STA303 Summer 2018
Rubric for Assignments 1 and 2

The assignment as described in the handout is to take the provided scientific references and datasets and write a half-page summary of the problem, the data, the analysis and the conclusions for each. Each half-page summary may reference an appendix which may be up to three pages in length and must contain all plots, tables, and computer output referenced in the summary, and all code used to generate these items. Your entire assignment is to be done within one .Rmd file which when sourced produces your exact .pdf output that you hand in via crowdmark.

Each data analysis question (there are two) on your assignment will be graded out of 80 points (so your whole assignment is out of 160) according to the four categories in the below rubric:

	Excellent, 18 - 20	Good, 14 - 17	Fair, 10 - 13	Unacceptable, 0
Validity of Statistical Methods	- Methods used are appropriate for task - Used only the minimal amount of statistical analysis required to answer the question - Model assumptions are checked and discussed	- Methods used are appropriate for task - Used some extra or unnecessary analyses - Model assumptions are checked	- Methods are related to task - Used additional unnecessary analyses unrelated to the question - Model assumptions are referenced, or checked inappropriately	- Methods unrelated to task - Report contains unstructured collection of unrelated statistical analyses - Model assumptions not referred to at all
Presentation	- Plots are elegant, and communicate the context and results clearly without need to reference other summaries or text. - **GGplot is used**, axes are labelled clearly, visually pleasing colour scheme is used - Report adheres to the stated formatting constraints in terms of font, size, margins, title, etc	- Plots are visually pleasing, and communicate context and results with some reference to other summaries or text. - **GGplot is used**, axes are labelled and the plot is generally readable - Report misses minor aspects of required formatting constraints	- Plots are inappropriate or don't properly communicate context and results. - **GGplot is used** but minimal attempt is made to make the resulting plot readable or informative - Report misses major aspects of required formatting constraints	- **GGplot is not used**. - Plot is completely unrelated to the context or results it is meant to convey - No attempt is made to adhere to required formatting constraints, and/or **document is not provided in requested .pdf format plus executable .Rmd file, or exceeds half-page limitation or 3-page appendix limitation**

Written Communication	- Report starts with brief summary of problem that provides clear context, without referring to the dataset - Report contains complete sentences in a logically coherent format that address the problem question - Report references appropriate analyses in appendix in appropriate ways	- Report starts with a summary that gives adequate context, and minimally refers to the dataset or other unnecessary information - Report contains complete sentences, but occasionally rambles or goes off topic - Report references analyses and appendix in somewhat appropriate ways	- Report starts with a summary that is confusing, and makes repeated reference to the dataset without describing the actual problem question - Report contains incomplete, illogical sentences that do not fully address the problem question - Report makes confusing references to appendix that do not support the points being made	- Report does not start with a summary of the problem, or starts with a basic description of the dataset with no context - Report is a loose collection of unconnected statements that do not address the problem question - Report makes no reference to appendix, or references made make no sense or are incorrect
Conclusions	- Report ends with a brief (one sentence) conclusion that sums up the results of the analysis in the context of the problem question - Conclusions drawn are correct, given the analysis that was performed	- Report ends with a somewhat brief conclusion that references the analysis in the context of the problem question - Conclusions drawn are reasonable given the analysis that was performed	- Report doesn't have a clear conclusion; analysis is referenced, but connection to problem question is not pronounced - Conclusions drawn are not wholly substantiated by the analysis performed	- Report has no conclusion, and does not relate analysis to the problem question - Conclusions drawn are not related to analysis performed, or no conclusions draw at all