

Final Project Briefing

Quantitative Reasoning II (INF 1220)

Last revised: October 15, 2026

1. Project Overview

Through this final research project, you will apply the tools that we have learned in this course to a question of your choosing, using real data that you find or create. You will present your findings in a written report, a notebook, and an oral exam.

This project is intentionally open-ended. You do not have to use every method we have learned, nor do you have to use the most advanced methods. You are expected to use methods appropriate to your question and to be able to explain your choices and findings. The goal is to demonstrate your ability to think critically about data, to apply the tools of the course, and to communicate your results effectively. You are welcome to use methods we have not learned in the class, but you must be able to explain your methods well enough that you could teach them to a classmate. Simple methods applied well are superior to complex methods applied poorly.

This is an individual project, but you are encouraged to discuss your project with and seek feedback from your classmates. Utilize office hours and appointments as needed (OH T 14:00-15:00; by appointment [here](#)).

2. Deliverables

The deliverables are due Monday, November 9, 11:59pm, on Populi, and the oral exams will be scheduled individually during finals week. Booking link to come.

1. A report of at most 1,000 words of prose, with as many tables and figures as you need to support your analysis.
2. Your python notebook, fully run. Your notebook should produce every number, figure, and table in your report.

3. Report Guidelines

- Maximum 1,000 words of prose, which is about two pages. Tables and figures do not count toward the limit. Reports over the limit will be penalized.
 - I expect that everyone will write more than 1,000 words initially, and spend substantial time editing down to the limit. Boiling your work down is an essential skill that takes practice.
- Your report should contain the following information:
 - **what and why:** your research question and why it matters
 - **how:** where your data came from, what your main variables are (including how they are measured, and any transformations you made), and what models you ran.

- **what you found:** the answer to your question, with supporting tables and figures.
- **limitations:** the limitations of your data and your analysis (not necessarily comprehensive, but rather what are the most important limitations).
- You may use as many tables and figures as you need to support your analysis. Each table and figure should be clearly labeled and referred to in the text.
- Your figures and tables should be self-contained, meaning that they should have titles, axis labels, legends, and captions as needed. A reader should be able to understand the figure or table without having to read the text.
- Your figures and tables should be included in the report document in the pages following the prose, rather than in-line with the prose.

4. Notebook Guidelines

- I suggest that you use a Python notebook (either in Colab or in a local environment on your machine). Alternatives are allowed, but let's talk about it.
- If you work locally, upload your notebook to Colab to turn in.
- Your notebook should be fully run with all outputs saved.
- You should check that your notebook is visible to anyone by pasting the link in an incognito window. If I cannot see your notebook, you will lose points.
- Your notebook should be well-organized and commented - I should be able to understand what you did without having to ask you questions.
- I expect you to use agents to write your code, but you are responsible for the analysis and what the agent writes. "That's what the agent said" isn't an acceptable answer to a question about your work.

5. Oral Exam

15 minutes, one-on-one, during finals week. Booking link to follow. No resources are allowed, but I'll have a printed copy of your work for us both to reference as needed. More guidelines on what to expect in the oral exam will be communicated as we get closer to the date. The guiding principle is that you should be able to explain your work, the choices that you made, and the limitations of your analysis. You should know your report well enough that you can reference it to help you explain your work in conversation (e.g. "let's look at Table 2").

6. Last day of class: lightning round

On the last day of class, for FUN rather than for a grade, each student will get a few minutes and one slide to present their work to the class. Format and expectations to come.

Slides will be submitted in advance and run from one shared deck that I create. The goal is to give everyone a chance to see what their classmates did, and to practice explaining your work in a short time.

7. Dates

Homework 3 — idea generation and feasibility study	Due Monday, October 19, 11:59pm
Edited and ranked questions returned to you	Friday, October 23
Homework 4 — draft report and notebook	Due Sunday, November 1, 11:59pm
Draft peer review workshop, in class	001: Monday, November 2 002/003: Tuesday, November 3
Homework 5 — two completed peer reviews	Due Wednesday, November 4, 11:59pm
Lightning round, in class	002/003: Thursday, November 5 001: Monday, November 9
Report and notebook	Due Monday, November 9, 11:59pm
Oral exams	November 10–17, scheduled individually
