Course Objective

The view one initially gets of mathematics is often far from the truth. Our objective this quarter is to fundamentally recast how we think and write mathematically. Ours is a subject of beauty and wonder, accessible to anyone with the intellectual curiosity and explorer’s spirit to pursue these fruits. Along the way, we will learn a new language, encounter stunning patterns, pore over mind-boggling puzzles, and grapple with infinity. It’s a journey few get to take into the true nature of modern mathematics.

Methodology

Our high ambitions will necessitate various vehicles for progress.

1. Classwork. Class time will be spent presenting, discussing and working on mathematics.

2. Portfolio. Each of us will maintain a portfolio of polished write-ups of every exercise and proposition that we encounter.

3. Homework. Weekly homework will be collected on Fridays, read over the weekend and returned with feedback after the weekend.

4. Examination. There will be one midterm and a final exam at the end of the quarter.

5. Query. Two students will be drawn randomly for a daily query at the beginning of each class.

Ethos

Our guiding belief is that we have reached a turning point in our mathematical education. Our dedication, courage and stamina will be tested. We value quality over quantity and process over results. Productive struggle is our chosen path. We are here to become the thinkers and students we have always wanted to be.
Office Hours

Our in-class discussions will likely be the proverbial “tip of the iceberg.” To facilitate sustained mathematical discussion, there will be additional times to interact throughout the week.

- M 2:10-3:30.
- T 10:10-11:00.
- By email and by appointment.

Exam Dates

1. Midterm: Friday, February 6th in class.
2. Final Exam: Monday, March 16th, 7:10am-10:00am

Grading

Course grades will be calculated as follows:

- Query (5%)
- Portfolio (15%)
- Homework (20%)
- Midterm Exam (25%)
- Final Exam (35%)

Academic Integrity

It is my opinion that there is hardly any human act more satisfying or important than the sharing of knowledge. I therefore consider the classroom and the university at large to be hallowed ground, well deserving of all the humility and respect that we would afford our other most sacred places.

Please refer to the University’s policy on cheating and plagiarism found in the Campus Administration Manual, Section 684.

In short: be sensible, respectful and mindful of the integrity of the system we are all so lucky to share.