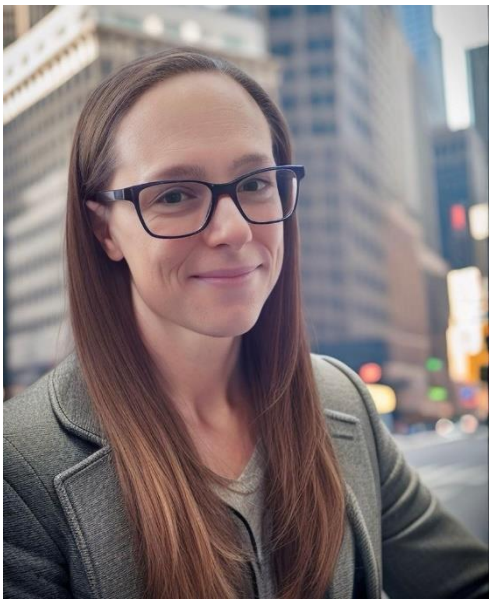
Diane Ashcraft ('11) shares her love of Statics



Diane (Wurst) Ashcraft was born in Woodbury, NJ. She grew up in Elk Township and went to GCIT for high school. Her mother owns Liberty Tax Service in Glassboro, NJ. Her Father is a retired postal worker and now works in the family business. Her older sister is a massage therapist.

Diane graduated from Rowan in 2011. She completed a Master's degree at the University of Delaware (UD) in 2013, with her thesis focused on determining the effects of corrosion on bridge system strength using finite element modeling. After graduating UD, she joined Urban Engineers in Cherry Hill, NJ, working on bridge design. After a year, she switched gears and taught engineering in grades 9 through 12 at Newark Charter School in Newark, DE. She was excited by the opportunity to teach engineering and inspire the next generation. After about 3.5 years, a friend from graduate school reached out about an opportunity and Diane started working as a Structural Engineer contractor for the Department of Defense in the Defense Threat Reduction Agency. In this role, she was a member of a 24/7 response team providing subject matter expertise and decision support for planning, operations, and post event analysis of Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) events. Diane's area was modeling the effect of explosives on subjects of interest such as buildings damaged by a car bomb. Sometimes, the team would recommend a response to prevent damage, e.g., in the case of buildings, barriers or extra reinforcing. The team was cross-trained to model any CBRNE threat, including train derailments--determining evacuation zones, specifying protection gear, and identifying approach paths. The team was cross-disciplinary: meteorologists, nuclear engineers, chemical engineers, structural engineers, etc.

Since 2022, Diane is a Technical Project Manager at ARServices. She works in the same DoD agency, but in a department working on Countering Weapons of Mass Destruction Technologies, focusing on Counterforce Systems. She directly supports program management of the Weapons Effects Phenomenology Program, helping to develop the models used in her previous position. She still works with people from many disciplines. Much of her work is classified, so she must go into the office at least once a week. Otherwise, she can work from home.

Diane is a Jigsaw puzzle enthusiast, with over 200 puzzles. She has completed a 4,000-piece puzzle, but mostly she does it for fun. She also lifts weights and is starting a family.

One of the primary reasons I chose Rowan was because it was close to home and I wanted to commute; Rowan was the best school in driving distance. I was also drawn to the Engineering Clinics[1], appreciating the focus on hands-on learning. I always knew I wanted to be an Engineer

and loved the challenge of problem solving. After talking to my uncle who is a Civil Engineer, I knew that this discipline sounded the most interesting to me.

Once I started my engineering education, I was drawn to Structures. Statics was my favorite college class hands down, with Professor Sukumaran really igniting my passion.[2] I was able to work on the same Engineering Clinic all Junior and Senior year, something that wasn't common at that time. I worked with Professor Dusseau to design the rehabilitation of an historic airport hangar. That clinic gave me real-life structural engineering experience, only furthering my passion and pushing me to get a Master's with a focus in Structural Engineering.

While at Rowan, I was a member of the ASCE[3] student chapter all 4 years and president for 2010. I worked for the on-campus tutoring center, tutoring Engineering and Math classes. I also worked for the Civil and Environmental Engineering department year-round, e.g., prepping laboratories for classes. Working for the department helped me get to know the professors and the school on an even deeper level.

My time at Rowan flew by and were some of my most challenging and rewarding years. Rowan prepared me well for graduate school and the years beyond. Thanks to Rowan, I was comfortable interacting with professors, working on interdisciplinary teams, and giving technical presentations to non-technical crowds. Rowan taught me a lot of life and classroom skills that I still utilize to this day. I am proud to tell people about my alma mater.

Based on an Interview with Jess W. Everett on February 12, 2024

1. Engineering Clinic is a hallmark of Rowan University. Students take a Clinic class each semester, eight total. Many are interdisciplinary. All are hands-on. First-year Clinics focus on engineering's place in society and fundamental engineering skills. Sophomore Clinics merge communication coursework with an engineering design experience and are team taught by engineering, writing arts, and rhetoric faculty. Junior and Senior Clinics give students to work in teams an opportunity to work on research or design projects, usually externally funded.

2. Statics is the "study of structural systems [and] includes equilibrium, structural analysis, and geometric properties of structural members." Civil Engineers use Statics to design buildings and bridges that will not fall down!

3. The American Society of Civil Engineers is a professional body, founded in 1852, that represents members of the civil engineering profession worldwide. There are more than 500 chapters for professionals and students and over 150,000 members in 177 countries.