

Love of manufacturing engineering runs deep in these families

Meet 4 sets of siblings who share a passion for building, troubleshooting and making systems work

By Aisha Kaddi, ASU News
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College decisions are a family affair, with younger siblings often following in their older siblings' footsteps.

Four sets of siblings at Arizona State University have taken it to a new level, choosing not only to all join the [Ira A. Fulton Schools of Engineering](#) but to pursue the same major: manufacturing engineering in the [School of Manufacturing Systems and Networks](#).

Manufacturing engineering shapes how ideas move from design to production — and what connects these siblings is not just the same career goal, but a shared love for building, troubleshooting and making systems work.

Get to know these sibling pairs who are building technical skills while sharing mentors, labs and even car rides.

The Echegaray sisters: Choosing a focus and building a pathway

For [Lexana](#) and [Jenavieve Echegaray](#), the journey to manufacturing engineering began with early exposure to the field.

Prior to college, both of the Echegaray sisters attended Tucson's [Desert View High School](#), where they built a strong technical foundation. There, they participated in the [iSTEM Academy and Precision Manufacturing](#) program, fulfilling real customer part requests using [SolidWorks](#), computer-aided design, or CAD, and computer-aided manufacturing, or CAM. Through the program, they built a technical foundation that continues to support their success in engineering today.

Lexana started in mechanical engineering first before realizing she wanted a more specialized focus. Conversations with faculty members, peers and academic advisors helped her see that manufacturing engineering aligned more closely with her interests and career goals.

"I found out that there is so much you can do in the world of manufacturing," she says. "In my case, specializing in manufacturing engineering was a better fit for me than staying broad."

Through the program, she deepened her understanding of manufacturing processes, systems and quality control while gaining experience that translates directly to practical applications.

Her younger sister, Jenavieve, arrived at ASU with her sights set on manufacturing engineering. Her early exposure to computer numerical control, or CNC, machining in high school helped shape that decision and positioned her to take advantage of opportunities early in her college experience.

During [E2](#), a weekend-long experience for incoming engineering students, Jenavieve connected with faculty members who helped her secure an internship at [Nammo Defense Systems](#).

"The manufacturing engineering classes I'm taking now flow right into industry," she says. "If I had taken these before my internship, they definitely would have prepared me a lot more for the troubleshooting ahead."

Both sisters are [Pascua Yaqui tribe](#) members and recipients of the [President Barack Obama Scholarship](#). They will both graduate in spring 2027 and each plan to continue their studies through the [accelerated master's](#) degree program.

The sisters say that their sibling dynamic has shifted over time.

"I used to be competitive with Jenavieve," Lexana says. "But now, I just want her to succeed alongside me."

Today, they attend each other's leadership events across campuses and share what they're learning individually to help make each other stronger students and engineers.

The Peavy brothers: From garage tinkering to industry-ready skills

For [Aaron](#) and [Cameron Peavy](#), years of projects at home laid the groundwork for their path to manufacturing engineering. Homeschooled through high school, they spent years working on projects together, including a total rebuild of a 1960 vintage [metal lathe](#) in their garage.

"It's an on-and-off project that we do in our spare time," Cameron says. "It's been really fun having something to work on together."

After starting community college, both brothers transferred into the bachelor's degree program in manufacturing engineering at ASU. Aaron was drawn to the program's hands-on approach, where classroom learning is reinforced through machining labs, technical projects and industry-aligned coursework.

Faculty mentorship elevated that experience. Aaron credits Teaching Professor [Jerry Gintz](#) in the School of Manufacturing Systems and Networks for reinforcing professional standards.

"We learned how to produce quality work, something you could turn in to your boss in the real world," Aaron says. "Professor Gintz really reiterated the importance of technical documentation like concise written materials and high-quality presentations."

Cameron was inspired by his brother's interest in engineering and followed a similar path.

"Going to the same college as Aaron has been a really great experience for us both," Cameron says. "We often get to drive to school together, which means we only have to pay for one parking pass!"

But their collaboration goes deeper than convenience.

"We enjoy working together because we both understand what the other is capable of," Cameron says. "It's easy to delegate work between the two of us."

After graduating at the end of this semester, Aaron is seeking opportunities in the automotive, mining or aerospace industries. Cameron, who will graduate in 2028, hopes to work in a startup environment focused on milling, CNC machining or 3D modeling.

The Hayes brothers: Gaining an upper hand

When it comes to their favorite part about the manufacturing process, graduate students [Todd](#) and [Tyler Hayes](#) say they prefer building and testing over theoretical design.

Tyler found his turning point in undergraduate manufacturing electives, where he was first introduced to the machining and production processes that now inform his graduate research.

"I had so much fun in those electives," he says. "If you apply yourself correctly, you get to play with some pretty cool machines."

Today, his applied graduate project centers on reverse engineering a legacy mechanical assembly — scanning components without manuals, converting the geometry into refined CAD models and generating documentation so future suppliers can reproduce and maintain the system. The project blends technical precision with lifecycle thinking.

Tyler also represents the Scalable Asymmetric Lifecycle Engagement, or [SCALE](#), team at national conferences, building connections in advanced manufacturing and semiconductor workforce development.

"Me and my research group got flown out to D.C. to network with other students from around the country," Tyler says. "We even ran into (ASU President) Dr. Michael Crow on the flight back!"

Todd focuses on robotics and systems integration, building on the manufacturing foundation he developed as an undergraduate student.

"I felt manufacturing gave me the upper hand in making things move rather than just designing them," Todd says.

Through the master's program, he expanded both his design and production expertise.

Outside the classroom, Todd applies those skills at the ASU [Bike Co-Op](#), repairing and managing campus rental bikes. The role reinforces troubleshooting and systems thinking as he diagnoses mechanical issues, performs repairs and helps maintain a critical campus resource.

The brothers' paths reflect multiple directions students can take at the graduate level — one focused on repair and overhaul, the other on integration and automation — both demonstrating how the program supports deeper specialization within the manufacturing ecosystem.

"I think I'm more competitive than Tyler," Todd says, jokingly. "But luckily, we like different enough things that it works out well in the end."

The Okun brothers: From learning to leading

[Jake](#) and [Zack Okun](#) were drawn to manufacturing engineering by a curiosity about how things work. Growing up, they designed and built solutions together in school competitions, naturally gravitating toward engineering.

Jake, who graduated with his bachelor's degree in manufacturing engineering in 2024, was drawn to the systems-level perspective embedded in the curriculum.

"The program emphasizes how automation, robotics, data analytics and human factors operate within interconnected systems," he says.

After completing his bachelor's and master's degrees at ASU, Jake continued into the [systems engineering doctoral](#) degree program and now serves as an instructional professional in the School of Manufacturing Systems and Networks.

His path reflects a progression from student to mentor, contributing to the same program that shaped his academic and professional development.

"There is a profound sense of responsibility and gratitude," he says of returning as faculty.

For Zack, the appeal of the manufacturing engineering bachelor's degree program was its applied nature and industry relevance.

"There's a growing demand for skilled manufacturing professionals," Zack says. "Knowing that I'd be entering a field with both opportunity and long-term stability reinforced my decision."

Blending creativity, problem-solving and tangible impact, he sees this field as foundational to technology commercialization, where ideas transition from concept to scalable solutions. Zack plans to graduate in spring 2026.

"Manufacturing is rapidly becoming more intelligent and interconnected," Zack says. "I see the industry continuing to move toward smarter, more efficient and more sustainable systems."

As second-generation Sun Devils, their journeys reflect both a continuation of a family legacy and the program's ability to support students from entry through advanced study and into leadership roles.

(Video: <https://www.youtube.com/watch?v=bW9CMFqrAf4>)

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

Main image



Jenavieve Echegaray (left) and Lexana Echegaray, manufacturing engineering students in the School of Manufacturing Systems and Networks, operate a teach pendant for a FANUC robotic arm in the Robotics Systems Instructional Lab, located in the Interdisciplinary Science and Technology Building 12 on ASU's Polytechnic campus at ASU. Photo by Aisha Kaddi/ASU

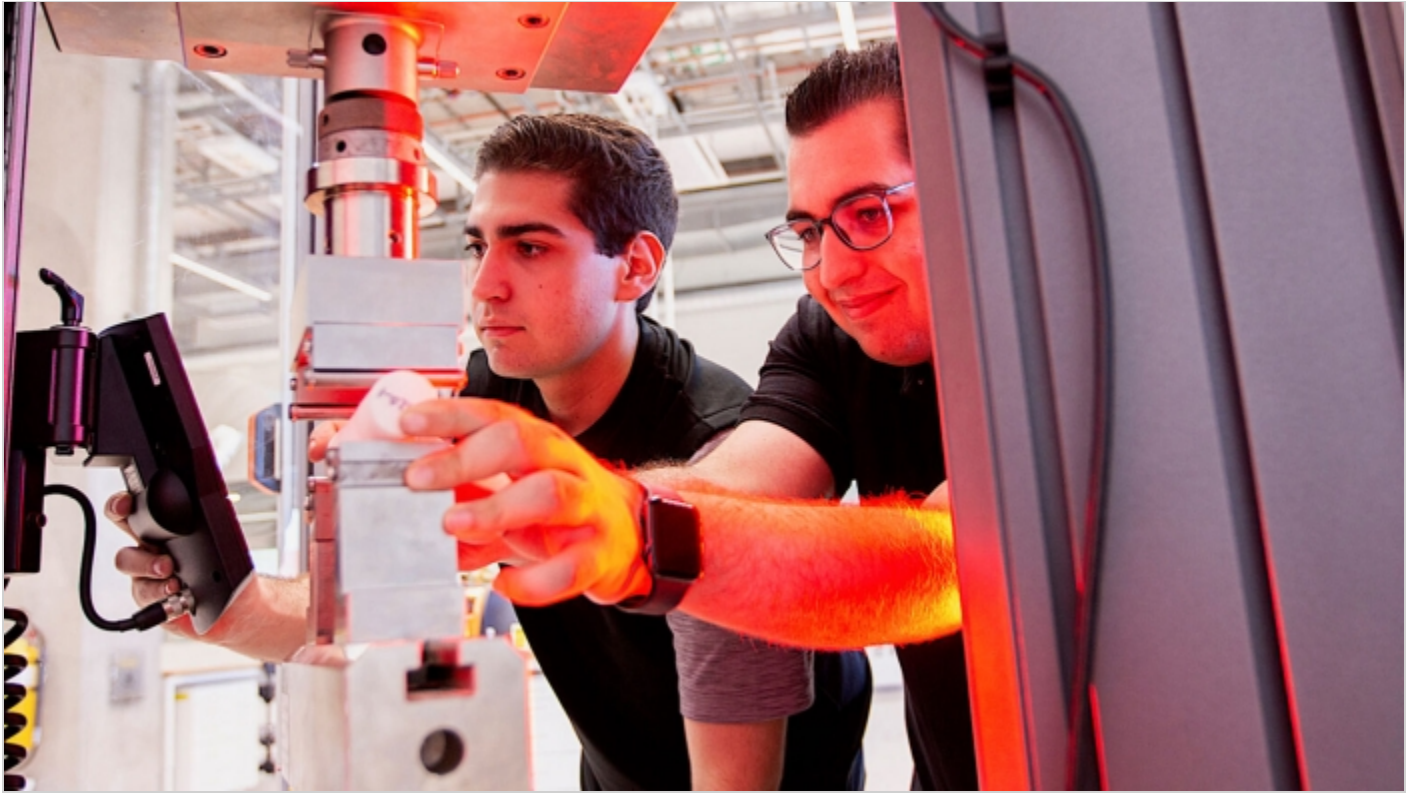
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Cameron Peavy (left) and Aaron Peavy, manufacturing engineering undergraduate students in the School of Manufacturing Systems and Networks, set up a wooden part in the Penta 5 Axis CNC machine in the Robotics Systems Instructional Lab, located in ISTB 12 on ASU's Polytechnic campus. Photo by Aisha Kaddi/ASU



Todd Hayes (left) and Tyler Hayes, manufacturing engineering graduate students in the School of Manufacturing Systems and Networks, set up a right crank case for a Honda 70 engine part in the Keyence VL-700 3D scanner in the Additive Manufacturing Instructional Lab, located in ISTB 12 on ASU's Polytechnic campus. Photo by Aisha Kaddi/ASU



Zack Okun (left) and Jake Okun, systems engineering and manufacturing engineering students in the School of Manufacturing Systems and Networks, operate the touchscreen interface of a Instron 5848 Universal Testing Machine to program test parameters and monitor real-time results in the Materials Testing and Characterization Lab, located in ISTB 12 on ASU's Polytechnic campus. Photo by Aisha Kaddi/ASU