STAT 230 PROJECT GRADE SHEET

Names _____

Introduction _____ / 3 pts

- Briefly discuss salience/importance of your motivating research questions
- Outline the experiment in brief (save full descriptions for the next section)
- What are you expecting to see? (E.g., "We expect that subjects throwing the ball in dim light will miss the target by larger distances than…")
- Clarity of writing / grammar & formatting

Design & Data Collection _____ / 15 pts

- Clearly define the response variable, experimental unit(s), and factors
- Appropriate design
- Appropriate statistical model is written out and described
- Statistical hypotheses are clearly defined (you don't need to test block effects)
- Power analysis is conducted and appropriateness of your sample size is discussed
- Randomization & scientific rigor are used and described in detail
- Experiment is ambitious in scope
- Clarity of writing / grammar & formatting

Data Analysis _____ / 15 pts

- Assumptions (particularly the S and N assumptions) met? Is a transformation necessary?
- Appropriately constructed ANOVA table
- Effects are interpreted using means and (where appropriate) pairwise comparisons (i.e., when comparing 3 or more levels of a factor, use a multiple comparison procedure such as Bonferroni or Tukey)
- Discuss and interpret interaction(s) with interaction plots
- Clarity of writing / grammar & formatting

Conclusion (& appendix) _____ / 7 pts

- Summary of findings
- Can you generalize your results to a population of interest?
- Would your study allow you to claim a cause-and-effect relationship (if a significant factor existed)?
- Critique: improvements/refinements/future questions
- Code and data attached and emailed to william@stat.byu.edu
- Clarity of writing / grammar & formatting

TOTAL: _____ / 40 pts