Rubric for Written Project, STAT*6801

5 points are given in each of 5 categories: Content, Tables/Figures, Writing, Difficulty/Originality, and
    Overall Presentation, as outlined below:

Content
5/5 –   Included abundance of material clearly related to the topic.
        Cited appropriate reputable sources (e.g. peer-reviewed journal articles, EPA guidelines).
        Clearly motivated problem and outlined importance of topic in detail.
        All statements were supported with evidence or appropriate reference.
        Results related back to the science or objective of the big picture analysis.

4/5 –   Included sufficient information related to topic; but also included some irrelevant material.
        Excluded tangential aspects that could have been included/expanded.
        Some key citations were not from reputable sources.
        Problem well-motivated and its importance highlighted.
        Most statements supported with evidence or appropriate reference.

3/5 –   Included a lot of relevant information but also included excess of unrelated (irrelevant) information.
        Important central aspect was missing or insufficiently described.
        Some statements were not supported with evidence.
        Motivation/Importance is lacking or not convincing.

2/5 –   Included insufficient information related to topic, but excess of unrelated (irrelevant) information.
        Problem not well motivated; importance not highlighted.
        Many statements not supported with evidence.

1/5 –   Several important areas were missing

Tables/Figures
5/5 –   Included appropriate choice and number of tables/figures .
        All tables/figures are clearly labelled with captions.
        Main points of what the tables and figures illustrate are highlighted in the main text.
        Tables/figures well formatted and easy to interpret; captions adequately descriptive.
        If real data is analyzed, then descriptive statistics are provided.

4/5 –   Some relevant information not included in tables or figures.
        Some tables/figures not clearly labelled or poorly formatted.
        Some captions not descriptive enough to understand table/figure.
        Some tables/figures not discussed in main text.
        No descriptive statistics provided.

3/5 –   Some relevant information not included in tables or figures.
        Tables or figures not clearly labelled or not easy to understand; some captions not descriptive enough.
        Some tables/figures not discussed in main text; no descriptive statistics provided.

2/5 –   Key tables and/or figures not included.
        Tables/figures poorly formatted and difficult to interpret.
        Captions not descriptive and tables/figures not discussed in main text.

1/5 –   No tables or figures provided.

Writing

5/5 – Expressed all points clearly.
    Included an introduction, main body (with methods), conclusions, references.
    Grammar, spelling, punctuation was excellent throughout the paper.
    Excellent and logical transitions from point to point.
    Well-written background/motivation.

4/5 – Expressed most points clearly; a few (tangential) statements were unclear.
    Included an introduction, main body, conclusions, references.
    Grammar, spelling, punctuation were good throughout but a few grammatical errors.
    Good transitions from point to point, with ideas mostly presented in logical order.
    Provided sufficient background/introduction.

3/5 – Expressed majority of points clearly; some statements central to the topic were unclear.
    Paper lacked an introduction, or conclusions OR was somewhat disorganized
    Some errors of grammar, spelling, punctuation.
    Some transitions abrupt or ideas not presented in logical order.
    Topic, new concepts not defined adequately.

2/5 – Several ideas not clearly expressed, including statements central to the topic.
    Paper was somewhat disorganized with abrupt transitions.
    Many errors of grammar, spelling, punctuation.
    New concepts not defined or defined inadequately.

1/5 – Most statements were not clearly expressed.
    Many errors of grammar, spelling, punctuation.
    Paper was disorganized with no apparent ordering to the topics. Obvious lack of effort.

0/5 – Student did not understand the topic.

Difficulty and Originality

5/5 – The paper covered a challenging topic not covered in class OR several new but straightforward
    extensions of class material.
4/5 - The paper covered a challenging topic or extensive topic not covered in class OR several new but
    straightforward extensions of class material.
3/5 – Material was somewhat challenging.
2/5 – Material was a simple extension of what was done in class.
1/5 – Material was a mindless extension of what was done in class.
0/5 – No new topics were covered in the paper.

Overall Presentation (maximum 12 pages, exclusive of Appendix)

5/5 – Report is correct length, not too long or short.
      Title is a good description of paper content; topic was clearly defined.
      Explained new concepts clearly and at an appropriate level.
      Material presented is interesting, intriguing and informative.
      Student demonstrated solid understanding of methods and/or data.
      All statements, references were correct.

4/5 – Report is not overly long or short.
      Title misrepresents the paper slightly, or is too long.
      Some new concept(s) not adequately defined.
      Material was presented in a creative way.
      Most statements, references were correct. A general mastery of topic is displayed.
      A few incorrect statements, but these statements were minor or tangential to the topic

3/5 – Report is slightly too long or too short.
      Title misrepresents paper.
      Made a few incorrect statements that were central to the topic OR
      many incorrect tangential statements.
      Student demonstrated slight misunderstanding of topic.

2/5 – Paper is exceedingly long or short.
      Many statements that were central to the paper were incorrect.
      Student misunderstood some key aspects of topic.

1/5 – Most statements that were central to the paper were incorrect.
      Student clearly misunderstood or has confusion on several key aspects of the topic.

0/5 – Student totally misunderstood topic.

HINTS:
- Have a Title Page, including all team members' names
- INCLUDE PAGE NUMBERS!
- Have a good title for your project
- Don't use the word "significant" unless you mean statistically significant and you have done a test
- Motivate selection of data and hypotheses. Tie these to results.
- Don't implicitly or explicitly "accept" the null hypothesis
- Use formal language but write for a non-technical reader
- Do not include any lines in results tables or tables of descriptive statistics EXCEPT top and bottom lines for header row (that labels columns), and a bottom line at the end of the table (below the last row)
- Use bulleting and numbering SELECTIVELY and with purpose
- Do not include several very short subsections. Instead, combine these subsections strategically into fewer, but longer, subsections