CHE384 Data to Decisions Chris Mack, University of Texas at Austin

Data to Decisions Writing Project

- 1. Find an interesting data set to analyze (searching the web, for example). Make it something that you are interested in and can have fun with. Be sure there are at least 40 data points in the data set, and that the resulting model and data are not too complicated, but not too simple either. The data can be bivariate or multivariate.
- 2. Fit a model to the data using linear regression (the goal is not model building or comparing models, but you want a model that works well).
- 3. Using all of the techniques we have learned so far, perform regression analysis to test all the assumptions of your regression.
- 4. Write up a four page (approximately) technical paper, as if it were a short paper for journal publication.
- 5. You are free to make up missing details for the paper as if you were the one who collected all the data (the only thing you can't make up is the data and its statistical analysis). Still, the less made up the details are, the better.

Writing requirements and resources:

- 1. Use the IMRaD structure for the paper.
- 2. Use a structured abstract
- 3. Use proper citation practices
- 4. Use appropriate figures and tables, formatted properly

Resources for these requirements:

http://www.lithoguru.com/scientist/science-writing.html

What you need to turn in:

- One spreadsheet and/or R script with the data and regression analysis
- One word document with the written paper