STA 3180 Guided Research Project Rubric

The entire written report (excluding references and the title page) must be between 10- 15 pages (single-spaced, 11 or 12pt font with standard 1-inch margins).

While there are no specific structural limitations to the paper, one possible structure is suggested below.

1. Title (on title page)
2. Abstract (on title page)
3. Background and Significance (part of 10-15 pages)
4. Methods (part of 10-15 pages)
5. Results (part of 10-15 pages)
6. Discussion/Conclusions (part of 10-15 pages)
7. References (not included in the 10–15-page limit)

The following information expands on the above:

1. Title - Give an informative title to your project.

2. Abstract- The abstract provides a summary of the entire paper (background, methods, results, and conclusions). The suggested length is no more than 150 words. This allows you approximately 1 sentence (and likely no more than two sentences) summarizing each of the following sections. Typically, abstracts are the last thing you write.

3. Background and significance- In this section you are providing the background of the research area and arguing why it is interesting and significant. This section relies heavily on literature review (prior research done in this area and facts that argue why the research is important). This whole section should provide the necessary background leading up to a presentation (in the last few sentences of this section) of the research hypotheses that you will be testing in your study. Well-accepted facts and/or referenced statements should serve as most of the content of this section. Typically, the background and significance sections start very broad and moves towards the specific area/hypotheses you are testing.

4. Methods-

a. *Data collection.* Explain how the data was collected/experiment was conducted. Additionally, you should provide information on the individuals who participated to assess representativeness. Non-response rates and other relevant data collection details should be mentioned here if they are an issue. However, you should not discuss the impact of these issues here---save that for the limitations section.

b. *Variable creation.* Detail the variables in your analysis and how they are defined (if necessary). For example, if you created a combined (frequency times quantity) drinking variable you should describe how.

c. *Analytic Methods.* Explain the statistical procedures that will be used to analyze your data. E.g., Regression is used to investigate the relationship between class attendance and class scores.

5. Results - Typically, results sections start with descriptive statistics, e.g., what percent of the sample is male/female, what is the mean GPA overall, in the different groups, etc. Figures can be nice to illustrate these differences! However, information presented must be relevant in helping to answer the research question(s) of interest. Typically, inferential (i.e., hypothesis tests) statistics come next. Tables can often be helpful for results from multiple regression. Do not give computer output here! This should look like a peer-reviewed journal article results section. Tables and figures should be labeled, embedded in the text, and referenced appropriately. The results section typically makes for fairly dry reading. It does not explain the impact of findings, it merely highlights and reports statistical information.

6. Discussion/Conclusions - Restate your objective and draw connections between your analyses and objective. In other words, how did (or didn't) you answer/address your objective. Place these all in the larger scope of previous research on your topic (i.e., what you found from the literature review), that is, how do your findings help the field move forward? Talk about the limitations of your findings and possible areas for future research to better investigate your research question. End with a concluding sentence or two that summarizes your key findings and impact on the field.

7. References- appropriate citations are provided