectus.com/sortable/
others: https://alittlestats.blogspot.com/p/data-sources.html	