

# **SIUE Non-Traditional Engineering Grad Harnesses “Superpowers” To Prevail**

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“Don’t be afraid to fail.” The advice may sound cliché and surely, it’s easier said than done, but it may be just the life lesson needed to keep someone motivated to turn their dreams into reality.

Southern Illinois University Edwardsville School of Engineering’s (SOE) Leanne Montgomery is living proof that failure does not mean an end to something. Rather, it’s often a growth moment, an opportunity to reassess and strive for more.

Montgomery is a non-traditional student who will earn a bachelor's in mechanical engineering during SIUE's commencement exercises being held May 6-9. She will impart her wisdom as the student speaker for the SOE ceremony at 3 p.m. Sunday, May 9.

"In your life, you are sometimes going to find yourself in social, professional and business situations where you cannot snatch victory from the jaws of defeat," she'll share. "But, failure is a better teacher than success. It is only in falling short that we realize where we need growth. It is only by experiencing failure that we realize the world won't end, and we become more resilient. And, it is only by being willing to fail that you sometimes eke out a success."

Her advice is based off life experience – one of the "superpowers" that has helped her succeed as a non-traditional student.

It was a tumultuous math class at the University of Tulsa in 1994 that initially dissuaded Montgomery from chemical engineering and led her to pursue other passions. In fact, she holds a bachelor's, master's and doctorate in art history, with a specialty in medieval architecture. She's a wife and mom of two.

"I figured if I couldn't make it past that first calculus class, I would never make it through the rest of the chemical engineering curriculum," Montgomery explained. "I could hear the voice of every mediocre math teacher I'd ever had in my head: 'You're not very good at this, are you?' I couldn't bear the thought of failing or even struggling. When I say that 1994 class haunted me for over 20 years, I'm not exaggerating."

After five years of trying to forge a teaching career, change was necessary. Her husband asked, "What would you like to do if you weren't trying to leverage your previous education? Just imagine a blank slate."

"I thought about the things I've been interested in lately and researched growing fields," she recalled. "In the overlap, I found mechanical engineering. I had been interested in space as a kid. I liked science a lot. And, the space industry, which relies on mechanical engineers, was booming in a way it hadn't for many decades."

That fall, she attended an open house at the SOE and met Serdar Celik, PhD, professor of mechanical and mechatronics engineering, in the School's Aerodynamics Lab.

"The wind tunnel was so neat, and after talking to him about the discipline of mechanical engineering, I was confident I was on the right track," she confirmed. "I was confident SIUE would be a good fit."

From that time, it took a year of taking math placement tests, remedial math courses and other practice before Montgomery was at SIUE and ready for the engineering program. But, she says, it was “worth the wait.”

“The advice I would share with other people thinking of jumping back in is to not underestimate yourself,” she said. “Life experience, time management and being willing to look unsure are like superpowers as a student! You don’t have to be the smartest person to go back to school. You have to be willing to keep putting one foot in front of the other, ask for help when you need it and keep trying.”

Montgomery is quick to note that she has not achieved this latest milestone on her own. She credits her husband, Ronald, and kids, Aurelia and Veronica, with being an incredible support system.

“Ronald has been incredibly supportive and made so many sacrifices to allow me this opportunity,” she shared. “He has walked beside me through the valleys of the last five years and shared my triumphs. I will forever be grateful for his support and companionship.”

“My kids have been patient when I’ve had deadlines to meet and understanding when schedules get out of whack during the end-of-semester crunch,” she added. “I hope I’m setting an example that you can change your mind, you can change your life, and consistent work does pay off.”

Montgomery’s academic pursuits at SIUE won’t stop after commencement. This summer, she has an internship working on a heat transfer project at NASA. This fall, she will begin working on her master’s in mechanical engineering. She is pursuing SIUE’s 3+2 program and will complete her master’s in one year. She will then be ready to start a permanent job in aerospace working in thermofluids.

She didn’t let failure – withdrawing from a challenging math course – stop her pursuit of achieving a career in aerospace.

To her fellow graduates, she’ll conclude: “I wish you great success in your future endeavors, but I also wish you the failures that will help get you there.”