

# CATIE ACITELLI

◇ Diversity Statement ◇

My commitment to promoting diversity, equity, and inclusion in academia, and specifically in mathematics, stems from my experience as both a student and an educator. In my undergraduate and graduate studies, I have repeatedly witnessed the importance of diversity in the field. In my 13 combined years of teaching at the high school and collegiate level, I have directly observed that every facet of education is enhanced by diversity. Students are individuals, and no two have the same background. As an educator, it is imperative that I structure my classroom in a way that celebrates this. It is not enough to simply talk about diversity, equity, and inclusion, and my past experiences speak to my willingness and desire to take actionable steps to create positive learning and working environments. Doing so has been a commitment of mine throughout my entire academic career.

As a teacher, my primary goal is that all students have a meaningful experience with mathematics. I recognize that I may never know the story of every individual, but I must encourage that each student have a voice in my classroom. The first day of every semester, I spend time creating an environment consistent with this idea. I have adopted Frederico Ardila's Axioms for cultivating diversity and extended these to suggestions for the semester. (Please find a sample of my Class Axioms and Expectations from an online synchronous semester at the end of this document.) I also discuss resources on campus, emphasizing the importance of mental health. My syllabus includes information on the Disability Resources Office, Counseling Center, GLBT Center, Student Behavioral Case Management, NCSU Food and Housing Insecurity, and other resources for which students may feel uncomfortable asking.

Mathematics is a universal language, so it should naturally lend itself to equity in teaching and learning. On the contrary, mathematics classes tend to cater exclusively to the majority. English language learners and students with different abilities, for example, encounter barriers to learning that the majority of the class may not. In order to encourage full class participation, I reduce the need for students to seek unique accommodations. Long before the start of the COVID-19 pandemic, I began recording my class lectures and posting them to the course Moodle site with closed captions. Since taking an Accessibility in the Classroom course, I have implemented a number of additional best practices. All PDFs and tables that I post online are compatible with read-aloud technology and all photos and graphs are equipped with alternate text and do not lose clarity when they are expanded. Additionally, I create guided notes that all students have the option of using during lecture, and I post completed notes after each class. I build in extra time to all assessments and encourage all students to take their time. Creating accessible content in turn builds a positive learning environment for all students.

Through the professional development associated with the Teaching and Communications Certificate, I have continued my dedication to making education accessible to all students by completing Project SAFE Ally training, Suicide Prevention Training, and the Inclusive Teaching Certificate. These have provided me with perspective and implementable strategies to connect with students from all backgrounds. During the Project SAFE Ally Training, I became aware of in- and out- of class challenges that students from the LGBTQ+ community experience. As an ally creating safe spaces, I now introduce myself with my pronouns and encourage others to do the same where they are comfortable. The Suicide Prevention Training alerted me to the various social and cultural determinants of health with regard to seeking treatment for mental health. As an educator creating a positive learning environment, I now discuss mental health and associated resources during the first class period. The Inclusive Teaching Certificate emphasized inclusive pedagogy, awareness of perspectives, and community belonging. As a reflective practitioner creating an inclusive course climate, I promote accessibility for the benefit of all students.

Additionally, my research focuses on the accessibility of post-quantum Cryptography to undergraduate students. Having identified a population that has not been considered a major contributor to lattice-based

Cryptography to date, I minimize barriers to channel this new talent for the advancement of the field and therefore of society.

As an executive member of the Undergrads Union Grads Organization, I am not only a graduate mentor, but I am also involved with pairing undergraduate mathematics majors with other graduate students in mathematics. As an executive team, we host presentations and panel discussions on topics such as applying to graduate school and conducting undergraduate research. Graduate mentors guide their mentees in navigating the demands of college and answer any questions they may have. In my undergraduate career, I was a member of Students Advocating for Youth, in which we mentored students in local elementary schools. I later served as an Education Advisor for the first year mentors and started Determined Area Youth and Active Community Teens, where we extended the program to middle and high school students, respectively. Our goal was to minimize the effects of the educational pipeline on marginalized communities. As a faculty member, I would implement a program that marries these two ideas, aimed at the recruitment of high school students to undergraduate programs and undergraduates to graduate school. I would pair graduate student mentors with undergraduate students and undergraduate students with local high school students in hopes of sparking an interest in STEM fields of study.

As the first Undergraduate Outreach Teaching Assistant for the Mathematics Department, I serve as a graduate student representative on the department's Diversity, Equity, and Inclusion (DEI) Committee. I focus on the recruitment and retention of new graduate students, with an emphasis on students from under-represented populations and marginalized communities. As a committee, we also prioritize the recruitment and retention of diverse faculty and overall department climate. As a contributing faculty member, I intend on continuing my involvement with a DEI Committee, as I remain committed to learning more about educational barriers and how to best break those down in my classroom and beyond.

## MA 405 (002) - Class Axioms & Expectations

### Axioms

The following axioms come from an article that Federico Ardila wrote about cultivating diversity in mathematics classrooms. I commit to conducting our class in a manner that is consistent with these principles, and I expect that students enrolled in this course do the same.

1. Mathematical potential is distributed equally among different groups, irrespective of geographic, demographic, and economic boundaries.
2. Everyone can have joyful, meaningful, and empowering mathematical experiences.
3. Mathematics is a powerful, malleable tool that can be shaped and used differently by various communities to serve their needs.
4. Every student deserves to be treated with dignity and respect.

### Expectations

The following suggestions and expectations help cultivate a classroom environment consistent with the axiomatic system outlined above.

1. Let's **attend every class**. If you are unable to attend a class, please watch the video lectures as soon as possible.
2. Let's **keep our cameras on**, if you are comfortable doing so. Teaching to a blank screen is not only awkward for the instructor, but it is also not conducive to your best possible learning experience. (Note: I understand that there will be some days when some of us just cannot have our cameras on, and that is okay.)
3. Let's **come to class a few minutes early**, if possible. I would love the opportunity to chat with you all about things unrelated to math. This helps us all get to know each other better.
4. Let's **stay a couple minutes late**, if your schedule permits. One thing I miss about teaching in person is getting the opportunity to talk to students as we walk out of the classroom.
5. Let's **respect one another**. This virtual classroom is a safe space, where we value input from all those involved. We should feel comfortable asking questions, making mistakes, and learning together, free of judgement. (Note: I will make mistakes.)
6. Let's **use the chat** feature of Zoom. I may not always be able to monitor the chat during live classes, but I can see it after the fact and adjust my next lesson. Talking to your classmates in the chat is also beneficial. If you miss something, a classmate may be able to help you get back on track.
7. Let's **speak up**. If something I am doing is not serving you well, please let me know. This class is not for me; it's *for you*. If I have inadvertently scheduled a test, quiz, etc. on a religious or cultural holiday, let me know, and I will fix it. If you get totally behind, let me know, and we will work out a plan. If you need a homework extension because you have a super hectic week, let me know before the deadline, and I can extend it.
8. Let's **take wellness days off**. Seriously, do not do work for this class on the wellness days. They're there for a reason. Work hard on "normal" days, and give yourself a break on wellness days.
9. Let's **have fun**. The more fun we have in lecture, the more we all want to be here. The more we all want to be here, the more comfortable we are. The more comfortable we are, the more we can learn.