



# THIS ASPIRING CHEMICAL ENGINEER'S FORMULA FOR SUCCESS STARTS WITH GRIT

**TRANSDIGM**  
GROUP INC.

Madelyne E. Dunn, Chemical Engineering major with a Mathematics minor

## Peacock Scholarship Recipient Madelyne E. “Mattie” Dunn

**A**s a Westlake High School senior with “crazy senioritis,” Madelyne “Mattie” Dunn struggled to pass math. To add insult to injury, her science teacher discouraged her dream of becoming an engineer by saying, “I don’t think you’d be successful in it. You should look into other options.”

Hurdles like these are enough to dash the hopes of almost any aspiring, impressionable young scientist. But Dunn is no ordinary young woman. Her bubbly demeanor belies an underlying determination fierce enough to overcome an educational deficit, forge a path to a chemical engineering degree from Cleveland State University and earn a coveted Doug Peacock Scholarship from Cleveland-based TransDigm Group Inc.

Dunn’s formula for this successful reversal includes four main elements: a vision for her future; a role model; a cheerleader; and CSU student success initiatives like the Peacock Scholarship. All of them helped her get where she is today—heading toward graduation in 2024 with three internships under her belt. This past summer she served as a chemical engineering intern in R&D and product development at Mars Wrigley in Nashville, Tennessee.

Dunn loved science even as a child. While still a little girl, she formulated a detailed picture of her future self: “I have a family with three kids. I have my curly hair, and I'm wearing a white lab coat.”

The white lab coat signaled to her that a career in science was one of her life's priorities.

Growing up, Dunn kept a photo of Mae Jemison on her dresser. Jemison was an engineer, a physician and the first black woman to travel into space. Such role models are crucial for young black women like her, said Dunn, because they show others that “they have a place in STEM, that it's possible for them.”

Dunn's biggest cheerleader? Her mother, whom she describes as a “very smart, very strong woman.”

“She always encourages me by saying things like, ‘I'm pretty sure you could do anything, Mattie.’ She really believes in me,” Dunn added.

Though her mother has an M.B.A. in finance, her aunt is a math teacher, and Dunn herself learned some calculus in high school.

When it came time for her to take placement tests at CSU, she qualified only for pre-algebra. Before she could enroll in her fall classes, she needed to pass calculus.

A student with less fortitude might have given up in the face of such a daunting task, but Dunn embraced the challenge, buckled down and worked overtime to bring her math skills up to par.

Two CSU student success initiatives came to her aid as well. Operation STEM (OPSTEM) and the Louis Stokes Alliance for Minority Participation (LSAMP) gave Dunn the boost she needed to pass calculus and qualify for the engineering program. Supplemental classes, individual tutoring, personal attention in OPSTEM and LSAMP, plus a lot of hard work on her part, helped backfill the gaps in her previous math education.

“Not all superheroes wear capes,” Dunn said. “Dr. Susan Carver (onetime Director of OPSTEM/LSAMP and now Assistant Dean of Retention and Recruitment at the Washkewicz College of Engineering) gave me emotional support and grit. Juan Amador (Interim OPSTEM/LSAMP Director) helped me with logistical, behind-the-scenes things like securing funding and finding space for me in the classes I needed.”

CSU's partnership with Cleveland-based TransDigm Group Inc. was another student success initiative that is helping Dunn realize her dream of becoming an engineer. The Doug Peacock Scholarship Program, which TransDigm founded in 2021, provides scholarship funds to support tuition and on-campus housing needs for female and under-represented minority engineering and business students at CSU.

Beyond the valuable financial support, the Peacock Scholarship also gave her affirmation and bolstered her self-confidence.

“Being part of such an exclusive scholarship really drove home for me that [chemical engineering] is what I'm doing,” Dunn said. “To say ‘I'm trying to be an engineer’ and have someone else in the field say, ‘we want to support you in being an engineer...’ well, that's the reason I'm here.”

The scholarship program is named in honor of Doug Peacock, founding CEO and Chairman of the Board of TransDigm. With headquarters in Cleveland, TransDigm Group Inc. is a global producer, designer and supplier

of highly engineered aerospace components, systems and subsystems that are used on nearly all commercial and military aircraft in service today.

In addition to supporting students in CSU's Washkewicz College of Engineering, the Peacock Scholarship also supports students at CSU's Monte Ahuja College of Business, two local high schools (Benedictine and St. Martin de Porres) and five other universities (University of Southern California, Clemson University, Drexel University, Rochester Institute of Technology and the University of Washington).

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