STAT301 Project instructions

1. 15% of the grade in STAT301 is determined by a project.

2. The objective of the project is to analyze some data that you have found (either through the internet or surveys that you have conducted) and to make a Power Point presentation with Audio over the top based on your analysis.

3. You can work in groups of three (but no more). If you don’t want to work in a group of three (and work in a group of two or yourself) then please consult with me (I discourage this).

4. Collaboration within the group is encouraged but no collaboration between groups. The same data should not be analysed by two different groups.

5. You can ask for guidance but we will only guide you and not give the answer.

6. We can also offer guidance in Statcrunch, but you are expected to first try for yourself.

7. If someone in your group is not contributing (and you have discussed this issue with them) then evict that person from the group. Slackers should not get grades for something they have not done.
   You can send me an email suhasini@stat.tamu.edu where you explain the contribution by your co-projectors. I will then weight the final grade accordingly. If everyone contributes equally all of you will get the same grade.

8. After you have finished the project, share the link through TAMU google documents.

9. The title page of the presentation must contain a picture of your face and you must each say your name.

10. DO NOT get some one else to do the project, I will be asking you to discuss your work (if I have doubts).

11. The presentation should be about 3-5 minutes long.

12. Criterion of assessment:
   - Correctness of statistics (methods and interpretation)
   - Ability to present data in a coherent manner.
   - The actual presentation.

Objectives:

1. First you need to describe the method of data collection. How it was collected and why.

2. Next you need to describe the actual data. This is usually done with plots and numbers. Include histograms and box plots, whatever allows you to represent the data in the most meaningful way. You also need to include summary statistics, such as sample mean, sample standard deviation, quantiles etc. Numbers which represent the data well.

3. The second part of the study is statistical inference. The data you have collected or found is a random sample from some population. Understand the population it is come from (sometimes this can be difficult) and then do statistical inference. In particular, test hypothesis of interest and make confidence intervals. The methods you need to use will depend on your data, select the correct method for the data you have. The choice of methods you have are:
   - Matched paired t-tests and confidence intervals.
– Independent (two)-sample t-tests and confidence intervals.
– One sample tests on proportions.
– Two sample tests on proportions.
– Contingency tables and tests for association.

3. Finally based on your statistical inference draw some conclusions about the data.

• In the next few days I will post a sample project.

**How to do a visual and audio presentation in Power Point**

• Make slides in power point.

• To record the audio over the power point presentation, you will need to click on **Slide Show**, then click on **Record Slide Show**.

• The slide show will start and you start to speak over it.

• You will need to practise this a few times.

• It is possible to achieve the same effect using other applications such as GarageBand (on the Mac) etc.

**How to submit the project**

• Please submit the project using TAMU google Apps [http://google.tamu.edu/](http://google.tamu.edu/) By default you should have a google account, from which you can send emails and store stuff on your google drive

• Logon to your TAMU google account and go to Google Drive.

• Upload your project onto Google Drive (Click on My Drive then select *upload file*).

• Once you have uploaded the file you should see it in your Google Drive.

• Share the folder with me by pressing on the icon of a person with a plus sign next to head. Type my google drive email address suhasini@tamu.edu and submit to me.

• I will acknowledge the share, if I have difficulties viewing it I will ask you to resend it.

• **Projects should be submitted by Midnight, Saturday, 9th of December, 2017.** No excuses will be accepted (i.e. if you don’t have a google drive etc. all this should be figured out now).