

# Final Project

## *Rubric*

**Note:** The Final Project is 30% of the total grade for this course. The project grade is out of 100 points, but will be weighted appropriately.

**Name:**

Category	# Points Earned
Proposal	10
Meetings with Staff	5
Degree of Difficulty	25
Execution	25
Code Quality	10
Analysis & Website	15
Interactive Grading	10
<b>TOTAL</b>	<b>100</b>

### **Proposal (10 points)**

\_\_\_\_\_ Total

### **Meetings with Staff (5 points)**

\_\_\_\_\_ Total

**Degree of Difficulty (25 points)**

Data formatting & manipulation, new functions/programs, and interactivity all contribute to degree of difficulty.

\_\_\_\_\_ Total

**Execution (25 points)**

\_\_\_\_\_ 20 points to start.

\_\_\_\_\_ (× -1 point) Bugs in the code.

\_\_\_\_\_ (× -1 point) Errors are not handled.

\_\_\_\_\_ (5 points) Test function or toy dataset that demonstrates correctness.

\_\_\_\_\_ Total ( $\geq 0$  points)

**Code Quality (10 points)**

\_\_\_\_\_ (2 points) Naming Conventions. **Excel:** descriptive sheet names and row/column labels. **Python:** descriptive variable and function names.

\_\_\_\_\_ (3 points) Good use of comments. **Excel:** first sheet describes all other sheets, comments/text boxes are used, and input/result cells are colored. **Python:** header comments, function descriptions and inputs/outputs (triple quoted-string), and comments for tricky parts of code.

\_\_\_\_\_ (5 points) Other, including but not limited to the following. **Excel:** sheet organization and formulas for all cells except raw data. **Python:** Program organization (i.e. “skeleton code”)

\_\_\_\_\_ Total

**Analysis & Website (15 points)**

- \_\_\_\_\_ (2 points) The “front page” of the website has a concise statement of the problem and the hypothesis.
- \_\_\_\_\_ (4 points) Methods, analysis, and results are presented well (writing is concise, tables/plots/screenshots are used, etc.).
- \_\_\_\_\_ (3 points) Website Presentation (organized well, no spelling mistakes, no dead hyperlinks, files available for download, etc)
- \_\_\_\_\_ (4 points) Discussion of expected and unexpected findings.
- \_\_\_\_\_ (2 points) Reflection on approach.
- \_\_\_\_\_ Total

**Interactive Grading (10 points)**

- \_\_\_\_\_ (2 points) Clearly explains and interprets the project results.
- \_\_\_\_\_ (5 points) Has good knowledge of the code:
  - Knows what each Excel function and python line does.
  - If asked to change something about the spreadsheet/program, knows where the modifications should be made.
  - Predicts what would happen if a formula/function is slightly modified.
- \_\_\_\_\_ (3 points) If errors are pointed out, understands why they occur and how to fix them (full credit if no errors are present).
- \_\_\_\_\_ Total