Diversity Statement

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Where my commitment comes from

I grew up in Tabriz, in northwest Iran, speaking Azerbaijani and Farsi, and studied at universities where diversity was rarely discussed. As an undergraduate I was a shy student. I often had good questions but never asked them, and no instructor invited me to. Coming to the United States for graduate study in 2015 brought me into classrooms, labs and conversations shaped by many cultures, and it showed me how much belonging affects learning. Today my first goal in every course is a classroom where each student feels able to speak, ask and make mistakes. Over seven years at the University of Virginia, I have taught more than 1,100 engineering students in sections of 14 to 143.

Inclusive teaching in practice

I design my courses so that a student's background does not decide their success:

- **Mastery grading.** In Calculus I and Probability, students reassess a skill until they master it. An early stumble, often caused by uneven high school preparation, no longer caps a final grade.
- **Inquiry-based learning.** In Ordinary Differential Equations, students explore each idea on a pre-class worksheet graded for effort, not correctness. They then build it with classmates on an in-class worksheet, so every student arrives with something to contribute.
- **Deliberately mixed groups.** I form groups and rotate partners weekly so students work with classmates from different backgrounds. Quieter and underrepresented students participate more within a few weeks.
- **Engineering context.** I bring structural engineering examples, such as spring-mass systems and building dampers, into mathematics, which helps students who need to see why a method matters.
- **Open channels for feedback.** I ask for anonymous feedback during the semester, hold extra office hours, and adjust the course when students tell me something is not working.

Studying equity in mathematics courses

With colleagues in UVA's Applied Mathematics Center, I study which students our courses serve least well, and what helps. Our 2022 ASEE study asked which groups of students were most affected by three semesters of mostly online teaching during COVID-19. The goal was to reach them with a recovery path and revise core courses to reduce bias and inequity. Our 2023 study linked survey and registrar data and found that students chose credit/no-credit grading more often for mathematics than for courses in their major, a sign of low confidence. Our 2024 study of mastery grading in Calculus I found the largest gains on the common final exam among students who entered with the lowest diagnostic scores. That result is why I teach with mastery grading.

Mentoring and outreach

Much of my work for diversity happens outside lectures:

- **Summer research mentor**, VA-NC Alliance for Minority Participation (2018). I guided a mathematics student from a historically Black university through research training, lab work and career planning.
- **BRIDGE summer program volunteer** (2018). I ran shake-table demonstrations for incoming students from underrepresented backgrounds, showing how dampers calm a vibrating model building, to draw them toward civil engineering.
- **Vice President, American Concrete Institute student chapter at UVA** (2018–2019). I chose discussion topics that brought in the widest range of students and helped build activities that prepared underrepresented students for internships and competitions.
- **Undergraduate mentoring.** I have mentored African American, Asian, African, Muslim and women students, setting goals with each one. I also coached a deliberately diverse team for the Mathematical Contest in Modeling.
- **Teaching assistants and advising.** I have supervised up to nine undergraduate teaching assistants at a time and more than ten in 2024, and I have advised many students on majors and minors.

What I will bring to my next institution

- Teach with mastery grading and inquiry-based worksheets, and share these materials with colleagues who want to try them.
- Keep measuring who succeeds in my courses, using the survey and grade-data methods from our ASEE studies, and change what the data shows is not working.
- Open undergraduate research in structural engineering and applied mathematics to first-generation and underrepresented students, through programs like AMP and summer bridge programs.
- Run outreach that lets prospective students see mathematics at work, such as the damper demonstrations I have led.

I am still learning about diversity, and my own path, from a quiet student in Tabriz to a lecturer at UVA, reminds me that one invitation to speak can change a student's direction. I want every student in my classroom to get that invitation.