Stat 481/581 Final Project Writing Instructions:

Reports should be typed, and printed out. In your data analyses, RAW AND UNINTER-PRETED COMPUTER OUTPUT IS UNACCEPTABLE. When you include computer output in your reports, you must cut and paste it and interpret it. You should have a caption by every figure and table that describes it and tells me briefly what you see.

When writing "professional reports," it may be helpful to pretend that you are writing up the results of your data analyses for someone who has paid you to analyze the data. Remember that even that best data analysis is worthless if your reader cannot understand it. The following are suggested format of your report.

Your project will consist of seven parts: summary, key graphs, introduction, Material and Methods, Results of the Analysis, conclusions and appendix. In the following, I will describe what I expect for each part.

Summary: In this section, you will describe the results of the analyses. The summary should state the problem concisely, show what you found, and briefly interpret the results. A good rule to keep in mind is that a person who has only had an introductory statistics course should easily be able to understand the summary and grasp the results of your analysis.

Key Graphs: YOU MUST ALWAYS INCLUDE AT LEAST ONE PLOT OF THE DATA. For example, plot of the raw data etc. And of course, every plot you include must contain a complete caption telling me what you see.

Introduction: Give the background of the problem, with more detail than in the summary. State the goals of the study. At the end of this section, tell briefly what you plan to say in subsequent sections.

Material and Methods: A brief description of how the data were collected and what kind of statistical tools you want to use to address the problem you stated.

Results of the Analysis: In this section, tell the reader what you found and how you found it. You may need to paste some outputs (not the raw output) from your code work to facilitate your explanation. For example, you may include a table of the results of statistical test or estimations in the text. And usually, you will include the residual plots in the appendix. Organize the section to tell the story you uncovered. Interpret your results. Report any strange features of the data.

Be sure that you address each of the study's goals such as model building and forecasting etc,. You may also mention strange qualities of the data and give suggestions for improving the data quality should future studies be done. Figures and tables may be used to tell a large part of the story, if possible.

Conclusions: You should provide interpretation of the statistical results throughout the report and rehash the main results concisely in the Conclusion, using different wording than the summary. You may also include ideas you have about future studies.

Appendix: Contains the technical details and plots not found in the Results section that you want your readers to know. Also include your R code in the Appendix, so I can see what you did in case you get a strange answer.