

Caitlin E. Terry ('05) remembers Engineering Clinic

Caitlin E. Terry was born and raised in Vineland, NJ with her three siblings. She was homeschooled from kindergarten through 12th grade. She took higher math and science classes at Cumberland County College (CCC) during her teenage years while playing on the CCC woman's soccer team. Caitlin's mother was an artist, and her father is a freelance photographer. Rowan University is one of his clients.



After graduating in 2005 from Rowan Civil and Environmental Engineering, Caitlin worked for the New Jersey Department of Transportation for 4 months, conducting field inspections on a bridge project in Lindenwold, NJ. Though she enjoyed working outside, she wanted more design experience, so she moved to Taylor, Wiseman and Taylor's land development division in Mount Laurel, NJ. After the housing market collapse in mid-2008, Caitlin transitioned to The Shaw Group, designing stormwater management systems for nuclear power plants. Simultaneously, she started volunteering abroad, initially by leading a community water project in Guatemala with Operation Jabez, but later by joining Hydromissions International, a nonprofit based in South Carolina. In 2010, Caitlin obtained her Professional Engineering license.¹

At Shaw, Caitlin spent the following 5.5 years working approximately 5 months a year as an engineer to make money, then she would take a leave-without-pay to volunteer abroad for approximately 2-3 months with Hydromissions, returning to Shaw for another period of work and so on. During those years, she worked in Guatemala, Tajikistan, Nepal, South Sudan, Uganda, El Salvador, and Malawi.

Hydromissions' programs focus on training and equipping small communities in low resource countries in the WaSH (Water, Sanitation and Hygiene) sector. Local individuals volunteer to be trained to drill their own water wells using specially developed manual drilling tools, build manually operated water pumps, rainwater catchment systems, latrines and trained in basic hygiene so they can teach others.

In 2013, the Hydromissions co-founders offered her the chance to take over the organization, which she initially declined because she felt that her strength was in the field work, however she decided to officially leave Shaw in 2014 to take over management of Hydromissions International full-time. Caitlin works about 50 % of the time abroad on in-country programs and 50 % in the United States fundraising, speaking at schools, and vetting new projects. Wherever she is, she is always managing specific projects year-round, currently in East Africa, South Asia, and Central America.

Caitlin devotes most of her time to Hydromissions, but she would consider her hobbies to be camping and hiking. When possible, she hikes in the countries she serves. She hiked to Mount Everest Basecamp in Nepal in 2011 and summited Mount Kilimanjaro in Tanzania on her birthday in 2022.

I chose Rowan University for its location, low student-to-teacher ratios, and affordability. My interest in math and science, supported by my calculus professor at CCC, led me to consider engineering as a career. I transferred from CCC to Rowan in 2001. I commuted initially, then lived both on-campus and off-campus until graduation.

I selected Civil & Environmental Engineering because I was initially interested in bridge design and thought I could work more outdoors within the field of Civil Engineering.

I had a great time at Rowan! The small class sizes meant professors could give personal attention, which was really helpful and made the environment feel more like a family. Apart from classes, I co-founded a swing dance club, helped found a service fraternity, played intramural sports, and joined the Track and Field team in my senior year.

The Engineering Clinic² holds a special place in my memories of the Rowan engineering program. I recall a project during my sophomore year, led by upperclassmen, where they were creating a special wheelchair for a fellow student. That's the kind of engineer I wanted to be – someone who starts at the ground level, identifies a problem, and builds a team to solve it.

It was during these clinics that I learned to appreciate the strengths of my peers and how to effectively use those strengths for successful outcomes. I had the honor of leading a clinic team, for my final three semesters. We worked to solve a problem that directly impacted individuals restricted by arthritis (among other limitations) in their hands, which hindered their writing capabilities. The experience of assembling a team with diverse skills and collaborating to achieve our goals has proven invaluable in my current work.

As the director of a small faith-based nonprofit, I am privileged to work with communities in low-resource countries. I focus on giving them essential tools and education, always respecting their dignity, and encouraging their strengths. Hydromissions specializes in training drilling teams in remote, small villages, empowering them to bring water to their communities. Additionally, we construct rainwater catchment systems, latrines and teach basic hygiene education.

Starting with teamwork during my time at Rowan University, I've continued collaborating in my current job. In my role, I engage with community members, encouraging collaboration by providing training and identifying their strengths. Guiding individuals to recognize their potential is so very rewarding. When those I train realize they can tackle challenges on their own, like building a pump or conditioning a well, it shows how simple engineering projects can improve how one values himself while supporting the community goal of overall improved health.

I finally feel like I am living the dream I had as a sophomore engineer – working on a [WaSH] problem impacting the community in the field and building a team within that community to

solve the problem. At the end of the day, it wasn't me who drilled the well or built the pump, but it was the entire team, and we can all be proud of what was accomplished together.

Based on an Interview with Jess W. Everett on February 9, 2024

1. The Professional Engineer license (PE) is a “standard recognized by employers and their clients, by governments and by the public as an assurance of dedication, skill and quality...Only PEs can sign and seal engineering drawings...To become a Licensed Professional Engineer, you must do four things: graduate from an accredited engineering program, pass the Fundamentals of Engineering (FE) exam, work with a professional engineer for four years, and pass the Principles and Practice of Engineering exam.”

2. 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.