MATH216 Final Project Report Due: Sunday, May 19th at 11:59 pm Please submit an electronic copy of your project to: alyford@middlebury.edu

The goal of this project is to use the techniques learned in this class to tell a story about a set of data of your choosing. The "story" will be told orally in the form of a written final report. This project will take the place of a written final exam. There are very few formal requirements for this project, as the details of each project will change depending on the data set(s) you choose. You may work alone, with a partner, or in a group of no larger than 3 people. I will expect a more comprehensive analysis from larger groups.

By Friday, April 26th, you must submit a copy of your data set and a short proposal about the topic you wish to explore. Your proposal should include the following.

- The title of your project and names of you and your group members, if applicable
- A brief description of your chosen data set
- One or more *specific* research question(s) to answer and/or explore

Your group's final project report is due **Sunday**, **May 19th at 11:59 pm**. There is no page requirement for this report. You are expected to write your report using RMarkdown unless you can make a convincing case otherwise. The report may be constructed however you see fit, and the flow of each report will differ based on the type of data and types of research questions. Below is merely one possibility regarding the structure of your report.

- 0) **Keystone Graphic** This single graphic should encapsulate a large portion of your findings and/or provide a summative look at the analysis in your report. I'll describe this in more detail during class.
- 1) **Introduction:** This section should introduce the data set and set forth the research question(s) to be answered in the report. Write this report as if the reader has never seen your data before.
- 2) **Methods:** Describe the methodology you used (i.e., the types of statistical techniques) to answer your research questions. You should describe the data in greater detail in this section. Exploratory graphs are appropriate here.
- 3) **Results:** Describe the results of your analyses and demonstrate graphs that accompany/enhance these results.
- 4) **Conclusion:** Explain how your research question was answered and what possible meaningful takeaway you/the reader should have.