STATISTICS PROJECT: STATISTICAL INVESTIGATION

Please take important note of descriptions and due dates!

PROPOSAL:

DESCRIPTION	DUE DATE	POINTS
Turn in a typed proposal of your statistical investigation. This needs to be VERY thorough, you need to think about and address any possible bias you may encounter. ~What are you going to test and provide your null and alternative hypothesis ~What is your variable of interest ~What will your population be? ~How big will your sample be and how will you select it? ~Will it be observational or experimental? ~Briefly describe what your design will be to collect your data. If observational list questions (you need at least 5) you will ask. If experimental, what is the treatment is and what would your test and control groups be ~How are you going to avoid bias? ~Why does this question interest you	**Monday 10-3**	**20**

REPORT: (all parts of the report should be typed. Each part of the cycle should be on a separate page)

DESCRIPTION	DUE DATE	POINTS
The Question Cycle: Answer the following ~ What was your question ~What is your population? ~ State the Null and Alternative Hypothesis and your variable of interest ~ Why did you choose to do a statistical study on this question?	**Tuesday 10-18**	**10**
The Design Cycle: Answer the following ~Describe your design IN DETAIL; Why did you choose what you did? ~ How big was your sample, what method did you use to select them and why? ~ Was your investigation experimental or observational? IF EXPERIMENTAL ~ What were your treatments? ~ Describe the different groupings (what were your test groups and what was your control group) IF OBSERVATIONAL ~What were your questions (Must have AT LEAST 5!) ~Were your questions open or closed? Why did you choose open or closed?	**Tuesday 10-18**	**10**
The Collect Cycle: ~ Show all of the data you collected (best format would be some kind of table) ~ Include totals for either each question OR each test group (depending on experimental or observational)	**Tuesday 10-18**	**10**
The Analyze Cycle: ~ Make two graphs that best show your data (make sure each graph has a title and all axis are correctly labeled. Graphs should be easy to read) ~ For each graph write two sentences that describe what is being shown in the graph	**Tuesday 10-18**	**10**

The Report Cycle: **FORMAL (separate page)** You will need to analyze every part of your statistical investigation. This should be a formal report (similar to the examples I showed you in class). It should read like a newspaper article. Be sure to explain the following ~What was your question, population, and sample? ~Why is your question important? ~Discuss your general design ~Discuss the prevailing hypothesis and whether your research proved or disproved it ~Give details using actual data to describe the results	**Tuesday 10-18**	**10**
REFLECTION (separate page) You will need to write a reflection paper about your investigation. This is informal; I want you to discuss the actual process of doing this project. Did you find it difficult or easy? Why? Did you encounter bias? Could you have avoided it? Would you change anything if you had to do this again? If so what would you change? What other questions were you left with after you finished your research? If you had a large amount of time and money, what statistical study would you really like to see studied? Why? And any other things that you thought of while working through this investigation.	**Tuesday 10-18**	**10**

PRESENTATION: In your presentation you should outline every part or your statistical investigation. Remember the audience (your classmates) do not know about your question or research. Give them information as you would prospective clients at a company.

DESCRIPTION	DUE DATE	POINTS
Visuals Has an **informative** visual (either video, ppt, poster, song etc.). There is not a lack of information and there is not too much information.	**(Presentations will be on Tuesday 10-18 and Wednesday 10-18)**	**10**
Presentation Presenter(s) fully describe their research without simply reading off of the visual. Information is being presented in an engaging way. Presenter(s) are very knowledgeable about their topic		**15**
Information: Presenter(s) give enough information for the audience to fully understand the full statistical investigation.		**10**
Presenter Evaluations: You will fill out a questionnaire for each presenter. You will give ALL attention to the presenters. -5 points if you put your head down or take out your phone during a presentation.		**15**
Dress for Success		**+5**

Name:_____/130 = _____
Name:_____/130 = _____