

# Project Title

Name

Final Project for Mathematical Modeling (Math 420)

Date: ((Due date TBA4))

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**ATTENTION:** Here are guidelines & instructions for your **final report** and **presentation**.

- **Writing well matters!** This should be well-written, and readable.
- The report **must be typed**, but not necessarily in LaTeX (MS Word is sufficient).
- There is no page requirement, but it should probably be at least a couple of pages. It should be concise and to the point, not skipping over too much detail, and not unnecessarily long.
- **See below for an outline.** Typical reports include an **introduction** to the relevant background and motivating **question(s)** you aim to answer, the **model** and key **assumptions**, the **results** of your analysis, then (importantly) a **discussion** of those results in the context of the motivating question.
- **Presentations:** Your short presentation should be no more than 3 minutes long, and must include roughly 2-4 slides. Outline your talk according to something like “the five step method” discussed at the start of the course.
- Below is a template for how to structure your report. **Abstract, Acknowledgements and Appendices are optional.**

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## Abstract

Include a brief summary -- write this once the rest of the paper is mostly written.

## 1 Background

Describe the key details a reader needs to understand the context of your goal/question. This should only take a few short paragraphs in most cases.

### 1.1 Goal/Question

This is the foundation of your project! It’s the whole motivation for your analyses and the yardstick by which we interpret and evaluate those results.

## 2 Approach/Methods

Describe briefly how you will answer your question or otherwise achieve your goals. Describe your model(s) and detail how you plan to analyze it(them).

## 3 Results

Present your mathematical results, and perhaps give highlights of the steps taken to achieve them. **Tell a good story!** Don't just fill this section with a step-by-step mathematical derivations!

## 4 Discussion

Answer your question by discussing how those mathematical results address your motivating question(s), or otherwise interpret your results in the context of your motivating goal(s)/question(s).

### Acknowledgements

If anyone helped you along the way, recognize them here.

## References

(Format these according to your preferred style. I only require that the information be sufficient for me to quickly find the referenced works if I went looking for them. DOIs are very useful to include, but not required.)

## Appendices

Any technical details you wanted to include, but that were not necessary to put into the main text (e.g., the routine steps of an analysis can go here if you wanted to skip to the punchline in the writeup).