

Math 1300 Mathematical Explorations Fall 2018

Instructor: Professor Steven Strogatz, shs7@cornell.edu
Office hours: Monday 12:30-2:30 in 533 Malott Hall

Teaching assistant: Stephen Cowpar, sbc94@cornell.edu
Office hours: TBA.

The course will be taught using “inquiry-based learning”, based on the wonderful investigations available at Discovering the Art of Math, <http://www.artofmathematics.org>

Grading:

30% participation
40% portfolio
15% homework
15% final poster

Participation means:

Working thoughtfully on the in-class investigations
Asking and answering questions in class
Taking chances, trying things, having a spirit of curiosity and adventure in class
Being supportive, encouraging, and respectful of other students
Engaging with other students at your table
Listening actively when someone else is speaking
Attending class every time
Asking and answering questions on Piazza, sharing ideas there, helping other students
Never texting or checking your phone during class

Portfolio:

Every Tuesday and Thursday night after class, and whenever the urge strikes you, I'd like you to write neat, clear descriptions of that day's in-class investigations and your further thoughts about them after class. These should be written as readable, coherent little stories, not just fragments of sentences. Please write them in a spiral notebook, or type them and include them in a three-ring binder, along with any sketches or photographs that might help you remember and convey your ideas more clearly. Think of these write-ups as your record of work for the course. They're like an artist's portfolio, a writer's journal or a scientist's lab notebook, and should include an account of your attempts to solve the problems we've discussed, any frustrations or confusions you have, any ideas or questions that spring to mind, things you're wondering about, etc. Prof. Strogatz and Kelsey will collect the notebooks every two weeks or so and will give you feedback on them.

Homework:

Occasionally you'll be asked to hand in a short writing assignment (e.g. your mathematical autobiography), separate from the work in your portfolio. These should be submitted as 2-page PDF files and attached to email.

Poster:

As a final creative project, you'll make a poster about a notable mathematician of your choice from the 20th or 21st century. This will be due right before Thanksgiving break, followed by a poster fair after we return from break.