

Applied mathematics grad wants to 'make math more human'

By Mariana Lozovanu, ASU News
May 2, 2025

Editor's note: This story is part of a series of profiles of notable [spring 2025 graduates](#).

Isiaha Rodriguez is a first-generation college student whose journey through [applied mathematics](#) at ASU's [New College of Interdisciplinary Arts and Sciences](#) is rooted in curiosity, community, and a profound love for storytelling — through numbers.

What began as a practical choice to stay close to home in Arizona transformed into a rich academic experience, thanks to the close-knit environment of New College and the mentorship of [Joel Nishimura](#), an associate professor in the School of Mathematical and Natural Sciences.

"What sets Isiaha apart is his curiosity about the underlying reasons behind concepts, as well as his passion for storytelling through those ideas," Nishimura shares. "He has a remarkable ability to see how math can weave a complete narrative — from an initial cause or minimal model all the way to its effects and predictions."

Outside the classroom, Rodriguez is known as "the coffee guy," running his own micro-roasting business, Café Sapo. Whether roasting single-origin beans or working on multi-agent modeling research, he approaches life with the same abstract, pattern-seeking mindset that defines his passion for math.

Rodriguez hopes to one day teach and inspire others — especially those from underrepresented backgrounds — to see themselves in the field.

Read the below Q&A to learn more about his story — one of academic excellence but also of resilience, gratitude and a drive to make mathematics more inclusive, collaborative and human.

Note: Questions and answers have been edited lightly for length and/or clarity.

Question: What was your "aha" moment when you realized you wanted to study the field you majored in?

Answer: I've always been drawn to storytelling, and what surprised me was how deeply storytelling is embedded in math.

One of the most exciting moments for me was during a Techniques of Applied Mathematics course, where I was introduced to Fourier analysis — this concept of breaking down signals into combinations of sine and cosine waves. It was fascinating!

Before that, I had taken differential equations and linear algebra, and seeing how all these different areas of math connected was incredible. There was this beautiful marriage between them — it just clicked. I realized we could use these tools to represent and talk about the world in a very structured yet beautiful way. That was a big “wow” moment for me — just seeing how satisfying it is when everything comes together.

Q: What’s something you learned while at New College that surprised you or changed your perspective?

A: Honestly, I think it was the power of genuine connection. I took a yearlong break during COVID and originally started my degree elsewhere. Coming to New College, I wasn’t just showing up to check a box — I was building real relationships with both students and faculty. For the first time, I felt like I was truly part of something. Being in a space where people care, support each other, and collaborate — academically and personally — was transformative. That sense of community was enriching in ways I never expected. It taught me that, at the end of the day, all we really have is each other.

Q: Which professor taught you the most important lesson while at New College and what was that lesson?

A: Without a doubt, it’s Dr. Joel Nishimura. He’s been my mentor and guide through so much of this journey. As a first-generation college student, I didn’t know any mathematicians growing up. I had no idea what the professional world of math looked like. Dr. Nishimura gave me a roadmap — how to pursue grad school, how to present at conferences, and how to navigate the social aspects of being in this field. These were things I didn’t even know existed, and he helped me find my place in them. His mentorship has been instrumental in shaping not only my academic path, but my confidence and sense of belonging in the mathematical community.

Q: What’s the best piece of advice you’d offer to someone considering applying for college?

A: Retrospectively, I’d say the best advice is: Go where you’ll perform your best. Sometimes, your performance isn’t about the prestige of the school — it’s about the people around you. If you thrive on one-on-one connections, let that guide your decision. If being close to family helps you do your best work, then that should be a top consideration, too. The key is to choose an environment where you’ll succeed — not just academically, but personally.

Q: What advice would you give to someone considering your major? What makes for a good candidate in applied mathematics?

A: If you’re curious about many things, applied math might be the right fit. It’s not just about theory — it’s about using math to solve real-world problems. The field lets you explore diverse questions through a mathematical lens, from managing personal finances to tackling complex issues. At New College, the program builds your skills step by step, starting with calculus and leading to advanced topics like linear algebra and differential equations, all with a focus on practical application.

Q: What's your favorite spot on the West Valley campus — for studying or hanging out with friends?

A: The Applied Math Lab. When my friends and I were all taking classes together, it was buzzing with energy — people writing on whiteboards and solving problems together. It was the best kind of chaos. Outside of that, I love walking around campus. It's beautiful, calm and peaceful — perfect for clearing your mind and recharging.

Q: What are your plans after graduation? What do you plan to do for work?

A: I'll be pursuing a PhD in applied mathematics at ASU Tempe with a Presidential Graduate Assistantship (PGA). It's a fully funded program, so I get to keep doing what I love: applied math.

Q: You're a first-gen student. What does your degree mean to you and your family?

A: As a first-generation Mexican, this degree feels like validation — that all the effort my parents and grandparents put into building a better life wasn't in vain. I feel incredibly grateful that I get to do something I genuinely enjoy and make a living from it — something my dad, my grandfather, or even my mom didn't get to say. It's an immense privilege to pursue an education and a career I love, and I don't take that lightly.

Q: In what way do you want to make the world a better place?

A: One of the things that drew me to mathematics is the certainty it provides. At the same time, being in math means constantly realizing how little you know. You're often wrong, and you're challenged to refine your thinking. It's humbling, but it's also empowering. ... I hope to contribute not only through research and teaching but also by making mathematics a more inclusive and inspiring space for others — especially those who might not have seen themselves represented in it before.

This story originally appeared on [ASU News](#).

Main image



Isiaha Rodriguez will graduate this spring with a degree in applied mathematics from ASU's New College. Photo by Danielle Castillo/ASU

Gallery



Isiaha Rodriguez (left) assisting a student at American Indian Student Support Services.



Isiaha Rodriguez with Professor Joel Nishimura (right).