

Teaching Statement – Sam Freedman

My main goal in teaching is that my students believe that mathematics is a subject that belongs to them. I actively work to overcome key challenges in the mathematics learning process, such as involving students in abstract material that might not be directly relevant, and fostering a classroom environment where students are inquisitive and creative without judgement.

I have engaged in a wide range of pedagogical approaches, from traditional lecture-based classes to team-based inquiry learning. In the team-based learning environment, I enabled small teams of students to reason through problems while posing and answering questions of their own. I followed up their investigations by facilitating dialogue between teams as they confirm knowledge and share alternate approaches. Even when I teach traditional lecture-based courses, I incorporate interactive components to the classroom through “think-pair-share” activities and group discussions. My teaching methods have helped my students realize their inherent capability to succeed in the classroom and exposed them to what it’s like to do real-world mathematical collaboration; my co-instructors and I collected quantitative data from students and are writing an academic paper on the measurable benefits of team-based inquiry learning on student learning and confidence.

Outside the classroom, I have mentored undergraduates with wide ranges of backgrounds in research projects at a Summer@ICERM mathematics REU. My fellow TA Paige Helms and I presented our approach towards fostering inclusivity in the REU in our talk “Combating Sexism in Mentorship: Strategies to Uplift your Mentees” at a GAIN (Graduates Achieving Inclusion Now) workshop. At the high school level, I have been a lead organizer for the Brown University Math Circle for the past five years. We have partnered with three charter middle and high schools in the greater Providence area, running fun after-school math activities for students. We intentionally choose schools in historically marginalized Black and Hispanic communities to break down traditional barriers to accessing extracurricular math activities.

I acknowledge that the traditional math classroom excludes marginalized groups like women and students of color. To better be an ally to these students, I completed the Sheridan Center for Teaching and Learning’s certificate program which included training on implicit bias. I also attend and organize our DEI Horizons seminar events where educators like Rochelle Gutierrez have shared how they build inclusive learning environments.

My student feedback affirms my commitment to reflective and engaged teaching. As one student said:

Sam was clearly very thoughtful and intentional about his pedagogical approach to the course...For example, he always sat down while lecturing so as to be on an equal level with the students, and he intentionally asked “What questions do you have?” instead of “Do you have any questions?” to encourage more participation from students. It was abundantly clear that he cared about ensuring that all students understood the lecture content, and that he made a deliberate effort to make that happen. These aspects of his teaching style as well as his laid back demeanor made for an enriching, comfortable, and fun learning environment.