

Data 467: Project Information

Qurat Ul An Sabir

Fall 2025

The course will include a short project. The project will be completed in a group of **2 people**.

The project will have six due dates:

- **October 28:** Submit your group partner name.
- **November 8:** Prepare a **1-page proposal**. This will include the title, participants, a description of the project, and the nature of the data.
- **November 20:** Submit a **1.5-page Introduction and Methods sections**. The introduction should capture the reader and provide an overview. The methods section will detail the data source (collected or online database).
- **November 30:** Submit **3–4-page Results and Linear Models sections**.
 - The Results section must contain relevant statistical summaries and visualizations that tell the basic story of your data.
 - The Linear Models section will present the model that fits your data, discuss appropriate diagnostics, and include some inference and prediction.
- **December 1–12:** Submit your **10-minute presentation** to the D2L discussion board and present in class.
- **December 15:** Submit the **final project**. This will be a **5–7-page paper** that includes the previous sections, a **General Linear Models (GLM) section**, and a **Conclusion section**.
 - In the GLM section, a different analysis of your data will be run and presented.
 - The conclusions will wrap up the discussion and discuss where future work might go with the project.

Writing Lab Reports from *Stat Labs: Mathematical Statistics Through Applications* by Terrence Speed and Deborah Nolan is a good guide. I will also provide some information in class.

Recent Project Topics

- The impact of poor sleep patterns on development in Down syndrome infants
- Insulin injection protocols and control of blood sugar levels (applied to the student himself!)
- Changes in erosion patterns due to climate change
- Carbon sequestering in the Upper Midwestern United States forests
- Stock market volatility in Western and emerging markets
- Calibration of an infrared detector to be placed in Antarctica
- Leaf transpiration in arid lands
- The correlation of measures of happiness and economic indicators
- Analysis of the short stories of Edgar Allan Poe
- Impact of Family Medical Leave on the behavior of new parents
- Carbon impact of diets
- Point spread and rivalry games in college football