

Math 395

Self-Selected Topics in Mathematics

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Course Materials: All common readings and videos for the course will be available online. Individually, you can expect to have to find resources for your own topic online and through the library.

Course Description: This course has been designed to allow individual flexibility to explore an area in mathematics and to improve mathematical communication skills. Each student will choose a topic, craft a colloquium talk on that topic, and record that talk for use as an MC2 talk in a later term. Each student will also produce a written paper on the topic in LaTeX.

Course Timeline: During the first two weeks of the course, you can expect to spend time inside of class generating ideas for topics, as well as beginning to discuss aspects of good communication. You can expect to spend your time outside of class doing preliminary reading on at least two topics of your choice. By the end of week 3, you can expect to have settled on your field of study for the term. By week 7, you can expect to have an outline of your talk and paper. By the end of Week 10, your talk will be recorded, and your final paper will be due. During Final Exams, you will be expected to watch the videos and provide feedback on the talks of 2 other students.

Assessment: Most of your grade in this course will be determined by the quality of your recorded talk and written paper. Together, this will account for 65% of your final grade (40% for the recorded talk, 25% for the paper). How well you meet the intermediate deadlines (ie, make satisfactory progress on your project) will contribute 10% of your grade. The remaining 25% will be determined by the quality of the engagement with and feedback you provide to the other members of the class.

Please note that throughout the term, you will be practicing short presentations on your topic and providing feedback to other students on their presentations.

Class Policies: Most of our class meetings will take place in small pods of 3-4 students. This is to allow us to practice communication in small, low-stakes settings, as well as to get feedback on our work. In addition, since our small groups will remain consistent throughout the term, this will facilitate the learning of some mathematics beyond your individual project. In some of these meetings, you will be practicing short formal presentations on your topic. Sometimes, you will be bringing questions about the mathematics, or sharing the answers to previously raised questions. Generally, each meeting will be equally divided among the projects of each student in the meeting.

The Honor Code: As a student at Kalamazoo College, you have pledged to uphold the Honor Code (<https://www.kzoo.edu/student-life/honor-system/>). This includes reporting to me any dishonorable behavior you witness involving this class, as well as not engaging in such behavior yourself. Any assignment found to have been submitted in violation of the honor code will receive an automatic F.