Rubrics for Data Analysis Report

Tasks	Weights
The data: Are the data and background information described well? If any data pre-processing was performed, was the procedure detailed and well-justified? (In general, we do not delete/exclude data from statistical analysis.)	10%
Descriptive and univariate analysis: Are there summary tables and visualizations of the data? Are univariate analyses included? Are the descriptive summaries well presented and interpreted in the text, in particular with an eye on modeling and inference?	15%
Model building: Considered both main effects and interactions? Were categorical variables included in the model properly? Were transformations of continuous variables considered? Gave reasons for picking the final model (backward selection or using AIC/AICc/BIC)? In general, is the analysis thoughtful?	20%
Final model: Gave the final model as a table or graphic including the terms in the model, beta coefficients, and p-values? Gave interpretation of the final model including confidence intervals for the main (risk) factor(s) of interest? Presented and interpreted interval estimates of any desired predictions?	15%
Model diagnostics: Were residual/diagnostic plots presented and discussed? Were the graphics well presented? Were influential and outlying cases found and discussed?	20%
Tables and Figures: Were the tables and/or figures clear and well-presented? Were all the tables and figures in the paper discussed in the text? Were the interpretations clear and appropriate? (All tables and figures relevant to the text must be included in the report, not in the appendix.)	5%
Organization: Was the report organizational format requirements followed? Are the R codes and results included in an appendix? (See below.*)	5%
Clarity: Is the writing good, without spelling and grammatical errors? Are the explanations easily understood? Is the discussion/conclusion well presented? Is the executive summary clear, concise, and informative? (Note that the report's intended audience includes both statisticians and scientists/non-statisticians.)	10%

*Appendix: Codes and detailed results (a form of reproducible research)
Give an appendix that contains information that would allow someone else to repeat your analyses (assuming a reasonable knowledge of the tools used, e.g., a fellow student in the class) and actual printouts of the results. Code and output should be annotated so that if someone did rerun your code/analysis, they would know how to get from the raw results to conclusions.